CLERK'S COPY.

Vol. I

TRANSCRIPT OF RECORD

Pat 166 85796 U. S. S. C.

Supreme Court of the United States

OCTOBER TERM, 1937

No. 313

LONE STAR GAS COMPANY, APPELLANT,

vs.

STATE OF TEXAS, THE RAILROAD COMMISSION OF TEXAS, ET AL.

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF THE STATE OF TEXAS

FILED AUGUST 13, 1937.

BLANK

PAGE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1937

No. 313

LONE STAR GAS COMPANY, APPELLANT,

vs.

STATE OF TEXAS, THE RAILROAD COMMISSION OF TEXAS, ET AL.

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF THE STATE OF TEXAS

VOL. I

INDEX.

	Original	Print
Record from District Court of Travis County	1	1
Caption (omitted in printing)	1	
Plaintiffs' second amended original petition	2	1
Exhibit "A"—Opinion and order of Railroad Commission	19	12
Exhibit "B"—Order of Federal Court staying proceedings, No. 467-E	20	117
Order staying proceedings	26	121
Order of continuance (omitted in printing)	29	
Docket entry as to pleas (omitted in printing)	30	
Second amended answer of Lone Star Gas Co.	31	122
Order overruling pleas to jurisdiction and in abatement (omitted in printing)	145	
Plaintiffs' second supplemental petition	146	153

JUDD & DETWEILER (INC.), PRINTERS, WASHINGTON, D. C., DECEMBER 28, 1937.

—3104

	Original	Print
Record from District Court of Travis County—Continued.		
Second supplemental answer of defendant, Lone Star Gas Company	162	161
Agreement and stipulations re orders of continuance (omitted in printing)	197	
Order of continuance (omitted in printing)	199	
Order overruling defendant's pleas to the jurisdiction and pleas in abatement	200	171
Order overruling exceptions and demurrers of defendant, Lone Star Gas Company	203	172
Order sustaining defendant's special exceptions and demurrers and overruling plaintiffs' general demurrer to defendant's second amended original answer (omitted in printing)	207	
Order sustaining special exceptions in plaintiffs' second supplemental petition (omitted in printing)	213	
Defendant's request for peremptory instruction	215	175
Plaintiffs' motion for an instructed verdict	217	175
Defendant's motion to strike Plaintiffs' Exhibit No. 8	220	177
Plaintiffs' motion for an instructed verdict	226	180
Defendant's request for a peremptory instruction at close of testimony	229	182
Defendant's motion to submit the case to the jury on special issues (omitted in printing)	231	
Defendant's motion to have the court instruct the jury to find that less than 6 per cent is not a fair and reasonable rate of return (omitted in printing)	233	
Plaintiffs' objections and exceptions to paragraph three of court's charge defining "Used and Useful"	235	182
Defendant's exceptions and objections to the court's main charge	238	184
Defendant's requested issues, Nos. 1 to 118, inc. (omitted in printing)	275	
Charge of the court	515	192
Verdict of the jury	519	195
Plaintiffs' motion for a new trial (omitted in printing)	520	
Defendant's motion for judgment (omitted in printing)	522	
Plaintiffs' motion for judgment non obstante veredicto	523	195
Judgment	526	197
Order overruling plaintiffs' motion for judgment non obstante veredicto	533	199
Plaintiffs' first amended motion for new trial	535	200
Answer of defendant to plaintiffs' first amended motion for new trial (omitted in printing)	555	
Order overruling plaintiffs' first amended original motion for new trial	560	207
Stipulation that exhibits introduced during trial may be carried up as a part of the record without the necessity of re-writing same in statement of facts	562	208
Plaintiffs' Bill of Exceptions No. 1 (omitted in printing)	564	
Plaintiffs' Bill of Exceptions No. 2 (omitted in printing)	568	

	Original	Print
Record from District Court of Travis County—Continued.		
Plaintiffs' Bill of Exceptions No. 3 (omitted in printing)	571	
Plaintiffs' Bill of Exceptions No. 4 (omitted in printing)	574	
Plaintiffs' Bill of Exceptions No. 5 (omitted in printing)	577	
Plaintiffs' Bill of Exceptions No. 6 (omitted in printing)	580	
Order allowing all documentary evidence and exhibits to be sent up as a part of record, without necessity of filing copies with clerk or copying same within statement of facts proper	583	208
Defendant's cross assignments of error	585	209
Notice to attorneys of filing of statement of facts and transcript in the court below and Court of Civil Appeals (omitted in printing)	597	
Bill of costs (omitted in printing)	599	
Clerk's certificate (omitted in printing)	600	
Statement of facts of hearing on plea in abatement and pleas to jurisdiction	a	215
Caption (omitted in printing)	a	
Testimony of E. F. Schmidt	3	215
Karl F. Griffith	51	234
Olin Culberson	82	250
S. W. Freese	98	260
Agreement as to capital stock of Lone Star Gas Co. (omitted in printing)	122	
Testimony of E. F. Schmidt (recalled) (omitted in printing)	123	
State's Exhibits:		
1—Order U. S. D. C., November 11, 1933 (omitted in printing)	125	
2—Interlocking directorate, Lone Star System (omitted in printing)	132	
3—Data from report on relations of companies	134	275
4—Form GU-2, gross receipts tax statement	138	277
5—Compilation of total gas delivered in Texas	139	297
6—Statement of gas sold Gainesville-Waxahachie	140	297
Defendant's Exhibits:		
1—Bill of complaint, U. S. D. C., No. 467—In Equity (omitted in printing)	141	
2—Temporary restraining order, U. S. D. C., No. 467 (omitted in printing)	142	
3—Stay order, 53rd D. C., October 15, 1933 (omitted in printing)	146	
4—Compilation of data, operation of Lone Star Gas Co.	148	298
Map attached to Exhibit 4	153-a	300
5—Contract between Lone Star Gas Company and Gainesville Gas Company, dated July 1, 1927 (omitted in printing)	154	

	Original	Print
Record from District Court of Travis County—Continued.		
Statement of facts of hearing on plea in abatement and pleas to jurisdiction—Continued.		
Reporter's certificate .....(omitted in printing)..	161	
Agreement to statement of facts (omitted in printing)	162	
Judges's certificate .....(omitted in printing)..	163	
Statement of facts of trial on the merits.....	1	301
Caption	1	301
Testimony of C. F. Petet.....	2	301
Objections to introduction of order of Railroad Commission	4	302
Defendant's request for peremptory instruction....	23	310
Stipulation re order of Federal Court granting temporary restraining order	25	311
Testimony of D. A. Hulcy.....	28	312
E. A. Steinberger.....	322	475
Frank E. Kendrick	401	506
J. H. Dunn	423	512
D. A. Hulcy (recalled).....	505	555
E. A. Steinberger (recalled)	525	567
D. A. Hulcy (recalled).....	542	575
P. McDonald Biddison.....	598	609
Reporter's certificate .....(omitted in printing)..	732-a	
Testimony of Hal C. Dyer.....	804	674
P. McDonald Biddison (recalled)....	843	684
Paul Richey	1122	841
E. A. Steinberger (recalled).....	1161	854
Ed C. Connor	1167	858
Paul Richey (recalled).....	1198	874
Ed C. Connor (recalled).....	1259	908
Reporter's certificate .....(omitted in printing)..	1507-A	
Testimony of P. McDonald Biddison (recalled)....	1677	1141
E. A. Steinberger (recalled).....	1835	1226
Ed C. Connor (recalled).....	1897	1256
Reporter's certificate .....(omitted in printing)..	2284-A	
Testimony of E. F. Schmidt.....	2289	1459
D. A. Hulcy (recalled).....	2410	1529
E. F. Schmidt (recalled).....	2479	1567
D. A. Hulcy (recalled).....	2522	1592
Motion for instructed verdict (omitted in printing)	2543	
Testimony of Olin Culberson.....	2545	1604
E. W. Robinson.....	2560	1610
J. A. Phillips.....	2586	1625
Arthur A. Dobson	2766	1710
S. W. Freese	2801	1728
Reporter's certificate .....(omitted in printing)..	2950-A	
Testimony of J. A. Phillips (recalled) (omitted in printing)	2951	
Testimony of R. H. Montgomery.....	2969	1807
S. W. Freese (recalled).....	3008	1827

	Original	Print
Record from District Court of Travis County—Continued.		
Statement of facts of trial on the merits—Continued.		
Testimony of—Continued.		
F. S. French	3039	1843
S. W. Freese (recalled)	3055	1851
J. A. Phillips (recalled)	3098	1876
S. W. Freese (recalled)	3107	1880
Olin Culbertson (recalled)	3174	1917
E. A. Steinberger (recalled)	3196	1921
R. L. Thornton	3266	1960
Fred F. Florence	3277	1965
R. L. Thornton (recalled)	3299	1977
A. P. Holloway	3300	1978
Ed. C. Connor (recalled)	3311	1984
P. McDonald Biddison (recalled)	3347	2002
Ed. C. Connor (recalled)	3403	2029
E. F. Schmidt (recalled)	3427	2043
D. A. Hulcy (recalled)	3447	2054
S. W. Freese (recalled)	3534	2096
Reporter's certificate (omitted in printing)	3560	
Plaintiffs' Exhibits:		
No. 1—Order of Railroad Commission, dated September 13, 1933 (omitted in printing)	3562	
No. 2—Stay order in Cause No. 467, in Equity, Lone Star Gas Company vs. Railroad Commission of Texas et al., in the District Court of the United States for the Western District of Texas	3564	2109
No. 3—Stipulation, dated June 11, 1934, by counsel for all parties, that the higher forty-cent rate has been in force and effect at all times, and that the thirty-two-cent rate provided for in the order of the Railroad Commission, bearing date of September 13, 1933, has never been at any time put into force or effect by said defendant, Lone Star Gas Company	3572	2114
No. 4—Report on Special Investigation of Records of Lone Star Gas Company Texas Properties, dated March 31, 1934, by J. A. Phillips Company	3577	2115
No. 5—Report on Special Investigation of Records of Lone Star Gas Company, dated March 31, 1934, by J. A. Phillips Company	3593	2126
No. 6—Lone Star Gas Company, Texas Gathering, Transmission, Compressing and General Property; Reproduction Cost New Appraisal, dated June 15, 1934, by Hawley, Freese and Nichols	3620	2141
No. 7—Lone Star Gas Company, Texas Gathering, Transmission, Compressing and General Property, Annual Depreciation, dated June 15, 1934, by Hawley, Freese and Nichols	3664	2158

	Original	Print
Record from District Court of Travis County—Continued.		
Statement of facts of trial on the merits—Continued.		
Plaintiffs' Exhibits—Continued.		
No. 8—Report on Effect of Degree Day Deficiencies on Revenue and Earnings for Years Ending December 31, 1933, and March 31, 1934, Covering Texas Operations Only for the Lone Star Gas Company, by Hawley, Freese and Nichols	3679	2163
No. 9—Chart Showing Directors and Their Official Positions in the Listed Companies	3698	2175
No. 10—Copy of Charter of Lone Star Gas Company, dated June, 1909	3699	2176
No. 11—Graph Showing Depreciation Analysis—Steel Pipe. Historic Replacements and Abandonments, by Years, of Lone Star Gas Company, and Curve Showing Calculated Replacements and Abandonments	3709	2182
Defendant's Exhibits:		
No. 1—Bill of Complaint in Cause No. 467, in Equity, Lone Star Gas Company vs. Railroad Commission of Texas et al., in the District Court of the United States for the Western District of Texas	3710	2183
No. 2—Restraining and Stay Order in Cause No. 467, in Equity (omitted in printing)	3838	
No. 3—Opinion and Order of Railroad Commission of Texas in the Matter of an Investigation of the City Gate Rate Charged by the Lone Star Gas Company, dated September 13, 1933, in Gas Utilities Docket No. 75 (copy) (omitted in printing)	3842	
No. 4—Statement Showing Lone Star Gas Company's Revenues, Expenses, and Amount Available for Return Based on 32¢ Domestic Gate Rate—Actual Operating Expenses as Reflected by Company's Books—Depreciation and Depletion; Allowances as Calculated by Commission; Rate Base as Determined by Commission for Twelve Months Ended December 31st, 1932 and Twelve Months Ended June 30th, 1933, on Public Service Operations	3931	2200
No. 5—Statement Showing Lone Star Gas Company's Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended December 31, 1931, on Public Service Operations	3934	2209
No. 6—Statement Showing Lone Star Gas Company's Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended December 31st, 1932, on Public Service Operations	3939	2212

Record from District Court of Travis County—Continued.
Statement of facts of trial on the merits—Continued.

Defendant's Exhibits—Continued.	Original	Print
No. 7—Statement Showing Lone Star Gas Company's Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended June 30th, 1933, on Public Service Operations (omitted in printing)	3944	
No. 8—Statement Showing Lone Star Gas Company's Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended December 31st, 1933, on Public Service Operations	3949	2215
No. 9—Statement Showing Lone Star Gas Company's Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended March 31st, 1934, on Public Service Operations	3954	2218
No. 10—Statement Showing Lone Star Gas Company's Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended April 30th, 1934, on Public Service Operations	3959	2221
No. 11—Statement Showing Lone Star Gas Company's Detail of Operating Expense for Twelve Months Ended: December 31st, 1931; December 31st, 1932; June 30th, 1933; December 31st, 1933, and March 31st, 1934	3964	2224
No. 12—Statement Showing Lone Star Gas Company's Detail of Operating Expense for Twelve Months Ended April 30th, 1934	3968	2229
No. 13—Accounting Schedules of Lone Star Gas Company, Based on Findings by Railroad Commission of Texas and Set Out in Their Opinion and Order, dated September 13, 1933, on Public Service Operations	3972	2232
No. 14—Statement Showing Lone Star Gas Company's Revenues, Expenses, and Amount Available for Return Calculations Based on Actual Operating Expenses as Reflected by Company's Books for Twelve Months Ended April 30th, 1934, on Public Service Operations.	4039	2304
No. 15—Agreement Between Lone Star Gas Company and Municipal Gas Company, dated September 30th, 1931	4043	2306
No. 16—Agreement Between Lone Star Gas Company and Municipal Gas Company, dated December 3rd, 1930	4048	2312
No. 17—Agreement Between Lone Star Gas Company and Municipal Gas Company, dated November 28th, 1927	4054	2317

Record from District Court of Travis County—Continued.
Statement of facts of trial on the merits—Continued.
Defendant's Exhibits—Continued. Original Print

No. 18—Agreement Between Lone Star Gas Company and Gainesville Gas & Electric Company, dated July 1st, 1927 ..... 4059 2323
No. 19—Agreement Between Lone Star Gas Company and The Dallas Gas Company, dated May 15, 1925 ..... 4064 2328
No. 20—Agreement Supplementing Agreement dated August 14th, 1925, Between Lone Star Gas Company and The Dallas Gas Company .. 4069 2334
No. 21—Renewal and Extension of Contract Between Lone Star Gas Company and The Dallas Gas Company, dated June 7, 1930 ..... 4071 2336
No. 22—Agreement Between Lone Star Gas Company and Community Natural Gas Company, dated May 15, 1931 ..... 4073 2337
No. 23—Agreement Between Lone Star Gas Company and Waxahachie Gas Company, dated October 6, 1933 ..... 4079 2342
No. 24—Agreement Between Lone Star Gas Company and County Gas Company, dated May 15, 1925 ..... 4085 2348
No. 25—Agreement Supplementing Agreement dated May 15, 1925, between Lone Star Gas Company and County Gas Company, dated September 21, 1926 ..... 4091 2354
No. 26—Renewal and Extension of Contract Between Lone Star Gas Company and County Gas Company; dated June 7, 1930 ..... 4094 2357
No. 27—Agreement between Lone Star Gas Company and Texas Cities Gas Company, dated September 15, 1933 ..... 4097 2357
No. 28—Appraisal—Cost of Reproduction New for Lone Star Gas Company, January 1, 1933, Public Service Plant, Property and Business; Exclusive of Fort Worth Division 4103 2363
No. 29—Map of Lone Star Gas Company's Pipe Line System 8609 3006
No. 30—Report and Findings of Gas Reserves for Lone Star Gas Company, dated January 1, 1933, by J. H. Dunn, and F. E. Kendrick ... 8611 3007
No. 31—Appraisal of Gas Reserves for Lone Star Gas Company, dated January 1st, 1933 .. 8858 3031
No. 32—Determination of Present Value of Undeveloped Leaseholds as of January 1, 1933, for Lone Star Gas Company by E. A. Steinberger 8866 3034
No. 33—Lone Star Gas Company's Pipe Prices—Large Lots for June 11, 1934; May 1, 1934; and January 2, 1934 ..... 8897 3035

Record from District Court of Travis County—Continued.
Statement of facts of trial on the merits—Continued.

Defendant's Exhibits—Continued.	Original	Print
No. 34—Comparison of Pipe Prices for Lone Star Gas Company from January 1, 1933 to June 11, 1934, inclusive	8939	3035
No. 35—Lone Star Gas Company's Price Trend on Typical Valves and Fittings (omitted in printing)	8950	
No. 36—Appraisal—Lone Star Gas Company—Chart Showing Growth of Properties and Business under Basis of Reproduction. Development of Ratios of Plant in Service and Domestic Business used in Determination of Cost of Business Development (omitted in printing)	8972	
No. 37—Report on Condition of Property of Lone Star Gas Company, as of January 1, 1933, by P. McDonald Biddison	8975	3037
No. 38—Comparison of Public Liability and Workmen's Compensation Insurance Rate of Lone Star Gas Company, by E. A. Steinberger (omitted in printing)	9228	
No. 39—Comparison of Steel Pipe Prices and Dresser Couplings of Lone Star Gas Company, by E. A. Steinberger	9232	3042
No. 40—Appraisal, Cost of Reproduction New of Public Service Plant, Property and Business of Lone Star Gas Company as of May 1, 1934, Exclusive of Fort Worth Division, by E. A. Steinberger, P. McDonald Biddison and Ed. C. Connor	9240	3047
No. 41—Application of Annual Reserve Rates to Reproduction Cost New of the Public Service Property of Lone Star Gas Company, Exclusive of Fort Worth Division, as of January 1, 1933, by Ed. C. Connor	9252	3055
No. 42—Report Annual Reserve Accruals Required for Lone Star Gas Company, dated January 1, 1933, by Ed. C. Connor	9259	3057
No. 43—Current Quotations on Bonds and Other Senior Securities, Natural Gas, Manufactured Gas and Electric Utilities for Lone Star Gas Company, by Ed. C. Connor	9585	3196
No. 44—Gas Transportation by Lone Star Gas Company for the Years 1929, 1930, 1931, 1932, and 1933—also map of Lone Star Gas Company Pipe Line System	9591	3201
No. 45—Analysis of Transportation and Sale of Gas Produced in Central West Texas and Gas Produced in Shamrock Area and Southern Oklahoma, for Lone Star Gas Company—		

	Original	Print
Record from District Court of Travis County—Continued.		
Statement of facts of trial on the merits—Continued.		
Defendant's Exhibits—Continued.		
Year 1933, by E. F. Schmidt and Ed. C. Connor	9600	3207
No. 46—Report on Property, Revenues and Expenses with Specified Areas—Year 1933	9723	3279
No. 47—Comparison of Estimated Costs in Plaintiffs' Exhibit 6 with Historical or Actual Costs	9773	3317
No. 48—Historical Rate of Business Development Major Transportation Lines—Lone Star Gas Company	9777	3318
No. 49—Comparison of Lone Star Gas Company's Historical Replacements, Removals and Abandonments, Main, Tap and Field Lines with Calculated Replacements, Removals and Abandonments—Plaintiffs' Exhibit 7	9785	3322
No. 50—Lone Star Gas Company's Receipt and Disposition of Gas—Transmission System "A" and "H" for the Year 1933	9793	3328
No. 51—Statement of Pipe Purchases Through Pittsburgh Office for Lone Star Group Companies—1931-1932	9796	3328
Reporter's certificate (omitted in printing)	9799	
Proceedings in Court of Civil Appeals for Third Supreme Judicial District of Texas	1	3329
Caption (omitted in printing)		
Defendants' cross-assignments of error—Extracts of brief	9	3329
Opinion of court, Blair, J.	16	3333
Judgment	69	3370
Appellee's motion for rehearing	70	3371
Opinion on appellee's motion for rehearing, Blair, J.	139	3405
Order overruling motion for rehearing	141	3406
Entry on application docket of Supreme Court	142	3406
Application for writ of error to Supreme Court	143	3407
Order of Supreme Court refusing writ of error	221	3435
Entry on motion docket of Supreme Court showing filing of motion for rehearing of application for writ of error	222	3435
Motion for rehearing of application for writ of error to Supreme Court	223	3436
Order of Supreme Court overruling motion for rehearing	273	3456
Clerk's certificate, Supreme Court	274	3456
Order of Chief Justice of Court of Civil Appeals denying petion for appeal	275	3457
Petition for appeal, assignment of errors, and prayer for reversal with endorsement of Justice Cardozo thereon	277	3458
Order allowing appeal and fixing security for costs	294	3468
Citation and acknowledgment of service thereof (omitted in printing)	297	
Bond for costs (omitted in printing)	301	

	Original	Print
Appellant's præcipe for transcript and acknowledgment of service thereof	309	3469
Order enlarging time for appellees' filing of counter præcipe.	325	3478
Appellees' counter præcipe for transcript and acknowledgment of service	326	3478
Stipulation as to the record on appeal	335	3485
Order allowing original record to be certified to the clerk of the Supreme Court of the United States (omitted in printing)	340	
Clerk's certificate	343	3487
Excerpts from appellants' brief in Court of Civil Appeals—Assignments of error	347	3489
Excerpts from appellee's brief in Court of Civil Appeals	361	3500
Excerpts from application for writ of error in Supreme Court	364	3501
Orders extending time for docketing of case, etc.	374	3502
Statement of points to be relied upon and designation as to printing record	376	3503
Appellees' designation of additional parts of record to be printed	415	3529

BLANK

PAGE

[fols. 1-2]

IN 53RD DISTRICT COURT, TRAVIS COUNTY, TEXAS.

No. 53,033

THE STATE OF TEXAS

vs.

LONE STAR GAS COMPANY

PLAINTIFFS' SECOND AMENDED ORIGINAL PETITION—Filed May 25, 1934

To Said Honorable Court:

Now comes the State of Texas, the Railroad Commission of Texas, an administrative agency of government, composed of Lon A. Smith, C. V. Terrell and Ernest O. Thompson, its duly elected and acting members, and James V. Allred, the duly elected and acting Attorney General of Texas, plaintiffs in this cause, who appear herein in their respective official capacities and act by and through the said James V. Allred, the duly elected and acting Attorney General of Texas, and with leave of the court first having been had and obtained, file this, their second amended original petition in lieu of their first amended original petition heretofore filed on the 5th day of May, A. D. 1934, and complain of Lone Star Gas Company, a corporation duly incorporated and chartered under the laws of the State of Texas, having its principal office and domicile in the City of Dallas, Dallas County, Texas, hereinafter called the defendant. For cause of action plaintiffs respectfully represent to the court:

[fol. 3] I

Defendant, Lone Star Gas Company, owns and operates in this State a system of pipelines and appurtenant equipment and is engaged in the production, purchase, transportation and sale of natural gas in this State to distributing companies doing business in this State, which said distributing companies in turn sell said natural gas to domestic consumers in over two hundred (200) towns, cities and communities situated within the State of Texas.

II

The distributing companies above referred to are: Community Natural Gas Company, Municipal Gas Company, County Gas Company, The Dallas Gas Company, The Texas Cities Gas Company, and other unknown to plaintiffs, but well known to the defendant, and are affiliated to and work in conjunction with the defendant, Lone Star Gas Company, in supplying gas directly to domestic and residential consumers within the State of Texas. The affiliation referred to is brought about through a holding company, the Lone Star Gas Corporation, a Delaware Corporation, with its principal office and place of business located in the City of Pittsburgh, State of Pennsylvania, which said holding company owns a majority of the common stock and the controlling voting interest of the defendant, Lone Star Gas Company, and also in each of the distributing companies hereinabove referred to and mentioned.

Plaintiffs would show to the court that said Lone Star Corporation is the alter ego (meaning the other self and one and the same) of all the above named companies, and that said Lone Star Gas Corporation owns and controls [fol. 4] the same; that it is likewise the owner and operator of all companies affiliated with it in any State other than Texas, the exact names and numbers of which affiliated companies are unknown to plaintiffs but well known to the defendant.

That the Lone Star Gas Company and the affiliated distributing companies, Community Natural Gas Company, Municipal Gas Company, County Gas Company, The Dallas Gas Company, The Texas Cities Gas Company, and all of the other distributing companies hereinabove referred to are commonly owned by the holding company, Lone Star Gas Corporation, and are also commonly managed, directed and run under one system and general management. In the conduct of their business in supplying gas from its source directly to domestic and residential consumers, said defendant and said other companies are operating in exactly the same way and are conducting the business of supplying gas to domestic and residential consumers in precisely the same way as if said companies were one combined integrated company, operating as a single business enterprise. Plaintiffs would show to the court in this connection that the operation of said defendant and the conduct of business by

it within the State of Texas, together with that of its related and affiliated companies is wholly a local and intrastate business which is subject to regulation by the State of Texas and the Railroad Commission of Texas, pursuant to the authority that is duly vested by Title 102 of the 1925 Revised Civil Statutes of Texas, and all amendments.

III

The Railroad Commission of Texas has power and authority under the laws of this State, and particularly under [fol. 5] Title 102, of the 1925 Revised Civil Statutes of Texas, as amended, and it is its duty, by appropriate orders to regulate the rates and compensation to be charged by the defendant, Lone Star Gas Company, for the sale of natural gas to all affiliated and other distributing companies and at the city gates of the various cities and towns located within the State of Texas, where gas is by them and for it furnished to domestic and residential consumers, in intrastate commerce.

Under said Title 102 of the 1925 Revised Civil Statutes of Texas, as amended, the Railroad Commission, under the general powers given to it in Articles 6050 to 6066, inclusive, as amended, has original jurisdiction to regulate gas rates in all towns of this State not coming within the provisions of Article 1119 of the 1925 Revised Civil Statutes of Texas, as amended. Said Railroad Commission also exercises appellate jurisdiction in all cases coming to it under the terms and provisions of Section 6058, Title 102 of the 1925 Revised Civil Statutes.

IV

Plaintiffs would further show to the court that there are served by the defendant, Lone Star Gas Company, in intrastate commerce one hundred and seventy (170) towns, cities and communities, of which the Railroad Commission of Texas, under the laws of this State, has original jurisdiction to regulate gas rates. There are approximately seventy-five (75) cities and towns which have original jurisdiction to regulate such rates by the existing laws of this State, and over which the Railroad Commission exercises appellate jurisdiction only. The rate to be charged for gas in all such towns at the burner tips are dependent upon the rates being charged for gas at the city gate by the pipeline

[fol. 6] company defendant, Lone Star Gas Company, and no rate to be charged for the sale of gas in such cities, towns, and communities can be determined by the Railroad Commission, whether exercising its original or appellate jurisdiction, without a determination of the city gate rate and the fair price of gas to be charged by the defendant, where and when it is engaged in intrastate commerce within this State.

Plaintiffs show the court that in answer to the insistence, complaints and petitions of practically all of the cities, towns and communities served by the pipeline company, Lone Star Gas Company, the Railroad Commission did, on October 14, 1932, enter an order on its own motion, calling for a general investigation of the rates and charges for natural gas charged or collected by the defendant, Lone Star Gas Company, and that after due notice and a lengthy hearing, said Railroad Commission did, on September 13, 1933, out of its Gas Utilities Docket No. 75, issue its order and opinion fixing and prescribing the rates and compensation to be charged by the defendant for domestic and residential gas delivered to distributing companies of this State at the city gates of the cities, towns and communities served by said defendant, in intrastate commerce a copy of which said opinion and order is hereto attached and marked Exhibit "A".

V

That said order of the Commission marked Exhibit "A" and attached hereto prescribes a rate of not to exceed thirty-two cents per thousand cubic feet for domestic or residential gas at the city gates of the various cities, towns and communities within the State of Texas, to which the defendant sells such domestic or residential gas, in intra-[fol. 7] state commerce and the rate so prescribed and fixed by said order is just and reasonable, and such order, to which reference is here made, is a proper and lawful regulation of the business done by said defendant within the State of Texas, and the same is prima facie valid; that such order was duly passed after due notice and a prolonged hearing, extending over a period of eight months, and the same was duly passed, adopted and promulgated after such hearing in strict conformity with and pursuant to the provisions of Title 102, together with all amendments, of the 1925 Revised Civil Statutes of Texas.

It is shown the court that for a great many years past and at this time, the prevailing rate charged and collected by said defendant for domestic or residential gas at the city gate has been and is now forty cents per thousand cubic feet, and that said rate now so charged is greatly in excess of the rate prescribed in the Railroad Commission's aforesaid order, and is, therefore, in violation of said order of the Railroad Commission. It is further shown that the defendant has been violating said order and refusing to abide by the same, or in any way comply with any of its terms and provisions since the same was entered by the Railroad Commission, and is continuing to violate the same at this time, in that the same rates are still being charged by said defendant, to-wit, forty cents per thousand cubic feet for domestic and residential gas, and unless enjoined and restrained, plaintiffs allege that said defendant will continue to violate the terms and provisions of such order, and that said defendant will continue to fail and refuse, to in any way comply with the terms of said order of the Railroad Commission of Texas, as hereinabove stated. Notwithstanding the passage of the said order, as alleged, lowering the rate from forty cents to thirty-two cents per [fol. 8] thousand cubic feet for domestic and residential gas, said defendant now and has at all times since the passage of said order, been charging forty cents per thousand cubic feet, such action on its part being in direct violation of said order.

VI

In this connection plaintiffs show the court that said Title 102 and the laws of this State prescribe an orderly and valid procedure for the fixation and establishment of adequate and reasonable rates and charges for the distribution and sale of natural gas by gas utilities, such as the defendant; that Article 6059 of said Title 102 of the 1925 Revised Civil Statutes, gives any dissatisfied gas utility the right to appeal from an order of the Commission to any district court of competent jurisdiction in Travis County, and that such an action is given precedence over all other causes on said docket of a different nature, and is required to be tried in said court as other civil causes; moreover, said article provides that gas utilities shall have the right of appeal to the appellate courts of this State, and such causes are given precedence in the appellate courts over all others of a dif-

ferent nature; such utilities are further given the right to supersede all such orders pending a final determination of same in the courts of this state; and by the terms of Article 6062 of said Title 102 of the 1925 Revised Civil Statutes, it is specifically provided that the enforcement of any such order of the Commission may be stayed by such court upon the application of any affected gas utility pending a final determination of the appeal, and that any such utility shall not, during said time, be subject to the penalties prescribed by law for a failure to observe such order.

[fol. 9] VII

It is further shown that notwithstanding defendant's remedies are adequate and complete in the courts of this state, and notwithstanding every constitutional and legal right to which it may be entitled is and will be fully safeguarded and protected in said court, the defendant, nevertheless, elected to and did, on the 22nd day of September, 1933, file its bill of complaint in the District Court of the United States for the Western District of Texas, Austin Division, in a cause entitled Lone Star Gas Company, plaintiff, v. the Railroad Commission of Texas, et al., defendants, No. 467, in Equity, and being a cause wherein your defendant is plaintiff and wherein each and all of your plaintiffs are defendants, except the State of Texas. Plaintiffs allege, however, in this connection that said suit is, in substance and effect, a suit against the State of Texas, as well as one against its officers and agents in their official capacities, and that in legal effect the parties to said action are identical, and the subject matter of said suit brought by the defendant against plaintiffs in the said Federal Court is the same as the subject matter in this cause.

VIII

It is further shown that in said action in said United States District Court, Lone Star Gas Company alleged, in substance and effect, that the aforesaid order entered by the Railroad Commission of Texas fixed and prescribed a rate confiscatory of its property used and useful in the public service, and alleged that said order is unconstitutional, and upon said allegation obtained a temporary [fol. 10] restraining order out of said court adjoining and restraining your plaintiffs, and each of them (except the

State of Texas), from compelling or attempting to compel said defendant to observe said order of said Commission.

It is further shown that said writ issued out of said United States District Court, as extended by the order of said court and directed to your plaintiffs, was returnable before three judges of the United States in the court room of said court at Austin, Texas, on the 12th day of October at 9:30 A. M., and that your plaintiffs were commanded to appear and show cause, if any, why an interlocutory injunction should not be issued, further restraining and enjoining the enforcement of the Commission's aforesaid order.

It is further shown in this connection that the defendant, Lone Star Gas Company, prayed the court in said cause for both an interlocutory and permanent injunction, restraining your plaintiffs from enforcing the terms and provisions of said order of the Railroad Commission. Upon hearing upon the application of the Lone Star Gas Company for such interlocutory injunction, as aforesaid, on the 11th day of November, A. D. 1933, an order was entered by a three-judge court, duly and properly assembled, staying all proceedings in the case styled Lone Star Gas Company v. Railroad Commission of Texas, et al., No. 467 in Equity, in the District Court of the United States for the Western District of Texas, Austin Division, and providing that no further proceeding would be had in such cause until the present suit now pending before this Honorable Court should be finally determined. A copy of the order staying proceedings in the Federal Court is attached hereto and marked Exhibit "B" and is hereby, by reference thereto, [fol. 11] incorporated into this pleading for all purposes.

IX

Plaintiffs allege that the defendant is attempting to evade the laws of this state and the order of the Railroad Commission of Texas in fixing and prescribing rates and charges for the sale and distribution of domestic and residential gas at the city gates of the various cities and towns served by the defendant in intra-state commerce, and that in charging a rate in excess of that prescribed by the Railroad Commission, plaintiffs herein, each of them, and the consumers of domestic and residential gas, of this state are suffering irreparable injury, and that there is no adequate remedy prescribed by the laws of this State which will

protect the public interest involved and the rights of plaintiffs herein.

In this connection plaintiffs allege that the State of Texas has no adequate remedy at law to protect itself against the wrongs and injuries complained of herein, nor have the consumers of gas in the various cities and towns served by defendant in intrastate commerce any adequate remedy to protect themselves against the wrongs and unlawful acts herein alleged and complained of, and that, unless the relief herein sought *us* granted by this Honorable Court, each and all of the plaintiffs and said consumers of domestic and residential gas within the State of Texas will continue to suffer irreparable injury; that said loss and injury, unless further prohibited, will be continuing and will amount to the difference between the rate fixed by said Railroad Commission and the higher rate that is now being charged and collected by said defendant, Lone Star Gas Company.

Plaintiffs further show it is a charter duty of the defend- [fol. 12] ant, as well as a duty imposed by said Title 102 and the laws of this State, to strictly observe and obey the lawful orders, rules and regulations of the Railroad Commission of Texas fixing and prescribing rates for the transportation and sale of natural gas; that the observance of said laws and of the orders of the Railroad Commission is made an absolute condition of their corporate existence; that the State of Texas and the public generally, and your plaintiffs in particular, have a vital right and interest in the due and proper observance by the defendant of the laws of this State and of the orders, rules and regulations of the Railroad Commission fixing and prescribing rates, and that such orders are essentially for the benefit of the public generally, and it is the duty of plaintiffs to compel the observance of the same; that such orders and the order involved in this case were intended to and do subserve the public interest, and that the duty of the defendant herein to observe said order is a public duty, and that unless said order passed by said Railroad Commission is observed and enforced, the interest of the public will not in any way be protected and said defendant will not be regulated or subjected to regulation as the laws of the State of Texas provide.

Plaintiffs desire to have the constitutional questions involved in the attack being made by the defendant, Lone

Star Gas Company, upon the Commission's order heard and determined in the courts of this State, and to that end desire this court to enter an order staying proceedings in accordance with the provisions of Section 380, Title 28, U. S. C. A. (Sec. 266, Judicial Code of the United States) and to the end that all proceedings in the district courts of the United States will be stayed pending a final determination of this cause in the courts of this state; that under [fol. 13] said Title 28, U. S. C. A., and particularly Section 266, Judicial Code of the United States, the Federal Court has entered all necessary orders holding the suit there pending in abeyance and giving this court jurisdiction and priority to try this cause, all of which is well known to the defendant, and which is shown by the order staying proceedings in the Federal Court attached hereto, and marked "Exhibit B", to which reference for all purposes is hereby made.

X

This action is filed in this court in the nature of an appeal under the terms of Article 6059, Title 102, 1925 Revised Civil Statutes of Texas, but such appeal is not taken herein because the plaintiffs are dissatisfied with the rates prescribed in the Commission's said order, but primarily for the purpose of protecting and preserving the exclusive jurisdiction of this court and its venue to hear and finally determine the matters in controversy, and for the further purpose of enforcing said order, if it should be determined to be valid upon final hearing. In this connection plaintiffs would show that while they are plaintiffs of record, that they are only nominally so in form, and that said defendant is really the plaintiff, in that it is the one complaining of said order, and is seeking to set it aside.

XI

[Plaintiffs would further show to the court that during the pendency of this suit that said defendant has charged and will continue to charge and collect and to keep in force and effect the rate that is now in force and effect, to-wit, the forty cent rate instead of the thirty-two cent rate, as is pro- [fol. 14] vided for in said order of the Railroad Commission; that much time may lapse and intervene before this cause is finally adjudicated and determined; that if upon the final hearing hereof or in a trial of this cause, it should

be adjudicated or determined that said order of the Railroad Commission was and is in all things valid, as it is presumptively considered to be, then in such event said defendant would owe to the domestic and residential consumers of Texas of the various cities, towns and communities affected, the difference between the lower rate of thirty-two cents per thousand cubic feet provided for in said order of the Railroad Commission, and the higher rate of forty cents per thousand cubic feet, that is now being charged and collected by it, together with interest at the rate of six per cent per annum from the date of each and every collection made whereby a higher rate was charged and collected than is provided for in said order of the Railroad Commission; that in order for complete justice and equity to be done the plaintiffs in this cause, in the event upon the hearing hereof that said order of the Railroad Commission is adjudicated to be valid, plaintiffs should have and recover of and from said defendant the difference between the two rates, as above stated, and the excess amounts collected by said defendant, together with interest at the rate of six per cent per annum on all amounts so collected by it, for the use and benefit of the domestic and residential consumers of gas in the cities, towns and communities within the State of Texas now being served by said defendant, in intrastate commerce, either directly or indirectly.

In this connection plaintiffs would further show unto the court that the only reason that said order of the Railroad Commission of Texas is not now being operated and in [fol. 15] force and effect is because said defendant has enjoined the carrying out of the same, as hereinabove alleged; that under Title 102 of the Revised Civil Statutes of Texas, together with all amendments, and under the general principles and usages of equity, said defendant will be entitled to make full reparation, and a refund to the domestic and residential consumers of the gas furnished by it, in the event that said order of the Railroad Commission is finally upheld; that unless appropriate relief is granted by this Honorable Court and said defendant is compelled by a proper judgment to restore that which it has prevented from becoming effective, that complete and adequate justice cannot be done, and that the said consumers will not recover that to which they are, under the law, entitled, and in this connection and to this extent this cause is brought by the plaintiffs parens patriae for the reparation, refund and restoration to said

domestic and residential consumers and citizens that are affected by said order:]

Wherefore, premises considered, plaintiffs pray that the defendant be cited in terms of law to appear and answer herein and that upon final trial hereof plaintiffs have judgment against the defendant, and that defendant be permanently and perpetually enjoined and restrained from charging or collecting any rates or charges for domestic and residential gas at the city gates of the various cities and towns served by it in intrastate commerce in this state, except those particular rates and charges duly authorized and prescribed by the order of the Railroad Commission of Texas, and that defendant be restrained from charging any rate in excess of that so prescribed by the Commission in its said order.

[fol. 16] Plaintiffs further pray, however, that pending a final determination of this cause in the courts of this State that this Honorable Court enter a proper order staying all proceedings by the Railroad Commission of Texas or any of its members, officers, employees or agents, or by any other person or official of this state under the order promulgated by the Commission fixing and prescribing the rates to be charged by defendant for gas delivered at the city gates of the various cities and towns served by it in this state.

Plaintiffs further pray that this Honorable Court enter an order staying all proceedings under the laws of this state and under the rules and regulations of the Railroad Commission, either for mandamus, mandatory injunction, injunction, damages, penalties, quo warranto or forfeiture of charter, pending the determination of this cause by this Honorable Court.

[Plaintiffs further pray that they recover for the use and benefit of the domestic and residential consumers of gas in Texas, where the service to them by defendant or its affiliated corporations is intrastate commerce or a local business, all amounts charged or collected by said defendant in excess of the thirty-two cent rate per thousand cubic feet fixed and provided for in said order of the Railroad Commission of Texas since September 13, 1933, the effective date of said order, or in the alternative, since September 22, 1933, the date defendant filed suit in the Federal court and obtained its injunction, as aforesaid, together with inter-

est at the rate of six per cent per annum on all such excessive sums so collected by said defendant from the date of collection thereof, or by any agents or persons acting for it in its behalf.]

[fol. 17] Plaintiffs further pray for such other and further relief, special and general, in law and in equity, to which they may show themselves justly entitled.

James V. Allred, Attorney General of Texas; Elbert Hooper, First Assistant Attorney General; W. C. Fitzhugh, Assistant Attorney General; A. R. Stout, Assistant Attorney General, Attorneys for Plaintiffs.

[fol. 18] *Duly sworn to by F. L. Kuykendall. Jurat omitted in printing.*

[fol. 19] EXHIBIT "A" TO PETITION

RAILROAD COMMISSION OF TEXAS

Gas Utilities Docket No. 75

Opinion and Order in the Matter of an Investigation of the City Gate Rate Charged by the Lone Star Gas Company

[fol. 19a] INDEX

	Page
Statement of Case	14
Opinion of The Commission	16
Weight of Evidence	16
Summary of Findings	18
Revenues—1931	21
Operating Expenses—1931	21
Amount Available for Depreciation, Depletion, Return and Federal Income Tax—1931	30
Reproduction Cost New—December 31, 1931	31
Gas Wells	31
Other Production System Structures	32
Drill Tools and Equipment	33
Gathering System Rights of Way	33
Field Measuring Station Structures	34
Field Measuring Station Equipment	34
Field Line Equipment	34
Transmission System Measuring Station Land Including Improvements	35

INDEX—Continued

	Page
Transmission System Rights of Way	35
Transmission System Measuring Station Equipment	36
Transmission Line Equipment	37
Compressing Stations	44
General Office Building Land	45
General Office Structure	45
Automotive and Construction Equipment	45
Petrolia Field	46
Administration and Legal Expense, Engineering, and Supervision During Construction	47
Taxes During Construction	48
Interest During Construction	48
Preliminary and Organization Expense	51
Working Capital	52
Going Value	52
Reproduction Cost New Summary	66
Leaseholds	67
Present Worth	75
Annual Depreciation	76
Gas Wells	81
Other Production System Structures	83
Gathering System Rights of Way	83
Field Measuring Station Structures	83
Field Measuring Station Equipment	84
Field Line Equipment	84
Transmission System Measuring Station Land	86
Other Transmission System Leaseholds	86
Transmission System Rights of Way	86
Transmission System Measuring Station Structures	86
Other Transmission System Structures	87
Transmission System Measuring Station Equipment	87
Transmission Line Equipment	87
Compressing Stations	94
General Office Structure	96
Other General Structures	96
General Office Furniture and Fixtures and Other General Furniture and Fixtures	96

INDEX—Continued

	Page
General Shop Equipment	97
[fol. 19b] General Telephone System	97
Non-Physical Property	97
Annual Depreciation Summary	97
Application of Annual Depreciation Rates	98
Depletion—1931	99
Amount Available for Return and Federal Income Tax—1931	99
Rate Base—December 31, 1931	99
Rate of Return	101
Excess Earnings Over a 6% Return—1931	103
Federal Income Tax Based Upon Minimum 6% Return	104
Reduction in Domestic Gas Rate to Give 6% Return for 1931	105
Return on Transmission and Production Properties for Years 1927 to 1932 Based Upon 8 Cent Reduction in Domestic Gas Rate	106
Return on Transmission Properties Based Upon 8 Cent Reduction in Domestic Gas Rate and Allowance of Market Value of Gas at the Well Head	113
Corrections to Returns Above 6%	114
Order	116

[fol. 19-1] Statement of the Case

On October 14, 1932, the Railroad Commission of Texas entered an order on its own motion calling for a general investigation of rates and charges made by the Lone Star Gas Company for natural gas delivered at the city gate of towns and cities served by that Company. Several circumstances made necessary this order. Under Article 1119 of the Revised Civil Statutes of 1925, as amended in 1931 by the Acts of the Forty-second Legislature, page 380, Chapter 226, the governing body of any city or town in the State of Texas of over 500 population, incorporated under the general laws of the State, has the power to regulate by ordinance the rates and compensation to be charged by a gas company distributing gas in such city or town. Under Article 6058 of the Revised Civil Statutes of 1925, an appeal may be taken by a dissatisfied utility from any ordinance

lowering the rate, or from the failure or refusal of a city governing body to grant a raise in rates. There were pending on the Gas Utilities Docket of the Railroad Commission a number of such appealed cases involving the rate to be charged for gas by the Lone Star Gas Company at the city gate of some 125 cities, towns and communities of the State of Texas. In addition to these cases where the rate to be charged for gas at the city gate was an essential fact necessary to the determination of the fair and reasonable prices to be charged for gas by distributing companies serving the cities and towns involved, there was a general desire on the part of the remaining cities and towns served by the Lone Star Gas Company for an investigation of the city gate rate.

A copy of the order of October 14, 1932, and notice of a hearing to be held beginning November 1, 1932, in the city of Fort Worth, was sent to the Lone Star Gas Company and to each of the cities and towns served by it. Accordingly on November 1, 1932, the Company appeared.

The Company is a gas utility as defined by Article 6050 of the Revised Civil Statutes of 1925. The Commission exercised its jurisdiction and called this case upon its own [fol. 19-2] motion acting under the provisions of Article 6053 of the Revised Civil Statutes of 1925.

The Lone Star Gas Company, a Texas corporation, is engaged in the production, transportation and sale at wholesale of natural gas. It operates an integrated pipe line system of approximately 4,000 miles, and engages in both interstate and intrastate commerce in the selling of gas to some 300 cities and towns in the states of Oklahoma and Texas.

The Company's Texas properties and its Oklahoma properties constitute parts of an integrated operating system. For that reason, we have considered the Oklahoma properties and operations and the effect thereof on the revenues and the expenditures within Texas. On this basis we have fixed a rate for application within the jurisdiction of Texas. There was omitted from consideration the property and operation of the non-public service operations of the Company as well as that represented by the division of the Lone Star Gas Company which operates as a distributing system supplying gas to the city of Fort Worth, Texas, and designated as the Fort Worth Division. It was not the purpose of this inquiry to regulate the rates to be charged by the

Company for industrial gas, but rather to inquire into the rates that would ultimately affect the domestic consumers.

The hearing started November 1, 1932, and progressed continuously with only minor interruptions until June 29, 1933, with but two exceptions: from November 17, 1932, to February 6, 1933, a recess was allowed for the purpose of examination of exhibits introduced by the Company by the State's witnesses, and from May 9 to 29, 1933, a recess was allowed the Company in order that they might examine exhibits presented by the State's witnesses. There were introduced during the hearing thirty-six exhibits, some of which consist of several thousand pages. The transcript of testimony is composed of 11,232 pages.

The only question to be determined is: What is a fair and reasonable rate per thousand cubic feet for domestic gas to be charged by the Lone Star Gas Company at the city gate? In order to arrive at this fair and reasonable rate we have made findings as follows:

(a) Revenues.
(b) Expenses.
(c) Depreciation and Depletion.
(d) Amount Available for Return.
(e) Fair Rate of Return.
(f) Rate Base to which Rate of Return is Applicable.
(g) City Gate Rate which will earn a Fair Rate of Return on the Rate Base.

The year 1931 has been used as a basis for finding the City Gate Rate which would earn a fair return. This rate was then applied to the years 1927-1932 as a test of its reasonableness.

[fol. 19-3] Opinion of the Commission

Weight of Evidence

Ordinarily, in inquiries of this kind, irreconcilable conflicts in the testimony of expert witnesses, force consideration as to which witnesses probably have had the superior opportunity to know the truth; in this case, we happily, and, to a high degree, have been spared the need to resort to this somewhat speculative consideration, due to the obvious weight of all testimony produced both by the witnesses for the Company and the Witnesses Freese and Phillips,

who appeared for the State. The historical facts relevant to this inquiry have been so fully set forth by various of the witnesses that it has been unnecessary for us to accept opinions, judgments, expert testimony as such, or "general experience" as the basis of our findings. The weight to be accorded the testimony of each witness can best be judged by the fullness or lack of factual bases for the statements made.

The Lone Star Gas Company used as its principal witnesses the following:

E. A. Steinberger
Ed. C. Connor
D. A. Hulcy
Harrison Smith

The State used as its principal witnesses the following:

S. W. Freese
J. A. Phillips

The witness Steinberger presented an evaluation of the physical property of the Company. Mr. Steinberger is a trained cost accountant regularly employed by the Company. He is well acquainted with the cost records of the Company. He was able to give a factual basis for all of the construction costs which he used and the record speaks for itself in this respect. In adopting his material prices, however, Mr. Steinberger departed from the Company records available to him, and used "quoted" prices substantially higher than what the Company was actually paying.

Mr. Connor is an engineer regularly employed by the Lone Star Gas Company. He submitted complete data based upon the Company's historical experience from which annual depreciation may be accurately determined. His deductions from these data are clearly set forth in the record. He also submitted an evaluation of overheads. In the case of overheads, however, he made little or no use of the historical experience of the Company, but worked up a purely hypothetical set-up which to a high degree inflated the actual costs.

Mr. D. A. Hulcy is a trained accountant and is an officer of the Company. He submitted accurate but not detailed [fol. 19-4] records of revenues and expenses for the years

1931 and 1932. He also submitted an evaluation of the Company's gas reserves based upon future earnings from the reserves. The record is clear as to his computations in arriving at his evaluation of gas reserves.

Mr. Smith, an engineer, is a member of a firm of engineers employed from time to time by the Lone Star Gas Company and by other natural gas companies. Mr. Smith submitted an evaluation of both physical property and overheads. He was unable to substantiate his construction costs by factual data and we cannot accept the accuracy of his costs. Such value as his testimony has would grow out of his "general experience" and not out of the material historical facts which are available in this case. As to overheads, Mr. Smith used a hypothetical set-up in much the same way as did the witness Connor.

Mr. Freese, of Hawley, Freese and Nichols, an engineer, retained by the State for this particular investigation, submitted an evaluation of both physical property and overheads and a determination of annual depreciation. Mr. Freese used a factual basis for the figures at which he arrived. He used material prices being paid by the Company rather than "quoted" prices. His computations and deductions are fully set forth in the record and speak for themselves.

Mr. Phillips, of J. A. Phillips and Company, an accountant, also was retained by the State for this particular investigation. He submitted accurate and detailed statements of revenues, expenses, and book costs for the years 1927-1932, inclusive, as taken from the records of the Lone Star Gas Company.

The qualifications of other witnesses will be discussed as required.

Summary of Findings

The findings in this opinion relate to the public service property of the Lone Star Gas Company; all figures cited relate to the public service property unless otherwise stated.

We find gross revenues for the year 1931 exclusive of charges to the Northern Natural Gas Company to have been $9,301,862.65. The total expenses, including production expenses, for the year 1931 were $4,174,807.47, leaving $5,127,055.18 available for depreciation, depletion, and return on the Production and Transmission Properties. Depreciation

on a 6 per cent sinking fund basis was $968,066.98 and depletion amounted to $15,631.45, leaving $4,143,356,75 for Return.

We find: a Reproduction Cost New as of December 31, 1931, for Transmission and Production Properties exclusive of Leaseholds of $44,606,337.16; a Fair Value of Leaseholds as of December 31, 1931, of $1,991,613.92; and a Rate Base of $46,246,617.53 which is the undepreciated Reproduction Cost New of Transmission and Production Properties except for accrued depletion of Leaseholds and accrued depreciation of Automotive Equipment and Repair and Cleanout Tools.

We find a minimum fair rate of return for the year 1931 [fol. 19-5] to be 6 per cent, which amounts to $2,774,797.05 when applied to the Rate Base as of December 31, 1931. The excess of net earnings of $1,368,559.70 over the 6 per cent return, amounts to 8.039 cents per M cu. ft. on the 17,023,686.7 M cu. ft. of domestic gas sold during 1931.

On the basis of evaluating the gas produced by the Lone Star Gas Company during 1931 at the prevailing field price at the well head the reduction per M cu. ft. to give a 6 per cent return would have been 10.385 cents.

We have tested the effect of an 8-cent reduction in domestic gas rates by computing the returns which would have been available at the reduced rate during the six-year period 1927-1932. This period covered the three "prosperous" years 1927-1929 and the three "lean" years 1930-1932. An application of the reduced rate to the data of representative past years is the best and almost only guide as to the average results which may be expected in the future. The following table shows the returns which would have been experienced during the representative period 1927-1932 at the reduced rates.

Column I gives the returns for the years 1927-1932 which would have been available at the 8-cent reduced rate, based (1) upon an exclusion from revenues of the earnings from the Government Contract and of the charges to the Northern Natural Gas Company; (2) upon an inclusion in expenses of production expenses and an inclusion in the Rate Base of the production properties; and (3) upon a computation of return on an undepreciated Rate Base not only to the extent of the sinking fund interest rate of 6 per cent but also for the return in excess of 6 per cent. Under these

conditions the average rate of return would have been 8.46 per cent per annum.

Column II gives the returns for the years 1927-1932 which would have been available at the 8-cent reduced rate, based upon an inclusion in revenues of the earnings from the Government Contract and of the charges to the Northern Natural Gas Company, this being the only change from the conditions as under Column I. Under these conditions the average rate of return would have been 8.70 per cent per annum.

Column III is for the same conditions as under Column II except that instead of including the production expenses and including production property in the Rate Base, an allowance was made for gas at the well head at the prevailing field price. Under these conditions the average return would have been 9.66 per cent per annum.

Column IV is for the same conditions as under Column III except that the return above the sinking fund rate of interest of 6 per cent is computed on a depreciated rate base. Under these conditions the average rate of return would have been 10.96 per cent per annum. It is our judgment that the average future return for normal years will approximate this figure as a return on the transmission properties, while at the same time allowing the production properties the prevailing field price for gas at the well head.

[fol. 19-6]

Year	I. Excluding Earnings From Government and Northern Natural — Including Production Properties — Undepreciated Rate Base	II. Including Earnings From Government and Northern Natural — Including Production Properties — Undepreciated Rate Base	III. Including Earnings From Government and Northern Natural — Gas at Well Head At Prevailing Field Price — Undepreciated Rate Base	IV. Including Earnings From Government and Northern Natural — Gas at Well Head At Prevailing Field Price — Return Above 6% Computed on Depreciated Rate Base
1927...	11.42%	11.66%	12.62%	15.15%
1928...	9.70%	9.94%	10.90%	12.74%
1929...	9.83%	10.07%	11.03%	12.65%
1930...	7.46%	7.70%	8.66%	9.45%
1931...	6.02%	6.26%	7.22%	7.63%
1932...	6.34%	6.58%	7.54%	8.14%
Average	8.46%	8.70%	9.66%	10.96%

During the years 1927 to 1932, inclusive, covered by the above tabulation, the Lone Star Gas Company paid for as current operating expenses a substantial portion of the overheads (Administration and Legal Expense, Engineering and Supervision During Construction; Taxes During Construction; Interest During Construction; and Preliminary and Organization Expense) herein evaluated by us as part of the Rate Base, and only paid for a small portion of these overheads as capital expenditures.

Revenues—1931

The total revenues of the Lone Star Gas Company public service operations for the year 1931 were $9,301,862.65 (Ex. 26, p. 21). However this amount does not include charges to the Northern Natural Gas Company for overhead expenses incurred by the Lone Star Gas Company in connection with work performed for the Northern Natural Gas Company by the Lone Star Gas Company.

Operating Expenses—1931

The following 1931 expenses of the Lone Star Gas Company public service operations may be accepted without discussion by us at this time:

Gas Purchased	$1,487,431.81 (Ex. 26, p. 21)
Producing and Gathering Expenses	201,029.49 (Ex. 26, p. 21)
Compressor Station Expenses	447,292.41 (Ex. 26, p. 21)
Transmission System Expenses	584,115.01 (Ex. 26, p. 21)
Taxes—Other than Federal Income Tax	399,008.95 (Ex. 26, p. 21)
Bad Debts and Other Adjustments of Gas Sales	7,727.33 (Ex. 26, p. 21)

[fol. 19-7]

Drilling Tool Expenses—Undistributed	$ 7,469.05 (Ex. 26, p. 21)
Automobile and Truck Expenses—Undistributed	2,131.06 (Ex. 26, p. 21)
Miscellaneous Non-Operating Expenses	477.74 (Ex. 26, p. 21)

The following 1931 general expenses may also be accepted without comment:

Administrative Salaries	$ 145,745.68 (Ex. 26, p. 32)
Other General Office Salaries	307,850.98 (Ex. 26, p. 32)
General Office Supplies and Expense	23,894.23 (Ex. 26, p. 32)

General Office Traveling and Incidental Expense	22,907.99	(Ex. 26, p. 32)
General Stationery and Printing	16,011.29	(Ex. 26, p. 32)
Law Expense	53,426.94	(Ex. 26, p. 32)
General Office Rent	6,279.27	(Ex 26, p. 32)
Maintenance of General Office Equipment	2,146.07	(Ex. 26, p. 32)
Telephone and Telegraph System Labor	12,077.19	(Ex. 26, p. 32)
Telephone and Telegraph System Supplies and Expense	6,044.29	(Ex. 26, p. 32)
Maintenance of Telephone and Telegraph System	10,109.98	(Ex. 26, p. 32)
Injuries and Damages	7.49	(Ex. 26, p. 32)
Insurance Expense	32,647.86	(Ex. 26, p. 32)
Welfare and Pensions	8,502.89	(Ex. 26, p. 32)
Miscellaneous General Administrative Expense	49,012.06	(Ex. 26, p. 32)
New Business Advertising Salaries	9,548.77	(Ex. 26, p. 32)
New Business Soliciting and Commissions	27,969.98	(Ex. 26, p. 32)
New Business Supplies and Expense	7,372.38	(Ex. 26, p. 32)

Maintenance of general structures amounted to $24,650.71 during 1931 (Ex. 26, p. 32) and we are allowing this amount. This expenditure comprised the maintenance of the general office building. We are not convinced that the rentals paid by the general office building occupants, other than those engaged in the public service operations of the Lone Star Gas Company, were fair and equitable. Some of these occupants paid no rental (Ex. 26, pp. 9 and 10). This matter will be discussed further in connection with the valuation of the general office building.

Regulatory commission expense amounted to $17,695.86 for the year 1931 (Ex. 26, p. 32) and we are allowing this [fol. 19-8] sum. Expenditures necessary for the preparation of inventories, for a reasonable number of evaluations, and for a presentation of all relevant facts to this Commission and to the Courts are properly chargeable to this account. Any expenditure for valuations, expert witnesses, or other items in defense of rates sought to be maintained by the Company, which expenditure is in excess of a reasonable amount should be borne by the owners of the Company. The 1931 regulatory expense was not relatively large. Whenever such expense is relatively large (such as for 1932) it should be amortized over a reasonable length of time, say ten years. The instant case is the first time since the incorporation of the Lone Star Gas Company in

1909 that the Company has had occasion to incur any regulatory expense by reason of a hearing before a Texas Regulatory Commission.

Charitable donations amounted to $9,848.67 for the year 1931 (Ex. 26, p. 32). The larger donations are as follows (from Ex. 26, p. 36):

Dallas Community Chest	$4,750.00
Fort Worth Community Chest	1,875.00
Baylor University	1,500.00
Boy Scouts of America	575.00
American Red Cross—Dallas	500.00

Further expenditures were made for "subscriptions and donations" as indicated in the succeeding paragraph.

The Company incurred miscellaneous general administrative expense in the amount of $49,012.06 during 1931 (Ex. 26, p. 32). Of this amount $20,215.94 (Ex. 26, p. 37) was for subscriptions and donations. The nature of these items is indicated by the larger subscriptions or donations as follows (from Ex. 26, p. 37):

American Gas Association	$2,727.00
Greater Dallas Fund	2,625.00
Fort Worth Chamber of Commerce	1,550.00
Utopian Club	1,491.45
Mid Continent Oil and Gas Association	1,350.00
Texas Legislative Service	1,260.00
Texas Bureau of Economics	1,200.00

Any benefit received by the domestic gas consumers from most of these expenditures is quite remote. Donations should be the gifts of the stockholders and not of the consumers as part of the rates paid. At least the consumer should be allowed to use his own discretion in the matter. Donations are not proper future operating charges. For the time being we are computing the actual 1931 expenses including charitable donations ($9,848.67) and the subscriptions and donations ($20,215.94) included in miscellaneous general administrative expense. This fact should be given its due weight in any consideration of the 1931 rate of return. The total amount included for miscellaneous general expenditures is $49,012.06.

[fol. 19-9] Advertising supplies and expense amounted to $81,234.85 for the year 1931 (Ex. 26, p. 32). The purpose of

this advertising, according to Mr. D. A. Hulcy, Assistant to the President of the Lone Star Gas Company, was "to acquaint the public with conditions affecting the Lone Star Gas Company and keeping your name before the public generally" (Tr. p. 2014). To be a legitimate charge to the operating expenses of the public service operations of the Lone Star Gas Company, the purpose of advertising should be to increase the gas sales of the Company. The Lone Star Gas Company is a gas transmission company and its only customers are gas distributing companies and a few large industrial users served directly from the transmission lines of the Company. Any new business or increased sales secured through the medium of advertising would be from the customers of the distributing companies. The parties sought to be reached through the medium of advertising would be the customers or prospective customers of the distributing companies, if the purpose of the advertising be to increase sales. A part ($13,974.94) of the expenditure set forth above was made by the distributing companies and charged to the Lone Star Gas Company which accepted the charges (Tr. p. 7856). We are of the opinion that any advertising expenses incurred to increase sales to the customers of the distributing companies or to secure new customers for the distributing companies is an expense which should be borne by the distributing companies. The only example of advertising done by the Lone Star Gas Company or by the affiliated distributing companies, and which was cited in the record, was headed "60 CENTS OF EVERY GAS BILL GOES FOR TAXES" (Tr. p. 2222). Advertising expense incurred for political purposes is not a legitimate charge against the public service operations of the Lone Star Gas Company. Although we are allowing the full amount set forth above for advertising supplies and expense, we do so reluctantly, (1) for the reason that any expenditure for advertising to increase sales should have been made by the distributing and not by the transmission company, and (2) for the reason that any expenditure for influencing policies of legislation is not a proper charge to operating expenses, the record failing to disclose what portion, if any, of the expenditure was of an allowable nature. In this connection it should be observed that the copy or content of all advertising paid for, peculiarly was within the knowledge of the Company. The propriety of these expenditures was questioned in the hearing and it was within the power of the Company to have

made a positive showing of clean hands; it failed to do so, and it might properly be assumed by us that all advertising of the Company was infected with the vice of political intent. Hereafter the Company should so keep its records of advertising as to be able to definitely show in any future investigation the nature and purpose of expenditures for advertising.

Management fees paid to the Lone Star Gas Corporation during the year 1931 amounted to $91,375.38 (Ex. 26, p. 21). In answer to the question: "Now, what are the services that [fol. 19-10] the Lone Star Gas Corporation renders in return for this management fee?" Mr. Hulcy, the Assistant to the President of the Lone Star Gas Company, answered: "The Lone Star Gas Corporation furnishes a purchasing agent who purchases the larger material; I have particular and specific reference to pipe—that is all purchased by the Lone Star Gas Corporation, and they also furnish financial aid and assistance, which has been a sizeable amount, they furnish general executive assistance, and they also furnish legal talent, and they also furnish some engineering aid and assistance. I think, generally speaking, those are the main things which are furnished." (Tr. p. 2043.) This further testimony by Mr. D. A. Hulcy is typical of his testimony with reference to the services rendered by the officers of the Lone Star Gas Corporation:

Q. "Is there any particular piece of legal work since the first of 1931 that Mr. Mitchell has rendered direct assistance to the Lone Star Gas Company on?"

A. "No, sir. I think most of his time, so far as Lone Star Gas Company is concerned, has been in connection with the securing of money for them."

Q. "As a matter of fact, the most of the advice that is solicited from these gentlemen is on financial propositions, is it not?"

A. "Well, not altogether financing, no sir. Well, of course, the whole general situation, that is the Lone Star Gas Company, the outlook of any additional markets or anything of that kind or any additional business that Lone Star Gas Company would take on, those gentlemen advise about that."

Q. "But the great majority of the questions that are submitted to them are financial questions, are they not—ques-

tions in connection with the financing of the Company's business?"

A. "Well, of course, it would be pretty hard for me to say, Mr. Fitzhugh, that that was more than fifty per cent of it, but that is a very vital subject these days, and I do not recall a single conference or meeting when that has not been talked about at length." (Tr. p. 2049.)

The Corporation does not have a legal and engineering staff regularly employed for detail work. The organization consists largely of the officers of the Corporation. The testimony discloses only one specific service rendered by the Lone Star Gas Corporation other than general financial aid and assistance; this being the purchasing of pipe by Mr. J. M. Simpson, of Pittsburgh, Pa., Vice-President of the Lone Star Gas Corporation, whose duties include "general supervision for all purchases of Columbia Gas and Electric" Company (Tr. p. 2050). The detail clerical work in connection with pipe purchases is done by the Purchasing Department of the Lone Star Gas Company. The Lone Star Gas Company is billed directly by the pipe manufacturer for any pipe purchased. If Mr. Simpson receives any better quotations than the Lone Star Gas Company could get directly, the record fails to disclose that fact. The Lone Star Gas Corporation owns substantially all of the common stock of [fol. 19-11] the Lone Star Gas Company. As of December 31, 1931, the Lone Star Gas Corporation had loaned the Lone Star Gas Company approximately $19,000,000 at an interest rate of 6 per cent (Tr. pp. 54 and 60). We see no reason to believe that the general financial aid and assistance furnished by the Lone Star Gas Corporation consisted of anything other than a most natural manifestation of the owner's interest in his investment and a solicitude which was certainly justified by the size of his investment and which would appear to have been recompensed by the receipt of dividends and interest from the Company. A number of the officers of the Lone Star Gas Corporation are also paid a salary by the Lone Star Gas Company. It is material to observe that the management fee is not computed on the basis of specific services rendered but on the basis of one per cent of the gross revenues from gross sales (Tr. p. 2042). The Company started paying this management fee in 1929 ($95,062.03, Ex. 26, p. 21), prior to which time no management fee was paid. The Company has failed to show the nature

or value of any services rendered to it by the Lone Star Gas Corporation. We are of the opinion that any allowable charges for assistance in the purchases of pipe for replacements (i. e., not for capital expenditures) were negligible. We are disallowing management fees paid to the owners, viz., the Lone Star Gas Corporation, inasmuch as any such fees paid were simply a division of profits and should be considered as part of the earnings. A charge of this nature would simply disguise an operating profit and cause it to appear to be an operating expense.

In Smith v. Illinois Bell Telephone Company (282 U. S. 155), we note that 4½ per cent of gross revenues were paid under contract to the American Bell Telephone Company for "rental for the use of instruments and for engineering, financial and advisory services." In rendering the opinion of the United States Supreme Court, Mr. Chief Justice Hughes said:

"In view of the findings, both of the State Commissions and of the Court, we see no reason to doubt that valuable services were rendered by the American Company, but there should be specific findings by the statutory court with regard to the cost of these services to the American Company and the reasonable amount which should be allocated in this respect to the operating expenses of the intrastate business of the Illinois Company in the years covered by the decree."

In Western Distributing Company v. Public Service Commission of Kansas (285 U. S. 119), we note that the Cities Service Gas Company sold gas to Western Distributing Company, a distributing company, which gas was an interstate movement. The Commission disclaimed any right to regulate rates charged for interstate service but insisted on the right to determine whether the price being paid for gas at the city gate is a fair and reasonable one. In deciding that the Commission had the right contended for, the Court said:

[fol. 19-12] "Having in mind the affiliation of buyer and seller and the unity of control thus engendered, we think the position of the appellees is sound, and that the Court below was right in holding that if the appellant desired an increase of rates it was bound to offer satisfactory evidence with respect to all the cost which entered into the ascertainment of a reasonable rate. * * * There is an absence of arm's

length bargaining between the two corporate entities involved, and of all the elements which ordinarily go to fix market value. The opportunity exists for one member of the combination to charge the other an unreasonable rate for the gas furnished and thus to make such unfair charge in part the basis of the retail rate."

Dry Hole expense amounted to $65,871.56 for the year 1931 (Ex. 26, p. 21). This item of expense varies widely from year to year; 1928—$29,561.61, 1930—$196,034.17 (Ex. 26, p. 21). The average dry hole expense for the five years ending December 31, 1931, was $79,453.12 and we are allowing that amount for the year 1931. The total dry hole expense incurred by the Lone Star Gas Company in the development of some 441,454,335 M cu. ft. of gas was $985,996.18 (Ex. 29, p. 39), or an average of $.002233 per M cu. ft. of gas developed. The Lone Star Gas Company produced 5,304,828 M cu. ft. of gas during 1931 (Tr. pp. 8496 and 8497, Ex. 8, p. 77). At the average dry hole expense per M cu. ft. of $.002233, the dry hole expense necessary to develop the 5,304,828 M cu. ft. of gas produced by the Company and chargeable to 1931 was $11,845.68. On the assumption that the 1931 dry hole expense per M cu. ft. of gas developed was average, we have burdened the 1931 dry hole expense by some $67,607.44 ($79,453.12 minus $11,845.68) more than the dry hole expense required to develop the gas actually produced during 1931. This excess dry hole expense ($67,607.44) is in the nature of money advanced for the development of gas which will be produced in future years. However, by our treatment of this item as a current operating expense the Company should be precluded from capitalizing dry hole expense in any future rate investigation.

Cancelled and surrendered lease expense amounted to $239,230.96 for the year 1931 (Ex. 26, p. 21). Cancelled and surrendered lease expense is incurred whenever the Company drills a dry hole on an undeveloped lease and decides that the whole lease is dry; whenever an undeveloped lease is proven dry by any other operations; whenever the Company deems the prospective gas not worth the delay rentals; or whenever for any reason the Company decides that the lease is not of sufficient value to continue paying delay rentals. When an undeveloped lease is cancelled and surrendered, it is charged off at its original cost plus all delay rentals and any acquisition costs that have been set up on the books of

the Company. The average cancelled and surrendered lease expense for the five year period ending December 31, 1931, was $99,140.73, varying from $12,480.59 for 1928 to $239,-[fol. 19-13] 230.96 for 1931 (Ex. 26, p. 21). As in the case of dry hole expense we are allowing cancelled and surrendered lease expense in the amount of the average of this expense for the five year period ending December 31, 1931. The total cancelled and surrendered lease expense incurred by the Lone Star Gas Company in connection with the development of some 441,454,335 M cu. ft. of gas was $2,231,879.84 (Ex. 29, p. 39) or an average of $.005056 per M cu. ft. of gas developed. At this average (cancelled and surrendered lease expense per M cu. ft. of gas developed) the cancelled and surrendered lease expense necessary to develop the 5,304,828 M cu. ft. of gas produced by the Lone Star Gas Company in 1931, was $26,821.21. Assuming that the 1931 cancelled and surrendered lease expense per M cu. ft. of gas developed was the same as the average cost in the past, the amount of cancelled and surrendered lease expense which we have allowed ($99,140.73) is $72,319.52 ($99,140.73 minus $26,821.21) more than the cancelled and surrendered lease expense necessary to develop the gas actually produced during 1931. As in the case of dry hole expense, this excess of cancelled and surrendered lease expense ($72,319.52) was in the nature of an advance for the development of gas which will be produced in future years. This treatment of cancelled and surrendered lease expense as a current operating expense at this time should preclude the Company from capitalizing cancelled and surrendered lease expense at any future rate investigation.

Federal income tax cannot be computed until "income" be determined. Federal income tax will be hereinafter considered after the determination of "earnings before Federal income tax" has been made and after a determination of a fair rate of return.

In accordance with the consideration hereinabove set forth, we are allowing 1931 expenses of the Lone Star Gas Company public service operations as follows:

Gas Purchased	$1,487,431.81
Producing and Gathering Expenses	201,029.49
Compressor Station Expenses	447,292.41
Transmission System Expenses	584,115.01
Taxes—Other than Federal Income Tax	399,008.95

Bad Debts and Other Adjustments of Gas Sales	7,727.33
Drilling Tool Expenses—Undistributed	7,469.05
Automobile and Truck Expenses—Undistributed	2,131.06
Miscellaneous Non-Operating Expenses	477.74
Administrative Salaries	145,745.68
Other General Office Salaries	307,850.98
General Office Salaries and Expense	23,894.23
General Office Traveling and Incidental Expense	22,907.99
General Stationery and Printing	16,011.29
Law Expense	53,426.94
[fol. 19-14] General Office Rent	6,279.27
Maintenance of General Office Equipment	2,146.07
Telephone and Telegraph System Labor	12,077.19
Telephone and Telegraph System Supplies and Expense	6,044.29
Maintenance of Telephone and Telegraph System	10,109.98
Injuries and Damages	7.49
Insurance Expense	32,647.86
Welfare and Pensions	8,502.89
Miscellaneous General Administrative Expense	49,012.06
New Business Advertising Salaries	9,548.77
New Business Soliciting and Commissions	27,969.98
New Business Supplies and Expense	7,372.38
Maintenance of General Structures	24,650.71
Regulatory Commission Expense	17,695.86
Charitable Donations	9,848.67
Advertising Supplies and Expense	81,234.85
Dry Hole Expense	79,453.12
Cancelled and Surrendered Lease Expense	99,140.73
Total	$4,174,807.47

Amount Available for Depreciation, Depletion, Return and Federal Income Tax—1931

Deducting the total operating expenses, $4,174,807.47 from the total revenues, $9,301,862.65, leaves $5,127,055.18 as the amount available for depreciation, depletion, return and Federal income tax on the public service properties of the Lone Star Gas Company for the year 1931.

Reproduction Cost New—December 31, 1931

The following reproduction cost new figures as of December 31, 1931, for the several items listed are taken from the appraisal submitted by the Company witness Steinberger and are accepted without discussion:

Repair and Cleanout Tools and Equipment	$42,411.44	(Ex. 6, p. 246)
Other Transmission System Land, Including Improvements	24,716.45	(Ex. 6, p. 873-Ex. 28, p. 50)
Other Transmission System Leaseholds including improvements	3,463.71	(Ex. 6, p. 883-Ex. 28, p. 51)
Transmission System Measuring Station Structures	172,676.20	(Ex. 6, p. 898)
Other Transmission System Structures	130,661.27	(Ex. 6, p. 1130)
[fol. 19–15]		
Other General Land	$51,797.38	(Ex. 6, p. 3888)
Other General Structures	59,716.19	(Ex. 6, p. 3891)
General Office Furniture and Fixtures	204,520.67	(Ex. 6, p. 3929)
Other General Furniture and Fixtures	10,967.71	(Ex. 6, p. 3935)
General Shop Equipment	103,756.02	(Ex. 6, p. 3936)
General Tools	164,020.99	(Ex. 6, p. 3947)
General Telephone System	373,591.15	(Ex. 6, p. 3971)

Gas Wells.—We find the reproduction cost new of gas well equipment, including well construction not included with developed leaseholds, to be $2,044,318.76 exclusive of gas wells in the Petrolia District ($2,001,427.53, Ex. 28, p. 4 and $42,891.23, Ex. 36, p. 2). This is the amount determined by us after making certain corrections to the Company's Exhibit 6, these corrections being supported by the computations made by the witness Freese. The following uncontroverted corrections made by Mr. Freese are accepted forthwith: corrections in prices of casing and tubing; corrections in prices of valves; engineering on drilling; gas well equipment and construction on wells not used nor useful in public service operations as of December 31, 1931. Engineering on gas wells is allowed by us under the head of Engineering and should not again be reflected here. The salvage value of gas well equipment on wells not used and useful as of December 31, 1931, has been allowed by us under the head of Working Capital. The cost of gas well construction on wells which were bought by the Company as part of a developed leasehold purchase has been included by us under the head of Developed Leaseholds and such gas well con-

struction is, therefore, deducted from Mr. Steinberger's item "Gas Wells," as set forth in his Exhibit 6. Mr. Freese made one further correction to this account as set forth in Exhibit 6, viz., a deduction of the $.25 per foot which Mr. Steinberger had included for omissions and contingencies on gas well construction. The appraised value of gas well construction as set forth in the Company's Exhibit 6 was based upon the actual costs incurred in 1929, 1930 and 1931, and included all contingencies which were actually incurred. On p. 3486 of the record Mr. Steinberger, who prepared the Company's Exhibit 6, states that his allowance for omissions and contingencies included the hauling of casing and other material and loss of material. On p. 3499, however, he admits that hauling was included at $.0752 per foot and loss of casing pulled at $.0451 per ft. We find no evidence which would indicate that the actual costs as incurred by the Company and which were adopted by Mr. Steinberger did not include all possible contingencies. We do find evidence which would indicate that instead of an addition for "omissions and contingencies," Mr. Steinberger should have made a deduction for "duplications and contingencies." In addition to the considerable deductions made by Mr. Freese, we find that Mr. Steinberger priced fittings at too high a price by reason of not taking all of the discounts available to and received by the Company, that he used prices on cast iron fittings instead of the cheaper mal- [fol. 19-16] leable fittings which were actually in place, and that he did not reduce his costs from a 1929-1931 basis to a December 31, 1931, basis. We find that the $.25 per foot included by Mr. Steinberger as an allowance for omissions and contingencies is a proper deduction.

Other Production System Structures.—Mr. Freese determined a reproduction cost new for other production system structures of $11,080.36 (Ex. 28, p. 24). Mr. Freese arrived at this figure by deducting from the amount set forth in the Company's Exhibit 6 certain oil handling equipment on the Holloway Lease in the Petrolia District and by deducting certain water handling equipment on the Hatcher Lease in the Panhandle Field. We concur in the deduction of the oil handling equipment in the Petrolia District both by reason of the fact that this equipment is not used and useful in the public service operations of the Lone Star Gas Company and by reason of our handling of all of the Petrolia District

accounts as hereinafter set forth. As to the water handling equipment on the Hatcher Lease in the Panhandle Field, this equipment should be deducted if the cost of this equipment has been capitalized as part of the cost of drilling wells and included in the account "Gas Wells." The actual cost of drilling wells was used by Mr. Steinberger in Exhibit 6 and adopted by Mr. Freese in Exhibit 28. (This equipment on the Hatcher Lease is used to furnish water for well drilling operations). Although there may be some duplication in this respect, we do not know the extent of this duplication and are, therefore, adding back the deduction of $3,233.34 (Ex. 28, p. 24) covering the Hatcher Lease water handling equipment. Restoring this sum gives a total for this account, Other Production System Structures, of $14,313.70.

Drill Tools and Equipment.—This account covers tools and equipment used in the drilling of wells as distinguished from tools and equipment used in the repairing and cleaning out of wells. In appraising gas well construction both Freese and Steinberger used a contract drilling price whereby the contractor was to furnish his own drill tools and equipment. The contract price per foot compensates the contractor for the use of his drill tools, including depreciation and interest (or return) on the drill tools and equipment. The appraised value of gas well construction allowed by us includes a capitalization of interest (or return) and depreciation on all necessary drill tools and equipment. We therefore, are making no allowance for drill tools and equipment inasmuch as such tools and equipment owned by the Company would not be used and useful under the set-up adopted by Messrs. Freese and Steinberger; i. e., having an independent contractor do all drilling. If Messrs. Freese and Steinberger had used the actual cost of well drilling experienced by the Company in its own drilling and where it used its own tools, then some allowance should be made for drill tools and equipment. However, the actual cost of drilling a well would be less where the Company made use of its own tools, and the net result should be approxi- [fol. 19-17] mately the same in so far as the total appraised values are concerned.

Gathering System Rights of Way.—We are adopting $10,062.53 ($9,088.77, Ex. 28, p. 26; $973.76, Ex. 36, p. 4) as the reproduction cost new of Gathering System Rights of Way.

This figure was found by deducting from the amount shown in the Company's Exhibit 6 the rights of way on lines which had either been abandoned or were not used and useful as of December 31, 1931.

Field Measuring Station Structures.—We are adopting a reproduction cost new value of Field Measuring Station Structures of $37,308.57 ($36,939.73, Ex. 28, p. 28; $368.84, Ex. 36, p. 5). This figure was found by deducting from the account as set up in the Company's Exhibit 6 property which was not used and useful as of December 31, 1931.

Field Measuring Station Equipment.—For this account we are adopting as reproduction cost new the sum of $142,558.62 ($141,836.26, Ex. 28, p. 30; $722.36, Ex. 36, p. 6) which was found by deducting from the Company's Exhibit 6 the field measuring station equipment which was not used and useful as of December 31, 1931. Mr. Steinberger priced orifice plates as forged steel plates. As a matter of fact, most of these plates were cast iron and less expensive. However, no deduction has been made on this account.

Field Line Equipment.—Mr. Freese arrived at a reproduction cost new of Field Line Equipment of $988,342.74 ($953,754.34, Ex. 28, p. 31; $34,588.40, Ex. 36, p. 9) by making certain deductions from the Company's Exhibit 6 prepared by Mr. Steinberger. We approve without discussion the deductions of field line equipment not used and useful as of December 31, 1931, corrections in valve prices, corrections in excavation costs in lines sufficiently long to justify machine excavation, and deductions of oil and gasoline equipment. Other deductions made were: differences in pipe prices, and part of "omissions and contingencies." We will discuss the differences in pipe prices under "Transmission Line Equipment." Omissions and contingencies were reduced by Mr. Freese from the five per cent used in Exhibit 6 to one per cent. The record indicates in the cases of both field measuring station equipment and field line equipment that Mr. Freese did not make, nor have we adopted, all of the deductions which might have been made. It is more reasonable to assume that a deduction should have been made for "duplications and contingencies" which would result in a saving below the estimated cost, rather than that an addition should be made for "omissions and contingencies." For example, Exhibit 6 reflects the prices

of higher type and more costly valves, fittings, and orifice flanges than were actually used in many cases and fails to reflect the full discounts available on valves and fittings, or the best prices available to and received by the Company on meters. We are deducting from the reproduction cost [fol. 19-18] new of Field Line Equipment as found by Mr. Freese—the field line equipment in the Petrolia District except P. T. 65 to the Ray Dawson—Thelma Roberts No. 2 Well and except P. T. 73 to the Ray Dawson—Lon Kelly No. 1 Well. The field line equipment in the Petrolia Field will be discussed under the head of Petrolia Field. This deduction amounts to $141,332.02 ($144,893.36, Ex. 28, p. 39—Plus P. T. 3, $700.36, P. T. 29, $418.43, P. T. 30, $1,251.29, P. T. 35, $105.22, P. T. 49, $656.40, P. T. 51, $541.94, P. T. 58, $1,311.52, Ex. 36, p. 7—Minus P. T. 65, $6,911.06 and P. T. 73, $1,635.44, Ex. 6, p. 519). We are, therefore, allowing under this account, Field Line Equipment, a reproduction cost new of $847,010.72.

Transmis-ion System Measuring Station Land Including Improvements.—The typical city gate measuring station equipment and structure belongs three-fourths to the transmission company and one-fourth to the distributing company. Upon the theory, therefore, that three-fourths of the land upon which such a station rests is used and useful in the transmission of gas and one-fourth used and useful in the distribution of gas, we have adopted a correction of the company's figures as set forth in Exhibit 6 where the Company had not already made some such division of the land. We find the reproduction cost new of Transmission System Measuring Station Land including improvements to be $78,944.10 (Ex. 28, p. 49).

Transmission System Rights of Way.—In appraising transmission system rights of way Mr. Steinberger added twenty per cent to the actual cost experienced by the Company in purchasing a considerable amount of rights of way during the period 1929-1931, inclusive (Tr. pp. 3912-3916). This additional twenty per cent was to cover condemnation costs. This twenty per cent was added to each of the items included in the account "rights of way," viz., cost of the right of way proper, cost of acquisition, clearing, and construction damages, the cost of the right of way proper being a minor part (30 per cent approximately) of the total cost. Condemnation of rights of way is in general resorted to

whenever the Company is unwilling to pay the price asked by the right of way owner. Condemnation is not necessary when the Company is willing to pay the price asked for the right of way. The testimony shows that no condemnation suits were necessary during the period 1929-1931 which Mr. Steinberger studied in arriving at his unit costs of rights of way. The principal purpose of condemnation suits is to reduce the total costs of rights of way below what would otherwise have to be paid. We do not find in this record any reason to believe that the unit costs of rights of way purchased during 1929-1931 would have been any higher if some condemnation had been resorted to. Inasmuch as a major portion of the total rights of way cost is for labor, the cost as of December 31, 1931, should have been less than during the period 1929-1931 when somewhat higher labor rates prevailed. The cost of acquisition of rights of way, which is a [fol. 19-19] substantial part of the total cost of rights of way, varies in proportion to the number of owners and inversely in proportion to the length per parcel obtained from the individual owner. The testimony shows the average length of right of way per parcel purchased during the period 1929-1931 to be 105 varas (Tr. p. 3977) as compared with an average for the whole system of 139 varas (Tr. p. 1182). This also would indicate that the actual costs incurred during 1929-1931 and which were adopted by Messrs. Steinberger and Freese were too high. We are of the opinion that the reproduction cost new as found by Messrs. Steinberger and Freese in the sum of $1,007,433.38 (Ex. 28, p. 52) without the twenty per cent addition is entirely ample for Transmission System Rights of Way.

Transmission System Measuring Station Equipment.—Mr. Steinberger shows a reproduction cost new of Transmission System Measuring Station Equipment of $473,113.40 on page 1208 of Exhibit 6. However, in arriving at this figure Mr. Steinberger did not apply all of the discounts available to and received by the Company, particularly on valves. He computed the total correction by reason of this fact to be $100,000 for the whole system on valves alone (Tr. p. 6244). Mr. Freese computed the correction for applicable discounts on valves for this particular item of Transmission System Measuring Station Equipment to be $16,491.77 (Ex. 28, p. 55). Inasmuch as the total of the valve corrections arrived at by Mr. Freese is less than the total arrived

at by Mr. Steinberger, a correction to this item in the amount of $16,491.77 would not be unfavorable to the Company. This leaves $456,621.63 and we find this amount to be the reproduction cost new of Transmission System Measuring Station Equipment.

Transmission Line Equipment.—Mr. Freese arrived at his reproduction cost new of Transmission Line Equipment by making certain deductions from the appraised costs as set forth in the Company's Exhibit 6 prepared by Mr. Steinberger. The uncontroverted testimony with reference to the deduction by Mr. Freese of corrections in the prices of valves on all systems, corrections in hauling costs on all systems, a correction in the cost of welds on the "A" System, a correction in the cost of painting on the "B" System, and a correction in the cost of wet excavation on the "C" System, is such that we are justified in accepting these deductions. The other deductions made by Mr. Freese from the Company's Exhibit 6 in arriving at his reproduction cost new of Transmission Line Equipment are: differences in pipe prices, differences in excavation and backfill costs, and differences in the allowances for omissions and contingencies. Mr. Steinberger, in preparing the Company's Exhibit 6, used the basic pipe quotations furnished by pipe manufacturers and jobbers as of December 31, 1931. These quotations were made for appraisal purposes and there was no element of competition in making the quotations. Each of the manufacturers quoted the identical prices for each of [fol. 19-20)] the seventy-five or so weights of pipe found in the Lone Star System. For example, the quotations as of December 31, 1931, per hundred feet of twelve inch 37.45 lb. lap weld plain end pipe were:

National Tube Company	$105.81
Jones and Laughlin Steel Co.	105.81
Wheeling Steel Corporation	105.81

The December 31, 1931, quotations were in effect during the entire last half of 1931. Quotations obtained during July were identical for each weight of pipe with the quotation obtained during December. For example, the quoted prices as of July 14 and July 17 on the twelve inch 37.45 lb. pipe quoted above were:

Continental Supply Company	$105.81
National Supply Company	105.81

The quotations were for any amount of pipe providing shipment could be made in carload lots. These quotations were available to all, whatever their needs might be, whether for appraisal purposes or for purchase, whether for an individual requiring one carload or a large company requiring trainloads of pipe. (Tr. p. 4602-4621; 8053-8057). Mr. Freese in making his appraisal of the Transmission Line Equipment applied to the basic quotations (as of July to December, 1931) the discounts actually obtained by the Lone Star Gas Company as indicated by the last 1931 purchases of carload lots of more of various weights of pipe. In other words, Mr. Freese used the actual price paid by the Company for its last 1931 purchases of the various weights bought during 1931. Where purchases of particular weights were not made during 1931, Mr. Freese applied the discount actually obtained on the last 1931 purchase of the nearest weight. The effect of Mr. Freese's computation was to use the actual cost of the pipe to the company based upon the last 1931 purchases. The Lone Star Gas Company bought large amounts of pipe in 1929, having purchased a total of several million feet of all sizes of pipe up to and including 20 inch during that year. Basic quotations on pipe were maintained at a constant figure by the manufacturers throughout the year 1929. The discounts from the 1929 basic quotations were substantially the same on the large amounts of pipe bought during 1929 as were obtained on the relatively small purchases made during 1931. A comparison of the discounts obtained in 1929 on large purchases with the discounts obtained during the last half of 1931 (and which were applied in the Freese appraisal) are as follows for the ruling weights found in the Lone Star System:

[fol. 19-21]

Size of pipe (Plain End Lap-Weld)	Weight Lbs.	1929 Discount Off Quotations	Last Half 1931 Discount off Quotations	
4"	10.790	12.90%	12.78%	
6"	18.974	12.53%	12.85%	
8"	25.062	13.82%	11.27%	
10"	31.445	13.90%	11.64%	
12"	37.453	10.49%	5.49%	
16"	47.215	14.59%	16.01%	(4-24-31)

(Transcript pp. 8078 to 8081.) Mr. Freese used the same method of arriving at the discounts for threaded and coupled

pipe as he used for the larger quantities of plain end pipe, i. e., discounts off of the December 31, 1931, quotations were based on the last purchases of each weight made during 1931. The effect of this procedure was again to use the price actually paid by the Company in making its last purchases during the year 1931. In arriving at the discounts to be applied to the December 31, 1931, quotations on electric welded pipe, Mr. Freese based his discounts on a sizeable purchase of electric welded pipe bought in August, 1931. If the pipe actually purchased were seamless pipe, as one witness testified, then the discount off of the higher quoted seamless pipe price would have been even greater. The discount arrived at by Mr. Freese for electric welded pipe was 12.35 per cent. The quoted price for 20 inch 59.231 pound 30 ft. joint electric welded pipe as of December 31, 1931, was $211.48 (A. O. Smith Corp.) per hundred feet as compared with the actual price of $201.38 per hundred feet paid the A. O. Smith Corporation for some 517,000 ft. of this pipe in 1929 (Tr. p. 8058). The quoted price as of December 31, 1931, was therefore approximately five per cent greater than the actual cost during 1929 when pipe prices were relatively high. The 12.35 per cent discount adopted by Mr. Freese for electric welded pipe is reasonable in view of the fact that large size lap welded pipe dropped some 25 per cent as between 1929 and December 31, 1931 (Tr. p. 4670). The Company defended its use of quoted prices by citing instances where gas distributing companies had paid the quoted prices. The tonnage of relatively small pipe required by the distributing companies cited is not to be compared with the very large tonnage of transmission line pipe, field line pipe, well casing, etc., currently required by Lone Star Gas Company. On the other hand, Mr. Freese cited the actual purchase of 2,221,272 feet of large and small pipe by the Lone Star Gas Company at prices less than the quoted prices by the approximate amount of the discounts which he used (Tr. pp. 8064 to 8081). He further testified that other gas transmission companies had bought large quantities of pipe during 1931 at prices approximating or less than the prices which he had adopted in his appraisal. We are convinced that the Lone Star Gas Company could have bought any sizeable tonnage of pipe at prices no higher than, or less than the prices, adopted by Mr. Freese as prevailing on December 31, 1931.

Although the Company Witness Hulcy cited into the rec-
[fol. 19-22] ord instances where affiliated distributing companies had paid the quoted prices for some of their relatively small needs, he failed to cite an instance where the Lone Star Gas Company had bought pipe for a single pipe line at the quoted prices. The quoted prices for the five years, 1927-1931, were available to Mr. Hulcy as were the Company's books showing the actual prices paid for the several millions of feet of pipe bought during the years 1927-1931. As against the failure of the Company witnesses to show where the Company had ever paid quoted prices, the witness Freese for the State cited the purchase at very substantial discounts from the quoted price of several millions of feet of large and small pipe, including pipe for practically all of the transmission lines built since 1928. The fact that the December 31, 1931, quoted price, sought to be maintained by the Company for the pipe on the largest line ever built by the Company (2nd B; 517,000 ft of 20″), was greater than the price actually paid during the peak price period of 1929, is sufficient to convince this Commission that the Company witnesses Hulcy, Steinberger, and Smith have concertedly misrepresented the prices which the Company would have had to pay for pipe which is by far the largest item entering into the public service property of the Lone Star Gas Company. The witnesses' qualifications as experts cannot change the fact that pipe prices decreased substantially from 1929 to December 31, 1931. The books of the Company, the manufacturers' basic quotations, the trend of all prices during this period, and the general knowledge of this Commission attest to the fact that pipe prices decreased rather than increased during this period.

In making his appraisal Mr. Freese accepted all of the unit construction costs incorporated in the Company's Exhibit 6 prepared by Mr. Steinberger except excavation and backfill costs. The unit construction costs used by Mr. Steinberger in the Company's Exhibit 6 were based upon actual performance studies of substantial amounts of work done on the Lone Star Gas Company System. Mr. Freese testified that he was satisfied that the average performances on the particular jobs studied by Mr. Steinberger were fairly typical of the entire system with the exception of excavation and backfill performances. It is apparent to us that the performance obtained in laying a particular kind of pipe on one line might be typical for that particular kind of

pipe over the whole system, whereas the excavation performances on a particular line or group of lines might not be at all typical of the whole system due to differences in the character of the country wherein the particular lines studied were located. The testimony (Tr. pp. 5336-5341) indicates to us that the country wherein the lines studied by Mr. Steinberger were located was not typical of the whole system. We are convinced that, in his study of excavation costs, Mr. Steinberger was unable to segregate his performances so as to avoid material duplications. This fact is [fol. 19-23] clearly shown by the testimony of Mr. Steinberger during his extensive cross-examination with reference to excavation. Mr. Steinberger did not arrive at his $1.21 per yard hand excavation cost upon the basis of the Lone Star Gas Company performances in open country but upon the basis of performances obtained by another company in the construction of short sections of relatively small size ditches in town streets and alleys. (Tr. pp. 5074-5078). The classification of excavation on the lines studied by Mr. Steinberger was made on the basis of actual measurement, which showed hand excavation on the average line studied to be 1.39 per cent (Tr. p. 8499). The lines studied by Mr. Steinberger were built from 1929 to 1931, inclusive. The classification of excavation on all lines built prior to 1929 was made on the basis of "barring" tests, which resulted in an average for hand excavation of 7.71 per cent (Tr. p. 8499). A good example of the results of applying Mr. Steinberger's unit excavation costs to lines classified on different bases is to be found in Lines B and 2nd B, which lie in the same right of way for most of their length. Line 2nd B constitutes almost one-half of Mr. Steinberger's study of excavation costs. The excavation classification found by actual measurement on this line was machine excavation, 90.10 per cent; hand earth excavation, .83 per cent; rock excavation, 9.07 per cent (Tr. p. 8500). An application of Mr. Steinberger's unit costs to these percentages results in a weighted cost of $.78 per cubic yard on Line 2nd B. The excavation classification on Line B found by barring was machine excavation, 76.92 per cent; hand earth excavation, 11.97 per cent; rock excavation, 11.11 per cent (Tr. p. 8500). An application of Mr. Steinberger's unit costs to these percentages results in a weighted cost of $1.03 per cubic yard on Line B, or some 32 per cent greater than on Line 2nd B. It is obvious that an application of costs found on lines

41

classified by actual measurement, to the excavation classification found on a different basis, would lead to erroneous results. Inasmuch as by far the major portion of all excavation was classified by the "barring" method with its large percentage for hand excavation (7.71%), the application of the costs found on lines classified by actual measurement and which showed a small percentage of hand excavation (1.39%), would lead to a material overstatement of estimated costs. Mr. Freese obviated this excavation classification difficulty to a large extent by using a combination machine-hand excavation unit cost on lines which were machine excavated except for portions of the line inaccessible to machines.

A comparison of the unit costs submitted in the testimony of the representatives of five independent general contractors with the costs adopted by Mr. Freese is shown by the following tabulation of costs per cu. yd.:

[fol. 19–24] Witness	Machine Excavation	Hand Excavation	Rock Excavation	Backfill		
Robinson	$.29	$ .70	$2.30	.15	Tr. p.	8234
Lee	.28	1.00	3.50	.10	Tr. p.	8308
Sherman	.30	.60	3.00	.09	Tr. p.	8287
Dobson	.21	.98½	3.00	.15	Tr. p.	8349
Minter	.25	.90	3.37	.12	Tr. pp.	8455, 9153, 9195
Average	.26½	.83¾	3.03½	.12¼		
Adopted by Freese	.30	1.00	3.25	.10		

Four of these witnesses, Robinson, Lee, Sherman and Dobson, represent four of the largest and most responsible independent contractors in the Southwest and were equipped to do the excavation work involved in the Lone Star Gas Company System. After being fully advised of the character of the work and all of the contingencies involved these witnesses stated that the companies which they represented would be willing to undertake the work at the above prices submitted by them either as of December 31, 1931, or as of the date of their testimony, viz., May-June, 1933 (Robinson —Tr. p. 8700; Lee—Tr. p. 9035; Sherman—Tr. p. 8758; Dobson—Tr. pp. 8441 and 8446). The other witness, Minter, had had experience in handling the construction of large gas pipe line construction work for a construction company now out of business. The Lone Star Gas Company introduced three witnesses, Hill, Jones and Biddison, who testified with reference to excavation and backfill costs. These men (or the companies they represent) are shown to have been de-

42

pendent upon gas transmission companies for the bulk of their work. This fact would have lost some of its force if the witnesses had been able to submit any factual basis for their figures. The witnesses Hill and Biddison used hypothetical gang set-ups in arriving at their figures, but were unable to submit any specific factual bases for either the gangs or the performances. The witness Jones testified that he just "doubled" certain base costs which base costs he was unable to produce (Tr. pp. 10241 to 10263). The figures adopted by Mr. Freese are substantially higher than the figures submitted by the independent contractors except for his backfill unit costs. We are adopting Mr. Freese's unit costs for each item except backfill which we are raising to fourteen cents per cu. yd., so that the backfill unit cost adopted by us shows approximately the same margin in excess of the average cost submitted by the five independent contractors as is shown by Mr. Freese's unit costs for excavation. The adoption of fourteen cents per cubic yard raises Mr. Freese's total for Transmission Line Equipment in the amount of $131,012.32 (3,275,308 cu. yds. at 4 cents per cu. yd.).

Mr. Steinberger, in preparing the Company's Exhibit 6, [fol. 19-25] made an allowance of four per cent on Dresser coupled lines and three per cent on welded and threaded and coupled lines for omissions and contingencies. Mr. Steinberger pointed out as possible omissions and contingencies, the "snaking" of pipe in the ditch, gas lost in testing lines, and the distribution of Dresser couplings. The testimony shows that on a test check of some two million feet of line, the appraised or inventoried length of the lines was only .04 per cent less than the footage of pipe bought (Tr. p. 8026). The omission of excess pipe due to "snaking" would, therefore, approximate a loss of .04 per cent. The only substantial amount of gas lost in testing on any of the lines studied by Mr. Steinberger was on Line 2nd B. This was the first attempt of the Lone Star Gas Company to install a large size solid welded line and resulted in a large expenditure for the repair of leaks. This cost of repairing leaks was included in Mr. Steinberger's performance study on Line 2nd B. Since line 2nd B constitutes approximately one-half of Mr. Steinberger's entire study of welding performances, it is very probable that the inclusion of the time spent in repairing the great number of leaks on this line results in a unit cost more than sufficient to take care of the

repairing of leaks on the average line and also offsets any loss of gas in making tests on the average line. Mr. Steinberger testified that he omitted from his unit cost the cost of distributing Dresser couplings on Dresser coupled lines. We believe that the store's expense allowed on Dresser couplings and the expense of the two trucks allowed on Dresser coupled pipe installation are sufficient to cover the cost of distributing Dresser couplings. Notwithstanding the fact that Mr. Steinberger's appraisal makes no allowance for the full discounts applicable to and received by the Company on fittings on main transmission lines (including measuring station equipment) and notwithstanding the fact that on a large number of combination Dresser coupled and welded lines Mr. Steinberger applied the higher cost of laying welded lines rather than the lower combination cost, no correction has been made to his figure on this account. We believe that any "omissions and contingencies" are fully offset by "duplications and contingencies." However, we are accepting Mr. Freese's allowance of two per cent on Dresser coupled lines and one per cent on welded and threaded and coupled lines. The adequacy of this allowance is apparent when it is realized that practically all of the cost of pipe line consists of pipe and pipe laying (including excavation and backfill) and that the omission of all of the valves for example would be an omission of only approximately one-half of one per cent on the average line. Since test checks, consisting of a comparison of the pipe purchased for a particular line with the actual measured footage of the line when installed, show no appreciable (.04 per cent) omissions in the footages of pipe, it is inconceivable that omissions could equal the total cost of all the valves. An appraisal made in the manner in which Mr. Steinberger made his appraisal should cover all contingencies in connection with costs of construction since he made studies of the actual costs incurred and performances [fol. 19-26] obtained by the Company and which included all contingencies in each instance.

We, therefore, adopt as the reproduction cost new of Transmission Line Equipment the sum of $26,932,811.12 ($26,860,329.75, Ex. 28, p. 56, minus $58,530.95, Ex. 36, p. 2, plus backfill addition of $131,012.32).

Compressing Stations.—We are accepting Mr. Steinberger's figure of $4,971,581.71 (Ex. 6, p. 2744) as a basis

for arriving at the Reproduction Cost New of Compressing Stations and are adopting this figure except for a relatively small correction due to his failure to apply certain discounts available to the Company on equipment purchases. Mr. Steinberger computes the correction on valves for the whole system, including compressing stations, to be approximately $100,000.00 (Tr. p. 6244). Mr. Freese arrives at a smaller total amount and we are using Mr. Freese's corrections which give us $4,894,617.14 (Ex. 28, p. 76) as the Reproduction Cost New for Compressing Stations. Mr. Steinberger failed to apply all of the discounts available to and received by the Company on fittings; however, we have made no correction on this account.

General Office Building Land.—Both the witnesses Steinberger and Freese used the original cost as a basis for evaluating the General Office Building Land. We concur in the deduction by the witness Freese of the portion of the site sold the Dallas Gas Company, leaving a book cost of $41,545.97 (Ex. 28, p. 102).

General Office Structure.—The reproduction cost new figure of $333,535.29 of the General Office Structure determined by Mr. Freese on the basis of the cost estimated by the Company's witness Dyer, is entirely reasonable. A part of the building is used by others than those engaged in the public service operations of the Lone Star Gas Company. We are not convinced that the rentals paid by these occupants are fair and equitable. In some cases (Guthrie Gas Service Company, Meridian Gas Company, Stamford and Western Gas Company, Municipal Gas Company, Fort Worth Division, Northwestern Cities Gas Company, Council Bluffs Gas Company) salaries of employes who occupy space in the building are charged but no rental is charged (Ex. 26, p. 9 and p. 10).

Automotive and Construction Equipment.—Both Mr. Steinberger and Mr. Freese adopted the original cost of Automotive and Construction Equipment as the reproduction cost new as of December 31, 1931. Mr. Freese deducted the automobiles used by the Gasoline Department as not being used and useful in the public service operations of the Company. He also deducted construction equipment used for new construction (as destinguished from equipment used for maintenance and repairs). Both the Witnesses

Steinberger and Freese used unit excavation costs which included interest (return) on construction equipment and therefore under their set-up this construction equipment [fol. 19-27] would not be used and useful. This equipment may have been used in the past but if it was the Company has been compensated for its use in the reproduction cost new figures for Transmission Line Equipment which include the cost of all necessary equipment, including depreciation, return on investment and any other costs. If the Lone Star Gas Company's public service property should remain the same as it was December 31, 1931, this construction equipment would never be used again. If the Company undertakes new construction the Company will be compensated for the use of its construction equipment by capitalizing the depreciation and carrying charges on this equipment. Had Messrs. Steinberger and Freese used excavation costs which contemplated the furnishing of this equipment by the Company with no charge for interest (return) on the investment, then the unit costs arrived at by Messrs. Steinberger and Freese should have been less. We agree to the deductions made by Mr. Freese and find the reproduction cost new of Automotive and Construction Equipment to be $405,618.24 (Ex. 28, p. 110).

Petrolia Field.—Operating expenses in the Petrolia Field amount to $30,100 per year (Tr. p. 7949). This is the average cost of getting the gas to the well head. The 1931 production in the Petrolia Field was 379,984 M cu. ft. (Ex. 8, p. 77). The production is gradually declining (Ex. 8, p. 80). The field is not used to take care of any monthly peak loads in excess of the average requirements, the July and August production being approximately the same as the December and January production except for the normal decline (Tr. p. 10029). The Company purchases gas, under sufficient pressure to avoid compression, in the same general district (i. e. within a few miles), at six cents per M cu. ft. The gas produced by the Company is at approximately atmospheric pressure (wells in other fields are usually abandoned at approximately 25 lb. pressure) and must be compressed at an operating cost of 1.74 cents per M cu. ft. (Ex. 6, Vol. 9, p. 675). The net market value of the uncompressed gas is, therefore, 4.26 cents per M cu. ft. based upon the price being paid for gas under pressure in the same general district. This is a maximum value inasmuch as the Petrolia Field gas

produced by the Company is not available for peak load requirements in excess of the average load. Except during months of peak loads Panhandle gas could be delivered to the Petrolia Compressor Station in place of Petrolia Field gas at a cost to the Company of approximately two cents per M cu. ft. We find that the maximum market value at the well head of the Petrolia Field gas produced by the Company during the year 1931 was $16,187.32 (379,984 M cu. ft. at 4.26 cents) and that the value of the gas produced is declining from year to year by reason of declining production. Since the average annual cost of operating the present wells and of getting the gas to the well head totals $30,100, the Petrolia Field is a liability and not an asset in so far as public service operations are concerned. The present worth or fair value of the Petrolia Field public service property is [fol. 19-28] nil; and we have not, therefore, determined a reproduction cost new for leaseholds, gas wells, and field line equipment. We have included the full salvage value of all of the equipment in the Petrolia Field as part of Working Capital.

We cannot condone an attempt to include worthless properties in an appraisal for the apparent purpose of increasing the Rate Base. The inclusion of these properties was questioned in the hearing; the Company failed to show any justification for continuing to operate this field at a loss.

Administration and Legal Expense, Engineering and Supervision During Construction.—In arriving at the reproduction cost new of this item the witness Freese applied seven per cent to the reproduction cost new of the physical properties exclusive of leaseholds, real estate, furniture, tools, and automotive equipment. The testimony indicates that the actual cost historically incurred by the Company did not exceed approximately four and one-half per cent, of which all but approximately one and one-half per cent was charged to operating expenses. The allowance of seven per cent for Administration and Legal Expense, Engineering and Supervision During Construction would be a liberal allowance under wholesale reproduction new conditions. We are allowing for Administration and Legal Expense, Engineering, and Supervision During Construction the total amount found by Mr. Freese, viz., $2,637,264.19 ($753,083.78, $1,882,709.46, Ex. 29, p. 2, $420.27, $1,050.68, Ex. 36, p. 11). The actual historical cost to the Company did not exceed

$1,695,384.13 (4½%). The cost capitalized, i. e., not charged to operating expenses, was approximately $565,128.04 (1½%), as compared with the $2,637,284.19 (7%) which we are allowing.

Taxes During Construction.—The Company witnesses applied the 1931 tax rate paid by the Company to the physical property which would be under construction as of the first of the various years of an assumed wholesale reproduction period. The Witness Smith arrived at a figure of $106,810.00 (Ex. 12, p. 13). The Witness Connor arrived at a figure of $200,541.00 (Ex. 6, Vol. 9, p. 594). These figures were based upon the theoretical amount of taxes which would be paid on all of the physical property at the 1931 tax rate during an assumed construction period. The difference between the two Company witnesses is largely due to the assumption of different hypothetical construction programs. Now as a matter of fact Texas and Oklahoma political subdivisions rarely tax any work of any description under construction, and in the exceptional case the tax is usually applied to materials only. Furthermore, it is the practice of the Lone Star Gas Company to do most of its construction work during the advantageous summer months rather than during the winter months, which include the date of assessment. Mr. Freese arrived at a figure of $9,681.29 ($2,613.30, Ex. 29, p. 3; $7,067.99, Ex. 36, p. 12) for Taxes During Construction, based upon a liberal interpretation of the historical experience of the Company. We believe that taxes during construction actually paid by the [fol. 19-29] Company during its history are not in excess of the amount arrived at by Mr. Freese. We further are of the opinion that the taxes during construction which would be paid during a reasonable wholesale construction program would approximate this amount. The taxes during construction which have been paid or the taxes during construction which would probably and actually be paid under a reasonable construction program should be the amount allowed rather than a theoretical amount which has never been paid nor would actually be incurred as taxes are now assessed by our taxing bodies. We are allowing $9,681.29 as Taxes During Construction.

Interest During Construction.—In computing interest during construction, three factors must be considered, viz.:

(1) the items for which a construction period obtains, (2) the rate of interest, and (3) the length of the construction period for each item. The Company witnesses included interest during construction on the following items which were not included by Mr. Freese:

Undeveloped Leaseholds
Leaseholds Developed Before Being Purchased by Lone Star Gas Company
Drill Tools and Equipment
Repair and Cleanout Tools
General Office Furniture and Fixtures
Other General Furniture and Fixtures
General Tools
Automotive and Construction Equipment
Taxes During Construction

The Company witness Smith included interest on interest during construction, which was not included by either the Company witness Connor or the witness Freese. The item Drill Tools and Equipment and the item Construction Equipment have been eliminated from Reproduction Cost New for what we believe to be good and sufficient reason, viz., the cost of using this or similar equipment, including depreciation, carrying charges (interest or return) has been capitalized and included in the reproduction cost new of the items of property, the construction of which required Drill Tools and Construction Equipment. The same reasoning applies to the exclusion of interest during construction on any General Tools or Automotive Equipment which may have been used during construction. Repair and Cleanout Tools, General Office Furniture and Fixtures, Other General Furniture and Fixtures, General Tools, and Automotive Equipment used in operating the property, were acquired ready to be put into use without any construction period being involved. These items are required when the property goes into operation and can be used the day they are bought. If any of these items were used for construction purposes, the carrying charges during construction have been included in the unit costs used in arriving [fol. 19-30] at our reproduction cost new figures. As a general rule, Taxes During Construction and Interest During Construction would not normally be paid out for the differ-

ent items of property prior to the end of the construction periods which we have hereinafter adopted; therefore, Taxes During Construction and Interest During Construction would not normally incur Interest During Construction charges. In evaluating leaseholds, we have adopted the actual cost and where the leaseholds were already developed before purchase the actual cost which we have adopted includes any carrying charges while the leasehold was being developed. Any interest during construction costs on leaseholds developed before purchase by the Lone Star Gas Company were borne by the original owner and the purchase price paid by the Lone Star Gas Company was for a leasehold and well ready to operate and which entailed no further carrying charges on the part of the Lone Star Gas Company. Interest during construction (or carrying charges during development) on leaseholds begins the day the leasehold is paid for and ends the day the leasehold begins production. If we allow such carrying charges to be capitalized as part of the Rate Base, then all undeveloped leaseholds (i. e., leaseholds still incurring such carrying charges) should be eliminated from the Rate Base until such time as the leaseholds begin to produce and the capitalization of carrying charges stops. A much more simple method of treating the carrying charges on undeveloped leaseholds is the method which we have adopted, viz., the inclusion of undeveloped leaseholds in the Rate Base from the date of their purchase. This treatment eliminates entirely the necessity of capitalizing as part of the Rate Base the carrying charges on undeveloped leaseholds, although it does necessitate the inclusion in the Rate Base of property which is not being used as of the date of the inquiry and, therefore, consumers will pay a rate based on the inclusion of carrying charges (or return) on leaseholds which will be used not by them but by future consumers. We concur with Mr. Freese in his elimination of items upon which interest during construction should not be computed.

The Company witness Smith computed interest during construction at a rate of seven per cent with an allowance of three per cent on deposits remaining in the bank three months or longer. The Company witness Connor computed interest during construction at a rate of eight per cent with an allowance of two per cent on bank deposits. The witness Freese used a straight six per cent with no deduction for

interest on bank balances. The Company has been able to borrow money for its construction needs at six per cent or less and on December 31, 1931, had some nineteen million dollars borrowed at six per cent (or less on a small amount).

The Company witnesses testified that the construction money could only be obtained at yearly intervals. The witness Freese based his computations on the securing of money at six month intervals during a construction pro- [fol. 19-31] gram. The testimony indicates that the Company has been able to secure construction money for large construction programs as and when needed. The Company witnesses based their construction periods upon hypothetical wholesale reproduction programs. Mr. Freese based his construction periods upon the time actually required to construct the different items of property. Mr. Freese figured his construction period for each item from the time the money would be made available until the time when the particular item of property would be put into operation. Mr. Freese's figure for Interest During Construction is $1,650,467.52 ($1,635,887.59 Ex. 29, p. 5; $14,579.93 Ex. 36, p. 13). We believe this amount to be considerably in excess of the amount actually incurred by the Company by reason of the fact that the periods used by Mr. Freese exceed by from fifty to one hundred per cent the actual construction periods as indicated by the testimony and by reason of the fact that the money was actually obtained more nearly as needed than at six months intervals. We are of the opinion that $1,650,467.52 would be more than sufficient to take care of interest during construction during any reasonable wholesale construction period (such as would be involved in reproducing the complete property), wherein the construction of a particular unit of property would not be started until there was a reasonable assurance that the particular unit of property would be put into operation very soon after it was completed. Under this assumption, Mr. Freese's allowance for Interest During Construction is entirely adequate and we are allowing the sum of $1,650,467.52.

Preliminary and Organization Expense.—Mr. Freese accepted all of the preliminary and organization expenses as found by the Company witness Connor except costs of financing, promoters fee, detailed geological work and undistributed production expenses. The detail geological work and undistributed production expenses were included

by Mr. Freese as part of his general overheads and have been adequately allowed for by us as general overheads. The principle deductions from Mr. Connor's appraisal of Preliminary and Organization Expense are brokerage and promoters fees which the evidence shows were not actually incurred by the Company. Money could be obtained by the Company at par without incurring any cost of financing if a sufficient rate of interest were to be paid. We are allowing the sum of $231,555.30 ($215,660.00 Ex. 29, p. 6—$15,895.30 Ex. 36, p. 14) for Preliminary and Organization Expenses. These expenses were computed on a wholesale reproduction new basis and are somewhat greater than were historically incurred.

Working Capital.—Both the witness Connor and the witness Freese computed Cash Working Capital on the basis of forty-five days average operating expenses. We believe that this basis of computing Cash Working Capital results in an amount which includes bank balances. Certainly it includes all except the minimum bank balances maintained by the Company. Work in Progress should not be allowed [fol. 19-32] as part of Working Capital inasmuch as the carrying charges on this work during the construction period will later be capitalized as Interest During Construction. (The Work in Progress was not used and useful as of the date of this inquiry.) This same reasoning is also applicable to a substantial part of Materials in Stock ($635,-260.17 Ex. 29, p. 7) which were for use on new construction as distinguished from materials to be used in maintenance, repairs and operation. However, we are allowing the full amount of Materials in Stock. We are accepting as a liberal allowance for Working Capital the amount arrived at by Mr. Freese, $1,472,201.53 ($1,513,432.43 Ex. 29, p. 7 Minus $41,230.91 Ex. 36, p. 16) Plus $16,168.38 (11.44% of $141,332.02 Ex. 29, p. 20 and Id. "Field Line Equipment") which is the salvage value of Petrolia Field Line Equipment, making a total for Working Capital of $1,488,369.91.

Going Value.—The latest pronouncement of the United States Supreme Court on the subject of "going value" is to be found in the case of Los Angeles Gas & Electric Company v. Railroad Commission of the State of California, et al., 53 Sup. Ct. 637. In this decision Mr. Chief Justice Hughes in delivering the opinion of the Court discusses

practically every important case on going value thus far coming before the Supreme Court of the United States. One of the cases discussed is Des Moines Gas Company v. Des Moines, 238 U. S. 153, wherein the Court recognizes that there is an element of value in an assembled and established plant doing business and earning money over one not thus advanced. This element of value is recognized as being a property right which should be considered in determining the value of the property on which the owner has the right to make a fair return. Each case must be controlled by its own circumstances. In speaking of this element the Court uses the following language:

"Included in going value as usually reckoned is the investment necessary to organizing and establishing the business which is not embraced in the value of its actual physical property. In this case, what may be called the inception cost of the enterprise entering into the establishing of a going concern had long since been incurred. The present company and its predecessors had long carried on business in the City of Des Moines, under other ordinances, and at higher rates than the ordinance in question established. For aught that appears in this record, these expenses may have been already compensated in rates charged and collected under former ordinances. As we have said, every presumption is in favor of the legitimate exercise of the rate-making power, and it is not to be presumed, *without proof*, that a Company is under the necessity of making up losses and expenditures incidental to the experimental stage of its business." (238 U. S. 165-6.) (Italics ours.)

[fol. 19-33] From a study of the language in this quotation and from the balance of the case it is plain that the rule evolved is that even though the company involved is admittedly a going concern that there need be no inclusion in the rate base for going value, as such, unless there is proof that costs were incurred as development costs which have not been recovered through rates charged and collected in the past.

The testimony in this case is clear that the Lone Star Gas Company since its advent into the gas business in 1909 to the present time shows an enviable record of earnings, which earnings were sufficient to refund to its owners a very substantial sum of money annually and which would have been

enough to reimburse them had it been necessary for them to make an actual out-of-pocket cash outlay for the cost of building up the business. This is in addition to moneys which were available to the Company at the same time for providing the expenses of operation, meeting the depreciation requirements, and giving to the owners a liberal return on their invested capital. There is absolutely no showing that any costs of building up the business which may have been incurred by its owners have not been recouped by them in the rates charged in the past.

In fact there is no specific showing of any costs incurred in building up the business.

We do not believe that because the Company had as of December 31, 1931, a property in operation with customers attached, a personnel capable of running the business, regular established business routine, records, etc., that it logically follows that inception costs of building up the business must have been incurred which have not been recouped. Certainly proof of these facts alone does not provide the "proof" required by the Des Moines Gas decision. It is just as logical to suppose that there existed at the inception of the business a waiting public urgently in need of natural gas service, with towns anxious to attach to the Company's lines, in which case there would have been little, if any, development cost or expense of any sort in overcoming the inertia of a static business and in getting the business under way. Such a business should pay its own way from the start and there is no reason to assume that rates would not be sufficient from the beginning to pay all development costs, as, when, and if incurred. The Company serves a territory which has shown a substantial growth in both its population and in its business life and the Company has expanded its system naturally as new markets have appeared. It is inconceivable that the company could have prevented new business from presenting itself as a natural consequence of the territory's development and it is certain that much of such new business came without any development expense whatsoever being actually incurred.

A careful examination of the testimony of the witnesses in this case shows that not one of them was able to point out, as a historical fact, any expense which could properly be considered a cost of making the plant a going concern, give

the particular cost to the Company of the same, or give any [fol. 19-34] of the items covered by such expenses. Notwithstanding the fact that the history of the Company in this respect has apparently been ignored, this Commission is of the opinion that the financial transactions of the past which represent expenditures in building up a business are of more than historical interest, it being said in City of Houston v. Southwestern Bell Telephone Company, 259 U. S. 325:

"Whether going concern value should be considered and allowed at all in determining the basis for rate-making, and if allowed what the amount of it should be, depends upon the financial history of the company * * * ."

Examination of the testimony shows that Mr. Freese is the only one testifying in this case on the subject of going value who made any reference to the history of the company. Mr. Connor and Mr. Smith denied making any examination of the books of the company, or any study of the history of the company and were both emphatic in their testimony that none was necessary.

In the Des Moines Gas Company v. Des Moines, 238 U. S. 153, Cedar Rapids Gas Company v. Cedar Rapids, 223 U. S. 655, and other cases, it has been held that the cost of paving is not a proper inclusion in a rate base when it was shown that such cost was not historically incurred. In Wabash Electric Company v. Young, 53 Sup. Ct. 234, a case lately decided, the cost of financing was excluded from the rate base where there was no evidence that such expense was incurred as a historical fact or that in the event the property should be reconstructed that such cost was necessary to be incurred.

The rule shown in these cases and by analogy applying to going value is to the effect that there should be no allowance in a rate base for going value unless it be proven that comparable costs were incurred historically to those sought to be included.

But granting, however, for the moment the propriety of including an allowance for going value, we pass to the question of how it is to be included in a rate base. An examination of the testimony of the witnesses in this respect is interesting.

The Company witness Connor computed the interest, depreciation, and taxes on the idle plant which would be

incurred in a hypothetical reproduction cost new program and then called the result Going Value. The result was termed a measure of the value of the following (Ex. 6, Vol. 9, p. 615).

(a) 230,000 domestic consumers using 80 M cu. ft. per annum per consumer.

(b) 1,400 industrial consumers using a total of 15,275,000 M cu. ft. per annum.

(c) Industrial consumers temporarily disconnected.

(d) An advantageously situated gas supply in excess of present maximum requirements.

(e) Trained personnel.

(f) Operating routine and records.

[fol. 19-35] (g) Revenue sufficient to allow a reasonable return on Going Value.

In computing Going Value the witness Connor deducted from the $11,457,997 of interest, depreciation, and taxes on idle plant during his hypothetical wholesale development period, Industrial Revenue in the sum of $3,958,920, leaving $7,499,077 as his Going Value (Ex. 6, Vol. 9, p. 614).

The Company witness Smith's Going Value consisted of the following (Ex. 13, p. 2):

(a) Interest, depreciation, and taxes on idle plant during a hypothetical wholesale development period	$7,370,984
(b) Costs of securing business	20,000
(c) Costs of training personnel	194,758
(d) Costs of records	480,000
Total	$8,065,742

Mr. Smith allowed no credit for Industrial Revenue during the hypothetical development period. If he had made such an allowance for the estimated net industrial revenue, his going value would have been almost halved.

We have allowed under other headings what we consider to be the full fair value of the Company's gas supply, and no additional allowance should be made under this heading. Mr. Connor makes an additional allowance under this heading (Item d); Mr. Smith made no such additional allowance.

Mr. Connor has also evaluated as part of his going value the ability of the Company to earn a reasonable return on the Going Value itself (Item g). Such an allowance would defeat the whole purpose of this inquiry as it would tend to arrive at whatever value the present gas rates would support. If we eliminate these latter two items we find that the Company witnesses Connor and Smith have considered going value as consisting of substantially the same items, viz; (1) Business secured [(Connor Items (a), (b), (c)—Smith Item (b)]; (2) Training personnel [(Connor Item (e)—Smith Item (c)]; and (3) Records [(Connor Item (f)—Smith Item (d)].

There is a fundamental difference, however, in the methods by which Messrs. Connor and Smith have evaluated these items. Mr. Connor measures their value by the estimated losses of return (i. e. interest), depreciation, and taxes on idle plant during his hypothetical development period and arrives at $7,499,077. Mr. Smith, however, evaluates these items (business, personnel, and records) at their estimated cost to the Company of $694,758 and then adds to this the estimated losses of return, depreciation and taxes on idle plant during his hypothetical wholesale development period. Messrs. Connor and Smith also seem to be at variance as to what constitutes the "business" in which the Lone Star Gas Company has a property right. The Lone Star Gas Company is a transmission company wholesaling gas to some ten distributing companies, most of which are affiliated companies formed for the purpose [fol. 19-36] of distributing gas supplied by the Lone Star Gas Company. Mr. Connor considers the business of 230,000 domestic consumers and 1400 industrial consumers attached to and by the distributing companies a property right of the Lone Star Gas Company. This "business" may be a property right of the distributing companies to which it is attached and by whom it has been largely developed, but it is certainly not a property right of the Lone Star Gas Company. Mr. Smith, on the other hand, seems to take into consideration only the business of the actual customers (distributing companies) of the Lone Star Gas Company and estimates the cost of securing this business at $20,000.

Mr. Smith computed depreciation at a rate of 4 per cent per annum, whereas Mr. Connor stepped his rate up from 4 per cent in the first development year to 6.5 per cent for the sixth development year and arrives at a total of $3,-

940,187 as depreciation on idle plant. According to Mr. Connor's Exhibit 18, the total depreciation during the first six years could not possibly exceed two per cent per annum, replacements during the first six years being practically nil.

Mr. Smith was frank to admit that in his experience in the gas business he had never analyzed the affairs of any one company so as to know the cost of securing business, cost of training personnel or costs of records, and since Mr. Smith did not make any effort to estimate the actual historical costs as incurred by the Lone Star Gas Company, his estimates for these items can not be regarded as anything else than conjecture and speculation on his part.

The case which is probably generally thought to be the leading one on going value, and to which we have not previously alluded is Galveston Electric Company v. Galveston, 258 U. S. 388. Because the United States Supreme Court approved the decision rendered in the trial court, and because of the absolute clarity of the opinion, we quote District Judge Hutcheson in his District Court opinion, 272 Fed. 147:

"I sustain the fifth exception of the defendants, addressed to the action of the master in allowing for development cost or going concern value $530,000. I think it clear that in this particular the master erroneously followed the practice adopted by some state Public Utility Commissions.

It might well be that a rate-making body would be justified in adding something of value to the plant as ascertained to compensate it for lean years, and it might also be that in reviewing the action of such body a court or master might set up such a basis of valuation for itself, as, for instance, a "bare-bones" or junk valuation, as that to fairly determine the issue some addition would have to be made on this score. *In view of the valuation used by the master in this case, of historical reproduction cost, with an appreciation added for the present-day valuations, with all overheads (see table below) properly added and allowed* [fol. 19-37] *for, taking the city of Galveston as it is, with a street car service already fully developed, and a public demanding street car service, and certain to take advantage of it, and allowance for going concern in this case, in addition to the allowances already made, as a basis for enjoin-*

ing the exercise of a legislative prerogative must be discarded.

Table of Overheads

Engineering and supervision	$60,000
Law expense	7,029
Interest during construction	44,179
Injuries and damages during construction	11,492
Taxes during construction	7,383
Organization and business management	73,281
	$203,344

It is very evident that the parties, in making their agreement on value, and the master, in valuing the plant, valued it as a plant in use, and not in any sense as junk, or a dead and idle property. The agreement between the parties showed plainly that they had included everything in the valuation of the property except the franchise value, going-concern value in the sense of development cost, bond discount, and brokerage, and it is evident that the master, in making his allowance for this item, made it, not for the purpose of making a distinction between junk and live value, but in order to add to his valuation an allowance for development cost somewhat analogous to the procedure earlier adopted by the Wisconsin Public Utilities Commission.

In any case, where a plant is fully valued upon the cost of reproduction basis, the allowance of any element for development cost cannot, in a judicial proceeding, be reasonably sustained for the reason that such a utility is entitled to a reasonable rate of return upon its plant from the day it goes into operation, and the court does not take into consideration at all that there may be lean years before the fat ones. Therefore a court in a rate case has nothing to do with any increment to the actual value of the plant acquired by the successful operation of it, nor in a case of valuation, where the cost of the plant and its historical development is determined, does the court add anything to its capitalization for rate-making purposes for its unsuccessful years, nor deduct anything for its successful ones.

* * * * * * *

I have already in this opinion quoted from 212 U. S. the proposition that the present valuation cannot be en-

hanced by errors of losses in the past. I think it clear, therefore, that if the court, as a basis for inhibiting legislative action, should add to the property a purely speculative increment of going concern upon the view that the [fol. 19-38] public, by using the property, has increased its value. It would be doing what the Supreme Court has forbidden; that is, it would disregard the essential conditions of the public use, and 'make the public use destructive of the public right.' *In short, when 'going concern' is stripped of its involvement and obscurity, its attractive names and titles, it presents itself on the one hand where the past record of the utility has been profitable, as nothing more than good will, which the courts have always refused to allow, and, on the other hand, where the past record has been unprofitable, as nothing more than an effort to capitalize errors and misfortunes, as to the impropriety of which the decisions of the Supreme Court are equally clear.*

The confusion which has resulted in this matter is that which springs from the failure to distinguish the essential principle involved in these rate controversies, that a utility is entitled to earn on its property a fair return, and that the rate can neither be increased, on the one hand, by the fact that the company has enjoyed a profitable business, nor decreased, on the other hand, by the fact that its business has been unprofitable, either because of the lack of support of the utility by the people of the community, or of any other untoward features which would gravely affect the company, if its property were valued for the purpose of bargain and sale.

* * * * * * *

In short, the real question here is the value of the plant in operation, and this value should be the same for the rate-making purposes, whether its past history has been successful or unsuccessful. I have therefore sustained the exception to this feature of the master's report, and have myself valued the property, as I think, in the light of the evidence, it should be valued, as a complete and going concern, useful and ready to serve the public, with its organization perfected and in shape, and its public ready and waiting to be served." (Italics ours.)

The language of Mr. Justice Brandeis in rendering the opinion for the Supreme Court, 258 U. S. 394, follows:

"If the rule were that a prescribed rate is to be held confiscatory in case net earnings are not sufficient to yield 8 per cent on the amount prudently invested in the business, there might be propriety in counting as part of the investment such amount, if any, as was necessarily expended at the start in overcoming initial difficulties incident to operation and in securing patronage. But no evidence of any such expenditure was introduced; and the claim of the company does not proceed upon that basis. What was presented by the witnesses are studies, on various theories, of what past deficiencies in net income would aggregate, if 4 per cent were allowed as a depreciation annuity and 8 [fol. 19-39] per cent compound interest were charged annually on the value of the property used. These calculations covered, on one basis, the period of 39 years since the original horse-car line was built; on another, the period of 15 years since the appellant purchased the property as a going concern. If net deficits so estimated were made a factor in the rate base, recognition of 8 per cent as a fair return on the continuing investment would imply substantially a guarantee by the community that the investor will net on his investment ultimately a return of 8 per cent yearly, with interest compounded on deferred payments; provided only that the traffic will in course of time bear a rate high enough to produce that amount. (Footnote omitted.)

The fact that a utility may reach financial success only in time or not at all, is a reason for allowing a liberal return on the money invested in the enterprise; but it does not make past losses an element to be considered in deciding what the base value is and whether the rate is confiscatory. A company which has failed to secure from year to year sufficient earnings to keep the investment unimpaired and to pay a fair return, whether its failure was the result of imprudence in engaging in the enterprise, or of errors in the management, or of omission to exact proper prices for its output, cannot erect out of past deficits a legal basis for holding confiscatory for the future, rates which would, on the basis of present reproduction value, otherwise be compensatory. (Knoxville v. Knoxville Water Co., 212 U. S. 1, 14.)

Nor is there evidence in the record to justify the master's finding that a business brought to successful operation 'should have a going concern value at least equal to one-third of its physical properties.' *Past losses obviously do*

not tend to prove present values. The fact that a sometime losing business becomes profitable eventually through growth of the community or more efficient management, tends to prove merely that the adventure was not wholly misconceived. It is doubtless true, as the master indicated, that prospective purchaser of the Galveston System would be willing to pay more for it with a record of annual losses overcome, than he would if the losses had continued. But would not the property be, at least, as valuable if the past had presented a record of continuous success? And shall the base value be deemed less in law if there was no development cost, because success was instant and continuous? Or, if the success had been so great that, besides paying an annual return at the rate of 8 per cent, a large surplus had been accumulated, could the city insist that the base value be reduced by the amount of the surplus? Compare Newton v. Consolidated Gas Co., ante, 165.

In determining the value of a business as between buyer and seller, the goodwill and earning power due to effective [fol. 19-40] organization are often more important elements than tangible property. Where the public acquires the business, compensation must be made for these, at least under some circumstances. Omaha v. Omaha Water Co., 218 U. S. 180, 202, 203; National Waterworks Co. v. Kansas City, 62 Fed. 853, 865. And they, like past losses, should be considered in determining whether a rate charged by a public utility is reasonable. Compare Venner Co. v. Urbana Waterworks, 174 Fed. 348, 352. But in determining whether a rate is confiscatory, goodwill and franchise value were excluded from the base value in Cedar Rapids Gas Light Co. v. Cedar Rapids, 223 U. S. 655, 669, and Des Moines Gas Co. v. Des Moines, 238 U. S. 153, 169; and the expressions in Denver v. Denver Union Water Co., 246 U. S. 178, 184, 191 and in Lincoln Gas & Electric Light Co. v. Lincoln, 250 U. S. 256, 267, are not to be taken as modifying in any respect the rule there declared. Going concern value and development cost, in the sense in which the master used these terms, are not to be included in the base value for the purpose of determining whether a rate is confiscatory." (Italics ours.)

The foregoing decision shows clearly the impropriety of the measurement of going value involving the computation of interest, depreciation and taxes on an idle plant. It is

the plain language of the Supreme Court opinion in the Galveston Electric case, that past losses do not tend to prove present values; that a company may not erect out of past deficits in its income an enhanced rate base to make confiscatory a rate which could otherwise be compensatory.

It is therefore our opinion that the allowance as to interest, depreciation and taxes on an idle plant as computed by Mr. Connor and Mr. Smith, should not be allowed.

The three appraisals submitted by Messrs. Freese, Smith and Connor are all cost of reproduction appraisals, and all contain far more inclusive allowances for overheads than those found in the Galveston Electric Company case. All three appraisals include an allowance for administration and legal expense, engineering and supervision during construction, interest during construction, taxes during construction, and preliminary and organization costs. There is also included an allowance in each for materials and supplies and cash working capital.

There is included the direct structural costs or the costs for physical plant, and as part of this amount the job overheads which include insurance, both workman's compensation and public liability, damages, and all other costs that can conceivably occur as construction costs in the reconstruction of the company's properties.

To include as a part of the value of the Company's property an allowance for going value in addition to the items mentioned in the two preceding paragraphs, is contrary to the rule announced by Judge Hutcheson, as quoted above.

[fol. 19-41] The appraisal of Mr. Freese was not made upon the basis of a static or inactive plant, but as a going concern, having business attached, gas flowing from its wells through its lines, with operating personnel, business routines established, and with operating records, all of which insure a smooth flow of service to the public. Mr. Freese included in his appraisal in the general overheads a number of items ordinarily considered items of going value. He stated that under the head of administration and legal expenses during construction and engineering and supervision during construction, he included the cost of engineering, geological and accounting records. Mr. Freese testified that he had treated the cost of acquiring new business as a current operating expense and that the 1931 new business and advertising expense amounted to $126,125.98

exclusive of compensation for administrative officials and other general expenses. He testified that the training of personnel was proper operating expense; that costs of training personnel had always been, and were being charged to operating expenses during the year 1931. No data were available as to the rate of personnel turn-over. We must take into consideration that we have already allowed as a part of the 1931 operating expenses the following costs of securing new business:

New Business Advertising Salaries	$ 9,548.77
New Business Soliciting and Expense	27,969.98
Advertising Supplies and Expense	81,234.85
New Business Supplies and Expense	7,372.38

We have allowed as part of the 1931 operating expenses the following costs of establishing "goodwill":

Charitable Donations	$ 9,848.67
Donations and Subscriptions	20,215.94

We have allowed as part of the 1931 operating expenses the following costs of developing "an advantageously situated gas supply in excess of present maximum requirements":

Dry Hole Expense	$79,453.12
Cancelled and Surrendered Lease Expense	99,140.73

We have allowed as part of the 1931 operating expenses the following items which were to a large or small degree costs of securing business, developing "an advantageously situated gas supply in excess of present maximum requirements," training personnel, developing operating routines, and preparing geological, engineering and bookkeeping records:

Administrative Salaries	$145,745.68
Other General Office Salaries	307,850.98
General Office Salaries and Expense	23,894.23
General Office Traveling and Incidental Expense	22,907.99
General Stationery and Printing	16,011.29
Miscellaneous General Administrative Expense	49,012.06

[fol. 19-42] That the Company has not actually experienced any losses on account of inception costs except in the relatively small amount testified to by Mr. Freese is indi-

cated by the following tabulation which shows the per cent of the undepreciated book cost available for return and depreciation during the history of the Company.

Period	Book Cost Public Service Property	Amount Available For Depreciation and Return	Per Cent of Undepreciated Book Cost	
June 4, 1909—May 31, 1910..	$4,741,620.41	$57,607.99	1.21	
June 1, 1910—Feb. 28, 1911..	4,790,284.17	160,761.86	3.35	(4.47 per annum)
Mar. 1, 1911—Feb. 28, 1912..	4,994,064.08	610,992.63	12.23	
Mar. 1, 1912—Feb. 28, 1913..	5,800,664.91	814,811.21	14.04	
Mar. 1, 1913—Feb. 28, 1914..	6,164,123.74	1,114,369.22	18.08	
Mar. 1, 1914—Feb. 28, 1915..	6,980,985.13	1,164,663.69	16.68	
Mar. 1, 1915—Dec. 31, 1915..	7,715,247.24	736,351.36	9.54	(11.45 per annum)
1916	8,090,251.99	1,101,618.66	13.61	
1917	8,627,698.92	901,798.88	10.45	
1918	9,399,508.86	694,208.51	7.38	
1919	12,749,862.20	1,032,035.11	8.09	
1920	16,225,774.18	1,227,479.44	7.38	
1921	16,336,266.61	1,331,944.53	8.15	
1922	17,572,198.80	1,677,754.21	9.54	
1923	18,870,227.60	2,232,771.43	11.83	
1924	20,281,257.29	2,843,831.77	14.02	
1925	24,294,693.33	3,950,790.60	16.26	
1926	25,113,114.07	4,334,870.94	17.26	
1927	33,307,350.60	4,513,876.52	13.55	
1928	36,879,954.99	5,028,295.46	13.63	
1929	44,449,143.87	5,869,183.24	13.20	
1930	47,703,209.28	5,297,491.90	11.10	
1931	47,776,749.63	4,605,721.83	9.64	

These figures are taken from Mr. Hulcy's testimony (p. 11,176 to p. 11,180), and have not been corrected by us. They show a total of $51,303,230.99 available for depreciation and return during the entire period. The weighted per cent of the undepreciated book cost is 12.03. The book cost as of December 31, 1931, is slightly higher than the total reproduction cost new as of December 31, 1931, as determined by us. Approximately two per cent is the annual depreciation on a 6 per cent sinking fund basis as is hereinafter found by us and is applicable where both return and depreciation are computed on an undepreciated book cost. The Company has not only recouped out of current revenues any losses due to idle plant incurred in the past but has made a weighted average return of approximately ten per cent on an undepreciated book cost after allowing for depreciation (2 per cent per annum on 6 per cent sinking fund basis).

Mr. Freese testified that the historical losses assuming a 6 per cent return were substantially $445,326 (Ex. 30, p. 9) and had occurred during the period June 4, 1909, to Febru-

ary 28, 1911, and that this amount could have been easily amortized by the end of 1917 out of earnings in excess of an eight per cent return ($1,117,494—Ex. 30, p. 4), and further that a substantial part of the property on which the early losses had occurred had been removed by the end of 1917. [fol. 19-43] Mr. Freese has included in his reproduction cost new figures any plant which was idle as of December 31, 1931, and in particular he included undeveloped leaseholds which have been allowed by us at Mr. Freese's figure. It certainly would not be proper to allow idle plant as part of the rate base and at the same time allow a capitalization of interest and depreciation on idle plant. Even assuming that it would be proper to consider losses due to idle plant, Mr. Freese testified that the history of the Company indicates that the property could be reproduced within a reasonable period of time wherein only a small portion of the idle plant estimated by Messrs. Connor and Smith would be incurred. (See Ex. 30, p. 2.)

To summarize our conclusions of the foregoing discussion, we find the allowance of going value determined by Messrs. Smith and Connor to be without any sanction either in reason or in the controlling decisions of the United States Supreme Court. We find further that the adoption of the reproduction cost new value as determined by us and as discussed herein containing, as it does, a complete allowance for all overhead expense, together with our allowance for operating expenses, fully and justly compensate the Company for all development costs which have been incurred or which would be incurred on a reasonable reproduction of the Company's properties and that such an allowance thus determined is ample to cover any and all items entering into and forming a part of going value.

Reproduction Cost New Summary.—In accordance with the considerations hereinabove set forth, we find the Reproduction Cost New for the various items of property embraced by the Lone Star Gas Company public service property to be as follows:

Gas Wells	$2,044,318.76
Other Production System Structures	14,313.70
Repair and Cleanout Tools and Equipment	42,411.44
Gathering System Rights of Way	10,062.53
Field Measuring Station Structures	37,308.57
Field Measuring Station Equipment	142,558.62

Field Line Equipment	847,010.72
Transmission Measuring Station Land Including Improvements	78,944.10
Other Transmission System Land Including Improvements	24,716.45
Other Transmission System Leaseholds Including Improvements	3,463.71
Transmission System Rights of Way	1,007,433.38
Transmission System Measuring Station Structures	172,676.20
Other Transmission System Structures	130,661.27
Transmission System Measuring Station Equipment	456,621.63
Transmission Line Equipment	26,932,811.12
Compressing Stations	4,894,617.14
[fol. 19-44] General Office Building Land	41,545.97
Other General Land	51,797.38
General Office Structure	333,535.29
Other General Structures	59,716.19
General Office Furniture and Fixtures	204,520.67
Other General Furniture and Fixtures	10,967.71
General Shop Equipment	103,756.02
General Tools	164,020.99
Automotive and Construction Equipment	405,618.24
General Telephone System	373,591.15
Reproduction Cost New of Physical Property Exclusive of Leaseholds	$38,588,998.95
Administration and Legal Expense, Engineering and Supervision During Construction	2,637,264.19
Taxes During Construction	9,681.29
Interest During Construction	1,650,467.52
Preliminary and Organization Expense	231,555.30
Working Capital	1,488,369.91
Reproduction Cost New of Property Exclusive of Leaseholds	$44,606,337.16

Leaseholds.—To our knowledge, there are only three practicable methods of treating leaseholds. These will be stated and consecutively discussed as follows:

Method (1) is to allow return and annual depletion on the market value of the leaseholds which market value will include any enhancement over original cost, whether this en-

hancement be brought about by explorations of the Company, or by exploration of the owners of leases abutting those of the Company. In this connection, it must be observed that the successful explorations by the Company (those resulting in finding gas in commercial quantities and thereby enhancing the value of the leases) were attended by certain unfortunate ventures, in which dry holes resulted and in the condemnation of particular leases. Under Method (1), dry hole expense and the cost of condemned leases could not be allowed as operating expenses. Obviously it would be wholly improper to allow a return on the enhanced market value of leaseholds which have been proven up and at the same time charge off disproven leaseholds to operating expenses at cost. Under Method (1) if dry hole expense and cancelled and surrendered lease expense were to be allowed as an operating expense the Company would receive all of the "profits" by reason of an enhanced rate base, while the consumer or rate payer would stand all the "losses" through the allowance of the cost of all unsuccessful explorations as operating expenses. From the meager testimony available as to market value of leaseholds, we are of the opinion that the market value of the leaseholds held by the Lone Star Gas Company as of December 31, 1931, did not exceed their actual cost of $2,231,-[fol. 19-45] 676.11 (exclusive of Petrolia Field). This is entirely reasonable when it is understood that of this amount $1,263,871.38 (Ex. 28, p. 1) is for leaseholds as yet undeveloped; that of the $967,804.73 (Ex. 28, p. 1) actual cost of leaseholds now developed, only $165,353.77 (Ex. 36, p. 13) worth of these leaseholds were undeveloped when purchased. In other words, of the $967,804.73 actual cost of leaseholds now developed, $802,450.96 ($967,804.73 minus $165,353.77) worth were bought after the enhancement due to development had already taken place. Most of the enhancement of value over the original cost, if any, must have occurred on these now developed leaseholds which actually cost $165,353.77 and which were the only developed leaseholds that originally were bought in an undeveloped state. As against this enhancement must be taken into consideration the fact that the cost of comparable leaseholds was shown to be less as of December 31, 1931, than during the period when most of the leaseholds were purchased, and the further fact that as of December 31, 1931, the developed leaseholds had been depleted to the extent of $240,062.19

(Ex. 27, p. 37 and Ex. 36, p. 17) based on the original cost of the leaseholds. We have not made computations as to return or domestic gas rate based on this method of evaluating leaseholds, due to the paucity of evidence as to the market value of leaseholds as of December 31, 1931. The application of this Method (1) would produce a greater reduction in domestic gas rates than that which we have hereinafter ordered on the basis of Method (2), which follows. If on December 31, 1931, the Lone Star Gas Company had bought the leaseholds from other owners at the market value, that market value inherently would have included compensation for dry hole and cancelled and surrendered lease expense.

Method (2) is a service-at-cost method whereby the "losses," dry hole expense and cancelled and surrendered lease expense are charged to operating expenses, while the leaseholds are capitalized and included in the Rate Base at actual cost (less depletion) and not at the enhanced or market value which would include all "profits" arising from successful explorations. As long as dry hole expenses and cancelled and surrendered lease expenses are allowed as part of operating expenses at actual cost, the only fair, equitable and lease speculative method of evaluating leaseholds as part of the rate base is at actual cost less depletion. Each of the witnesses who valued undeveloped leaseholds did so at actual or book cost, including original consideration, delay rentals to December 31, 1931, and any costs of acquisition capitalized on the books of the Company (i. e. not charged to operating expenses). Mr. Freese included in this account all of the non-producing leaseholds, which were carried on the books as such, in the amount of $1,263,871.38 (Ex. 27, p. 1). (This latter amount does not include any leaseholds in the Petrolia District.) Mr. Steinberger included in this account all unproven non-producing leaseholds and all unproven or disproven parts of producing leaseholds, and excluded all proven non-producing leaseholds or proven parts of the non-producing leaseholds. [fol. 19-46] (Proven acreages are defined in Exhibit 8.) Mr. Steinberger's appraisal of undeveloped leaseholds is $944,-957.55 (Ex. 7, p. 2) on the basis of the actual per acre cost to the Company. (The $944,957.55 does not include any leaseholds in the Petrolia District.) We find the actual or book cost of the non-producing or undeveloped leaseholds as of December 31, 1931, to be $1,263,871.38. This cost in-

cludes delay rentals to December 31, 1931, and any costs of acquisition capitalized on the books of the Company. If there were any additional costs of acquisition (not capitalized) such costs were charged to operating expenses. The Lone Star Gas Company has a regularly maintained operating department which handles the detail work of acquiring leaseholds. The operating expenses of this department have been included in our allowance for operating expenses for 1931, (as well as all other years) during which year very few leaseholds were acquired. It is not apparent to us that the cost of acquisition of a leasehold necessarily adds value. It is clear to us that the cost of operating a leasehold department to acquire leaseholds is a proper charge to operating expenses and if the costs of operating such a department to acquire leaseholds are changed to operating expenses, then these costs should not also be capitalized or allowed as part of the Rate Base. The testimony indicates that the few leaseholds bought in 1931 were bought at a less cost than comparable leaseholds were being purchased during the period when the Company purchased most of its leaseholds. Mr. Freese valued developed leaseholds at $967,804.73 exclusive of the Petrolia District Leaseholds (Ex. 27, p. 1). We find this figure to be the actual or book cost of the producing leaseholds, plus delay rentals to the date of development, plus such costs of acquisition as were capitalized, all as reflected by the books of the Company. This figure ($967,804.73) also includes gas well construction where gas wells were bought as integral parts of leaseholds, in which cases the cost of the leaseholds as reflected by the books includes the gas well construction. In fact most of these producing leaseholds ($802,450.98 cost out of total cost of $967,804.73) were bought already developed and for these leaseholds it is either not practicable or not possible to separate on the books of the Company the gas well construction costs from the leasehold cost itself. In any case, wherever we have taken the gas well construction together with the leasehold, exactly the same reasoning is applicable to the combination leasehold-gas well construction as is applicable to the leasehold itself. We have, therefore, included gas well construction under this head where it was not possible or practicable to segregate this item. The Company witness Steinberger cited instances where his appraised cost of gas well construction on certain of these leaseholds was as much or more than the actual cost of the leasehold and well con-

struction together. The Company witness Dunn compared the value of the gas produced over certain periods of time from certain of these leaseholds with the cost of these leaseholds. Although such comparisons are without value un- [fol. 19-47] less all of the factors involved are known, some of the comparisons most favorable to the Company's contentions were on leaseholds purchased shortly before December 31, 1931. The actual cost of those leaseholds (including gas well construction) bought just prior to December 31, 1931, while not proof of market value, is convincing as to the market value or reproduction cost new value of these leaseholds as of December 31, 1931. It is quite conceivable that a condition might obtain in the purchasing and marketing of leaseholds wherein the owner of a leasehold would be willing to transfer a leasehold to the Company for a very nominal consideration over and above the agreement that the Company would pay a one-eighth royalty on all gas produced. In applying this Method (2) we have allowed depletion charges annually for the repayment to the Company of the actual cost of the leaseholds as the gas is taken out of the ground and the leaseholds depleted. These annual depletion charges are free capital and must be deducted from the original cost of the leaseholds to obtain the actual cost of the remaining gas (or in other words, the present worth on an actual cost basis). In finding the present worth of Developed Leaseholds on an actual cost basis, Mr. Freese deducted from the original cost ($967,804.73) which we have adopted, the per cent of depletion which has taken place since the leaseholds were acquired. If a leasehold cost $20,000, it was assumed to have a present worth of 100 per cent of $20,000 the day it was purchased; if it has been depleted 25 per cent as of December 31, 1931, it had a present worth of 75 per cent of $20,000, or $15,000. The amount of depletion was determined for each developed leasehold (including well construction if bought with the leasehold) on the basis of the decline in rock pressure with the necessary corrections thereto. We consider the method used in finding the depletion quite accurate. When the depletion percentages so found are applied we find a present worth of $727,742.54 ($685,585.98 Ex. 27, p. 37; $42,156.56 Ex. 36, p. 18), based on actual costs. The 1931 depletion charges have been computed on the basis of the gas removed during 1931. Under this Method (2), we find a fair value to be included in the Rate Base as of December 31, 1931, for Leaseholds of

$1,991,613.92 (Undeveloped Leaseholds $1,263,871.38, Developed Leaseholds $727,742.54).

Method (3) is to allow the Company the market value of the gas produced at the prevailing field price at the well head. This method is in principle suggested by the Company witness Hulcy in Exhibit 9. Further Mr. Hulcy testified as follows: "We are assuming that our own gas reserves are worth exactly the same, or that the gas produced by the Company in any field is really worth exactly the same as that purchased from any other producer. It is worth that much and no more, and we have gone about it on that assumption" (Tr. p. 2143). The market value of the gas at the well head as of December 31, 1931, has been established for the different fields more definitely in this hearing than perhaps for any other "commodity." This method would compensate for all of the costs of getting the [fol. 19-48] gas to the well head and would include a return on and amortization of the market value of the leaseholds. In fact the market value of leaseholds is determined by the well head price. The Company now buys from other owners approximately 72 per cent of its requirements (Ex. 6, Vol. 9, p. 675). Under this method the Company would be paid the same price at the well head for the approximately 28 per cent which the Company produces as it pays other owners for the 72 per cent. Evidence of the fact that the Company considers the prevailing field prices fair is the fact that the Company pays royalty on the basis of the prevailing field price. The results under this method would be the same as though the Company bought at the well head one hundred per cent of its gas requirements from other owners. In making calculations under this method we have added to operating costs the amount which the Company produced gas would cost if bought from other owners; we have deducted from the Rate Base all gas production property up to the well head; and we have eliminated from operating expenses all costs of getting the gas to the well head, which costs would not be incurred if the Company bought all of its gas at the well head at the prevailing field price.

Under what might be called the "Hulcy Method" the Company's witness Hulcy included in his account, "developed leaseholds," all producing leaseholds and all proven or semi-proven parts of non-producing leaseholds (and including Petrolia District leaseholds). Mr. Hulcy evaluated these leaseholds on the basis of the present (i. e. December

31, 1931) worth of the future estimated net income from these leaseholds based upon the application of predicted future well head prices to predicted future withdrawals. In arriving at the present worth of the future income from the leaseholds, Mr. Hulcy used an eight per cent compound discount factor. In arriving at the estimated future net income, Mr. Hulcy deducted certain production expenses necessary to get the gas to the well head but failed to deduct the more considerable production expenses represented by dry hole and cancelled and surrendered lease expense. The value of the developed leaseholds as found by Mr. Hulcy was $3,557,471.00 (Ex. 6, p. 5). This value is based upon the prediction that the present field price for gas in the field with the largest reserves (Wheeler County District) will be trebled by the year 1944 (Ex. 9, p. 7) and that the 1931 withdrawals will be quadrupled by 1939 (Ex. 8, p. 266). The estimated 1932 withdrawals (9,613,417 M cu. ft., Ex. 8, p. 266) were 87 per cent in excess of the actual 1932 withdrawals (5,143,270 M cu. ft., Tr. p. 11216 and p. 11217). Mr. J. A. Phillips, the independent auditor retained by the State in this investigation, found a value of $379,473.00 (Tr. p. 7956) for the gas reserves on these same leaseholds, using the identical method and estimated production used by Mr. Hulcy, but (1) applying the prevailing field well head prices of gas to the future withdrawals predicted by the Company, [fol. 19-49] (2) making certain uncontroverted corrections to the well operating expenses, and (3) deducting from future estimated income the correct amount of gross production tax and federal income tax. Testimony was introduced by the Lone Star Gas Company to the effect that the other gas transmission companies were paying more for gas in other districts of the Panhandle of Texas than the Lone Star Gas Company was paying in the Wheeler County District. There was no testimony, however, which would indicate that the future well head price would show an increase in any of the Panhandle districts. We are of the opinion that Mr. Phillips' computations show more accurately the present worth of the estimated future withdrawals of gas from the proven leaseholds than do the figures of Mr. Hulcy. One very considerable item of expense which is incurred in the operation of wells, and which was considered by neither Mr. Hulcy nor Mr. Phillips is the depreciation of gas well equipment and construction. It is true that the appraised value of gas well equipment and construction was deducted

by Mr. Hulcy from the total present worth of the leaseholds which embraced gas well construction and equipment, such that, when gas well construction and equipment were set up separately in the Company's appraisal, there was no duplication. This procedure served to reduce the depletion charges which are computed on the value of the leaseholds, but inasmuch as the reduction in depletion charges was not nearly so large an amount as the depreciation on gas well construction and equipment, the net result was to eliminate from the future well operating costs most of the depreciation on gas well equipment and construction. Both Mr. Hulcy's and Mr. Phillips' computations of present worth of future leasehold earnings would be considerably reduced were this depreciation deducted from the future leasehold earnings. Both computations would be very materially reduced if the actual 1932 production and the probable future actual production were used. The method used by Mr. Hulcy gives a highly speculative result at best, and were it a correct method of finding present worth of future leasehold earnings, its application would have the effect of basing present gas rates on the capitalized value of the increased consumption of future users and on an assumed increase in the future cost of gas in the field. Present users should pay for the gas they actually use based upon present field prices for gas, and not upon the basis of the speculative present worth to the Company of future increased withdrawals and future increase in the field price of gas. The only accurate application of a method such as Mr. Hulcy's, wherein the value of the leasehold is based on the field price of the gas at the well head, would be to consider the production of gas by the Lone Star Gas Company separately from the transmission of gas and to allow the production properties and operations the current field price for the gas which the production department actually produced (Method (3) above). Under such a method the production department or division [fol. 19-50] would receive at the well head exactly what the gas would cost if purchased from some other owner who would stand all production costs including dry hole expense and cancelled and surrendered lease expense. The Lone Star Gas Company bought 72.25 per cent of its 1931 gas requirements from other owners (Ex. 6, Vol. 9, p. 675), at the prevailing field prices which included compensation for dry holes, cancelled and surrendered leases, and all other production expenses.

Present Worth.—As used by us in this order the present worth of an item of property is the reproduction cost new less the actual accrued depreciation. While depreciation as carried on the Company's books is not a proper test, the depreciation, actually accrued, is a proper test. Actual accrued depreciation as determined by us includes not only observable physical deterioration of the surfaces of the items of property, but lessened life or usefulness due to certainty of ultimate removal or abandonment due to depletion of gas supply, obsolescence, inadequacy, other functional depreciation, and non-observable deterioration (such as that on the inside of pipe, fatigue of engine parts, etc., etc.), in fact anything reasonably to be considered as lessening the present worth of the property. Any condition which lessens present worth should be allowed in determining the accrued depreciation; conversely anything that has been properly allowed as part of accrued depreciation must be reflected in present worth. The observable deterioration is only a part of the depreciation which is constantly accruing. Fortunately the Company has made available complete records of mortalities from all causes for the major items of property and these records have made possible a much more accurate determination of the accrued depreciation from all causes than would be possible from surface observation.

By reason of the method whereby we have determined annual depreciation it has been unnecessary for us to make a specific finding or determination of either the accrued depreciation and/or present worth except for the items: Repair and Cleanout Tools and Equipment, and Automotive and Construction Equipment, as to which specific findings have been made. The Company handles depreciation charges on Repair and Cleanout Tools and on Automotive and Construction Equipment in a manner different from that which it handles depreciation charges on other items of physical property. Depreciation on Repair and Cleanout Tools and on Automotive and Construction Equipment is charged out currently to the different operating expense accounts or capitalized on new construction work. The charges are adjusted from time to time so as to reflect the actual depreciation. If the charges to expenses and new construction have been accurately made the depreciated book value is the present worth. If the charges have been too low, the book value is too high and expenses and new construction would be correspondingly understated. On the other hand, if the

charges have been too high, the book value is too low and [fol. 19-51] expenses and new construction would be overstated. The accrued depreciation on Automotive and Construction Equipment was $324,686.44 as of December 31, 1931. The depreciation charged to auto operations during 1931 was $117,423.90 (Ex. 23) or approximately 36 per cent of the December 31, 1931, accrued depreciation. The present worth (book value) of the Automotive and Construction Equipment which we are allowing is $80,931.80 ($79,320.73, Ex. 29, p. 11; $1,611.07, Ex. 36, p. 17) as of December 31, 1931. The present worth (book value) of Repair and Cleanout Tools was $15,764.33 as of December 31, 1931 (Ex. 29, p. 10). The Repair and Cleanout Tools are inventoried periodically and the book values adjusted accordingly.

For all other items of property we have adopted a "sinking fund" basis for calculating annual depreciation. On this basis the "sinking fund" is the mathematically correct measure of accrued depreciation for any item of property. The "sinking fund" (accrued depreciation) earns the same rate of return as the present worth (a minimum of 6 per cent) and the earnings are credited to the "sinking fund." The rate of return is therefore applied to the present worth plus the accrued depreciation (sinking fund), or in other words, to the undepreciated rate base. The phrases "sinking fund" and "amortization fund," as used by us will be understood to mean money derived from current revenues of the Company, and, together with the interest earned thereon, "ear-marked" to anticipate and liquidate the liabilities to be incurred for renewals, replacements or the return of invested capital (return on the investment being assumed to be currently cared for out of current revenues), as, if and when these necessities ripen.

The present worth determinations which we have therefore found necessary to make are as follows:

Repair and Cleanout Tools and Equipment	$15,764.33
Automotive and Construction Equipment	80,931.80

Annual Depreciation.—The witness Connor submitted for the Company very complete records of mortalities from all causes for the major items of property, viz., pipe and compressors. Complete data were also available with reference to the maintenance policies of the Company. The Company witness Connor made his annual depreciation computations

for Main Transmission Lines on what is known as a "straight line" basis, using a combination of both the "straight line" and the "sinking fund" methods, or the "sinking fund" method alone for most of the other items. The witness Freese used a "sinking fund" method throughout in making his annual depreciation computations.

A comparison of the results obtained under the "straight line" method and the "sinking fund" method is to be found in a table on p. 1477, Vol. LXXXI, Transactions of the American Society of Civil Engineers as part of the Final Report of the Special Committee to Formulate Principles [fol. 19-52] and Methods for the Valuation of Railroad Property and Other Public Utilities. This table is as follows:

Comparison of Combined Annual Depreciation and Return Upon a $100 Property Unit of 20-Year Life, Under Different Methods of Providing for Depreciation. Assumed Rate 5 Per Cent.

	Straight Line Method			Sinking Fund Method		
Year	Depreciation	Return	Total	Depreciation	Return	Total
1	$5.00	$5.00	$10.00	$3.02	$5.00	$8.02
2	5.00	4.75	9.75	3.02	5.00	8.02
3	5.00	4.50	9.50	3.02	5.00	8.02
4	5.00	4.25	9.25	3.02	5.00	8.02
5	5.00	4.00	9.00	3.02	5.00	8.02
6	5.00	3.75	8.75	3.02	5.00	8.02
7	5.00	3.50	8.50	3.02	5.00	8.02
8	5.00	3.25	8.25	3.02	5.00	8.02
9	5.00	3.00	8.00	3.02	5.00	8.02
10	5.00	2.75	7.75	3.02	5.00	8.02
11	5.00	2.50	7.50	3.02	5.00	8.02
12	5.00	2.25	7.25	3.02	5.00	8.02
13	5.00	2.00	7.00	3.02	5.00	8.02
14	5.00	1.75	6.75	3.02	5.00	8.02
15	5.00	1.50	6.50	3.02	5.00	8.02
16	5.00	1.25	6.25	3.02	5.00	8.02
17	5.00	1.00	6.00	3.02	5.00	8.02
18	5.00	0.75	5.75	3.02	5.00	8.02
19	5.00	0.50	5.50	3.02	5.00	8.02
20	5.00	0.25	5.25	3.02	5.00	8.02

As shown by the above table and under the assumed conditions, the total Depreciation and Return during the first year is almost twice what it is during the twentieth year by the straight line method, whereas by the sinking fund method the total Depreciation and Return are the same from year to year. It can be readily seen that a gas utility under regulation would have to charge a great deal more per thousand feet of gas during the first few years of its life than during the last few years if the straight line method of computing depreciation were used, whereas if the sinking fund method were used the charges would be

uniform from year to year. We much prefer a sinking fund method of computing depreciation to the straight line method by reason of the uniformity from year to year in the total of depreciation charges and return.

Since, under the sinking fund method, an undepreciated rate base is used, it is unnecessary to make a determination of present worth. This eliminates the necessity of an estimate of per cent condition, which obviously is largely guesswork based on surface indications and which fails to take into consideration the other considerable factors which may lessen or affect present worth. We deem it much more satisfactory to make findings on the basis of the very excel- [fol. 19-53] lent mortality data available and upon which accurate determinations can be made by use of the sinking fund method.

The Company witness Connor's annual depreciation determinations are predicated on a rate of replacements equal to the estimated average replacements during an arbitrary period of years following December 31, 1931. On the most material item, Transmission Lines, the replacements reach a peak during the assumed period taken, the average rate used being considerably in excess of his calculated 1932 replacements. Mr. Connor gave no consideration whatever to the depreciation reserves which should have been (and were) built up during the early life of the items of property when replacements were at a minimum. The Company had actually built up a depreciation reserve of $12,244,583.68 as of December 31, 1931 (Ex. 26, p. 92). The depreciation charges under Mr. Connor's set-up are such that it would not be necessary to call on this reserve for a cent, nor would it have been necessary to have accumulated any reserve at all, thus neutralizing entirely the purpose for which the reserve had been accumulated.

Mr. Freese, instead of taking any particular future period, computed his depreciation charges on the basis of complete life cycles of the different items of property such that the rate was uniform from the beginning to the end of the life of a unit of property. We are of the opinion that the depreciation rate for a unit of property should be uniform throughout its life cycle. Under the method used by Mr. Connor the present rate payer would be required to bear the entire burden of retiring units of property which served not him but former rate payers who made use of the services furnished by the Company, and who are shown to have provided

a fund for the retirement of the units which were used in their service. It must be assumed that the Company has made adequate depreciation charges in the past and that a depreciation reserve in the correct amount has been established to be ultimately applied to the replacement or retirement of the investment. If the Company has provided depreciation reserves in excess of the correct amount, such excess has been at the expense of past profits. If the Company has failed to make provision for depreciation reserves in the correct amount, it has paid out in profits the amount of the deficiency. In any event the Company is not entitled to force present or future rate payers to make good inadequate provisions for retirements. In the Knoxville Water Case (212 U. S. 13), Mr. Justice Moody for the United States Supreme Court said:

"The Company is not bound to see its property gradually waste, without making provision out of earnings for its replacement. It is entitled to see that from earnings the value of the property invested is kept unimpaired, so that at the end of any given term of years the original investment remains as it was at the beginning. It is not only the right of [fol. 19-54] the Company to make such a provision but it is the duty to its bond and stockholders, and in the case of a public service corporation at least, its plain duty to the public."

We have found annual depreciation rates computed on a sinking fund basis sufficient to make all replacements, to take care of all other proper charges to the depreciation reserve, and to fully amortize the property over a reasonable length of time. In answer to the question by Counsel for the Company, "What is the usual per cent factor used in connection with accruals of reserve on a sinking fund basis?", the Company witness Connor answered, "Whatever rate of interest would be required to meet certain specifications, with reference to the security, which would mean absolute safety of principal, absolute guarantee of interest payment, and absolute guarantee of instant liquidation without discount." (Tr. p. 10177.)

We have assumed that the sinking fund be invested as an integral part of the property itself. In so far as a sinking fund required for replacements and amortization of this property is concerned, there could be no more absolute

safety of principal than an investment in the property itself. As a matter of fact, as shown by the record, the Company's depreciation reserve has been invested in the property itself and in substantially the correct amount indicated by the sinking fund calculations. The question arises as to how future sinking fund accruals may be safely invested in case the Company should make no further additions to its property. In the first place that part of the sinking fund required for future replacements approximates the maximum required by the property and there will be no substantial increase in that part of the fund. Secondly, the accruals to the other part of the fund which is for the purpose of amortizing integral parts of the property at the end of the life of such parts may be taken out of the Company as the owners see fit and eventually must be completely taken out. Furthermore, as long as the Company owes some $19,000,000 or any part thereof, there will be no difficulty in finding an "absolutely safe" investment for the sinking fund accruals.

The second of Mr. Connor's specifications is "absolute guarantee of interest payment." As long as the Company receives a return on an undepreciated rate base, equal to the present worth of the property plus the accrued depreciation computed on a sinking fund basis, there can be no question as to there being an "absolute guarantee of interest payment" to the extent of the return allowed and earned.

The third of Mr. Connor's specifications is "absolute guarantee of instant liquidation without discount." The fund needs to be liquid only to the extent of current requirements for retirements, replacements, etc., chargeable to the depreciation reserve or sinking fund. There is no question of an "absolute guarantee of instant liquidation without discount" to the extent of the requirements, inasmuch as the total annual accruals to the sinking fund are always in excess of the annual requirements for retirements or replacements, [fol. 19-55] this excess of total annual accruals over annual requirements accumulating to 100 per cent of the property unit at the end of its life cycle, unless some of the accumulation currently be taken out of the Company by the owners. An examination of the depreciation sinking fund table to be found in the discussion of annual depreciation on transmission line equipment will verify this statement.

Mr. Connor uses to some extent a 7 per cent sinking fund method in computing his annual depreciation for each of the items of physical property to which he has applied annual

depreciation as set forth in his Exhibit 21, except Gathering System Rights of Way, Furniture and Fixtures, Shop Equipment, and Telephone Equipment. He also uses to a greater or less extent a straight line method for practically every item of property. Mr. Freese consistently uses a 6 per cent sinking fund method.

Where an undepreciated rate base is adopted in connection with the sinking fund method of determining depreciation, interest accruals to the sinking fund are at the same rate as the rate of return allowed and received. We find a minimum fair rate of return to be six per cent. Interest accruals to the depreciation sinking fund have, therefore, been computed at a rate of six per cent. On this basis we have found the annual depreciation rates necessary to make all replacements not being charged to operating expenses, to meet all other proper charges to the depreciation reserve, and to amortize during their life cycles the entire loss upon retirement of the items of property to which annual depreciation is applicable.

Gas Wells.—Gas well replacements are practically nil according to the Company witness Connor, who states "In the case of Gas Well Construction and Equipment * * * there will be little or no replacements during the service life of any given well" (Ex. 18, p. 95). Mr. Connor computes the loss on abandonment of a gas well to be 84.5 per cent of the installed cost without taking into consideration the depreciation on salvaged material and decline in per cent condition. Mr. Connor amortizes the 84.5 per cent loss on a seven per cent basis over a 6.25 year weighted average life and makes separate allowances for depreciation and for decline in per cent of new condition (Ex. 18, p. 95). His computations presuppose the use of a depreciated rate base. We find the total loss by abandonment including depreciation on salvaged material and decline in per cent condition to be 89.65 per cent (Ex. 29, p. 15, Ex. 18, pp. 95 and 97). The weighted total life expectancy of the wells connected to the system as of December 31, 1931, was 12.95 years (Ex. 18, p. 83). Mr. Connor states on p. 96 of Ex. 18 that "future drilling will no doubt be concentrated in the areas in which the producing wells have shown the longest life." The Company's Exhibits 8 and 9 show the proposed development of the proven gas reserves, the predicted average life

of the present wells and of the future wells being some seventeen years. We find the weighted average life of the Lone Star Gas Company was wells to be not less than thir- [fol. 19-56] teen years. 4.748 per cent per annum will amortize the total loss upon abandonment of gas wells of 89.65 per cent in 13 years on a 6 per cent interest accrual basis, and we are adopting 4.748 per cent as the proper annual depreciation figure for gas wells. Our method of arriving at this figure presupposes an undepreciated rate base. Although we have followed Mr. Connor's method to a large degree, the following differences in application should be noted: (1) Mr. Connor used an amortization or sinking fund method to care for the major part of the loss upon abandonment or removal of gas wells, viz., 84.5 per cent, and uses another method to care for the minor losses; we have used the amortization or sinking fund method to take care of the entire loss upon removal or abandonment of 89.65 per cent; (2) Mr. Connor accrues interest on the sinking fund at a rate of 7 per cent per annum; we have used 6 per cent; (3) Mr. Connor presupposes a depreciated rate base; we are using an undepreciated rate base; and (4) Mr. Connor assumed a 6.25 year weighted average life; we have adopted a 13-year weighted average life for gas wells. Mr. Connor's basic assumption in arriving at his estimated life of wells was "that the future wells drilled will be in the ratio of one to three for wells having a service life of two and one-half years and a service life of twelve and one-half years" (Ex. 18, p. 84). He erroneously deduces a 6.25 year weighted average life of wells from this basic assumption rather than the correct weighted average life of 10 years, which should be deduced from his basic assumption. However, there was no reason to make any such assumption in the light of the information as to a probable 12.95 year weighted average life for the wells connected to the system as of December 31, 1931, based upon exact measurements of pressure declines (Ex. 18, p. 83). Neither the amortization rate arrived at by Mr. Connor nor the rate arrived at by us would be precisely correct unless each well had the exact weighted average life assumed; however both will be substantially correct if the heavier mortalities fall near the weighted average age, which is in accordance with the actual experience. In view of the fact that future wells drilled probably will have a weighted average life in excess of 13

years, we feel that an annual depreciation percentage of not more than 4.748 for gas wells should be used.

Other Production System Structures.—We are adopting an annual rate for current replacements of 2.0% as suggested by Mr. Connor (Ex. 18, p. 113). Mr. Connor amortizes 100% in 12 years on the basis of 7% interest accruals to the sinking fund (Ex. 18, p. 113). Other Production System Structures consist in the main of cottages on producing leaseholds and in general should have an average life greater than that of the individual wells. We have, therefore, amortized the entire 100% over a period of 13 years. We have used a 6% interest rate for sinking fund accruals instead of the 7% used by Mr. Connor. An annual rate of 5.296 per cent will amortize 100% in 13 years on a 6% interest accrual basis. Mr. Connor makes an allowance for annual decline in per cent condition and presupposes a [fol. 19-57] depreciated rate base; we have used an undepreciated rate base and make no allowance for decline in per cent of new condition. We, therefore, find a total of 7.296 per cent per annum annual depreciation rate for Other Production System Structures.

Gathering System Rights of Way.—These rights of way have an average life substantially the same as the individual wells and are worthless when the lines to the wells are removed. We are, therefore, allowing an annual depreciation rate of 5.296 per cent, which is sufficient to amortize 100% in 13 years on a 6% interest accrual basis.

Field Measuring Station Structures.—Current replacements on Field Measuring Station Structures are charged to operating expenses by the Company. The year 1931 was no exception in this particular. The average life of a field measuring station in one place, i. e., before being removed to another location, is the same as for the average gas well. We have found this average life to be 13 years. Mr. Connor estimated a loss of 25% upon the first removal and a loss of 100% at the second removal (or abandonment) (Ex. 18, p. 113). We have assumed a complete loss of 100% upon the first removal at the end of 13 years. An annual rate of 5.296% will amortize 100% in 13 years on a 6% sinking fund basis, and we find 5.296% to be the annual rate of depreciation for Field Measuring Station Structures. (Mr. Connor used a 7% sinking fund basis.)

Field Measuring Station Equipment.—Mr. Connor based his computations for Field Measuring Station Equipment on the same factors which he found for Field Measuring Station Structures and arrived at the same result (Ex. 18, p. 113). We find that current replacements of Field Measuring Station Equipment are charged to operating expenses and that this was true for the year 1931. We find the average life before removal to be the same as the average life of gas wells, i. e., not less than 13 years. Mr. Connor assumes a loss of 25% upon the first removal at the end of six years and a 100% loss upon the second removal at the end of 12 years. We find with Mr. Freese a loss of 70% upon the first removal at the end of 13 years (Ex. 29, p. 19). An annual rate of 3.707% will amortize 70% in 13 years on a 6% sinking fund basis, and we find this annual rate for the depreciation on Field Measuring Station Equipment.

Field Line Equipment.—Mr. Connor's annual depreciation rate of 14.34 per cent for Field Line Equipment is made up as follows: 10.4 per cent computed on a 7 per cent sinking fund basis to take care of removals; approximately 3 per cent computed as an average of future replacements to take care of retirements; 1 per cent computed on a straight line basis to take care of decline in per cent condition. The loss upon removal is 77.12 per cent if no consideration is given to the deterioration of material (Ex. 18, p. 85). The [fol. 19-58] total loss, taking into consideration the condition of the salvaged material, is 88.56 per cent (Ex. 29, p. 20). Mr. Connor arrives at his 10.4 per cent by amortizing the 77.12 per cent loss over a period of 6.25 years on a 7 per cent sinking fund basis. The life of well lines (Field Line Equipment) will approximate that of gas wells. Some lines may serve several wells and will have a longer life than the individual wells; however, this factor is offset to some extent by the fact that well lines are sometimes rearranged before the depletion of the wells served. We therefore have found the weighted average life of gas wells to be not less that 13 years (see also Ex. 18, p. 83) instead of the incorrectly computed 6.25 years found by Mr. Connor. An annual rate of 4.690 per cent will amortize the total loss upon removal of 88.56 per cent in 13 years on a 6 per cent sinking fund basis. This total loss includes the loss due to decline in per cent condition of the Field Line Equipment, it having been conservatively assumed that this loss in per cent condi-

tion would not exceed 50 per cent (Ex. 29, p. 20). The remaining factor to be discussed is the matter of retirements or replacements. Mr. Connor took the average of his estimated future replacements, beginning with .59 per cent in 1933 and ending with 5.85 per cent in 1955, with a peak of 6.04 per cent in 1953 and averaging for the arbitrary period selected approximately 3 per cent (Ex. 18, p. 87), which figure was adopted by Mr. Connor. Mr. Connor makes no allowance for interest on the credit balances which would obtain in this retirement or replacement fund. Under Mr. Connor's method the present or future user of service would pay a rate sufficient to retire or replace property used in the furnishing of service to past users. The annual rate of depreciation to take care of replacements should be based upon the depreciation currently taking place and not upon retirements or replacements of property used up in the service of past consumers. Furthermore, this annual depreciation rate to take care of replacements should be uniform over the life cycle of the unit of property being considered. The total loss of 88.50 per cent upon removal of a well line (Field Line Equipment) is the loss which would take place on pipe which was new at the beginning of the 13-year period; if the pipe were installed second-hand the total loss would be substantially less. The replacements should, therefore, be computed on the basis of the first 13 years of new pipe. If the salvage has been correctly assumed in arriving at the total loss of 88.50 per cent for new pipe, computations based on the use of second-hand pipe should give the same results (i. e., amortization of total loss upon removal rate plus replacement rate should be the same in either case). The replacement rates for the first 13 years of well lines as found by Connor, and as found by Freese were as follows:

[fol. 19-59]

Year	Freese (Ex. 36, p. 23)	Connor (Ex. 18, p. 48)
1	.02	.00
2	.05	.04
3	.09	.05
4	.15	.06
5	.22	.07
6	.31	.10
7	.40	.15
8	.51	.20

Year	Freese (Ex. 36, p. 23)	Connor (Ex. 18, p. 48)
9	.63	.30
10	.75	.40
11	.88	.55
12	1.01	.71
13	1.14	.91

We are adopting the rate of replacements set forth by Mr. Freese, which in this case is a considerably higher rate than the one used by Mr. Connor. A comparison of the rates of replacements for steel pipe used by Messrs. Connor and Freese will be discussed later under the heading Transmission Line Equipment. An annual rate of .395 per cent will make the replacements set forth above under the Freese column on a 6 per cent sinking fund basis. We therefore find a total annual depreciation rate of 5.085 per cent (4.690 per cent for amortization plus .395 per cent for replacements). This rate will make all replacements and amortize the total loss upon removal of the equipment.

Transmission System Measuring Station Land.—We find and allow an annual rate of .509 per cent for Transmission System Measuring Station Land (Ex. 29, p. 21). This annual rate is sufficient to cover annual lease accruals. Mr. Connor makes no allowance for this item.

Other Transmission System Leaseholds.—We find an annual rate of 2.070 per cent for Other Transmission System Leaseholds (Ex. 29, p. 22). This annual rate is sufficient to cover annual lease accruals. Mr. Connor makes no allowance for this item.

Transmission System Rights of Way.—We find an annual rate of .344 per cent for Transmission System Rights of Way. This annual rate will amortize 100 per cent in 50 years on a 6 per cent sinking fund basis. Transmission System Rights of Way are a sizeable item, amounting to more than $1,000,000. Mr. Connor makes no annual allowance for this item.

Transmission System Measuring Station Structures.—Current replacements of Transmission System Measuring Station Structures by the Company, were and are being charged to operating expenses or to the depreciation reserve for Transmission System Measuring Station Equipment. The allowance for current replacements made under

Equipment is adequate to cover any retirements or replace-
[fol. 19-60] ments to structures not being charged to operating expenses. Mr. Connor amortizes 100 per cent over 25 years on a 7 per cent sinking fund basis (1.6 per cent, Ex. 18, p. 114). We find an annual rate of 1.823 per cent, this being the annual rate necessary to amortize 100 per cent over 25 years on a 6 per cent sinking fund basis.

Other Transmission System Structures.—We find an annual rate of 1.823% for Other Transmission System Structures, the basis for this rate being the same as for Transmission System Measuring Station Structures.

Transmission System Measuring Station Equipment.—Current replacements to Transmission System Measuring Station Equipment and Structures for the period 1927-1931 were as follows (Ex. 29, p. 25):

1927	$2,888.63
1928	2,100.59
1929	7,548.19
1930	7,115.94
1931	3,577.98

In 1929 the Company began charging more replacements to depreciation reserves and less to operating expenses. We, therefore, have taken the average for the period 1929-1931 (6,080.70 per annum) which results in an average rate for replacements of 1.332% (Ex. 29, p. 25). Mr. Connor amortizes this item of property over a 25-year period on a 7% basis. This equipment is above ground, is well housed, and is kept well painted. If proper allowance for annual replacements has been made, we see no reason to believe that the life of this equipment would be less than the 40 years found by Mr. Freese. An annual amount of .646% will amortize 100%, in 40 years on the 6% sinking fund basis. We find a total annual rate of 1.978% (Replacements 1.332% plus Amortization .646%) for Transmission System Measuring Station Equipment.

Transmission Line Equipment.—The item Transmission Line Equipment is composed of (1) Main Lines, (2) Tap Lines, and (3) Gathering Lines. The same basic rate of replacements is applicable to each of these three divisions; this being true of the basic rate proposed by Mr. Connor and of the basic rate proposed by Mr. Freese. The replacement

rate proposed by Mr. Connor conforms to the mortality curve shown on p. 46 of Ex. 18. The replacement rate proposed by Mr. Freese conforms to the mortality curve shown on p. 47 of Ex. 29. Both curves are shown on p. 5 of Ex. 30. The application of Mr. Connor's mortality curve to the pipe in the Lone Star Gas Company system since the beginning in 1909 results in a total computed mortality of 333.14 miles of 3-inch equivalent pipe up to December 31, 1931 (Ex. 18, p. 25). The application of Mr. Freese's mortality curve results in calculated total mortalities of 353.51 miles of 3-inch equivalent pipe from 1909 to December 31, 1931 (Ex. [fol. 19-61] 29, p. 46). These calculated mortalities compare with the actual mortalities as found by Mr. Connor of 354.12 miles of 3-inch equivalent pipe (Ex. 18, p. 21). However, this latter figure (354.12 miles) includes the actual mortalities on a substantial amount of pipe, the life of which was not taken into consideration by either Mr. Connor or Mr. Freese. If this pipe had been taken into consideration, the calculated mortalities of both Mr. Connor and Mr. Freese would have exceeded the actual mortalities considerably. And vice versa, if only the actual mortalities occurring on the pipe considered by Messrs. Connor and Freese, in arriving at the calculated mortalities, had been determined, then the actual mortalities would have been substantially less than the calculated mortalities. Both curves are equally acceptable in so far as their adequacy to make all historical replacements up to December 31, 1931, is concerned. Mr. Connor's mortality curve results in an average life of steel pipe of 25 years, whereas Mr. Freese's curve results in a 33½-year average life. In arriving at his mortality curve and the resulting 25-year average life for steel pipe, Mr. Connor was largely influenced by a mortality curve which he had previously worked out for steel pipe in the Fort Worth Distribution System and which curve had a 20½-year average life. In fact, it can be fairly stated that the characteristics of Mr. Connor's 25-year average life mortality curve for steel pipe in the Lone Star Gas Company Transmission System were largely determined by the characteristics of the 20½-year average life mortality curve for steel pipe in the Fort Worth Distribution System. Yet Mr. Connor testified that the factors which affected the mortalities of pipe in a city distribution system were entirely different from those which affected mortalities in a trans-

mission system. He testified further that only some sixty per cent of the mortalities in the Fort Worth System had been caused by deterioration. It is common knowledge that the physical deterioration of pipe concentrated in an area some 10 or 12 miles square is not the same as would be encountered in a system scattered over distances of 10 or 12 hundred miles. The factor of deterioration due to electrolysis is only one of the factors which are different as between a distribution system and a transmission system. The average size of pipe in the Fort Worth distribution system is much less than the average size in the Lone Star transmission system. The total amount of steel pipe laid in the Fort Worth distribution system between 1909 and 1931 and upon which Mr. Connor based his study was only approximately 700 miles of 3-inch equivalent pipe (Tr. p. 10715). Lines B and C which were the first lines laid in the Lone Star Transmission System and which were laid in 1910 contained 646 miles of 3-inch equivalent pipe. Lines B and C are 16-inch lines and run from Dallas to Petrolia (near Wichita Falls) via Fort Worth, a distance of approximately 650,000 feet (125 miles). Some of the most severe soil conditions to be found on the whole Lone Star Gas Company System [fol. 19-62] are on those lines (Line B in Clay County). These, the oldest lines (laid in 1910) in the Lone Star Transmission System, were 21 years old as of December 31, 1931, have a total of 646 miles of 3-inch equivalent pipe (650,000 ft. of 16-inch), and had actually experienced mortalities from all causes of 57 miles (301,260 ft. of 3-inch equivalent pipe) up to December 31, 1931. The total mortalities in the 21 years, therefore, amounted to 9%. The estimated average life of pipe in these lines is 40 years plus (Tr. p. 10725). The total mileage in the Fort Worth Distribution System as of December 31, 1931, was 700 miles of 3-inch equivalent pipe laid from 1909 to 1931, inclusive, the oldest of which pipe was 22 years old. The Fort Worth curve which Mr. Connor followed so closely in determining his curve for the Lone Star System shows total mortalities at the end of 21 years of 55%, as compared with the actual mortalities of 9% experienced on Lines B and C. The Fort Worth curve shows an average life of 20½ years. The Connor curve is based upon a 25-year average life and shows total mortalities of 20% at the end of 21 years. The Freese curve is based upon a 33½-year average and shows total mortalities of 20% at

the end of 21 years. A tabulation of the above figures is as follows:

	Mortalities at End of 21 Years	Average Life of Pipe
Lines B and C Actual	9%	40 years plus
Freese Lone Star Mortality Curve	20%	33½ years
Connor Lone Star Mortality Curve	25%	25 years
Connor Fort Worth Mortality Curve	55%	20½ years

Of the above mortalities of 143,047 feet of 3-inch equivalent pipe on Line C up to December 31, 1931, 116,656 (Tr. 10719) feet were caused by the removal of the line in 1931 to accommodate the Dallas County Levee District work. 116,656 feet, or 80% of the mortalities would not have taken place on Line C up to December 31, 1931, except for this removal. Of the mortalities of 156,213 feet of 3-inch equivalent pipe credited to Line B, 67,930 feet or 43% evidently took place on an old Line B which was entirely removed to another location in 1917 (Ex. 19, p. 5, Ex. 18, pp. 20 and 21, Tr. p. 10717) and which mortalities should not have been charged against the present Line B. However, we have made no correction to the mortalities on Lines B and C and in arriving at the 9% total mortalities for 21 years the mortalities due to the 1931 removal of Line C and the 1915-1916 mortalities on the old Line B were included. We find that the average life of steel pipe in the Lone Star Gas Company transmission system is not less than 33½ years and are adopting for the purpose of this opinion the steel pipe mortality curve proposed by Mr. Freese. The results of the application of Mr. Connor's curve and of Mr. Freese's curve are compared graphically with the actual mortalities of steel pipe in the main lines of the Lone Star Gas Company system on p. 6 of Ex. 30. The total calculated mortalities as shown by both curves equal the total actual mortalities [fol. 19-63] through December 31, 1931. For the year 1932 the Connor curve shows a calculated prediction of mortalities of approximately 85 miles of 3-inch equivalent pipe; the Freese curve shows a calculated prediction of mortalities of approximately 61 miles for 1932; whereas the actual mortalities for 1932 were approximately six miles.

In arriving at his annual rate of depreciation, Mr. Connor took an average of his predicted retirements (mortalities) or replacements for the years 1933 to 1955 inclusive, the rates increasing from 1.28 per cent in 1933 to a peak of 5.53 per cent in 1951. Mr. Connor makes no allowance for the use of the several millions of dollars of reserve which would be built up for this item (main line pipe) during the next few years. Under Mr. Connor's set-up the current gas consumer would be paying the Company rates sufficient to retire (or replace) pipe used up in the service of past consumers and not used in the service of the consumer currently paying rates. We are of the opinion that the cost of retiring (or replacing) an item of property should be spread evenly over the life of the item of property. Mr. Connor makes no allowance for the amortization of the property. However, as is clearly shown in the following table for main line steel pipe, we are setting up an annual allowance which will not only make all retirements (or replacements) in accordance with the mortality curve for 33½ years average life pipe which we have adopted but will amortize 100 per cent of the total cost in 45 years. Interest on cumulative accruals in the reserve or sinking fund was computed at 6 per cent. This table shows all computations used in arriving at the annual rate of 1.70 per cent:

Year	Total Annual Replacements (Ex. 29, pp. 44 and 45) Per Cent	Annual Rate in Per Cent Required to Make Replacements and Amortize 100%	Annual Accrual To Sinking Fund Per Cent	Interest At 6% On Sinking Fund Per Cent	Sinking Fund (Cumulative Accruals Plus Interest) Per Cent
1	.02	1.70	1.68	....	1.68
2	.05	1.70	1.65	.10	3.43
3	.09	1.70	1.61	.21	5.25
4	.15	1.70	1.55	.31	7.11
5	.22	1.70	1.48	.43	9.02
6	.31	1.70	1.39	.54	10.95
7	.40	1.70	1.30	.66	12.91
8	.51	1.70	1.19	.78	14.88
9	.63	1.70	1.07	.89	16.84
10	.75	1.70	.95	1.01	18.80
11	.88	1.70	.82	1.13	20.75
12	1.01	1.70	.69	1.24	22.68
13	1.14	1.70	.56	1.36	24.60
14	1.27	1.70	.43	1.48	26.51
15	1.39	1.70	.31	1.59	28.41
16	1.53	1.70	.17	1.70	30.28
17	1.65	1.70	.05	1.82	32.15
18	1.78	1.70	—.08	1.93	34.00
19	1.91	1.70	—.21	2.04	35.83

[fol. 19-64]

Year	Total Annual Replacements (Ex. 29, pp. 44 and 45) Per Cent	Annual Rate in Per Cent Required to Make Replacements and Amortize 100%	Annual Accrual To Sinking Fund Per Cent	Interest At 6% On Sinking Fund Per Cent	Sinking Fund (Cumulative Accruals Plus Interest) Per Cent
20	2.05	1.70	—.35	2.15	37.63
21	2.18	1.70	—.48	2.26	39.41
22	2.30	1.70	—.60	2.36	41.17
23	2.40	1.70	—.70	2.47	42.94
24	2.50	1.70	—.80	2.58	44.72
25	2.58	1.70	—.88	2.68	46.52
26	2.65	1.70	—.95	2.79	48.36
27	2.70	1.70	—1.00	2.90	50.26
28	2.75	1.70	—1.05	3.02	52.23
29	2.78	1.70	—1.08	3.14	54.29
30	2.82	1.70	—1.12	3.26	56.43
31	2.86	1.70	—1.16	3.39	58.66
32	2.91	1.70	—1.21	3.52	60.97
33	2.95	1.70	—1.25	3.66	63.38
34	3.00	1.70	—1.30	3.81	65.89
35	3.05	1.70	—1.35	3.96	68.50
36	3.11	1.70	—1.41	4.12	71.21
37	3.16	1.70	—1.46	4.28	74.03
38	3.22	1.70	—1.52	4.44	76.95
39	3.28	1.70	—1.58	4.62	79.99
40	3.34	1.70	—1.64	4.81	83.16
41	3.39	1.70	—1.69	5.00	86.47
42	3.43	1.70	—1.73	5.19	89.93
43	3.46	1.70	—1.76	5.40	93.57
44	3.47	1.70	—1.77	5.62	97.42
45	3.46	1.70	—1.76	5.85	101.51

The other factors entering into the total annual depreciation rate for main lines, other than current retirements (replacements) and complete amortization both of which are compensated for by the 1.70% per annum rate above set forth, are the factors: major removals and rehabilitations. Major removals of main line pipe in the Lone Star Gas System have occurred during the Company's history, as follows:

1912..... 40 miles 3″ equivalent pipe (Ex. 18, p. 21)
1917..... 486 miles 3″ equivalent pipe (Ex. 18, p. 21)
1923..... 84 miles 3″ equivalent pipe (Ex. 18, p. 21)
1928..... 49 miles 3″ equivalent pipe (Ex. 18, p. 21)

Total
1909-1931 inc. 659 miles 3″ equivalent pipe (Ex. 18, p. 21)

These early removals were occasioned by "growing pains," some 75% of all major removals having occurred in 1917 (Tr. p. 8319, also p. 7369). The average over the entire history has been 30 miles of 3″ equivalent pipe per annum. We see no reason to believe that there will be

an increase over this average annual amount in the future. This average annual amount of 30 miles of 3" equivalent pipe is equal to .388% of the 3" equivalent pipe in place December 31, 1931 (7,713 miles). The net loss (average) in making a major removal amounts to 74.51% of the re- [fol. 19-65] production cost new (Ex. 18, p. 56). The annual average loss, therefore, amounts to .289% (74.51% of .388%) of the reproduction cost new of the pipe in place as of December 31, 1931.

Based upon the past experience of the Company, Mr. Connor computed an allowance of .15% per annum as the cost of making major rehabilitations (Ex. 18, p. 59). In arriving at the total past expenditures for major rehabilitations Mr. Connor included retirements (replacements) of pipe also included in his basic pipe mortalities (e. g., see Ex. 18, p. 39, Line H) and there is duplication to this extent. We are allowing the .15% per annum due to our inability to determine from the record the extent of the duplication.

In accordance with the foregoing we find the total annual depreciation rate of not more than 2.139% per annum, consisting of 1.700% for current retirements (replacements) and complete amortization; .289% for major removals; and, .150% for major rehabilitation.

Both the Witness Connor and the Witness Freese used their main line deductions as the basis for their annual depreciation rate for tap lines. The testimony indicates that the major rehabilitations took place on comparatively large sized dresser coupled main lines and not on tap lines. We find an annual depreciation rate of not more than 1.989% for tap lines (retirements and amortization 1.700%, major removals .289%).

The third division of Transmission Line Equipment (i. e. (1) Main Lines and (2) Tap Lines) is Gathering Lines (Field Lines). The witness Connor computes historical removals of gathering lines at 3.05% per annum (Ex. 18, p. 71) and then arbitrarily assumes that "It is reasonable to assume that the ultimate average rate required to provide for the cost of removals would not be less than 10 per cent per annum" (Ex. 18, p. 72). He then converts the 10% per annum on a straight line basis to 7.24% per annum on a 7% sinking fund basis, which when multiplied by the 74.5% loss upon removal, gives his resulting 5.40% per annum to take care of gathering line removals (Ex.

18, p. 72). We are not interested in speculation as to what the ultimate rate of removals may reach. We are interested in knowing as accurately as possible what the average rate of removals is over the life of the property. It is, therefore, necessary to determine what the average life of gathering lines is between removals, or from date of original installation to removal. We find that gathering lines will have an average life 50 per cent greater than the life of the individual wells and well lines served by the gathering lines (Connor 100%—Tr. p. 7686). We have heretofore found an average life of wells and well lines of not less than thirteen years, and hereby find an average life of gathering lines 50 per cent greater or 19½ years. An annual rate of 2.77 per cent will made all replacements and amortize the 74.5 per cent loss upon removal of a gathering line on a 6 per cent sinking fund basis in 19½ years. Major rehabilitations are nil on gathering lines. [fol. 19-66] We, therefore, find an annual depreciation rate of 2.77 per cent for Gathering Lines.

The annual rate for Transmission Line Equipment including Main, Tap, and Gathering Lines is 2.183 per cent computed as follows:

Main Lines 69.58% @ 2.139	1.488%
Tap Lines 18.91% @ 1.989	.376
Gathering Lines 11.51% @ 2.770	.319
Transmission Line Equipment 100.00%	2.183%

Mr. Connor makes an allowance for decline in per cent condition, the allowance for this item, Transmission Line Equipment, being 1 per cent per annum the same as he has allowed for the other items of property. As in the case of the other items of property, we have used the sinking fund method of computing the annual rate of depreciation which method requires the use of an undepreciated rate base. The rate which we have found for Transmission Line Equipment includes, as in the case of the other items of property, an allowance for decline in per cent condition to 0 per cent (or to the salvage value as the case may be); that is to say, we have allowed for complete amortization.

Compressing Stations.—The main compressor units constitute the major item of cost of a compressing station.

Mr. Connor allows for the annual depreciation on the main compressor units half by a 7 per cent sinking fund method and half by the straight line method, both methods being applied on the basis of a 31.25 year average life for main compressor units. The evidence indicates that not less than a 35 year average life for these main units should be used, and we so find. With this exception we are accepting Mr. Connor's allowances for the various component parts of compressing stations, all allowances being converted to a 6 per cent sinking fund basis in place of the partial 7 per cent sinking fund basis used by Mr. Connor. Each of the allowances is sufficient to include both current replacements and amortization except the allowance for main units which is not sufficient to include current replacements. The overall replacement rate experienced by the Company for replacements being charged to the depreciation reserve (and not to maintenance) is .828 per cent per annum (Ex. 29, p. 33). Although the replacement rate applicable to main compressing units is less than the overall rate, the evidence affords no basis for determining this difference and we have no other course than to accept the overall replacement rate of .828 per cent for application to the main compressor units.

The item Compressing Stations consists of Main Line Stations and Field Stations. The Main Line Stations boost main line pressures and are relatively permanent, whereas Field Stations are located in the various gas fields and are moved or abandoned upon the depletion of the gas fields [fol. 19-67] served. Mr. Connor made an allowance of 1.230 per cent on a 7 per cent sinking fund basis to take care of the removal and abandonment of Field Compressing Stations (Ex. 18, p. 125). Mr. Connor arrived at this figure on the basis of the historical experience of the Company but failed to take into consideration the life of a number of field stations prior to the time of their purchase by the Lone Star Gas Company. However, we are allowing the full amount suggested by Mr. Connor except that we have made a conversion to a 6 per cent sinking fund basis which increases the allowance to 1.360 per cent per annum (see Ex. 18, p. 125).

In accordance with the foregoing, we find an annual rate

of depreciation for Compressing Stations of 3.376 per cent per annum computed as follows:

Main Line Stations:	
Current Replacements to Main Compressor Units 47.37% of .828%	.392%
Amortization and Other Replacements	2.179%
Total Amortization and Replacements	2.571%
Field Stations:	
Current Replacements to Main Compressor Units 49.93% of .828%	.413%
Amortization and Other Replacements	2.013%
Removals and Abandonments	1.360%
Total Amortization and Replacements	3.786%
Combined Main Line and Field Stations:	
Main Line Stations 33.72% @ 2.571%	.867%
Field Stations 66.28% @ 3.786%	2.509%
Total Annual Rate	3.376%

General Office Structure.—Mr. Connor amortizes the General Office Structure over a period of 40 years on a 7 per cent sinking fund basis resulting in a figure of .5 per cent (Ex. 18, p. 150). An annuity of .646 per cent is necessary on a 6 per cent sinking fund basis. Alterations, repairs, etc., charged to the depreciation reserve and not to maintenance amount to .750 per cent per annum (Ex. 29, p. 34). We, therefore, find a total annual rate of 1.396 per cent for the General Office Structure.

Other General Structures.—Mr. Connor amortizes Other General Structures over a period of 25 years on a 7 per cent sinking fund basis resulting in an annuity of 1.58 per cent (Ex. 18, p. 150). An annuity of 1.823 per cent is necessary on a 6 per cent sinking fund basis. Alterations, repairs, current renewals, etc., are charged to Operating Expenses. We find an annual rate of 1.823 per cent.

[fol. 19-68] General Office Furniture and Fixtures and Other General Furniture and Fixtures.—We have adopted the allowances suggested by Mr. Connor and have con-

verted them to a 6 per cent sinking fund basis, resulting in an annual rate of 8.219 per cent.

General Shop Equipment.—Repairs and Replacements to General Shop Equipment are charged to operating expenses. We are amortizing this item over a period of 15 years on a 6 per cent sinking fund basis resulting in an annual rate of 4.296 per cent.

General Telephone System.—Practically all repairs and replacements to the General Telephone System are charged to operating expenses. However, there is evidence indicating that approximately $4,500.00 may have been charged to the depreciation reserves for some cause during the period 1929-1931, an average of $1,500 per annum. We, therefore, are allowing .402 per cent per annum for repairs and replacements not ordinarily charged to operating expenses. An annuity of .646 per cent will amortize 100 per cent in 40 years on a 6 per cent sinking fund basis. We find a total annual rate of 1.048 per cent per annum for General Telephone System.

Non-Physical Property (Except Working Capital).—We find the weighted life of the property as a whole to be not less than 50 years. An annuity of .344 per cent will amortize 100 per cent on a 6 per cent sinking fund basis over a period of 50 years. We are allowing an annual rate of .344 per cent for all General Overheads, such that they will be amortized over the life of the property.

Annual Depreciation Summary.—In accordance with the foregoing we have found annual depreciation rates necessary to make all replacements not being charged to operating expenses, to meet all other proper charges to the depreciation reserve, and to amortize during its life cycle the entire loss upon retirement of the items of property, to be as follows for the items to which annual depreciation is applicable:

Item	Current Replacements, Etc.	Amortization	Total
Gas Wells	.....	4.748	4.748
Other Production System Structures	2.000	5.296	7.296
Gathering System Rights of Way	.....	5.296	5.296
Field Measuring Station Structures	Op. Exp.	5.296	5.296
Field Measuring Station Equipment	Op. Exp.	3.707	3.707
Field Line Equipment	.395	4.690	5.085
Transmission System Measuring Station Land	.509	.....	.509

Item	Current Replacements, Etc.	Amortization	Total
Other Transmission System Leaseholds..	2.070	.....	2.070
Transmission System Rights of Way....	.....	.344	.344
Transmission System Measuring Station Structures.....	Op. Exp.	1.823	1.823
Transmission System Measuring Station Equipment.....	1.332	.646	1.978
[fol. 19-69]			
Other Transmission System Structures...	Op. Exp.	1.823	1.823
Transmission Line Equipment.....	2.183		2.183
Compressing Stations.....	3.376		3.376
General Office Building.....	.750	.646	1.396
Other General Structures.....	Op. Exp.	1.823	1.823
General Office Furniture and Fixtures...	.....	8.219	8.219
Other General Furniture and Fixtures...	.....	8.219	8.219
General Shop Equipment.....	Op. Exp.	4.296	4.296
General Telephone System.....	.402	.646	1.048
Administration and Legal Expense, Engineering and Supervision During Construction.....	.....	.344	.344
Taxes During Construction.....	.....	.344	.344
Interest During Construction.....	.....	.344	.344
Preliminary and Organization Expense...	.....	.344	.344

Application of Annual Depreciation Rates. The annual depreciation rates found above are applied to the Reproduction Cost New of the various items of property to which annual depreciation should be applied, as follows:

Depreciable Item	Reproduction Cost New	Annual Rate	Annual Amount
Gas Wells.....	$2,044,318.76	4.748	$97,064.25
Other Production System Structures....	14,313.70	7.296	1,044.33
Gathering System Rights of Way.....	10,062.53	5.296	532.91
Field Measuring Station Structures.....	37,308.57	5.296	1,975.86
Field Measuring Station Equipment....	142,558.62	3.707	5,284.65
Field Line Equipment.....	847,010.72	5.085	43,070.50
Transmission System Measuring Station Land.....	78,944.10	.509	401.83
Other Transmission System Leaseholds..	3,463.71	2.070	71.70
Transmission System Rights of Way....	1,007,433.38	.344	3,465.57
Transmission System Measuring Station Structures.....	172,676.20	1.823	3,147.89
Other Transmission System Structures..	130,661.27	1.823	2,381.95
Transmission System Measuring Station Equipment.....	456,621.63	1.978	9,031.98
Transmission Line Equipment.....	26,932,811.12	2.183	587,943.27
Compressing Stations.....	4,894,617.14	3.376	165,242.27
General Office Structure.....	333,535.29	1.396	4,656.15
Other General Structures.....	59,716.19	1.823	1,088.63
General Office Furniture and Fixtures..	204,520.67	8.219	16,809.55
Other General Furniture and Fixtures..	10,967.71	8.219	901.44
General Shop Equipment.....	103,756.02	4.296	4,457.36
General Telephone System.....	373,591.15	1.048	3,915.24
Administration and Legal Expense, Engineering and Supervision During Construction.....	2,637,264.19	.344	9,072.19
Taxes During Construction.....	9,681.29	.344	33.30
Interest During Construction.....	1,650,467.52	.344	5,677.61
Preliminary and Organization Expense..	231,555.30	.344	796.55
Total.....	$42,387,856.78	2.284	$968,066.98

[fol. 19-70] Depletion—1931.—Both the witness Connor and the witness Freese found a unit depletion charge by dividing the "value" or present worth of proven leaseholds by the amount of gas underlying the proven leaseholds. We find the fair value, for the purpose of computing depletion of the proven leaseholds to be not more than $1,308,978.34 ($1,266,821.78, Ex. 29, p. 39; $42,156.56, Ex. 36, p. 17). This is the actual cost to the Company of Developed Leaseholds (exclusive of Petrolia Leaseholds) depleted to December 31, 1931, plus the actual cost to the Company of all tested or proven acreage. The amount of gas underlying this proven acreage as of December 31, 1931, was 412,400,855 M cu. ft. (Ex. 29, p. 39—Ex. 8, p. 4). We find a unit depletion charge of $.003174 per M cu ft. ($1,308,978.34 divided by 412,400,855). The amount of gas produced by the Company (exclusive of Petrolia) and taken from the leaseholds evaluated herein was 4,924,844 M cu. ft. during the year 1931 (Tr. pp. 8496 and 8497). We, therefore, find depletion charges for the year 1931 to be $15,631.45 (4,924,844 M cu. ft. @ $.003174).

Amount Available for Return and Federal Income Tax—1931.—We have heretofore found the amount available for depreciation, depletion, return, and Federal income tax to be $5,127,055.18 for the year 1931. By deducting the Annual Depreciation of $968,066.98, we find $4,158,988.20 as the amount available for depletion, return, and Federal income tax for the year 1931. By deducting the 1931 Depletion Charges of $15,631.45, we find $4,143,356.75 as the amount available for return and Federal income tax for the year 1931.

Rate Base—December 31, 1931.—We are adopting as part of the rate bases the undepreciated Reproduction Cost New found by us for all items of property, the depreciation on which has been calculated on a sinking fund basis, and also all non-depreciable land items. These items consist of the entire property except (1) Leaseholds, (2) Repair and Cleanout Tools and Equipment, and (3) Automotive and Construction Equipment. We have heretofore found for Leaseholds a fair value, for inclusion in the Rate Base of $1,991,613.92. Depletion of Leaseholds has been computed on the basis of a unit charge per M cu. ft., the annual amount of depletion allowed being free capital as opposed to a sinking fund which is not free capital. We are includ-

ing Repair and Cleanout Tools and Equipment, and Automotive and Construction Equipment at Present Worth as heretofore found by us; this is by reason of the fact that depreciation on these items is charged out currently to job orders and is, therefore, not subject to computation on a sinking fund basis. We have determined a Rate Base comprising the Transmission Properties and a Rate Base comprising the Production Properties, as well as a total covering both Transmission and Production Properties.

[fol. 19-71] The Rate Base, as of December 31, 1931, comprising both Production and Transmission Properties is found as follows:

Leaseholds	$1,991,613.92
Repair and Cleanout Tools and Equipment	15,764.33
Automotive and Construction Equipment	80,931.80
All Other Physical Property—Reproduction Cost New	38,140,969.27
Non-Physical Property Including Working Capital—Reproduction Cost New (Equals 14.96% of above items)	6,017,338.21
Total Rate Base—Transmission and Production Properties	$46,246,617.53

The Rate Base, as of December 31, 1931, comprising the Production Properties only is as follows:

Leaseholds	$1,991,613.92
Gas Wells	2,044,318.76
Other Production Structures	14,313.70
Repair and Cleanout Tools and Equipment	15,764.33
Non-Physical Property—14.96% of above Items	608,275.20
Rate Base—Production Properties Only	$4,674,285.91

The Rate Base, as of December 31, 1931, comprising the Transmission Properties is found as follows:

Total Rate Base—Transmission and Production Properties	$46,246,617.53
Less Production Properties	4,674,285.91
Rate Base Transmission Properties Only	$41,572,331.62

Except for the effect of the accrued depletion or depreciation of Leaseholds, Repair and Cleanout Tools, and Automotive and Construction Equipment, the above Rate Bases are undepreciated. The Rate Bases are in excess of the averages for the year 1931 by reason of the fact that additions to the property were being built and acquired during the year which resulted in net additions to the property.

Rate of Return.—The principal sources of the monies invested in the Lone Star Gas Company, including public service property, non-public service property, and the Fort Worth Distributing System (Fort Worth Division) were substantially as follows:

Capital Stock Paid In	$12,500,000 (Tr. p. 7907)
Stock Dividends	1,000,000 (Ex. 26, p. 19)
Borrowings	19,000,000 (Tr. p. 60)
From Earnings	12,900,000 (Tr. p. 7907)
From Depreciation Provided	13,200,000 (Ex. 26, p. 94)

[fol. 19-72] The capital stock was "paid in" in cash and property. The Lone Star Gas Corporation owns 95% or more of the outstanding capital stock. Borrowings were from the Lone Star Gas Corporation at a rate of 6 per cent per annum except for some relatively small amounts from banks which were mostly at a slightly smaller interest rate (Tr. pp. 7912 and 7913). The Lone Star Gas Company has not incurred any material costs of financing. The Lone Star Gas Company had no obligations outstanding as of December 31, 1931, which bore interest in excess of 6 per cent per annum.

The financial history of both the public service and non-public service properties of the Lone Star Gas Company is shown by the tabulation set forth on pages 94 and 95 of Exhibit 26. This tabulation shows the total net profit before depreciation through December 31, 1931, to have been $58,611,512.00. This compares with the total of $51,303,-230.99 found by Mr. Hulcy as available for depreciation and return on the public service properties alone through December 31, 1931. After deducting for depreciation, the weighted average return on the undepreciated book cost of the public service properties amounted to approximately 10 per cent per annum from the beginning of the company through December 31, 1931. (See Id., "Going Concern Value.")

The public and non-public service properties paid cash dividends of $20,983,601.97 and stock dividends of $1,000,000

from the beginning through December 31, 1931 (Ex. 26, p. 95). As heretofore set forth the property has been built to a large measure out of earnings and depreciation reserve, the stockholders having paid in only some $12,500,000 in cash and property. In considering the financial history of the company it should be borne in mind that the substantial amounts of overheads (non-physical property) as herein evaluated were largely paid for as current operating expenses.

The industrial gas revenues of the Lone Star Company fell off over a million dollars during the period 1929 to 1932. This was due largely to the competition of low priced fuel oil. This situation not only caused losses in the industrial gas revenues of the Lone Star Gas Company but also seriously affected the oil producing and refining companies. It is a matter of common knowledge that many of the larger oil producing and refining companies operating in Texas earned no return whatever on their investment during the years 1931 and 1932, in fact most of these companies suffered deficits during those years. It is further a matter of common knowledge that few business undertakings of any nature were able to earn more than operating expenses during 1931 and 1932.

Mr. Connor, a witness for the Company, introduced in Exhibit 22, 1932 quotations on all of the listed bonds and senior securities of all of the larger natural gas companies in the United States. Many of the natural gas companies had defaulted the interest on their bonds or other senior securities (prior to October 18, 1932). The quotations clearly indicated that the earnings of only a few of the [fol. 19-73] natural gas companies, including the Lone Star group, were sufficient to guarantee any certainty of interest payments on the bonds and other senior securities.

The Lone Star Gas Company is in a sound financial position; it has a virtual monopoly of the domestic gas business in the cities which it serves; it has adequate gas reserves; it has been financed without the necessity of issuing any bonds or other senior securities. We have otherwise allowed for the complete amortization of the property within the probable life of available gas reserves thus removing any hazards from this natural gas utility as such.

We find six per cent to be the minimum fair rate of return and we find this rate to be applicable to the year 1931. The

prices of labor and materials which we have adopted for December 31, 1931, were only 8.9 per cent less than the peak prices of 1929 (Tr. p. 10,980), whereas the net earnings for 1931 and 1932 were off 18 per cent (Ex. 26, p. 21) from 1929 despite a 17 per cent increase in public service property (Ex. 26, p. 91). A gas rate which would yield a 6 per cent return on fair value during 1931 and 1932 would have yielded a materially greater return during the four prior years (as is hereinafter shown) when industrial conditions and competition from fuel oil were more normal. A return to normal industrial conditions and to normal fuel oil competition will increase the rate of return materially.

In Bluefield Waterworks Company v. Public Service Commission (262 U. S. 679) the Supreme Court said:

"What annual rate will constitute just compensation depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment, having regard for all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility, and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its proper duties."

Excess Earnings Over a 6 Per Cent Return—1931.—A 6 per cent return on the Rate Base comprising both Production and Transmission Properties of $46,246,617.53 amounts to $2,774,797.05. Deducting this amount from the $4,143,356.75 available for return and federal income tax, we find $1,368,559.70 to be the excess earnings over and above 6 per [fol. 19-74] cent for return and Federal income tax for the year 1931. This computation includes a return on Production Properties with Leaseholds evaluated on the basis of Method (2) as hereinbefore considered under the heading "Leaseholds."

On the basis of the value of the gas produced (Method (3) under "Leaseholds") by the Lone Star Gas Company during the year 1931, we find the excess earnings over and above 6 per cent for return and federal income tax to be $1,767,859.76 for the year 1931. The value of the gas produced by the Lone Star Gas Company during 1931 at the prevailing well head price was $213,507.72 (Tr. p. 8497) exclusive of Petrolia Field Production which had a value of $23,725.68 (Ex. 29, p. 40), making a total of $237,233.40. We have allowed for the production of this gas as included in the foregoing paragraph (Method 2) as follows:

Production System Expense—From Ex. 26, p. 27	$60,068.40
Gross Production Tax—2% per annum; 2% of $237,233.40 for four 1931 months only	1,581.56
Depreciation of Gas Well Equipment and Construction $2,044,318.76 @ 4.748%	97,064.25
Depreciation of Other Production System Structures $14,313.70 @ 7.296%	1,044.33
Amortization of Production Property Overheads $608,275.20 @ .344%	2,092.47
Depletion of Leaseholds	15,631.45
Dry Hole Expense	79,453.12
Cancelled and Surrendered Lease Expense	99,140.73
Return on Production Properties $4,674,285.91 @ 6%	280,457.15
Total	$636,533.46

Excess earnings for 1931 of $1,368,559.70 were found above on the basis of evaluating leaseholds at cost and allowing all production expenses (Method (2)). By deducting from this amount the cost or value of the gas produced during 1931, $237,233.40 and adding back in the $636,533.46 allowed (under Method 2) we find the excess of earnings over and above 6 per cent for return and federal income tax for the year 1931 of $1,767,859.76 as above set forth.

Federal Income Tax Based Upon Minimum 6 Per Cent Return.—Throughout this opinion we have computed Return before Federal Income Tax. Federal Income Tax computed on the basis of 1931 actual earnings amounted to $302,302.41 (Ex. 1, p. 2) before taking credit for interest paid on borrowings. The reduction in earnings to give a

6 per cent return on both transmission and production properties would have been $1,368,559.70 for the year 1931. The reduction in Federal Income Tax for 1931 would, therefore, [fol. 19-75] have been $164,227.16 (12 per cent) (Tr. p. 51) of $1,368,559.70. Although the record is not such that we can compute the exact amount of the 1931 credit for interest on borrowings we are able to find that it approximated 6 per cent of $19,000,000.00 at 12 per cent or $136,800.00. Inasmuch as the reduction in tax at the 6 per cent return plus the credit for interest on borrowings approximates the computed 1931 tax on the actual earnings, no Federal Income Tax would have been paid on the basis of the minimum 6 per cent return. A similar result would obtain for 1932. Under like conditions and regulations it will be unnecessary for the Company to pay Federal Income Tax for future years in which it earns only the minimum 6 per cent return. We have made no computations on the alternate basis of allowing the Company the value of the produced gas at the prevailing price at the well head as the net earnings and resulting income tax would be even less on this basis.

Under these conditions it has been unnecessary for us to consider the fact that the owners are relieved of any payment of normal income tax on dividends received from the Lone Star Gas Company.

Reduction in Domestic Gas Rate to Give 6 Per Cent Return for 1931.—The 1931 sales of domestic gas amounted to 17,023,686.7 M cu. ft. (Ex. 26, pp. 22 and 23). By dividing the $1,368,559.70 excess earnings over and above a 6 per cent return for 1931 by domestic gas sales, we obtain 8.039 cents per M cu. ft. as the reduction in domestic gas rates necessary to give a 6 per cent return for the year 1931, on the basis of allowing a Return on both Production and Transmission Properties and of allowing all production expenses (Method (2)). By dividing $1,767,859.76 excess earnings over and above a 6 per cent Return for 1931 by the domestic gas sales, we obtain 10.385 cents per M cu. ft. as the reduction in domestic gas rates necessary to give a 6 per cent Return for the year 1931 on the basis of allowing the value of the gas produced by the Company at the prevailing price at the well head (Method (3)). This would be the reduction if the Lone Star Gas Company were to receive for the gas it produced the same price it was paying other owners.

Return on Transmission and Production Properties for Years 1927 to 1932 Based Upon 8-Cent Reduction in Domestic Gas Rate.—Net Earnings before Dry Hole Expense, Cancelled and Surrendered Lease Expense, Depreciation, Depletion, Return, and Federal Income Tax (and after Management Fees) were as follows for the years 1927 to 1932, inclusive (Ex. 26, p. 4):

1927	$5,149,429.76
1928	5,592,596.78
1929	6,442,758.41
1930	5,995,077.14

[fol. 19-76]

1931	5,214,273.65
1932	5,280,594.07

The average dry hole expense which we have heretofore found amounts to $79,453.12 per annum and the cancelled and surrendered lease expense amounts to $99,140.73 per annum, or a total of $178,593.85 per annum.

By deducting $178,593.85 from the Net Earnings as found above for each of the years we find Net Earnings before Depreciation, Depletion, Return, and Federal Income Tax (and after Management Fees) as follows:

1927	$4,970,835.91
1928	5,414,002.93
1929	6,264,164.56
1930	5,816,483.29
1931	5,035,679.80
1932	5,102,000.22

The Lone Star Gas Company began with the year 1929 the payment of a management fee to the Lone Star Gas Corporation. We have found this payment to be almost entirely a distribution of profits to the owners of the Company. This "management fee" has been paid in the following amounts:

1929	$95,062.03
1930	105,625.72
1931	91,375.38
1932	87,197.87

By adding "management fees" back in to the Net Earnings as found above, we find Net Earnings before Depreciation, Depletion, Return, and Federal Income Tax as follows:

1927	$4,970,835.91
1928	5,414,002.93
1929	6,359,226.59
1930	5,922,109.01
1931	5,127,055.18
1932	5,189,198.09

Depletion is arrived at by multiplying the amount of Company produced gas by the unit depletion charge of $.003174 per M cu. ft. as follows:

Year	Company Produced Gas M Cu. Ft.	Unit Depletion Charge Per M Cu. Ft.	Depletion Amount
1927	2,671,443	$.003174	$8,479.16
1928	3,451,935	.003174	10,956.44
1929	5,162,647	.003174	16,386.24
1930	6,473,463	.003174	20,546.77
1931	4,924,844	.003174	15,631.45
1932	4,829,077	.003174	15,327.49

The amounts of Company produced gas for the years 1927 to 1929, inclusive, were arrived at by deducting one-[fol. 19-77] eighth royalty from the total Company production, including Petrolia. The 1931 and 1932 productions do not include the Petrolia District production. The 1932 Company produced gas above set forth does not include the gas produced by the Meridian properties which amounted to 468,182 M cu. ft. (Tr. p. 11216). We have hereinafter provided for the gas produced by the Meridian properties.

By deducting from Net Earnings as found above the Depletion for each year we find Net Earnings before Depreciation, Return, and Federal Income Tax as follows:

1927	$4,962,356.75
1928	5,403,046.49
1929	6,342,840.35
1930	5,901,562.24
1931	5,111,423.73
1932	5,173,870.60

The Lone Star Gas Company bought the Meridian properties on January 1, 1932. If the Meridian gas had been purchased at the same price paid the Meridian Gas Company (owned by the Lone Star Gas Corporation) for this

gas in 1931, viz., 15 cents per M cu. ft., it would have cost the Lone Star Gas Company $70,227.30 delivered to the Banner Measuring Station. This 15 cents price compares with the 10 cents per M. cu. ft. which was being paid (1931 and 1932) other owners adjacent to the same transmission line (Line H) but nearer to the market. We are treating the cost of this gas as an expense by reason of the method which we have adopted for providing a return on the Meridian properties which were brought into the system since the date of the valuation submitted to us.

The 1932 Net Earnings of $5,173,870.60 as given above is after Regulatory Commission Expense of $163,739.01 (Ex. 26, p. 32). We are of the opinion that this item should be capitalized and amortized over a period of ten years. The amount of $12,422.54 per annum will amortize $163,739.01 in ten years on a 6% sinking fund basis. Net earnings for 1932, therefore, will be increased $151,316.47 ($163,739.01 minus $12,422.54) by allowing the capitalization of this item.

By deducting from the 1932 Net Earnings the $70,227.30 cost at 15 cents per M cu. ft. of the gas produced by the Meridian Properties in 1932 and by adding the $151,316.47 increase by reason of the capitalization of 1932 Regulatory Commission Expense, we find the adjusted 1932 Net Earnings before Depreciation, Return and Federal Income Tax to be $5,254,959.77.

A reduction in 8 cents per M cu. ft. in the price collected for domestic gas would have reduced earnings in the following amounts, providing there has been no increase in sales by reason of the decreased price:

Year	Domestic Gas Sales M Cu. Ft. (Ex. 26, p. 5)	Reduction Per M Cu. Ft.	Amount of Reduction in Net Earnings
1927	12,171,286.7	$.08	$973,702.94
[fol. 19-78]			
1928	14,992,164.8	.08	1,199,373.18
1929	17,681,921.7	.08	1,414,553.74
1930	17,974,266.5	.08	1,437,941.32
1931	17,023,686.7	.08	1,361,894.94
1932	16,651,688.0	.08	1,332,135.04

By deducting from the "Net Earnings before Depreciation, Return and Federal Income Tax" for each year the amount of the reduction in Net Earnings resulting from an

8 cents per M cu. ft. in the domestic gas rate, we find the "Net Earnings before Depreciation, and Federal Income Tax" which would have obtained at the 8 cents per M cu. ft. lesser rate for domestic gas. The "Net Earnings before Depreciation, Return and Federal Income Tax" would have been as follows at the 8 cents per M cu. ft. lesser rate for domestic gas:

1927	$3,988,653.81
1928	4,203,673.31
1929	4,928,286.61
1930	4,463,620.92
1931	3,749,528.79
1932	3,922,824.73

The Rate Base for Transmission and Production Properties, as of December 31, 1931, which we have heretofore found, is $46,246,617.53. The Book Cost Exclusive of Petrolia Field Account was $47,696,533.11 as of December 31, 1931 (Ex. 26, p. 91). Inasmuch as a large part of the properties were built during peak-price periods, and inasmuch as the Rate Base is "undepreciated," the comparison is quite reasonable. The average book cost (including Petrolia Field Account) for the year 1927 was $29,517,879.08; 1928, $35,661,928.96; 1929, $41,340,023.12; 1930, $46,745,646.84 (Ex. 26, p. 91). These averages are of the book cost as of December 31 and as of December 31 of the year preceding, except for 1927, in which case the average is of the book costs on January 1, 1927, and December 31, 1927. For the purposes of this computation, we are adopting as a rate base the average book cost for 1927, 1928, 1929, 1930. For 1931 we are using the rate base heretofore found as of December 31, 1931, which is somewhat higher than the average for the year. For the year 1932 we are using as a basis the December 31, 1931, figure, inasmuch as the testimony shows that material and labor prices (and 1933 prices to the date of the end of the hearing) were slightly less than the prices used for material and labor as of December 31, 1931, and as adopted by us. Exclusive of the Meridian Gas Company acquisition and of the Southern Oil and Production Company acquisition the book cost of the Lone Star Gas Company shows a slight decrease during the year. Again excluding the Meridian and South-
[fol. 19-79] ern Oil and Production Company properties,

we find that a Rate Base for the year 1932 would be less than that found as of December 31, 1931, due to a small decrease in material and labor prices and to a small decrease in the public service properties. The Lone Star Gas Company purchased the properties of the Meridian Gas Company from the Lone Star Gas Corporation on January 1, 1932. Prior to that time the Lone Star Gas Company was paying fifteen cents per M cu. ft. at the Banner Measuring Station. Neither the Company witnesses nor the witness Freese submitted an appraisal of these production properties. We have allowed not only the actual production expenses but also fifteen cents per M cu. ft. for the gas produced during 1932 as a return on this property. In other words, if instead of purchasing the property the Lone Star Gas Company had continued to pay the very ample price of 15 cents per M cu. ft. to the affiliated Meridian Gas Company, the 1932 operating expenses could be eliminated from the 1932 computations. The Southern Oil and Production Properties were acquired on October 1, 1932, at a book cost of $766,600.11 for the public service properties. Inasmuch as this latter property was a part of the Lone Star Gas Company properties for the last three months of 1932, there should be an addition to the average rate base of one-fourth of $766,600.11, or $191,650.03. There should also be added one-half of the capitalization of the 1932 Regulatory Commission Expense of $163,739.01, or $81,869.50. The addition of $191,650.03 for the Southern Oil and Production Properties and $81,869.50 for the capitalization of Regulatory Commission Expenses to the December 31, 1931, rate base of $46,246,617.53 results in an average 1932 rate base of $46,520,137.06. We, therefore, find average rate bases for the years 1927-1932, inclusive, to be not more than the following:

1927	$29,517,879.08
1928	35,661,928.96
1929	41,340,023.12
1930	46,745,646.84
1931	46,246,617.53
1932	46,520,137.06

It should be clearly understood that these are "undepreciated" rate bases.

The percentage available for Depreciation, Return and Federal Income Tax is found by dividing the Net Earnings

before Depreciation, Return, and Federal Income Tax by the average "undepreciated" rate base for the corresponding years and are as follows based upon the 8 cent per M cu. ft. reduction in domestic gas rates:

[fol. 19-80]

Year	Earnings	Rate Base	Per Cent
1927	$3,988,653.81	$29,517,879.08	13.51
1928	4,203,673.31	35,661,928.96	11.79
1929	4,928,286.61	41,340,023.12	11.92
1930	4,463,620.92	46,745,646.84	9.55
1931	3,749,528.79	46,246,617.53	8.11
1932	3,922,824.73	46,520,137.06	8.43

The depreciation as related to the undepreciated rate base amounts to 2.09 per cent per annum based upon a 6 per cent sinking fund and the detail 1931 figures ($968,066.98 divided by 46,246,617.53).

The Returns based upon a domestic gas rate reduction of 8 cents per M cu. ft. would, therefore, have been:

1927	11.42
1928	9.70
1929	9.83
1930	7.46
1931	6.02
1932	6.34
Average	8.46

The 1927 and 1928 net earnings do not include the annual earnings which would reflect the amount received from the United States Government "in consideration of the Lone Star Gas Company conserving for government use the gas purchased in the Petrolia field containing in excess of one-half per cent of helium" (Ex. 26, p. 11). Spread over the ten year period of the contract and using a 6 per cent compound discount factor, these annual earnings would amount to $203,801.93 for each of the years 1927 and 1928 (Ex. 26, p. 12). The 1930 and 1931 net earnings do not include the charge of $194,279.50 made the Northern Natural Gas Company for overhead expenses incurred by the Lone Star Gas Company in connection with construction work performed for the Northern Natural Gas Company and in connection with "other corporate matters" (Ex. 26, p. 12). Spread over the two years this $194,279.50 would amount to $97,-

139.75 for each of the two years. Spread over the entire six year period 1927-1932 these earnings which have been excluded amount to a return of 0.24% on the average undepreciated rate base.

If the earnings from the Government contract and charges to the Northern Natural Gas Company had been included the return would have been approximately as follows:

1927	11.66
1928	9.94
1929	10.07
1930	7.70
1931	6.26
1932	6.58
Average	8.70

[fol. 19-81] The six year period 1927-1932 includes three years (1927-1929) which were "prosperous" years and three years (1930-1932) which were "lean" years. The conditions prevailing in the natural gas industry during each of these two periods were much the same as the conditions prevailing in comparable industries throughout the country during the same periods. The average rate of return to the Lone Star Gas Company during the six past years would have been 8.70 per cent at the proposed 8 cent per M cu. ft. reduction in domestic gas rate. The only possible way we have of predicting the average future industrial conditions is on the basis of historical average conditions. The Lone Star Gas Company has a virtual monopoly on the domestic gas business of the area it serves; its gas reserves are such as to guarantee a sufficiency during the period which we have allowed for complete amortization of the property. A gas rate which will earn a minimum return of 6 per cent during such years as the past three years and which will average in excess of 8 per cent during such years as the past six years, will certainly assure confidence in the financial soundness of the Lone Star Gas Company, will maintain its credit and will enable it to raise money necessary for the discharge of its public duties.

During the years 1927 to 1932 inclusive, the company built approximately half of its public service properties. During this period not over one-fourth of the administration and legal expense, engineering, and supervision during construction as allowed by us as part of the rate base was paid for

out of capital funds, the major portion of these costs having been paid as operating expenses and is included in the operating expenses as set forth in this section. Taxes during construction during this period were paid entirely out of the operating expenses as herein set forth. Any preliminary and organization expenses incurred during this period (1927-1932) were paid for largely out of operating expenses. All costs of acquiring new business, training personnel, keeping geological and engineering records, and of keeping the company's books were paid out of operating expenses during this period. The depreciation for the years 1927-1932 inclusive, included depreciation on any and all idle plant. The returns set forth are returns on any idle plant as well as any plant not idle.

Return on Transmission Properties Based Upon 8-Cent Reduction in Domestic Gas Rate and Allowance of Market Value of Gas at the Well Head.—If the gas produced by the Company during 1931 had been valued at the well head at the prevailing field price it would have been necessary for us to have allowed $237,233.40 for this gas. On the other hand operating expenses, depreciation, and depletion would have been reduced as follows:

Production System Expense	$60,068.40
Gro[illegible] Production Tax	1,581.56
[fol. 19-82] Depreciation of Gas Well Equipment	97,064.25
Depreciation of Other Production System Structures	1,044.33
Amortization of Overheads Applicable to Production Property	2,092.47
Depletion of Leaseholds	15,631.45
Dry Hole Expense—Average	79,453.12
Cancelled and Surrendered Lease Expense—Average	99,140.73
Total	$356,076.31

By deducting the $237,233.40 well head price of the gas from, and adding the $356,076.31 to the amount of $4,143,-356.75 previously found as available for return and Federal income tax for 1931, we arrive at $4,262,199.66 as the amount available for return and Federal income tax on the basis pricing all gas at the well at the prevailing field price. A re-

duction of 8 cents per M cu. ft. in the domestic gas rate would have decreased the 1931 earnings $1,361,894.94 leaving $2,900,304.72 as the amount available for return and Federal income tax at the reduced rate.

We have heretofore found a Rate Base applicable to Transmission Properties of $41,572,331.62. The per cent available for Return and Federal Income Tax is therefore 6.98 per cent ($2,900,304.72 divided by $41,572,331.62) for the year 1931 on this basis. On the alternative basis (Return on Transmission and Production Properties Based Upon 8 Cent Reduction) used in the previous computation the return was 6.02 per cent before giving effect to Government and Northern Natural earnings. The difference due to the different treatment of production properties is .96 per cent. The return for the other years would be affected by substantially the same difference as in 1931, viz., .96 per cent. Taking into consideration the earnings from the Government Contract and the Northern Natural Gas Company, the return on the basis of an 8-cent reduction in domestic gas rate and on the basis of the prevailing price of gas at the well head the return would have been as follows:

1927	12.62
1928	10.90
1929	11.03
1930	8.66
1931	7.22
1932	7.54
Average	9.66

The average return for six years is 9.66 per cent at the 8 cents reduced domestic gas rate and at the prevailing gas rate at the well head.

Corrections to Returns Above Six Per Cent.—Rates of return throughout this opinion have been computed on an undepreciated rate base and this base gives correct results to the extent of the rate of interest used for sinking fund [fol. 19-83] accruals, viz., six per cent. Any return above six per cent should be computed on a depreciated rate base. Inasmuch as the depreciation reserves actually set up by the Company are substantially in the correct amount and are substantially the same as the sinking fund method of handling depreciation requires, the ratio of the book value to the book cost may serve as a fairly accurate basis of cor-

recting the return above six per cent to a depreciated rate base. The ratios of book value to book cost are as follows as of December 31st of each year (from Ex. 26):

1927	.7237 to 1.0000
1928	.7266 to 1.0000
1929	.7561 to 1.0000
1930	.7700 to 1.0000
1931	.7473 to 1.0000
1932	.7199 to 1.0000

The excess of return at the 8-cent reduced rate, including the earnings from the Government Contract and the Northern Natural Gas Company, and valuing the gas at the well head at the prevailing field price, over and above 6 per cent, is as follows for each of the years 1927-1932, inclusive:

1927	6.62
1928	4.90
1929	5.03
1930	2.66
1931	1.22
1932	1.54
Average	3.66

The returns, 6 per cent on an undepreciated rate base and the remainder on a depreciated rate base, at the 8-cent reduced rate (and including earnings from Government and Northern Natural Contracts and valuing well head gas at the prevailing field prices) would be:

1927	15.15
1928	12.74
1929	12.65
1930	9.45
1931	7.63
1932	8.14
Average	10.96

The average for the six years, including the three "prosperous" and the three "lean" years is 10.96 per cent at the 8-cent reduced rate and on the above basis. A correction to the other tabulations of rates of return using a depreciated rate base for the returns in excess of 6 per cent can be made in this same manner.

[fol. 19-84] Order of the Commission

The Railroad Commission having instituted a proceeding upon its own motion inquiring into the rates charged by the Lone Star Gas Company for domestic gas sold to distributing companies at the city gate station, hereby finds as a fact that the rate of $0.40 per thousand cubic feet as now charged by Lone Star Gas Company is unfair, unjust and unreasonable.

Basing its order on the foregoing finding of fact and on such other findings and statements of facts as are set out in the opinion next preceding this order, or in this order

It is Ordered, Adjudged and Decreed that effective as of the next billing date the Lone Star Gas Company shall charge, bill and receive for domestic gas at the city gate from all distributing companies served by it, a rate not to exceed $0.32 per thousand cubic feet.

It is Further Ordered, Adjudged and Decreed that a rate not to exceed $0.32 per thousand cubic feet at the city gate is hereby fixed, approved and promulgated and found and declared to be fair, just and reasonable and shall remain in force and effect until the Commission shall have otherwise determined, pursuant to other proceedings in respect to the fixing of city gas rates for domestic gas on said Lone Star Gas Company's lines.

It is Further Ordered, Adjudged and Decreed that this proceeding shall be kept open for such further orders as may be proper.

The foregoing opinion and order are hereby approved and ordered filed as the opinion and order of the Railroad Commission of Texas.

Dated at Austin, Texas, this 13th day of September A. D. 1933.

Railroad Commission of Texas, Lon A. Smith, Chairman. C. V. Terrell, Commissioner. Ernest O. Thompson, Commissioner.

Attest: C. F. Petet, Secretary. (Seal.)

[fol. 20] EXHIBIT "B" TO PETITION

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE WESTERN DISTRICT OF TEXAS, AUSTIN DIVISION

In Equity. No. 467

LONE STAR GAS COMPANY, Plaintiff,

vs.

RAILROAD COMMISSION OF TEXAS et al., Defendants

On this 11th day of November, A. D. 1933, came on to be heard the application of Lone Star Gas Company, plaintiff, for an interlocutory injunction in the above styled and numbered cause, before a court of three judges duly called and assembled pursuant to the provisions of Section 266 of the Judicial Code of the United States, as amended. Whereupon the defendants Lon A. Smith, C. V. Terrell and E. O. Thompson, the members of and constituting the Railroad Commission of Texas, and James V. Allred, Attorney General of the State of Texas, presented a motion for stay of proceedings herein; and

It appearing to the Court from the motion of the said defendants for stay of proceedings herein, that the said defendants together with the State of Texas had as plaintiffs instituted a suit against Lone Star Gas Company, the plaintiff herein, as defendant in Docket No. 53033 in the Fifty-[fol. 21] third Judicial District Court of Travis County, Texas, to restrain and enjoin the violation by Lone Star Gas Company of the terms, provisions and requirements of an order, Exhibit A in plaintiff's bill of complaint herein, entered by the Railroad Commission of Texas on September 13th, 1933, fixing and prescribing rates to be charged for natural gas and natural gas service by Lone Star Gas Company at the city gates of numerous towns, cities and communities in the State of Texas and that such suit involves the validity of said order of the Railroad Commission of Texas; and

It further appearing to the Court from said motion to stay all proceedings herein, that upon a motion of the State of Texas and the defendants herein, Lon A. Smith, C. V. Terrell and E. O. Thompson, the members of and constituting

the Railroad Commission of Texas, and James V. Allred, Attorney General of the State of Texas, filed by them as plaintiffs in said cause No. 53033 on the docket of the Fifty-third Judicial District Court of Travis County, Texas, the said State Court did on the 5th day of October, 1933, enter an order staying all proceedings against the plaintiff herein, Lone Star Gas Company, either under the terms, provisions and requirements of the Railroad Commission's said order of date September 13th, 1933, or under the rules and regulations of the Railroad Commission of Texas or under any law of this State, pending the final determination of said suit in the Fifty-third Judicial District Court of Travis County, Texas, and which said stay order restrains the Railroad Commission of Texas, the individual members thereof, the Attorney General of Texas and all other officials and employees of the State of Texas or of the Railroad Commission or of any other State department, and all other persons, from instituting or prosecuting any proceeding [fol. 22] against plaintiff herein, Lone Star Gas Company, under said order of said Railroad Commission; or from attempting to enforce the duties, obligations and requirements imposed upon plaintiff herein by said order or by the rules and regulations of the Railroad Commission of Texas, or by any law of this State, whether by suit for mandamus, mandatory injunction, injunction, penalties, damages, quo warranto, forfeiture or receivership, pending a decision by the said Fifty-third Judicial District Court of Travis County, Texas, of the constitutionality of said order; and restraining all said State officials and departments and their employees and all other persons from enforcing or attempting to enforce the provisions of said order against Lone Star Gas Company, plaintiff herein, until the final determination by said Fifty-third Judicial District Court of Travis County, Texas, of cause No. 53033 on the docket of said court; and that said order provides that plaintiff herein, Lone Star Gas Company, shall not be subjected to any penalties, damages or forfeitures on account of the failure of said plaintiff herein to comply with the terms and provisions of the said order of the Railroad Commission of Texas entered on September 13th, 1933, or on account of any provisions of the Statutes of the State of Texas where such failure to comply with the law has taken place or takes place before the final determination of said cause No. 53033 on the docket of said District Court; and

The defendants Lon A. Smith, C. V. Terrell and E. O. Thompson, the members of and constituting the Railroad Commission of Texas, and James V. Allred, Attorney General of the State of Texas, having announced in open court by and through Elbert Hooper, First Assistant Attorney General of the State of Texas, counsel of record for said defendants and by whom said defendants appeared in this [fol. 23] Court, that the said defendants and the State of Texas, and each and all of them, did not desire to enforce and had no intention of enforcing or attempting to enforce against the plaintiff herein, Lone Star Gas Company, any of the pains, penalties or forfeitures provided for by law by reason of any violation by Lone Star Gas Company of the terms, provisions and requirements of said order, committed or done by said plaintiff herein at any time before the final determination of said cause No. 53033 on the docket of the Fifty-third Judicial District Court of Travis County, Texas, and that said order entered in the State Court was to be construed as suspending the operation of the said order of the Railroad Commission pending the final determination of said cause; and said Assistant Attorney General of the State of Texas, for said defendants, herein announced in open court that said defendants would consent and agree to an injunction by this Court entered in this cause, restraining said defendants, and each of them, from at any time enforcing or attempting to enforce against the plaintiff herein, Lone Star Gas Company, any of the pains, penalties or forfeitures which may arise or accrue because of or by reason of any violation of the terms, provisions and requirements of said order by plaintiff herein, committed or done herein by the plaintiff, Lone Star Gas Company, at any time prior to final determination of said cause No. 53033 on the docket of the Fifty-third Judicial District Court of Travis County, Texas; and

It appearing to the Court that by reason of said stay order in said Cause No. 53033 in the Fifty-third Judicial District Court of Travis County, Texas, and by reason of the aforesaid statements of the said defendants herein in open court, by and through Elbert Hooper, First Assistant At- [fol. 24] torney General, that the plaintiff herein, Lone Star Gas Company, is fully protected from the imposition of any and all pains, penalties and forfeitures provided by law and arising by reason of the violation by Lone Star Gas Company, plaintiff herein, of any of the terms, provisions

and requirements of the said order of the Railroad Commission of Texas of date September 13th, 1933, done at any time prior to the final determination of said cause No. 53033 on the docket of the Fifty-third Judicial District Court of Travis County, Texas, and that upon the entry of an interlocutory injunction in this cause in compliance with the consent statements of said Assistant Attorney General, Elbert Hooper, and of the stay order of this Court, the requirements of Section 266 of the Judicial Code of the United States, as amended, will be complied with:

It Is, Therefore, Ordered, Adjudged and Decreed that the defendants Lon A. Smith, C. V. Terrell and E. O. Thompson, being the members of and constituting the Railroad Commission of Texas, and their respective successors in office and all of the assistants, agents, attorneys and representatives of the said defendants be, and each of them is hereby restrained and enjoined from enforcing or attempting to enforce, or from giving any effect to, by any means or methods, the said order of the Railroad Commission of Texas dated September 13th, 1933, directed against the plaintiff, Lone Star Gas Company, or any of the pains, penalties or forfeitures provided by law for any such violation of an order of said Commission by reason of the violation of any of the terms, provisions and requirements of said order, committed by plaintiff, Lone Star Gas Company, at any time prior to the final judgment in said cause No. 53033 on the docket of the Fifty-third Judicial District Court of Travis County, Texas.

[fol. 25] It Is Further Ordered that all proceedings in this cause shall be stayed in this court pending the final determination of cause styled The State of Texas et al. vs. Lone Star Gas Company, No. 53033 on the docket of the Fifty-third Judicial District Court of Travis County, Texas.

To the foregoing action of the Court in ordering a stay of all proceedings in this cause in this Court pending the final determination of said cause styled The State of Texas et al. vs. Lone Star Gas Company on the docket of the Fifty-third Judicial District Court of Travis County, Texas, the plaintiff took its exception in open court and such exception was allowed.

It is Further Ordered, however, that jurisdiction is hereby retained in this Court to enter such other and further orders upon the motion of either party as may be necessary

to protect the jurisdiction of this Court or to protect the rights of any party herein.

—— ——, United States Circuit Judge. —— ——, United States Circuit Judge. —— ——, United States Circuit Judge.

[File endorsement omitted.]

[fol. 26] In District Court of Travis County

[Title omitted]

Order Staying Proceedings—October 5, 1933

On This the 5th day of October, A. D. 1933, came on to be heard the motion of the plaintiffs in the above entitled and numbered cause for a stay of all proceedings under the order of the Railroad Commission of Texas entitled Gas Utilities Docket No. 75, dated September 13, 1933, fixing and prescribing the rates and charges to be collected by Lone Star Gas Company for natural gas sold by it at the city gates of the various cities, towns and communities served by the defendant in this State; and all proceedings in connection therewith under the laws of this State and under the rules and regulations of the Railroad Commission; and the Court, having considered said motion and the facts alleged in connection therewith, is of the opinion that the same should be granted.

It is therefore Ordered by the court that all proceedings against the defendant, Lone Star Gas Company, under and by virtue of the Railroad Commission's order entitled Gas Utilities Docket No. 75 and dated September 13, 1933, prescribing and fixing the rates to be charged and collected for natural gas sold at the city gates of the various cities, towns and communities served by said Lone Star Gas Company in this State, and all proceedings under and by virtue of the laws of this State and the rules and regulations of the Railroad Commission of Texas, be, and the same are hereby stayed pending the determination in this court of [fols. 27-30] the matters and controversies involved in this cause.

It is further Ordered that the Railroad Commission of Texas and Lon A. Smith, C. V. Terrell and Ernest O.

Thompson, and James V. Allred, Attorney General of Texas, and all other departments, officers, agents, servants and employees of said department and said officers, and all other persons in this State, shall refrain from instituting or prosecuting any proceedings against defendant, Lone Star Gas Company, on account of said order of said Railroad Commission entered on September 13, 1933, or from attempting to enforce any of the duties, obligations and requirements imposed upon the defendant herein by said order or by the laws of this State, whether by suit or mandamus, mandatory injunction, injunction, penalties, damages, quo warranto, forfeiture or receivership, or for any other penalties pending a decision by this court of the matters and things involved in this cause, and all said state officers, their agents, servants and employees, and all other persons, shall refrain from enforcing or attempting to enforce the terms and provisions of said order of the Railroad Commission against the defendant until the determination of this cause in this court.

It is further Ordered that the defendant herein shall not be subjected to any penalties, damages, or forfeitures on account of its failure to comply with the terms and provisions of the said order of the Railroad Commission entered on September 13, 1933, or on account of any provisions of the statutes of this State where such failure to comply with the law has taken or takes place before the final determination of this cause.

C. A. Wheeler, Judge, 53rd District Court of Travis County, Texas.

[fols. 31-35] In 53rd Judicial District Court, Travis County, Texas

[Title omitted]

Second Amended Answer of Lone Star Gas Company, Defendant—Filed May 30, 1934

Comes Now Lone Star Gas Company, a corporation, defendant in the above styled and numbered cause, and, leave of the court having been had and obtained, files this its Second Amended Original Answer, replying to the Second Amended Original Petition of plaintiffs heretofore filed herein, and would respectfully show:

A

That this Honorable Court has no jurisdiction to entertain plaintiffs' second amended original petition filed herein, or cause or causes of action therein set out and alleged, nor to grant the relief prayed for therein, because:

* * * * * * *

[fol. 36] 3. This Honorable Court should not entertain plaintiffs' second amended original petition, or the cause or causes of action therein set out, nor should it assume jurisdiction of this suit and permit plaintiffs to proceed with the trial of the same upon the merits for the following reason, towit:

It is a fact which will not be disputed upon the trial of this cause, that a substantial portion of natural gas sold by defendant to various distributing companies at the city gates of various towns and cities in Texas moves at high pressures through defendant's large pipe lines extending through and from the State of Oklahoma and into the State of Texas, up to the city gates of various towns and cities in Texas. Furthermore, it appears from the statement accompanying the opinion and order of the Commission, and attached to plaintiffs' second amended original petition as Exhibit "A" thereto, that defendant is engaged

"in the production, transportation and sale at wholesale of natural gas * * * and engages in both interstate and intrastate commerce in the selling of gas to some 300 cities and towns in the States of Oklahoma and Texas."

It further appears that the order of the Railroad Commission attached to plaintiffs' second amended original petition as Exhibit "A" decrees that

"Lone Star Gas Company shall charge, bill and receive for domestic gas at the city gate, from all distributing companies served by it, a rate not to exceed 32 cents per thousand cubic feet."

[fol. 37] It further appears from plaintiffs' first supplemental petition filed herein, that a part of the natural gas sold by defendant at the city gates of various towns and cities in the State of Texas is transported through defend-

ant's natural gas pipe lines extending into Texas and through and from the State of Oklahoma.

These facts, which are not disputed, but are uncontroverted, will appear upon the evidence offered at the trial of this cause, and upon the introduction of the same, it will be apparent, as a matter of law, that the order of the Railroad Commission attached to plaintiffs' second amended original petition as Exhibit "A" was intended to, and does apply to natural gas transported by defendant in interstate commerce, and was intended to, and does, prevent defendant from charging for domestic gas at the city gate from all distributing companies served by it, a rate not to exceed 32 cents per thousand cubic feet for gas moving in interstate as well as gas moving in intrastate commerce, and that said order, representing an attempted exercise of a jurisdiction which the Railroad Commission of Texas does not possess, and being unconstitutional as in violation of the Commerce Clause of the Constitution of the United States insofar as it purports to, and does, affect the interstate business of the defendant, and, being indivisible, and being of such nature as that it does not appear therefrom that the Railroad Commission of Texas would have promulgated and entered the same had it known that it could not prescribe a rate to be charged for all gas sold and delivered by the defendant, [fol. 38] same is void and unenforcible in its entirety, and suit thereon cannot be maintained.

Defendant avers that it has been the purpose of plaintiffs, in their second amended original petition, to so allege the facts upon which their cause or causes of action stated therein are based, as to prevent it from appearing that defendant is engaged, in part, in the sale, transportation and delivery of natural gas of interstate commerce in order that its said petition may not be subject to general demurrer as would otherwise be the case; and to require this defendant to be put to a trial of this cause on the merits, at tremendous expense to this defendant, an expense to which this defendant should not be put in good conscience. Defendant says that it is the purpose and intention of plaintiffs to so plead in their second amended original petition as to prevent the law questions involved upon the undisputed facts from being determined preliminarily, to a trial upon the merits of said cause, and that the purpose of its pleading in this respect is to require this Honorable Court to main-

tain jurisdiction in this cause and try this case upon its merits, although, in view of the length of time which will be consumed in the trial of the case, and the great expense not only to this defendant, but to the taxpayers of this State, a trial on the merits should be avoided if it may be made to appear that the plaintiffs have no right to maintain this suit and invoke the jurisdiction of this Honorable Court in advance of such a trial on the merits.

[fol. 39] Wherefore, defendant prays that it be permitted to offer proof in connection with this, its plea to the jurisdiction, showing sufficient facts to permit this Honorable Court, at this time, to determine whether the order of the Railroad Commission is void in its entirety and unenforcible, and that, upon hearing in connection herewith, it be determined that the said order is void and unenforcible, and that, thereupon, plaintiffs' second amended original petition, and the cause or causes of action alleged therein, be dismissed, and that it have its costs.

4. This Honorable Court has no jurisdiction to entertain the cause of action set forth in plaintiffs' second amended original petition, because:

It appears from the order of the Commission attached to plaintiffs' second amended original petition, that the Railroad Commission of Texas therein ordered, adjudged and decreed

"That Lone Star Gas Company shall charge, bill and receive for domestic gas at the city gate, from all distributing companies served by it, a rate not to exceed 32 cents per thousand cubic feet."

It further appears from said order of the Commission that said rate was fixed, approved and promulgated as fair, just and reasonable. It appears from plaintiffs' second amended original petition, that this suit is brought by plaintiffs pursuant to the provisions of Article 6059 of Title 102 of the 1925 Revised Civil Statutes of Texas, and it is alleged to be in the nature of an appeal from the said order of the Commission. In this connection, defendant avers that, although in their original and first amended original peti-
[fol. 40] tions, plaintiffs herein sought to enforce the opinion and order of the Railroad Commission as to all gas transported, sold and delivered by defendant, they now

seek, in their second amended original petition, to enforce the same only as to gas delivered at the city gates of various cities and towns in the State of Texas where defendant is engaged in intrastate commerce. That plaintiffs' right to maintain the suit alleged in their second amended original petition depends upon a determination that 32 cents is a just and reasonable rate and charge for gas moving in intrastate commerce. The order of the Commission sought to be enforced herein, and involved in this cause, which plaintiffs designate as an appeal, does not fix, or purport to fix a rate of 32 cents per thousand cubic feet for gas moving solely in intrastate commerce. It is apparent, therefore, that the issues involved in this suit as made by plaintiffs' pleadings will be the reasonableness of an order which the Commission in fact did not make, and that, whereas on an appeal from the order of the Commission, if in fact this suit was an appeal therefrom, the question would be the reasonableness or unreasonableness of the order of the Commission insofar as the procedure outlined in Article 6059 is concerned, the issue in the case as made by plaintiffs' second amended original petition is the reasonableness of a charge of 32 cents for intrastate gas or for gas at various towns and cities supplied by defendant in intrastate commerce. It, therefore, appears that, in fact and in law, plaintiffs' second amended original petition does not constitute an appeal from [fols. 41-42] the order of the Commission, nor is the same in the nature of an appeal from the order of the Commission.

The jurisdiction of this Honorable Court is invoked pursuant to the provisions of Article 6059 by the plaintiffs herein. It is apparent that, under the issues made by plaintiffs' second amended original petition, this cause does not come within the purview of Article 6059, and this court does not have jurisdiction by virtue of the provisions of said Article, and plaintiffs herein are seeking a determination not of the reasonableness and justness of the order of the Commission actually entered, but as to the reasonableness and justness of a rate which the Commission, in its said order, did not promulgate, and did not hold just and reasonable for intrastate gas.

Therefore, defendant says that this Honorable Court does not have jurisdiction to entertain this suit by virtue of the provisions of Article 6059. Nor does it have original jurisdiction to entertain the same inasmuch as in order to deter-

mine the reasonableness or unreasonableness of a rate of thirty-two cents for gas moving exclusively in intrastate commerce it would be necessary for this court to be vested with legislative powers for the determination of what is a reasonable rate for intrastate gas in the first instance requires legislative action.

Wherefore, defendant says that this suit cannot be maintained, and plaintiffs' second amended original petition and causes of action therein set out should be dismissed for want of jurisdiction.

* * * * * * *

[fols. 43-44] Wherefore, for all of the reasons stated in each of its foregoing pleas, defendant prays that plaintiffs' second amended original petition, and the cause or causes of action alleged therein, be dismissed, and that it have its costs.

Lone Star Gas Company, by Karl F. Griffith, Thompson & Barwise, Ben H. Powell, Roy C. Coffee, Marshall Newcomb, Its Solicitors.

[fols. 45-52] B.

Subject to and without waiving its pleas to the jurisdiction of this Honorable Court hereinabove set forth, defendant says that this proceeding and the cause and causes of action formally alleged in plaintiffs' second amended original petition, should be abated for the following reasons:

* * * * * * *

[fol. 53] 6. It is alleged in plaintiffs' petition that one of the purposes of this proceeding is to obtain a judgment of this Honorable Court as to the constitutionality of the opinion and order of the Railroad Commission and the reasonableness and non-confiscatory character of the rate determined therein; and that plaintiffs herein are invoking the provisions of Article 6059, Revised Statutes of 1925, as a basis for their action in this respect. At the time this [fol. 54] proceeding was instituted on October 5, 1933, there was pending in the United States District Court for the Western District of Texas, Austin Division, a suit instituted by Lone Star Gas Company as complainant, against the parties plaintiff herein and others as defendants,

wherein an injunction was sought against the enforcement of the opinion and order of the Railroad Commission upon allegations of its unconstitutionality and unreasonable and confiscatory nature. Defendant says that the suit instituted by it in the United States District Court for the Western District of Texas, Austin Division, above referred to, was authorized and permitted by the will of the Legislature of the State of Texas, expressed in the provisions of Article 6059, Revised Statutes 1925, giving to any utility dissatisfied with any order of the Commission the right to file a petition setting forth the particular cause of objection in a court of competent jurisdiction in Travis County, against the Commission as defendant. Defendant says that the United States District Court for the Western District of Texas, at Austin, Texas, is a court of competent jurisdiction in Travis County, Texas; that its right to file the suit which it did file in the United States District Court for the Western District of Texas, at Austin, was expressly authorized by Article 6059 and by the Legislature.

Defendant says that this suit has for one of its purposes at least, the rendition of a judgment upholding the constitutionality, validity and reasonableness of the order of the Commission, all of which are alleged by plaintiffs; that these matters will be issues of fact and law involved herein [fol. 55] and are raised by plaintiffs' petition; that this suit was filed subsequent to the proceedings instituted by defendant in the United States District Court for the Western District of Texas, at Austin. That if plaintiffs are permitted to prosecute this proceeding, involving as it does, upon the allegations of plaintiffs' second amended original petition, the same questions of constitutionality, reasonableness and confiscation involved in the proceedings theretofore instituted in the United States District Court for the Western District of Texas, plaintiffs will be permitted to deprive this defendant of the right conferred upon it by law under the provisions of Article 6059, Revised Statutes 1925, to have these matters litigated and determined by a court of its choosing in Travis County, Texas, which in this particular instance was the United States District Court for the Western District of Texas.

Defendant says that none of the plaintiffs herein are given any right, power or authority by any constitutional or statutory provision of the State of Texas, nor is any right, power or authority inherent in them, as holders of

the public offices occupied by them, to maintain this proceeding or to invoke the jurisdiction of this court to determine the matter of the reasonableness, validity and constitutionality of the opinion and order of the Commission in question, or to require this defendant to litigate herein, contrary to its wishes, the matters which it elected to have litigated in another equally competent court in Travis [fol. 56] County, Texas, and to deprive it of the privilege of election conferred upon it in Article 6059.

Defendant says that none of the plaintiffs have any right or authority to maintain these proceedings against it, nor to abrogate by executive action the legislative will, as embodied in the provisions of Article 6059.

Wherefore, plaintiffs being without authority to maintain this proceeding, defendant prays that same be abated and that it have its costs.

* * * * * * *

[fol. 57] 8. It appears from plaintiffs' second amended original petition that plaintiffs, among other things, seek to perpetually and permanently enjoin defendant from charging or collecting any rates or charges for domestic and residential gas at the city gates of the various cities and towns served by it in intrastate commerce in this state except those particular rates and charges duly authorized and prescribed by order of the Railroad Commission of Texas. It does not sufficiently appear, however, whether plaintiffs are seeking to restrain defendant from charging rates in excess of those prescribed by the Commission for gas transported exclusively in intrastate commerce or whether plaintiffs seek to prevent defendant from charging any amount in excess of the rate prescribed by the Commission for gas delivered at the city gates of various towns and cities, even though part of the gas so delivered shall have moved and been transported in interstate commerce.

If the purpose of said suit, insofar as it seeks the equitable jurisdiction of this court is to prevent defendant from charging in excess of rates prescribed by the Commission for gas moving in intrastate commerce and not to prevent its charging rates in excess thereof for gas which is moved in interstate commerce, then defendant says that plaintiffs'

second amended original petition and the cause or causes of action therein set out should be abated because:

(a) The order of the Railroad Commission applies to all gas sold by defendant to all distributing companies [fol. 58] served by it, and fixes a rate of 32 cents per thousand cubic feet as the reasonable rate to be charged for all such gas; whereas the cause of action alleged in plaintiffs' second amended original petition seeks to prevent defendant from charging in excess of 32 cents for gas moving exclusively in intrastate commerce. The suit instituted by plaintiffs purports to be one in the nature of an appeal from the order of the Railroad Commission and the jurisdiction of this Court is invoked by virtue of the provisions of Article 6059, and those provisions alone. It does not appear from the order of the Railroad Commission that the said Commission investigated or undertook to investigate the reasonableness of the charge to be made and collected by defendant for gas moving exclusively in intrastate commerce, nor does it appear that the said Commission would have adopted the said order if, in fact, it had known that it had no jurisdiction or authority to fix and determine rates for all of the gas sold and delivered by defendant.

Therefore, inasmuch as a part of the gas so sold and delivered by defendant moves in interstate commerce from and through the State of Oklahoma into the State of Texas, and up to the city gates of various towns and cities, it is apparent that the purpose of the suit now sought to be maintained by plaintiffs in their second amended original petition involves issues of fact not involved in the investigation of the Railroad Commission and made the basis of its order, and that the purpose of plaintiffs' suit is to secure in the first instance a judgment of this Court determining [fol. 59] that 32 cents per thousand cubic feet for intrastate gas is reasonable, and to secure such a judgment in advance of any investigation of the reasonableness of said rates by the Commission or of an order of the Commission finding the same to be reasonable, and thus, to seek a judgment of this Court in what purports to be an appeal from the order of the Commission, determining in the first instance and acting legislatively, that 32 cents per thousand cubic feet is a reasonable rate for gas moving in intrastate commerce. This Honorable Court has no jurisdiction to fix rates in the first instance, and since it appears, in fact, that

this suit is not an appeal from the order of the Railroad Commission, and is not predicated thereon, same cannot be maintained at this time, if at all, and has been prematurely brought.

(b) It appears from the statement of the Railroad Commission of Texas attached to the opinion and order of the said Commission, marked Exhibit "A", and referred to in plaintiffs' second amended original petition, that Lone Star Gas Company is engaged in the production, transportation and sale at wholesale of natural gas, engaging in both interstate and intrastate commerce in the sale of gas to some 300 cities and towns in the States of Oklahoma and Texas. The order of the Commission undertakes to fix a reasonable rate for all of the gas supplied by Lone Star Gas Company to distributing companies. Defendant is engaged in transporting, selling at wholesale and delivering in interstate commerce, natural gas at the city gates of various towns and cities. The gas so delivered by defendant at the city gates of the said towns and cities was, at the time of the [fol. 60] investigation of the Railroad Commission and the entry of its order, and is now, being transported uninterruptedly through defendant's high pressure pipe lines from the State of Oklahoma into the State of Texas. The business of transporting natural gas uninterruptedly through defendant's high pressure pipe lines from the State of Oklahoma into the State of Texas and from the State of Texas through Oklahoma and back into the State of Texas is national in character and constitutes interstate commerce and transportation and also constitutes a substantial portion of defendant's entire natural gas business. Defendant says that the order of the Railroad commission was intended to and does, in fact, prescribe the rate to be charged for all gas sold by it, including interstate gas, and, thereby, prevents it from charging and receiving the price for interstate gas which it now charges and receives, and, therefore, is a burden upon, and a direct regulation of interstate commerce; that the order of the Commission is void insofar as it relates to interstate commerce, and gas sold by defendant moving in interstate commerce under the Commerce Clause of the Federal Constitution, and, being void in part, and being indivisible in character, it is void in its entirety, and cannot be enforced in whole or in part.

None of the plaintiffs herein are given any right, power or authority by law to enforce or bring any proceedings looking to the enforcement of a void order of the Commission.

Wherefore, defendant says that plaintiffs herein have no power or authority to maintain this proceeding, nor are they the proper parties to maintain the same, and it prays [fols. 61-62] that this cause be abated and that it have its costs.

* * * * * * *

[fol. 63] 11. There is no statutory authority for the maintenance of a proceeding of the kind and character instituted therein. Nowhere in the Constitution or statutes of the State of Texas are there any provisions guarantee-[fol. 64] ing to defendant, that upon a trial of the cause, involving as it does, upon the basis of the allegations contained in plaintiffs' second amended original petition, the question of the reasonableness and constitutionality of the opinion and order of the Commission, it will receive and will be entitled to the independent judgment of this Honorable Court, and the appellate courts of the State of Texas on the law and facts involved in such determination, a right preserved in the Constitution of the United States; nor that it will receive, or is entitled to demand the sort of hearing necessary to constitute due process under the Fourteenth Amendment to the Constitution of the United States.

Defendant says that it is entitled to have the matter of its rights in these respects determined by law in advance of a trial herein, and that it should not be compelled to proceed to a trial herein involving as it does, among other things, its rights under the Constitution of the United States, until and unless the Legislature by appropriate enactment, outlines the procedure to be followed in cases of this character guaranteeing to it in advance of any trial, that it will receive and will be entitled to demand the independent judgment of this Honorable Court and the appellate courts of this state on the questions of fact and law involved in the matter of the constitutionality and reasonableness of the opinion and order of the Railroad Commission. Defendant says that to compel it to go to trial at this time, in the absence of a definite and certain procedure guaranteeing to it due process of law, would amount to a violation

[fol. 65] of its constitutional rights under the due process clause of the Fourteenth Amendment, and that to avoid the violation of the same it is necessary and appropriate that this action be abated and that it have its costs.

Lone Star Gas Company, by Karl F. Griffith, Thompson & Barwise, Ben H. Powell, Roy C. Coffee, Marshall Newcomb, Its Solicitors.

THE STATE OF TEXAS,
County of Dallas:

Before me, a Notary Public in and for Dallas County, Texas, on this day personally appeared Karl F. Griffith, who being by me first duly sworn, deposes and says that he is Vice-President of Lone Star Gas Company, defendant herein; that he has read the foregoing pleas in abatement and knows the contents thereof; and that the matters of fact therein stated are true and correct.

Karl F. Griffith.

Subscribed and sworn to before me this 29th day of May, 1934. Mrs. Treva P. Leverton, Notary Public in and for Dallas County, Texas. (Seal.)

[fols. 66-71] Without waiving any of its pleas hereinbefore set out, but still insisting on the same and subject to the same and the action of the court thereon, defendant would respectfully show the court as follows:

C

* * * * * * *

[fol. 72] 9. Defendant demurs and excepts to plaintiffs' second amended original petition, and says that the same is insufficient in law and in equity to support a judgment of this Honorable Court enjoining it in the particulars set out therein for the reason that it appears from the opinion and order of the Railroad Commission, and the statement attached thereto, that the said order of the Commission was intended to, and does apply to natural gas sold by defendant in interstate commerce, and fixes and prescribes a rate to be charged therefore, said gas being a part of the gas sold and delivered by the defendant, and the order of the Railroad Commission applying to all gas delivered by defendant to all distributing companies. That the said order, insofar as

it was intended to and does apply to and include gas moving in interstate commerce, is void as in violation of the Commerce Clause of the Constitution of the United States. That said order is indivisible and is, therefore, void in its entirety and, hence, cannot be made the basis of plaintiffs' said suit, and a suit based thereon wholly fails to state a cause of action against defendant or to justify or warrant or permit the relief sought in plaintiffs' second amended original petition.

[fol. 73] Wherefore, defendant says that this demurrer and exception should be sustained, and of the same it prays judgment of the court.

* * * * * * *

D

Subject to and without waiving its demurrers and except-
[fols. 74-113] tions above set forth.

* * * * * * *

[fol. 114] 28. Defendant specially excepts to that portion of the first paragraph in plaintiffs' prayer, contained on page 15 of their second amended original petition, wherein it is alleged that,

"Defendant be permanently and perpetually enjoined and restrained from charging or collecting any rates or charges for domestic and residential gas at the city gates of the various cities and towns served by it in intrastate commerce in this state,"

because—

(a) Said allegation is equivocal in that it does not sufficiently appear whether it is the purpose of this suit, as stated in said allegation, to restrain defendant from charg-
[fol. 115] ing in excess of 32 cents per thousand cubic feet for gas delivered at the city gate, where all of the gas so delivered moves in intrastate commerce exclusively, or whether it is the purpose of the plaintiffs to prevent defendant from charging in excess of 32 cents for all gas delivered at the various city gates receiving in part intrastate gas, even though a part of the entire amount of gas delivered at said city gates moves continually in intrastate commerce;

that defendant is legally entitled to be advised as to the scope and purport of plaintiffs' said suit, and the kind and character and extent of the relief asked against it; that it is not able to determine from said allegation what relief plaintiffs seek and what relief plaintiffs will be entitled to if they maintain their said suit, and defendant should be advised and is entitled to be advised in these particulars prior to going to trial in said cause.

Wherefore, defendant prays that plaintiffs be required to amend so as to make it clearly appear in their said prayer what relief they seek, and so as to make it possible for defendant to ascertain with certainty whether plaintiffs seek to maintain their suit simply insofar as they allege that the order of the Commission has application to gas moving exclusively in intrastate commerce, or whether they are undertaking to maintain the same as to gas moving in interstate and intrastate commerce, wherever such gases are mixed, and wherever a particular city or town is served in part with intrastate gas, although it may also be served in part with gas moving in interstate commerce.

[fol. 116] (b) Said allegation is so vague and indefinite and uncertain as not to appraise defendant in advance of the trial of this cause as to the kind and character of proof that will be offered by the plaintiffs upon a trial of the same. In this connection, defendant says that it appears from Exhibit "A" attached to plaintiffs' petition, said exhibit being the opinion and order of the Railroad Commission, that the Railroad Commission fixed 32 cents as a reasonable rate for gas by considering the value of defendant's properties located in Texas and Oklahoma, and gross revenues from the sale of all gas, as well as expenses in connection with the conduct of its interstate as well as intrastate business; that if plaintiffs now seek to maintain this suit and to sustain a rate of 32 cents for gas moving exclusively in intrastate commerce, as just and reasonable, the questions involved in such a determination will be different from those investigated by the Railroad Commission in its opinion and order, and the question of the reasonableness of the said rate as to gas moving exclusively in intrastate commerce may depend upon proof of an entirely different kind and character from that offered in the Railroad Commission's investigation and considered by it. Defendant is entitled to be appraised in advance of the

trial of this cause of the kind and character of proof which will be offered by plaintiffs in support of its prayer that defendant be enjoined from collecting rates in excess of those fixed by the Railroad Commission of Texas for gas delivered at the City gates of various towns and cities served by the defendant in intrastate commerce, and that [fols. 117-118] it must be apprised of plaintiffs' intention in this respect, in order that it may properly prepare for trial and properly prepare to meet the issues raised by plaintiffs' pleadings, whatever they may be.

Wherefore, defendant prays that plaintiffs be required to amend and make their said prayer more definite, and certain, in the particulars aforesaid, and of this exception defendant prays judgment of the court.

* * * * * * *

[fol. 119] E

Subject to its pleas, demurrers and exceptions hereinbefore set out, without waiving the same but still insisting on the same, and answering herein only if required:

1. Defendant denies generally each and every allegation contained in plaintiffs' second amended original petition and demands a strict proof of the same.

Answering further, if required, defendant, Lone Star Gas Company, pleads the following facts defensively to the purported cause or causes of action set out in plaintiffs' second amended original petition and the relief prayed for therein, and as the basis for affirmative relief hereinafter prayed by it against each and all of the plaintiffs individually and in their official capacities:

2. For more than fifteen (15) years prior to the filing of this suit the defendant has owned and operated a system of pipe lines and appurtenant equipment located in the States of Oklahoma and Texas, and during all of that time has been engaged in the production, purchase, transportation and sale of natural gas in interstate commerce in said States as a continuous and established business. From time to time and ever since its incorporation on June 4, 1909, and down to the time of the filing of this suit, additional supplies of gas being necessary for the conduct of the defendant's business, defendant has caused to be purchased in the

States of Texas and Oklahoma gas leases and gas rights and has caused to be constructed at great expense numerous pipe lines connecting its sources of gas supply in the States of Texas and Oklahoma with the markets which it serves in interstate commerce in the States of Texas and Oklahoma. [fol. 120] Defendant is engaged in the purchase, production, transportation and sale of natural gas from approximately four thousand (4,000) miles of integrated pipe line system in Texas and Oklahoma to natural gas distributing companies doing business in the two said States, and which said natural gas distributing companies serve more than two hundred thousand (200,000) customers in the State of Texas, representing a population of more than one million people. Defendant supplies natural gas at wholesale and for domestic purposes to the said distributing companies at the city gates of more than two hundred seventy-five (275) towns, cities and communities in the States of Oklahoma and Texas, at a uniform price of forty cents (40¢) per one thousand (1,000) cubic feet, with negligible exceptions necessitated by long term contracts. By virtue of its said contracts with the several distributing companies, the defendant has been engaged continuously, and is now engaged in transporting, selling at wholesale and delivering through its pipe lines in interstate commerce natural gas for domestic purposes in substantial amounts at the city gates of the following towns and cities in the State of Texas, to-wit: Dallas, Gainesville, Sherman, Wichita Falls, Denison, Denton, McKinney, Vernon, Bonham, and many others. The gas so delivered by defendant at the city gates of said [fol. 121] towns and cities has been and is now being transported uninterruptedly through defendant's high pressure pipe lines extending from the State of Oklahoma into the State of Texas.

3. That on or about the 14th day of October, 1932, the Railroad Commission of Texas ordered an investigation of the reasonableness of the rates and charges of the Lone Star Gas Company for natural gas sold and delivered at the city gates of the several towns and cities in the State of Texas where defendant was selling gas at wholesale, and set said cause or investigation for a hearing on November 1, 1932. Said cause was and is known as Gas Utilities Docket No. 75, before the Railroad Commission of Texas.

The hearings in said investigation before the said Commission were held from time to time, and evidence and exhibits were introduced to show that the contracts between the defendant and the various distributing companies, and under which contracts the defendant sells natural gas to the said distributing companies at the city gate, were reasonable and were contracts such as would be made by persons dealing at arm's length; that the rate or price of forty cents (40¢) per one thousand (1,000) cubic feet, which the defendant charges to the various distributing companies for natural gas delivered for domestic purposes at the city gates of the towns and cities served in the State of Texas by the defendant's pipe line system, was fair and reasonable; that the fair value of the property of the defendant used or useful in the business of supplying natural gas to the various distributing companies receiving gas at the city gate from the defendant was more than Seventy Million ($70,000,000.00) Dollars; that a fair minimum allowance for depreciation, depletion and amortization reserve [fol. 122] charge was more than Three Million, Four Hundred Thousand and 00/100 ($3,400,000.00) Dollars per annum; that the fair and reasonable annual net return which the defendant should be permitted to earn under rates imposed upon it by public authority was not less than ten per cent (10%) of the present fair value of its said properties used and useful in the public service after deducting operating expenses of every kind and character, including a proper allowance for depreciation, depletion and other reserves.

Defendant further shows that in the conduct of said investigation, and in the opinion and order, "Exhibit A" to plaintiffs' second amended original petition, the Railroad Commission of Texas considered and evaluated defendant's public service property in the States of Oklahoma and Texas as an integrated whole and made no effort to distinguish as between defendant's Oklahoma and Texas property and likewise did not differentiate as between the revenues and expenses of defendant arising in Texas and Oklahoma, or as between the interstate or intrastate public service business of defendant; and that said opinion and order, as more fully appears therefrom, are not based upon any segregation of defendant's public service property, revenues, or expenses in relation to the business of defendant against which said order is sought to be enforced in this proceeding.

4. That on or about the 13th day of September, 1933, the Railroad Commission of Texas handed down an order, accompanied by an opinion, in Gas Utilities Docket No. 75 before the Railroad Commission of Texas, heretofore identified as "Exhibit A" to plaintiffs' second amended original petition; that in this order, together with the accompanying [fol. 123] opinion, the Railroad Commission of Texas purported to find that the price of forty cents (40¢) per one thousand (1,000) cubic feet for domestic gas sold by the defendant to the various distributing companies was excessive and unreasonable; that said charge was excessive in the amount of eight cents (8¢) per one thousand (1,000) cubic feet; that thirty-two cents (32¢) is a reasonable price for defendant to receive for such gas; and said order in effect, commanded and decreed that the defendant, Lone Star Gas Company, should thereafter ignore its contracts with the said distributing companies, who were not parties to said investigation and hearing, and make no charge to them and receive no payments from them for domestic gas transported and delivered by it at a rate, price, or charge in excess of thirty-two cents (32¢) per one thousand (1,000) cubic feet.

Defendant shows that the Railroad Commission of Texas is the final legislative and administrative Board of Commission to which defendant may appeal, and no other legislative or administrative board, commission, body or agency of the State of Texas is authorized to supersede the rate, price or charge of the defendant as fixed by the Railroad Commission of Texas, and to establish fair, reasonable and compensatory rates in lieu thereof. Therefore, that the legislative remedy of this defendant to prevent the confiscation of its property under the said order of the Railroad Commission was exhausted upon the entry of the aforesaid order.

5. Defendant shows that subsequent to the promulgation of the opinion and order of the Railroad Commission, and on the 22nd day of September, 1933, it filed suit in the District Court of the United States for the Western District of Texas, Austin Division, against the individuals named [fol. 124] herein as parties plaintiff, and the Railroad Commission of Texas, which suit is styled Lone Star Gas Company vs. The Railroad Commission of Texas, et al., No. 467 in Equity, and said court upon the filing of a bond as required by law, issued a temporary restraining order en-

joining and restraining the members of the Railroad Commission of Texas, and the individual plaintiffs herein, from compelling or attempting to compel defendant to observe the said order of the Commission, and from compelling or attempting to compel defendant to charge the thirty-two cents (32¢) rate prescribed in such opinion and order.

On October 5, 1933, plaintiffs filed their original petition in this case in the Fifty-third Judicial District of Travis County, Texas, seeking to enjoin and restrain defendant in the particulars therein set out. Thereafter, and on or prior to November 11, 1933, the individual plaintiffs herein as defendants in the suit filed by Lone Star Gas Company against them and other parties, pending in the United States District Court for the Western District of Texas, Austin Division, filed in said United States district Court their motion to stay proceedings therein pursuant to provisions of Section 266 of the Judicial Code, Article 380, United States Code Annotated. On November 11, 1933, court of three United States Judges in said cause entered its order enjoining the members of the Railroad Commission and the Attorney General of the State of Texas, plaintiffs here, from enforcing or attempting to enforce the said order of the Commission until final judgment in this cause and staying proceedings in the suit filed by Lone Star Gas Company in the United States District Court against the individual plaintiffs herein, and others, pending final determination of this case.

[fol. 125] To the action of the said United States Court in staying proceedings instituted therein by defendant and in relegating defendant to this court for a trial of the matters involved in the said suit defendant excepted; and this its Amended answer herein is filed subject to its said exception, as well as its pleas, demurrers and exceptions heretofore filed herein, and in pleading the facts hereinbefore and hereinafter stated, defendant says that it does not waive, and does not intend to waive, but is still insisting upon its right to the trial of the issues raised by plaintiffs' said petition herein, and by its answer, in the United States District Court for the Western District of Texas, Austin Division, in Cause No. 467 in Equity, filed by it as Complainant against the individual plaintiffs herein and others as defendants.

6. Defendant shows that the opinion and order of the Railroad Commission of Texas, said opinion and order being

"Exhibit A" attached to the plaintiffs' said petition, found a reproduction cost, new, as of December 31, 1931, for Transmission and Production properties, exclusive of leaseholds, of Forty-four Million, Six Hundred Six Thousand, Three Hundred Thirty-seven & 16/100 ($44,606,337.16) Dollars; a fair value of leaseholds as of December 31, 1931, of One Million, Nine Hundred Ninety-one Thousand, Six Hundred Thirteen & 92/100 ($1,991,613.92) Dollars, and a "rate base" of Forty-six Million, Two Hundred Forty-six Thousand, Six Hundred Seventeen & 53/100 ($46,246,617.53) Dollars to cover defendant's public service property used and useful in connection with its business of purchasing, transporting, selling and delivering natural gas in interstate and intrastate commerce. Said rate base so found by the Railroad Commission of Texas was at least Twenty-three Million & 00/100 ($23,000,000.00) Dollars lower than the fair [fol. 126] and reasonable value of said property as of December 31, 1931, January 1, 1933, September 13, 1933, and now, and the method adopted, and the results reached by the Railroad Commission of Texas were erroneous and contrary to the well established rules of law in that, among other things;

(a) The said Commission completely disregarded and ignored the actual cost of defendant's public service property as reflected by its books, in the approximate amount of Fifty Million ($50,000,000.00) Dollars, which, in view of recent increases in the cost of steel pipe, and the upward trend of prices generally and particularly applicable to materials going into and comprising defendant's public service property, represented at least a minimum value of the property and elements of value included therein;

(b) The said Commission grossly under-estimated the true present reproduction cost of the public service property of the defendant and the items of property which the Commission included in its reproduction cost estimate, in that, among other things, it entirely disregarded and ignored substantial increases in the cost of steel pipe comprising by far the greater part of the value of the physical property included in the Commission's estimate;

(c) The said Commission, as is disclosed by its order and opinion, "Exhibit A" attached to plaintiffs' second amended original petition, arbitrarily and capriciously eliminated

from its so-called determination of a rate base numerous items of physical property which were and are both used and useful by the defendant in its public service business, some [fol. 127] of the items so eliminated by the Commission being as wells and gas leaseholds, and other property owned by the defendant and located in what is known as the Petrolia Field, and actually used and useful in the best judgment of the management of the defendant in connection with defendant's public service business, the actual cost of said properties in the aggregate amounting to Six Hundred Eighty-Seven Thousand, Seven Hundred Eighty-one & 13/100 ($687,781.13) Dollars; and furthermore the said Commission arbitrarily and capriciously eliminated from its so-called rate base, and contrary to the undisputed testimony in said investigation, net capital additions to the public service property of defendant in the calendar year of 1932, which net capital additions had an actual cost to defendant of Two Million, Two Hundred Fifty-seven Thousand, Six Hundred Eighty-two & 07/100 Dollars ($2,257,682.07);

(d) The said Commission wholly failed and refused to include in its so-called "rate base" as reflected by the order and opinion, "Exhibit A" attached to plaintiffs' second amended original petition, any amount to cover that element of value actually present in and constituting a part of defendant's public service property, known and referred to as "going concern value" or value resulting from the business which the defendant has developed and which it now has;

(e) The said Commission, as disclosed by its order and opinion, in stating the net income of the defendant which would be available for return under the present city gate rate of forty cents (40¢) per one thousand (1,000) cubic feet, [fol. 128] and under the thirty-two cent city gate rate made mandatory by the aforesaid order, improperly computed the net income of the defendant from its public service property for the calendar year of 1931, improperly and arbitrarily disallowed necessary operating expenses actually incurred in the amount of Two Hundred Seventeen Thousand, Eight Hundred Eighty-four & 05/100 ($217,884.05) Dollars for the calendar year of 1931, and also wholly and improperly disregarded as an operating expense the Federal income taxes which were payable for said year. In this connection, defendant would show that all of the operating expenses incurred by the defendant and reflected by its books for the

calendar year of 1931, and all other periods herein, were incurred in the exercise of good faith and reflected the best judgment of the management of the defendant.

(f) The Railroad Commission of Texas, in its said order and opinion, in computing the most available to defendant for return on its public service property, allowed only the grossly inadequate sum of Nine Hundred Sixty-eight Thousand, Sixty-six & 98/100 ($968,066.98) Dollars, or less than two per cent (2%) of the actual cost of the defendant's public service property, as an annual depreciation charge; whereas, there was no competent testimony of any kind or character introduced in said investigation before the Railroad Commission of Texas upon which such a determination could have been made.

(g) Said order and opinion does not and will not in the future permit a fair return to the defendant upon its prop- [fol. 129] erty used and useful in the public service and in the supplying of natural gas service to the various distributing companies receiving their natural gas supply wholesale at the city gate from this defendant. Said order, together with the accompanying opinion upon which said order purports to be based, does, in fact, and its effect will be (1) to restrict the "rate base" to approximately sixty-six per cent (66%) of the true value of the defendant's said property; (2) to exaggerate the net earnings of the defendant and to make said net earnings appear to be in excess of defendant's true net earnings; and (3) to restrict the return yielded by such fictitious net earnings upon said insufficient and improper rate base to the wholly inadequate and confiscatory rate of six per cent (6%) per annum. In this connection, defendant shows that the minimum return which has been generally allowed in this territory to other public utilities of a less hazardous nature is eight per cent (8%) per annum.

(h) The aforesaid order of the Railroad Commission of Texas, in determining the gross and net revenues of the defendant for the purpose of calculating the rates for domestic gas to be charged at the city gate by the defendant, has erroneously and improperly disregarded the decline in gross and net revenues of the defendant for the calendar years of 1931 and 1932, and for the twelve months ended April 30, 1933, in spite of the fact that the volume of business of the defendant and the trend of its annual earnings [fol. 130] have been continuously downward since the year

1929, and all of which was made manifest in the investigation and hearing by the said Commission.

Specifically, the defendant would show that if the said order, "Exhibit A" attached to plaintiffs' second amended original petition, had been effective continuously during the year of 1932 on all of its sales of domestic gas at the city gates of the towns and cities supplied by its integrated pipe line system in the States of Oklahoma and Texas, then (1) using the actual public service revenues and operating expenses of the defendant for the calendar year of 1932, and (2) using the rate base of Forty-six Million, Two Hundred Forty-six Thousand, Six Hundred Seventeen & 53/100 ($46,246,617.53) Dollars, and (3) using the depreciation allowance of Nine Hundred Sixty-eight Thousand, Sixty-six & 98/100 ($968,066.98) Dollars, as allowed by the said opinion and order, the net amount available for return to defendant would have been only Two Million, Four Hundred Eighty-four Thousand, Five Hundred Twelve & 41/100 ($2,484,512.41) Dollars, or only five and thirty-seven one-hundredths (5.37%) per cent upon said rate base or property value and, similarly, the net amount available for return for the twelve months ended June 30, 1933, would have been Two Million, Three Hundred Sixty-two Thousand, Eight Hundred Seventy two & 09/100 ($2,362,872.09) Dollars, or only five and eleven-one-hundredths (5.11%) per cent upon said rate base or property value, whereas by the said order and opinion, it was determined that six per cent (6%) per annum was the minimum annual net return which defendant was entitled to receive.

7. The public service business of the defendant has been conducted efficiently and economically during all of the times herein referred to, and is now being so conducted. In truth [fol. 131] and in fact the operating expenses of the defendant for the past three (3) years have been unusually low and will tend to materially increase in the future. Defendant shows that it has subscribed to and complied with the employment agreement of the President of the United States, as modified for the natural gas industry, all as pursuant to the National Industrial Recovery Act, and that the effect thereof, due to the shortening of labor hours and increases in wages and salaries, will be to add not less than Two Hundred and Fifty Thousand Dollars ($250,000.00) per annum

to the inescapable operating expenses in connection with the public service business of the defendant.

8. Defendant shows that the present fair value of its property used and useful in the business of supplying natural gas to the natural gas distributing companies receiving gas at the city gate from the defendant, was at the time of the hearing before the Railroad Commission, and is now, more than Seventy Million *Dollars* ($70,000,000.00) Dollars; that a sum not less than Three Million, Four Hundred Thousand Dollars ($3,400,000.00) is a fair minimum annual allowance for a depreciation, depletion and amortization reserve charge; that a fair and reasonable annual net return which it should be permitted to earn, considering the hazards of the natural gas business, the rate of return of other utilities of a less hazardous nature, the return necessary to attract a free flow of capital for investment in the enterprise and to insure the financial soundness of the defendant, is not less than ten per cent (10%) of the present fair value of its public service properties after deducting operating expenses and an annual allowance for depreciation, depletion and other proper reserves.

[fol. 132] Defendant further shows that the net amount available for depreciation, depletion, amortization, Federal income tax and return on said value of its public service properties for the year ended December 31, 1931, at the prevailing rate of forty cents (40¢) per one thousand (1,000) cubic feet for domestic gas was only Four Million, Nine Hundred Eight Thousand, Twenty-four & 24/100 ($4,908,-024.24) Dollars, or approximately seven per cent (7%) on said rate base; and that deducting Federal income taxes and the sum of Three Million, Four Hundred Thousand & 00/100 ($3,400,000.00) Dollars as the fair and reasonable allowance for depreciation, depletion and amortization for the year ending December 31, 1931, leaves for net return less than two per cent (2%) on said rate base or fair value.

9. Defendant would show that it has devoted and dedicated to, and used and useful in the business of supplying natural gas and natural gas service to the towns and cities in the States of Oklahoma and Texas, which towns and cities it supplies with natural gas at the city gates, properties of the actual cash cost, as reflected by its books on December 31, 1932, of Fifty Million, Thirty-four Thousand, Four Hun-

dred Thirty-one & 70/100 ($50,034,431.70) Dollars, and that the cost of its public service property as reflected by its books is less than the true value thereof for the reason that in the twenty-four (24) years of its corporate existence it has not been its general policy to capitalize engineering and supervisory costs, administrative and legal expenses and taxes and interest during construction. The said cost of Fifty Million, Thirty-four Thousand, Four Hundred Thirty-one & 70/100 Dollars, ($50,034,431.70), which the books of the defendant reflect as the cost of its public service properties on December 31, 1932, does not include materials [fol. 133] and supplies on hand and used and useful in the public service business of the defendant, nor does it include cash working capital requirements of the defendant necessary in the conduct of its public service business, nor does it include going concern value. In this connection, defendant would show that for the year ended December 31, 1932, the net amount available for depreciation, depletion and amortization and return on its public service properties was Four Million, Six Hundred Fifty-eight Thousand, Five Hundred Six & 46/100 ($4,658,506.46) Dollars, or only nine and thirty-one-one-hundredths (9.31) per cent of the actual cost of the properties reflected by the books of the defendant on December 31, 1932.

Also, defendant would show that the actual cost to the defendant of its public service properties as reflected by its books on June 30, 1933, was Forty-nine Million, Nine Hundred Twenty-three Thousand, One Hundred Thirty-seven & 26/100 ($49,923,137.26) Dollars, and that for the twelve (12) months ended June 30, 1933, the net amount available for depreciation, depletion, amortization and return on said public service property was Four Million, Four Hundred Ninety-one Thousand, Eight Hundred Twenty-five & 06/100 ($4,491,825.06) Dollars, or only eight and ninety-nine one-hundredths (8.99) per cent of the said book cost.

10. Defendant says that the said order is unconstitutional, null and void, and is in excess of the authority conferred or that could be conferred by law upon the Railroad Commission of the State of Texas, in that:

(a) The said Railroad Commission and the plaintiff members thereof, in the investigation of the contracts between defendant and the various distributing companies for the supply of gas at the city gates of the respective communi-

[fol. 134] ties served by the said distributing companies and the reasonableness of the price or rate charged by defendant under the aforesaid contracts, approached all questions involving the same as if it had power and jurisdiction under the law to fix the rates and commodity charges of the defendant, and intended to and has, in effect, undertaken to fix the rates and commodity charges of the defendant in relation to all of its business including its interstate business; and the intent and effect of the said opinion and order and the enforcement thereof by the said Railroad Commission and the plaintiffs herein is and will be to usurp the power to regulate and burden interstate commerce, and thereby the said Commission has acted wholly without constitutional or lawful authority, power or jurisdiction;

(b) The Railroad Commission of Texas is a creature of the Legislature of the State of Texas, deriving its powers from the Statutes of the State of Texas, which, likewise, limit the exercise of the same; that such right, power and authority as is given to the Railroad Commission of Texas by Statute to investigate the reasonableness of the rate charged by defendant for the sale and delivery of domestic gas, at wholesale at the city gates, to the various distributing companies is conferred by the provisions of Article 6053, Revised Statutes of Texas, 1925; that if the aforesaid Article purports and was intended to confer upon the Railroad Commission of Texas the power and authority to fix, establish and enforce the adequate and reasonable price of natural gas, and reasonable rates and charges for transporting, producing, distributing, buying, selling and delivering [fol. 135] gas moving uninterruptedly in high pressure pipe lines running from outside the State of Texas into the State of Texas, and constituting and being a part of interstate transportation and interstate commerce, then the said Statute under which the Railroad Commission of Texas purported to act in enetering the order, "Exhibit A" to the plaintiffs' second amended original petition, is void as being in contravention of the commeree clause of the Constitution of the United States. That if the said Statute should be construed as not conferring, or having been intended to confer upon the Railroad Commission of Texas the power of fixing and establishing rates and prices for natural gas moving continuously from outside the State of Texas into

the State of Texas in high pressure pipe lines, such movement, transportation and sale being a part of interstate commerce, then the Railroad Commission of Texas, in entering the order which it has entered in this case has exceeded the power and authority conferred upon it by law, and has usurped a power not conferred upon it by law, for which reason the order herein attacked is unconstitutional, null and void.

(c) A substantial portion of the natural gas purchased by the various distributing companies respectively at the respective city gates of the various communities served by them is natural gas transported by defendant in interstate commerce, national in its character, and defendant is lawfully entitled to sell said gas to the several distributing companies herein and to other purchasers in the State of [fol. 136] Texas and Oklahoma without interference by the Railroad Commission of Texas, and the said opinion and order of the Railroad Commission of Texas, unlawfully deprives the defendant of the benefits and advantages of its ownership of said gas and said pipe line system and the fruits of its said interstate transportation, and unlawfully denies to defendant the free right to sell from its transportation system its natural gas so continuously transported in interstate commerce and unlawfully deprives defendant of the rights guaranteed to it by Article 1, Section 8, Clause 3 of the Constitution of the United States, and imposes upon defendant an unreasonable regulation, and places an undue and direct burden upon, and constitutes a direct interference with interstate commerce. Defendant further shows that any attempted enforcement of said order in respect of defendant's intrastate business only, would operate to discriminate against and impose an undue and direct burden upon the interstate business of the defendant, and would be violative of defendant's rights under the Constitution of the United States.

* * * * * * *

(e) The said opinion and order are in violation of the Fourteenth Amendment to the Constitution of the United States, in that they deprive the defendant of its property [fol. 137] without due process of law, destroy its freedom of contract, and deny to it the equal protection of the laws.

(f) The said order of the Railroad Commission of Texas requiring defendant to charge and collect for domestic gas delivered by it to the various distributing companies thirty-two cents (32¢) per one thousand (1,000) cubic feet, and denying to it the right to charge an amount in excess thereof, fixes a rate, charge and price that would not produce a reasonable return on the present fair value of the public service properties of the defendant, used and useful in furnishing its intrastate as well as intrastate gas service to the various distributing companies and others, and if the defendant were required to deliver gas to the said distributing companies at the rate of thirty-two cents (32¢) per one thousand (1,000) cubic feet, as prescribed by the Railroad Commission, the result would be that the defendant's public service properties would be confiscated, and it would be deprived of its properties without due process of law, all in violation of the Fourteenth Amendment to the Constitution of the United States.

(g) The defendant in the sale of the natural gas transported by it in and through its pipe line system in the States of Texas and Oklahoma, is limited to the markets connected with its transportation system as now located, and if the said orders of the Railroad Commission are enforced, the result will be that defendant will be deprived of all markets for its domestic gas at rates and charges other than those attempted to be established by the said [fol. 138] Railroad Commission in its opinion and order, and defendant will be deprived of the right to carry on its business, and will be deprived of its property without due process of law, all in violation of the Fourteenth Amendment and the Commerce Clause of the Constitution of the United States.

(h) In refusing to include in the rate base of the defendant and in a determination of the present value of its public service property, as more fully appears in said order and opinion, certain items of property used and useful by the defendant in its public service business, and in excluding from operating expenses, expenses actually and normally incurred by the defendant in the conduct of its said business, and in the exercise of the best judgment of its officers and directors, the Railroad Commission of Texas unlawfully and unreasonably usurped the prerogatives, duties and

authority of the officers and directors of the defendant upon whom rests the responsibility for the management of the defendant's business; all in violation of the rights of the defendant under the Constitution of the United States, and with the result that, to the extent of such arbitrary deductions, defendant is deprived of its property devoted to public use without due process of law, and its property is confiscated, contrary to the provisions of the Fourteenth Amendment to the Constitution of the United States.

(i) The said order of the Railroad Commission of Texas is void and in excess of the authority conferred by law upon [fol. 139] the said Commission in that it deprives defendant of an opportunity to have a judicial determination as to the legality of its contracts and charges to each of the various distributing companies, by arbitrarily requiring the defendant to reduce its charges for its gas to each of the various distributing companies, irrespective of whether such charges be finally sustained as legal or not; and the said order further on this account seeks to deprive, and does deprive, the defendant of its property and business without due process of law and denies defendant the equal protection of the laws under the Fourteenth Amendment to the Constitution of the United States.

(j) The said opinion and order were entered and promulgated by the Railroad Commission of Texas and the members thereof, with the intent and purpose of fixing the city gate price which defendant could charge all distributing companies for all domestic gas transported and sold by defendant, whether in interstate or intrastate commerce. That said order in respect of defendant's interstate business is void, as being violative of the Commerce Clause of the Constitution of the United States; and that said order being void in part and indivisible, is therefore void in its entirety, and is not capable of being enforced against the defendant in respect of its intrastate business only.

[fol. 140] 11. Each and every one of said contracts between the defendant and the various distributing companies providing for the sale by the defendant and purchase by the said distributing companies of natural gas for domestic purposes at the city gates of the several towns and cities in the State of Texas, are affected by the opinion and order of the Railroad Commission.

* * * * * * *

[fol. 141] Defendant represents that with respect to its public service business, its sales of gas for industrial purposes, and all purposes other than for domestic use, are profitable to it, in that such sales produce substantial net revenues over and above the costs of making such sales. Industrial gas is sold in open market competition with other fuels and it is not possible for defendant to increase its net earnings by increasing its rates and charges for industrial gas or for gas sold for other than domestic purposes.

12. Defendant says that for each and every one of the reasons aforesaid, the rate or price that the said order of the Railroad Commission of Texas requires it to charge the various distributing companies for natural gas furnished by it to them is confiscatory of its property used or useful in the public service and in furnishing natural gas to the said distributing companies; and the promulgation and enforcement of said order necessarily will deprive defendant of its property devoted to public service and used and useful therein, without due process of law, will deny to defendant the equal protection of law, and will directly and substantially interfere with the business of the defendant and its right to engage in interstate commerce free from such direct and substantial interference, all in violation of its rights under the Constitution of the United States, and specifically in violation and contravention of the Fourteenth Amendment, Section 10 of Article 1, and Section 8 of Article 1 of the Constitution of the United States. Therefore, said opinion and order of the Railroad Commission are null and void and unenforcible.

[fol. 142] Wherefore, defendant prays as follows:

First, that the rate charge and price of thirty-two (32¢) cents per one thousand (1,000) cubic feet for domestic gas as fixed and prescribed in the opinion and order of the Railroad Commission of Texas, dated September 13, 1933, "Exhibit A" attached to plaintiffs' second amended original petition, be decreed to be unreasonable, confiscatory and in violation of the Constitution of the United States and the rights and privileges of defendant thereunder, and that said opinion and order imposing said rate be declared to be unconstitutional, null, void and unenforcible.

Second, that plaintiffs take nothing by their suit against defendant; that the injunction sought by plaintiffs be denied, and that as to the purported cause or causes of action alleged in plaintiffs' second amended original petition, defendant go hence without day and recover its costs in this behalf expended.

Third, that the Railroad Commission of Texas, its servants, agents, employees and representatives, and Lon A. Smith, C. V. Terrell and Ernest O. Thompson, the individual members of the Railroad Commission of Texas, and James V. Allred, the Attorney General of the State of Texas, plaintiffs herein and each of them, as well as their successors in office, and their agents, servants, employees and representatives, and all other persons, be permanently restrained and enjoined from any attempt to enforce the said opinion and order of the Railroad Commission of Texas of September 13, 1933, "Exhibit A", attached to plaintiffs' second [fol. 143] amended original petition, or any other order of the said Railroad Commission of Texas, in this or any other proceeding based thereon or giving effect thereto, or to compel defendant, its directors, officers, agents, servants and employees, directly or indirectly, whether by penalties, forfeitures or otherwise in any manner whatsoever, to observe and comply with the said order in any respect, or to observe or comply with any other order of the Railroad Commission of Texas that may be based in whole or in part on, or which gives any effect to said opinion and order, or to compel defendant, its directors, officers, agents, servants and employees, directly or indirectly, to observe, comply with and keep in force and charge, bill and collect from the distributing companies to which it delivers domestic gas, the rate of thirty-two (32¢) cents per one thousand (1,000) cubic feet prescribed by the Railroad Commission of Texas in its said opinion and order, or in any way, directly or indirectly, to interfere with defendant, its directors, officers, agents, servants and employees in charging, billing and collecting for domestic gas delivered by it at the city gates of various towns and cities located in the State of Texas now or at any time in the future, forty (40¢) cents per one thousand (1,000) cubic feet; and that the enforcement of the said opinion and order of the Railroad Commission of Texas be permanently enjoined and restrained.

Fourth, that defendant have such other and further relief, general and special, as may be just and equitable in the premises.

Lone Star Gas Company, by Karl F. Griffith, Thompson & Barwise, Ben H. Powell, Roy C. Coffee, Marshall Newcomb, Its Solicitors.

[fols. 144-145] *Duly sworn to by Karl F. Griffith. Jurat omitted in printing.*

[File endorsement omitted.]

[fols. 146-148] IN DISTRICT COURT OF TRAVIS COUNTY, 53RD JUDICIAL DISTRICT

[Title omitted]

PLAINTIFFS' SECOND SUPPLEMENTAL PETITION—Filed June 6, 1934

To Honorable C. A. Wheeler, Judge of Said Court:

Come now the plaintiffs in the above styled and numbered cause, appearing herein by and through James V. Allred, the duly elected and acting Attorney General of Texas, and with leave of the court first having been had and obtained, file this their second supplemental petition in lieu of their first supplemental petition heretofore filed in answer to the defendant, Lone Star Gas Company's second amended original answer, and for cause respectfully say:

* * * * * * *

[fol. 149] VI

Further answering herein, if required, plaintiffs deny each and every allegation in defendant's answer contained, and demand strict proof of the same.

VII

Further answering herein, if same be necessary, plaintiffs would show to the court that the Lone Star Gas Corporation, a Delaware Corporation, owns the controlling, voting

[fol. 150] stock of practically all of the distributing companies that are served by said defendant within the State of Texas or to which it transmits gas, said Lone Star Gas Corporation being a holding company, which is the alter ego (meaning the other self and the same) of said defendant, Lone Star Gas Company; that said Lone Star Gas Corporation is likewise the owner and operator of all companies affiliated with it in the adjoining State of Oklahoma, the exact names and numbers of which affiliated companies are unknown to plaintiffs, but well known to the defendant. That said Lone Star Gas Corporation, and/or said Lone Star Gas Company, by stock ownership, own and control all distributing companies that deliver natural gas after it passes the City gates and enters to within the City or town that is served or a user of such gas, and in such distribution and transportation such distributing companies are the instrumentality and agency for the Lone Star Gas Company and Lone Star Gas Corporation, in getting such gas up to the burnertips of the domestic and residential consumers of such gas.

That all of said companies are under one common head and management, the effect of which is to make a single unit and business enterprise in the transmission and delivery of natural gas from the place of production to the point of consumption by the consumer. That said defendant and all such companies are controlled, directed and operated by the same management, head or board of directors; all are represented by the same lawyer or lawyers and are so arranged, connected and systematized as to be and constitute one sole and single entity, which owns, dominates, controls, directs and runs any group, chartered corporation, or affiliated corporation that bears any relation to it, with reference to the sale, transportation or delivery of [fol. 151] natural gas, any where within the State of Texas.

VIII

Plaintiffs would show to the court in this connection that said defendant owns, controls and operates large and extensive gas reserves that are wholly situated within the State of Texas, same being located in Wheeler County in the Panhandle area of Texas, and also in what is commonly referred to as the West Texas Fields in West Texas; and that such gas reserves are more than is required or neces-

sary to serve the needs of the entire State of Texas, or the cities, towns, or distributing companies to which said defendant furnishes natural gas; that such gas reserves are in gas fields commonly known to be and considered the largest in the world, and by reasonable expectation more than are adequate and necessary to furnish the needs of said defendant, Lone Star Gas Company, and the whole of the State of Texas and its citizenship, as long as it engages in gas business within the State of Texas.

Plaintiffs would further show to the court in this connection that there is an inexhaustible supply of gas in and around the fields hereinabove referred to that has not yet been developed, which same is accessible to said defendant at any time, when developed.

In this connection plaintiffs would further show to the court that the gas reserves in Texas owned and controlled by said defendant, Lone Star Gas Company, as compared to the gas reserves owned or controlled by it within the State of Oklahoma, bear a ratio of at least one hundred to one, and that such gas reserves in Oklahoma amount to less than one per cent, as compared to the gas reserves owned [fol. 152] and controlled by it within the State of Texas.

IX

Plaintiffs would further show to the court that any and all gas that is or may be distributed by said defendant from the State of Oklahoma to and within the State of Texas is done so at an excessive and unreasonable cost, and at a much higher cost than natural gas produced within the State of Texas is distributed or furnished to distributing companies or consumers. In this connection they further allege that all of such gas so distributed from the State of Oklahoma, or that originates in said State of Oklahoma and is in anywise distributed within the State of Texas is burdensome and so distributed at a loss of money, and that on account of the economic loss and unnecessary expense that is incurred in such distribution, none of the distributing companies that are served by said defendant, or any of the domestic and residential consumers of such gas, should in equity or fair dealing be charged, burdened with or required to suffer or bear the expense or burden of such gas that is or may be distributed within the State of Texas from the State of Oklahoma; that such economic loss and higher

expense is not brought abour or incurred by the distribution of said gas alone, but same is primarily a result of the higher cost and expense that is incurred by the production and purchase of such gas within the State of Oklahoma, where gas is less plentiful and less accessible, and is so required or incurred by gas produced or purchased from the gas reserves and gas fields owned by said defendant, Lone Star Gas Company, within the State of Oklahoma.

[fol. 153] X

It is further alleged that in the event any gas produced within the State of Oklahoma comes into Texas through the pipelines of said defendant, that such transportation is wholly unnecessary and is only brought about by said defendant for the fraudulent purpose of trying to make that which is intrastate an interstate business, in order to defeat the jurisdiction of this court and the regulatory power provided for by the laws of this State. In this connection they would show that in the Panhandle section of Texas hereinabove referred to, that at a great and unnecessary cost and expense, said defendant has run a part of one of its pipelines from the production points of said gas within the State of Texas through a narrow corner of Oklahoma, and thence into the State of Texas, for the sole and only purpose of trying to establish a blind and make that which is wholly intrastate an interstate business, and thus defeat the jurisdiction of this court, and the regulatory power of the Railroad Commission provided for by law. In this connection plaintiffs would show to the court that that part of said pipeline that cuts across a portion of the southwestern corner of Oklahoma and thence into the State of Texas was erected at an economic loss, and that at the time same was installed and erected, all economics, practical business and sound judgment would have dictated that said pipeline should have been extended southward and southeasterly within the State of Texas instead of having same to traverse a part of the State of Oklahoma at a great economic loss, as was done by said defendant. In this connection, plaintiffs would show to the court that that part of said pipeline which extends through a corner of the State of [fol. 154] Oklahoma was erected through a rough and rocky territory, extending through a sparsely settled territory where there are neither customers to maintain the same

or adequate transportation facilities available either now or at the time the same was installed; that by the location and extension of such pipelines within the State of Texas, efficient transportation was then and is now available; that an earthen soil, inexpensive to excavate, would have been traversed and more populous communities would and could have been served by it, which would have made said line much more profitable to said defendant than the line that it did erect and install within the State of Oklahoma; that from the time of its installation and to the present time, that part of said pipeline within the State of Oklahoma is maintained at a high expense and great economic loss, which would not in any event have been or be entitled, had the same or should the same be maintained within the State of Texas, as herein alleged.

XI

Plaintiffs would further show to the court that said defendant, its affiliates, and all related companies have so created, arranged and constructed and have so attempted to create, arrange and construct its business and property, and method and manner of conducting the same and doing business within this State, so as to set up a subterfuge that defendant's business is ostensibly an interstate business, when, in truth and in fact, such business, all of its component parts, and all transactions done under it, are wholly local and intrastate business.

That all of such action, operations, conduct and transactions on the part of said defendant and all of its affiliates [fol. 155] and related companies are fraudulent, made and done in bad faith, for the sole and only purpose of defeating the jurisdiction of our courts and the regulation by any of the officials of the State.

XII

Plaintiffs would further show to the court that said defendant and its affiliated companies have complete control and charge of all pipe lines, equipment and property, used in the transportation, transmission or sale of natural gas, whether located within Texas or the State of Oklahoma. That if any gas from the State of Oklahoma is used, transported or sold within the State of Texas in any way or manner, whereby it should be held or determined that such use,

157

transportation, transmission, sale or transaction constituted interstate commerce and not intrastate commerce, and the doing of a local business as plaintiffs allege it to be, then in such event, plaintiffs would show to the court that all of such gas so transported, sold or delivered within this State, from the State of Oklahoma, is negligible and can and may be separated and divided from all of the gas that is sold, transported or delivered within the State of Texas; and that any gas that comes into this State, which may in any way be or constitute interstate commerce or an interstate business, can and may be separated and divided from all gas that is sold, used, transported, transmitted or delivered within this State, in or as a local business, or in an intrastate manner, and that all business that results from such gas, whether interstate or intrastate, may be ascertained, divided and separated. They show to the court in this connection that the amount of gas business done by [fol. 156] defendant within the State of Oklahoma, as compared to the amount done within the State of Texas, is negligible.

They aver that all business done within this State by said defendant is a local and intrastate business, but that if any of such business should constitute interstate commerce, then in such event, the two can and should be divided, as stated.

XIII

Said defendant is in possession of all of its books, records, documents, and papers, showing how defendant's business is now being conducted, and is able to show from such books, records, documents and papers the exact amount of its business done in the State of Texas as separated and distinguished from its business elsewhere. Such books and records as aforesaid show the exact amount and value of defendant's property located in this State; the exact amount of operating revenue and operating expenses allocatable to Texas operations and business, the extent and amount of gas reserves in this State, and the amounts of gas produced, bought, transported, sold and delivered in the State of Texas. Plaintiffs here now call upon said defendant to bring all of its books, records, papers and documents showing such segregation and separation, or else secondary proof will be offered as to all of the

same, upon the trial of this case, and plaintiffs here now give notice of their intention to offer evidence as to a complete segregation and separation as to all of the same, to show the proper values, expenses and amounts that are fairly allocatable to the State of Texas.

[fol. 157] XIV

Plaintiffs show the court that all gas transported by the defendant, Lone Star Gas Company, from the State of Oklahoma into the State of Texas, if any, is, after the same comes within the State of Texas, re-processed and treated by being run through gasoline extraction plants for the purpose of removing the volatile gasoline present in such gas; that the removal of such volatile gasoline in the gasoline extraction plants, aforementioned, leaves a residue gas which is then transported by the defendant, Lone Star Gas Company, in its pipe lines for consumption by the distributing companies served by said Lone Star Gas Company and the consuming public. That such residue gas is different in composition and in heating value, and in the British thermo unit content per unit volume of gas, from the gas before removal of volatile gasoline.

Plaintiffs further show that all gas transported by the defendant in its pipe lines from the State of Oklahoma into the State of Texas is, after passing into the State of Texas, re-processed and compressed by being run through compressor stations, which compressor stations by putting the gas under a new and greater pressure thereby change the heating value of such gas and the British thermo unit content per unit volume of gas. Such gas is further re-processed in that, before being delivered to local distributing ppants for distribution to domestic consumers, it is run through regulator stations, which regulator stations reduce the pressure of gas in the defendant's pipe lines and allow an expansion of such gas, and by such pressure change create a new heating value and British thermo unit content per unit volume of gas. Plaintiffs further show [fol. 158] that all gas coming into this State from the State of Oklahoma is divided by the pipe lines of the defendant, Lone Star Gas Company, into numerous streams and the same separated into parts and thereafter sold to the various distributing companies supplied with gas from the pipe lines of the defendant.

Plaintiffs would show that the above mentioned methods of treating such gas as comes into the State of Texas from the State of Oklahoma is analogous to the breaking of an original package of merchandise, and that the re-conditioning, processing, treating, and changing the composition of such gas by running it through gasoline plants, and the re-processing and treating by running such gas through compressor stations and regulator stations, as aforesaid, for the purpose of compressing or expanding such gas and breaking up of the original gas into numerous streams and distributing the same to the cities and towns of Texas, and the sale of such gas at various points along the defendant's pipe lines after coming into the State of Texas, constitute a breaking of the original package of gas and make the defendant's business a local business subject to State regulation, even if any of such gas might have originated from an interstate movement in the first instance. They show in this connection that all gas transported by said defendant is carried through its pipe lines in a mixed manner and that no specific or individual amount or load of gas has a specific destination from the point of production, or between the point of origin and the point of consumption, nor can the same be traced after it once enters said defendant's pipe lines.

[fol. 159] XV

Plaintiffs would further show to the court that said defendant, Lone Star Gas Company, was chartered under the laws of Texas during the year of 1909, and that among other powers and rights, said defendant and all other distributing companies owned and served by it, have the full power and right of eminent domain, and have the right to obtain rights of way, condemn property, and enter into, upon and across the streets, alleys and highways of the State of Texas and municipalities thereof.

That at the time of its incorporation in 1909, said defendant reported and showed a capital stock of $2,500,000.00. That from the time of its incorporation, it has always earned and made on the fair value of its property within the State of Texas an annual net dividend greatly in excess of ten per cent. That at this time, in 1934, said defendant has properties in Texas, the fair value of which is worth $30,000,000.00. That after allowing for all reasonable ex-

penses of operation and depreciation, said defendant, under the rate prescribed by the order of the Railroad Commission of Texas, will receive an annual return of not less than ten per cent on the fair value of its property, that is used and useful in the public service.

[fol. 160] Plaintiffs would further show to the court that said order of the Railroad Commission is in all things reasonable to said defendant, and that defendant's attack on the same is wholly without merit or equity.

Wherefore, premises considered, plaintiffs pray as they have heretofore prayed in their second amended original petition, and for all general and special relief, etc.

James V. Allred, Attorney General of Texas; Elbert Hooper, First Assistant Attorney General; W. C. Fitzhugh, Assistant Attorney General; A. R. Stout, Assistant Attorney General, Attorneys for Plaintiffs.

[fol. 161] *Duly sworn to by Olin Culberson. Jurat omitted in printing.*

[File endorsement omitted.]

[fols. 162-166] In District Court of Travis County, 53rd Judicial District

[Title omitted]

Second Supplemental Answer of Defendant, Lone Star Gas Company—Filed June 6, 1934

To the Honorable Judge of Said Court:

Comes now Lone Star Gas Company, defendant in the above styled and numbered cause, and, leave of the Court having been had and obtained, files this its Second Supplemental Answer replying to the Second Supplemental Petition of plaintiffs heretofore filed herein, and would respectfully show:

* * * * * * *

[fol. 167] 3

Defendant specially excepts to Paragraph 8 of plaintiffs' Second Supplemental Petition, because—

(a) Same and each and every allegation therein contained are irrelevant and immaterial to any ultimate issue of fact or law involved in this cause and to a determination of the question of whether or not defendant's business of supplying natural gas to various distributing companies at the city gates of various towns and cities in the State of Texas can be controlled and regulated by the Railroad Commission of Texas, for the reason that this Court is and can be only concerned with the nature of the business now being conducted by the Lone Star Gas Company and being conducted by it at the time of the investigation of the Railroad Commission, and the nature of the business which Lone Star Gas Company has been carrying on and conducting in the usual course of events over a period of time. This Court is not and cannot be concerned with the question of the kind and character of business defendant Lone Star Gas Company might in fact have engaged in and conducted, but which, in fact, it does not so engage in or conduct. If [fol. 168] in fact and law the business, or a substantial part thereof, conducted and carried on by Lone Star Gas Company and sought to be regulated by the Railroad Commission of Texas in the order promulgated by it, and sought to be enforced herein, is interstate in character, then the fact that under other circumstances and conditions it might engage in a business which would be subject to the control and regulation of the Railroad Commission of Texas is entirely immaterial to a consideration of the issues of fact and law involved in this case. Said allegations undertake to assume a hypothetical situation which does not in fact exist, or which, if it does exist, does not have any legal significance and the result thereof is simply to attempt to inject into this case matters of fact and law which can have no bearing on the ultimate issues to be determined by the Court and jury herein.

(b) The only purpose of said allegations is to make it appear that Lone Star Gas Company has sufficient gas reserves in the State of Texas to permit it to supply the various distributing companies exclusively with gas moving throughout its entire transit in the State of Texas, and thus

to vision a situation which does not exist, but which, if it did exist, might permit the Railroad Commission of Texas to exercise jurisdiction and control over rates charged by the defendant herein; whereas, the fact that such gas reserves do exist, and that by a rearrangement of its lines, its business, and its routines defendant could conduct a business different from that which in fact it does conduct, is immaterial to any question involved in this case. If said allegations can be made the basis of plaintiffs' right to maintain this suit and can support the power and authority of the Railroad Commission over the gate rates which it seeks to control and regulate, same must necessarily have [fol. 169] the effect of justifying the control and regulation which the Railroad Commission of Texas seeks to exert in the order sought to be enforced herein by completely depriving defendant of its right to engage in interstate commerce and by requiring it to engage in interstate commerce exclusively, and by requiring it to change the kind and character and nature of the business carried on by it, none of which the Railroad Commission of Texas has any power and authority to do, and none of which the Railroad Commission of Texas has undertaken to do.

Wherefore, for the reasons above set out, defendant prays that its said exceptions be sustained, and that each and every allegation contained in the first three paragraphs of Paragraph 8 of plaintiffs' Second Supplemental Petition be stricken.

4

Defendant specially excepts to each and every allegation contained in Paragraph Three of Section 8 of plaintiffs' Second Supplemental Petition, because—

(a) Same are immaterial and irrelevant to any issue of fact and law involved in this case, because, if in fact any part of the business of the Lone Star Gas Company, sought to be regulated by the Railroad Commission and actually regulated and affected by the order entered by it herein and upon which this suit is based, is interstate in character, such business, no matter how small it may be, or what a small part of its entire or general business it may be, is not subject to regulation by the said Railroad Commission of Texas, and is free from such regulation, and any attempted regula-

tion of the same would constitute a violation of the commerce [fols. 170-174] clause of the Constitution of the United States, and the rights of this defendant to engage in interstate commerce thereunder free and clear of interference on the part of any regulatory body of the State of Texas.

(b) Said allegations are further irrelevant and immaterial for the reason that they are inserted solely for the purpose of making it appear that it is not necessary for the defendant to use the gas supply which in fact it owns in Oklahoma, and which in fact it does use for the purpose of supplying certain distributing companies within the State of Texas; whereas, in truth and in fact, the defendant is actually using said Oklahoma reserves and has been using them for a long period of time in the past in the usual and ordinary conduct of the business in which it engages in Oklahoma and Texas; and said allegations only seek to lay a predicate for disregarding existing facts so that the order of the Commission may be upheld on a theory based upon facts which do not exist, but which if they did exist might give the Railroad Commission of Texas jurisdiction and authority to exercise the power which it seeks to exercise in the order promulgated by it.

Wherefore, defendant prays that its foregoing exceptions be sustained and that each and every allegation of Paragraph Three of Section Eight of plaintiffs' Second Supplemental Petition be stricken.

* * * * * * *

[fol. 175] 7

Defendant specially excepts to Paragraph 10 of plaintiffs' Second Supplemental Petition and to each and every allegation therein contained, because—

(a) Same are wholly irrelevant and immaterial, and seek to avoid the legal effect of the order and opinion of the Railroad Commission and the legal consequences of the kind and character of business actually conducted by this defendant, by stating facts and circumstances which, if they do exist, cannot have the effect of changing the kind and character of business carried on by the defendant, or of giving to the Railroad Commission power and authority which it does not actually have, or of sustaining the validity and

reasonableness of the order of the Commission, if in fact, upon the basis of existing conditions, the same is unreasonable and illegal.

(b) It affirmatively appears from the opinion and order of the Commission and from the plaintiffs' pleadings that [fol. 176] in fact Lone Star Gas Company does transport gas from Oklahoma into the State of Texas and does sell the same to various distributing companies, and its property has been valued on this theory, and its expenses and income computed on this theory, and it affirmatively appears from the opinion and order of the Railroad Commission and from plaintiffs' pleadings that in fact defendant is engaged, in a substantial portion of its business, in interstate commerce. The fact that such business is unnecessary or that it is uneconomical, or that it is being carried on for the purpose of defeating the jurisdiction of this Court and in fraud of the jurisdiction of this Court is legally immaterial, in view of the actual facts and circumstances existing and upon the basis of which the Railroad Commission of Texas proceeded in its investigation and in the entry of the order which plaintiffs seek to enforce herein.

(c) Said allegations, assuming the same to be true, cannot have the legal effect of converting that which is interstate commerce into intrastate commerce, and of conferring upon the Railroad Commission of Texas a jurisdiction, which, in fact and in law, it does not have under existing circumstances.

(d) Each and every allegation contained in said paragraph are argumentative and are not statements of ultimate facts having a material bearing upon plaintiffs' right to the relief sought by them and do not constitute such proper pleadings as are required by law.

Wherefore, defendant prays that each of its said exceptions be sustained and that said paragraph and each and every allegation thereof be stricken from plaintiffs' Second Supplemental Petition.

* * * * * * *

[fol. 177] 9

Defendant further specially excepts to that portion of Paragraph 10 of plaintiffs' Second Supplemental Petition

wherein it is alleged that the action of defendant in transporting gas from Oklahoma into Texas is brought about for the fraudulent purpose of trying to make that which is intrastate an interstate business and in order to defeat the jurisdiction of the Court, and as a blind, because—

* * * * * * *

[fol. 178-180] (d) Defendant further excepts to said allegations, because the purpose of defendant in originating business which is in fact interstate and in carrying on the same and its motive in so doing are entirely irrelevant and immaterial and can have no legal significance in determining the fact of interstate commerce, and, if in fact the defendant is carrying on a business interstate in character, and if in fact the opinion and order of the Railroad Commission of Texas operates to directly interfere with such business, the invalidity of such order cannot be avoided by impugning defendant's motives, nor can what is interstate commerce in fact be changed thereby into intrastate commerce or brought within the regulatory jurisdiction of the Railroad Commission.

* * * * * * *

[fol. 181] 12

Defendant specially excepts to Section 12 of plaintiffs' Second Supplemental Petition and each and every allegation thereof, because—

[fol. 182] (a) Said allegations are irrelevant and immaterial to any question of fact or law involved in this cause, and are particularly irrelevant and immaterial in a consideration of the validity of the order of the Railroad Commission as against the attack made upon it by defendant herein, on the ground that it violates the Commerce Clause of the Federal Constitution, because, said allegations have no legal significance and cannot be made the predicate for upholding the order of the Commission, which order has reference to all of the gas transported and sold by the defendant, and which does not undertake to separate or divide the intrastate gas from the interstate gas, and which said order, in its entirety, is sought to be enforced herein by the plaintiffs.

(b) Assuming that the allegations of said paragraph are true and correct, nevertheless, the same are immaterial, because the order of the Railroad Commission does not undertake to separate or divide the gas sold by defendant into that moving intrastate and that moving in interstate commerce, but its said order affects all gas transported and sold by the defendant, and its said order, in its entirety, is sought to be enforced herein; so that, even though the Railroad Commission of Texas might under other circumstances have authority and jurisdiction to regulate the gate rate charged by defendant for the sale and delivery of intrastate gas at the city gates, nevertheless, it has not undertaken to regulate or fix a rate for such gas separate and distinct from the rate fixed for gas moving in interstate commerce, and accordingly, inasmuch as the said order of the Commission is one indivisible order, it must be considered as such, and the fact or possibility of the separation of intrastate and inter-[fol. 183] state gas cannot be made the basis of upholding the order of the Commission in whole or in part.

Wherefore, defendant prays that its exceptions be sustained and that Section 12 of plaintiffs' Second Supplemental Petition be stricken.

* * * * * * *

14

Defendant specially excepts to the first paragraph of Section 14 of plaintiffs' Second Supplemental Petition and each and every allegation therein contained, for the following reasons:

(a) Assuming that such allegations are true, nevertheless, same are irrelevant and immaterial on the question of the character of the business in which defendant engages in [fol. 184] *in* transporting gas through and from Oklahoma into Texas, because it does not appear that after said gas has been reprocessed and treated there is such a difference in its basic characteristics as that it can be said to be a new and different commodity from that which originally started on an interstate movement, and in that it does not appear that the forward movement of said gas is interrupted or that there is such a break in its transit as that it may be

said to have come to rest in the State of Texas and to have become a part of the general mass of property within the State of Texas, and therefore subject to the control of the Railroad Commission of Texas as gas moving in intrastate commerce.

(b) Said allegations attempt to vary the statement of fact contained in the opinion of the Railroad Commission to the effect that the Lone Star Gas Company is engaged in the interstate transportation, sale and delivery of natural gas, and undertake to impeach the fact stated in said opinion, and to contradict the same, and in view of the fact that this suit is one to enforce the order of the Commission, which in turn is based upon its opinion, plaintiffs must accept the facts as stated by the Railroad Commission, upon the basis of which its said order was entered, and are now estopped and cannot now be heard to say that defendant Lone Star Gas Company is not engaged in interstate commerce in Texas and Oklahoma as stated in the said opinion of the Railroad Commission.

(c) Said allegations are irrelevant and immaterial in that, if they are true, they do not change the fact of interstate commerce, nor do they change the basic characteristic of the business of this defendant in transporting gas from and through Oklahoma into the State of Texas, and in the State of Texas up to the gates at the various towns and [fol. 185] cities, in continuous interstate commerce, a business which the Railroad Commission of Texas has no power, authority or jurisdiction to regulate.

(d) Said allegations are irrelevant and immaterial in that they have no legal significance and cannot form the basis of a conclusion of law by this Honorable Court that the business of the defendant in transporting gas through and from Oklahoma into Texas is any different in its nature and character from what it would be if said gas was not reprocessed and treated, as alleged by plaintiffs.

Wherefore, defendant prays that its said exceptions be sustained, and that the allegations of said paragraph be stricken.

15

Defendant specially excepts to the second paragraph of Section 14 of plaintiffs' Second Supplemental Petition and each and every allegation thereof,

(a) For all of the reasons urged in connection with its exceptions to the first paragraph of Section 14 and made the basis of the same, contained in Paragraph 14.

(b) Said allegations cannot and do not change the fact of interstate commerce, nor do they, nor can they operate to change what is in fact interstate commerce into intrastate commerce, it not appearing anywhere in plaintiffs' pleadings that the forward movement of the gas brought from the State of Oklahoma and through the State of Oklahoma is interrupted until it is delivered at the city gates of the various towns and cities, nor that the pressure at which such gas is transported is materially reduced prior to that time, nor that any of the alleged processing or changes in the physical content of the gas are of such a nature as that the [fol. 186-190] commodity at the time it is delivered to the various distributing companies at the city gates is basically different from, and other than the commodity which originally began its interstate journey prior to the time it was actually brought into the State of Texas from Oklahoma.

Wherefore, for the above reasons, defendant prays that its exceptions be sustained and that said allegations be stricken from plaintiffs' Second Supplemental Petition.

* * * * * * *

[fol. 191] 20

Defendant specially excepts to that portion of the second paragraph of Section 15 of plaintiffs' Second Supplemental Petition, wherein it is alleged that—

"At this time, in 1934, said defendant has properties in Texas, the fair value of which are reasonably worth $30,000,000.00,"

for each and every reason made the basis of the exception contained in Subdivision (g) of Paragraph 19 of this its [fols. 192-193] Second Supplemental Answer, and for the further reason that the inquiry in this case is not the reasonable value of defendant's properties located in Texas, but is the reasonable value of defendant's properties located in Texas and Oklahoma, and evaluated in the same manner in which the Railroad Commission of Texas valued the same; that to permit proof to be offered under such allegation by

plaintiffs, would be to change and vary and contradict the order of the Railroad Commission based upon its opinion which shows the manner and way in which it arrived at the conclusions expressed in its said order, and would be to make this case an original suit for the purpose of determining in the first instance the reasonableness of a rate based upon matters of fact not considered by the Railroad Commission, and would therefore be to cause this court in the first instance to act legislatively instead of judicially and prior to any action taken by the Railroad Commission.

Wherefore, for the above reasons, defendant prays that its exceptions be sustained; and that said allegations be stricken from plaintiffs' Second Supplemental Petition.

* * * * * * *

[fol. 194] 24

Defendant denies generally each and every allegation contained in plaintiffs' said Second Supplemental Petition, and demands strict proof of the same.

25

The said defendant, Lone Star Gas Company, specifically denies each and every allegation in plaintiffs' Second Supplemental Petition contained charging this defendant with fraud or bad faith in the conduct of its business operations.

Wherefore, defendant having answered herein, prays that upon a hearing hereof plaintiffs take nothing by virtue of [fol. 195] their suit against it, and that it have the relief sought by it in its Second Amended Original Answer, and such other and further relief, general and special, in law and in equity, to which it may show itself entitled.

Lone Star Gas Company, by Karl F. Griffith, Thompson & Barwise, Ben H. Powell, Roy C. Coffee, Marshall Newcomb, Its Solicitors.

[fols. 196-199] *Duly sworn to by Karl F. Griffith. Jurat omitted in printing.*

[File endorsement omitted.]

[fol. 200] IN DISTRICT COURT OF TRAVIS COUNTY

[Title omitted]

ORDER OVERRULING DEFENDANT'S PLEAS TO THE JURISDICTION AND PLEAS IN ABATEMENT—Filed June 2, 1934

On the 30th day of May, 1934, came on to be heard in due order the Pleas to the Jurisdiction and Pleas in Abatement, and each and every one of the same, filed herein by Defendant Lone Star Gas Company, and being contained in Sections A and B of its Second Amended Original Answer filed herein on the 30th day of May, 1934, in answer to Plaintiffs' Second Amended Original Petition filed herein on May 25, 1934, and being set out on pages 1 to 36 inclusive thereof, and both Plaintiffs and Defendant, through their attorneys of record, having announced ready on the aforesaid Pleas to the Jurisdiction and Pleas in Abatement, the same and each and every one of said Pleas to the Jurisdiction and Pleas in Abatement were presented in due order to the Court, whereupon the Court heard the testimony offered in connection with said Pleas to the Jurisdiction and Pleas in Abatement and the argument of counsel in connection therewith and being advised in the premises is of the opinion that said Pleas to the Jurisdiction and Pleas in Abatement, and each and every one of them should be overruled.

[fols. 201-202] Accordingly, it is ordered, adjudged and decreed by the Court that the Pleas of the Defendant Lone Star Company to the jurisdiction of this Court, contained in Section A of its Second Amended Original Answer filed herein on the 30th day of May, 1934, said Pleas being numbered 1 to 5 inclusive under Section A, and each and every one of said Pleas to the Jurisdiction, be and the same are hereby overruled, to which action of the Court in overruling the same and each and every one of the same Defendant Lone Star Gas Company then and there in open court excepted.

It is further ordered, adjudged and decreed by the Court that the Pleas in Abatement contained in Defendant's Second Amended Original Answer in appearing under Section B thereof, and being numbered 1 to 11 inclusive, and each and every one of the same, be and they are hereby overruled, to which action of the Court in overruling said Pleas in

Abatement and each and every one of said Pleas in Abatement defendant then and there in open court excepted.

Done in open court this 2nd day of June, 1934.

W. F. Robertson, Presiding Judge of the 126th Judicial District of Texas, Sitting for the Presiding Judge of the 53rd Judicial District of Texas.

O. K. A. R. Stout, Assistant Attorney General. William C. Fitzhugh, Assistant Attorney General.

[fol. 203] In District Court of Travis County.

[Title omitted]

Order Overruling Exceptions and Demurrers of Defendant, Lone Star Gas Company—Filed June 6, 1934

On This the 6th day of June, A. D. 1934, came on to be heard, in due order, the demurrers and exceptions to plaintiffs' Second Amended Original Petition and Second Supplemental Petition, contained in defendant Lone Star Gas Company's Second Amended Original Answer and Second Supplemental Answer, the pleas to the jurisdiction and pleas in abatement of Lone Star Gas Company, contained in its Second Amended Original Answer, having been presented theretofore, in due order, and acted on by the Court; and the Court having considered said exceptions and demurrers and the arguments of counsel in connection therewith, is of the opinion that the following demurrers and exceptions contained in defendant's Second Amended Original Answer should be overruled, to-wit:

1. Defendant's general demurrer contained in Paragraph 1 of Section (c), page 37, and each and every one of the demurrers contained in Section (c) and Numbered 2, 3, 4, 5, 6, 7, 8, 9 and 10 thereof, set out on pages 37 to 43, inclusive.

2. Defendant's special exceptions contained in Section (d) as follows:

[fol. 204] Paragraph 1, Subdivisions (a) to (d) inclusive, pages 44 to 48.

Paragraph 2, pages 48 to 50.

Paragraph 4, Subdivisions (a) and (b), pages 50-53, inclusive.

Paragraph 6, Subdivisions (a) and (b), page 55.

Paragraph 7, page 55.

Paragraph 8, Subdivisions (a), (b) and (c), page 56.

Paragraph 9, Subdivisions (a), (b) and (c), page 57.

Paragraph 10, page 58.

Paragraph 11, Subdivisions (a) to (e), inclusive, pages 58 to 63, inclusive.

Paragraph 12, Subdivisions (a) and (b), page 63.

Paragraph 13, Subdivisions (a), (b) and (c), page 64.

Paragraph 16, Subdivisions (a) to (c), inclusive, page 67.

Paragraph 17, Subdivisions (a) and (d), pages 71 to 72, inclusive.

Paragraph 18, Subdivisions (a) and (b), pages 72-73.

Paragraph 19, Subdivision (a), page 74.

Paragraph 20, Subdivisions (a) and (b), page 77.

Paragraph 21, Subdivisions (a), (b) and (c), page 79.

Paragraph 28, Subdivisions (a) and (b), pages 87-88.

Paragraph 30, Subdivisions (a), (b) and (c), page 89.

The court is further of the opinion that the following demurrers and exceptions contained in defendant's Second Supplemental Answer should be overruled, to-wit:

[fol. 205] 1. The general demurrer contained in Paragraph 1, page 1.

2. The special exceptions contained in the following paragraphs and sections of defendant's Second Supplemental Answer, to-wit:

Paragraph 2, Subdivisions (a) to (3) inclusive, pages 1 to 5, inclusive.

Paragraph 3, Subdivisions (a) and (b) thereof, save as to the second paragraph on page 6 of plaintiffs' Second Supplemental Petition, which said paragraph is stricken from said petition.

Paragraph 4, Subdivisions (a) and (b), pages 8-9.

Paragraphs 7, 8 and 9, pages 14-17, inclusive, and each Subdivision thereof, except as to the following portions of paragraph 10 of plaintiffs' Second Supplemental Petition, pages 8 and 9, which allegations are stricken:

"In this connection plaintiffs would show to the court that that part of said pipe line that cuts across a portion

of the Southwestern corner of Oklahoma and thence into the State of Texas was erected at an economic loss, and that at the time same was installed and erected, all economics, practical business and sound judgment would have dictated that said pipe line should have been extended southward and southeasterly within the State of Texas instead of having same to traverse a part of the State of Oklahoma at a great economic loss, as was done by said defendant."

"* * * which would have made said line much more profitable to said defendant than the line that it did erect and install within the State of Oklahoma; that from the time of its installation and to the present time, that part of said pipe line within the State of Oklahoma is maintained at a high expense and great economic loss, which would not in any event have been or be entailed, had the same or should the same be maintained within the State of Texas, as herein alleged."

Paragraph 10, Subdivisions (a) to (d), inclusive, pages 17-18.

Paragraph 11, Subdivisions (a) to (d), inclusive, pages 18-19.

[fols. 206-214] Paragraph 12, Subdivisions (a) and (b), page 20.

Paragraph 13, Subdivisions (a) and (b), page 22.

Paragraph 14, Subdivisions (a) to (D), inclusive, pages 22-23.

Paragraph 15, Subdivisions (a) and (b), page 24.

Paragraph 17, page 25.

Paragraph 19, Subdivisions (a), (b), (e) and (g), pages 26 and following.

Paragraph 20, page 30.

Paragraph 23, page 33.

Accordingly, It is Ordered, Adjudged and Decreed that each and every one of the demurrers and exceptions stated in the paragraphs and subdivisions hereinabove set out, both in defendant's Second Amended Original Answer and Second Supplemental Answer be, and the same are hereby overruled, to which action of the court in overruling each and every one of its said demurrers and exceptions, defendant, Lone Star Gas Company, then and there in open court duly excepted.

C. A. Wheeler, Judge, 53rd Judicial District Court of Texas.

[fol. 215] IN 53RD DISTRICT COURT, TRAVIS COUNTY, TEXAS

[Title omitted]

DEFENDANT'S REQUEST FOR PEREMPTORY INSTRUCTION—Filed June 12, 1934

GENTLEMEN OF THE JURY:

You are instructed herein that you will return a verdict in this case for the defendant, Lone Star Gas Company, and the form of your verdict will be:

"We, the jury, find for the defendant, Lone Star Gas Company, and against the plaintiffs, The State of Texas, et al.

—— ——, Foreman."

Karl F. Griffith, Thompson & Barwise, Ben H. Powell,
Attorneys for Defendant, Lone Star Gas Company.

The above instruction was requested at the conclusion of plaintiffs' testimony and after plaintiffs had rested, and prior to the time defendant, Lone Star Gas Company, offered any testimony and in open court, was considered by the court and plaintiffs' counsel, to whom a copy of the same was furnished, and after due consideration was denied, [fol. 216] to which action the defendant, Lone Star Gas Company, in open court, then and there duly excepted.

C. A. Wheeler, Judge Fifty-third District Court
Travis County, Texas.

[fol. 217] IN 53RD DISTRICT COURT, TRAVIS COUNTY, TEXAS

[Title omitted]

PLAINTIFFS' MOTION FOR AN INSTRUCTED VERDICT—Filed July 5, 1934

To Honorable C. A. Wheeler, Judge of Said Court:

Come now the State of Texas, et al., record plaintiffs in the above entitled and numbered cause, and at the close of the testimony in this case, the State of Texas, et al., having

introduced its testimony in chief and rested, and the defendant, Lone Star Gas Company, having introduced its testimony in chief and having rested, would respectfully move and request the court to instruct the jury to return a verdict herein in favor of the State of Texas, et al., and against the defendant, Lone Star Gas Company, and in this connection would respectfully show to the court that the defendant, Lone Star Gas Company, has failed to overthrow the prima facie validity of the order of the Railroad Commission of Texas, bearing date of September 13, 1933, introduced in evidence herein, and that said defendant, Lone Star Gas Company, has wholly failed to make out by clear and satisfactory evidence any fact — issue that should be submitted to the jury herein.

[fol. 218] Plaintiffs would further show to the court in this connection that said defendant, Lone Star Gas Company, has failed to properly show a segregation as to the amount of property located in Texas and that located in Oklahoma, and has likewise failed to make a proper separation in respect to the amount of business done within the State of Texas, as compared to the amount of business done within the State of Oklahoma; that said defendant, Lone Star Gas Company, has further failed and refused to properly show what part of its business done within the State of Texas constitutes intrastate commerce and what part of its business constitutes interstate commerce; that the burden of proof by law rests upon said defendant to make such segregation and it has wholly failed to discharge such burden.

Plaintiffs would further specially show to the court that said defendant has wholly failed to show that the facts introduced before the Railroad Commission were insufficient to justify the order made by it or that said order as made by the Railroad Commission was in any way unjust or arbitrary, in view of the evidence heard by it. Said defendant has wholly failed to make out a case or discharge any burden of proof in this respect and particular.

Wherefore, the State of Texas et al., record plaintiffs herein, respectfully move and request the court to instruct the jury to return a verdict herein in their favor and against the defendant, Lone Star Gas Company.

Respectfully submitted, James V. Allred, Attorney General of Texas. Wm. C. Fitzhugh, Assistant Attorney General. A. R. Stout, Assistant Attorney General.

[fol. 219] The above and foregoing request for an instructed verdict in favor of the State of Texas, et al., and against the defendant, Lone Star Gas Company, was duly presented to the court and counsel for the defendant, after both plaintiffs and defendant had rested their case in chief in this cause, and the same was considered by the court and overruled, to which Plaintiff duly excepted.

C. A. Wheeler, Judge Presiding.

[fol. 220] IN 53RD DISTRICT COURT, TRAVIS COUNTY, TEXAS

[Title omitted]

DEFENDANT'S MOTION TO STRIKE PLAINTIFFS' EXHIBIT NO. 8—Filed July 10, 1934

To the Honorable Judge of Said Court:

Comes now defendant, Lone Star Gas Company, and at the conclusion of plaintiff's direct examination of the Witness S. W. Freese, in connection with plaintiff's Exhibit No. 8, and moves the court to strike from the testimony and evidence in this case plaintiff's Exhibit No. 8 and each and every question and answer of the Witness S. W. Freese with reference thereto and based thereon, and further moves the court to instruct the jury not to consider said Exhibit and not to consider any of the questions propounded to the Witness S. W. Freese or his answers thereto with reference to or based upon plaintiff's Exhibit No. 8 for the following reasons, to-wit:

* * * * * * *

[fol. 221]

II

Because said Exhibit and the testimony given in aid and explanation thereof are wholly speculative in that it presupposes conditions of temperature which did not in fact exist for the 12 months ended December 31, 1933, and for the 12 months ended March 31, 1934.

III

Because the operating expenses as reflected by said exhibit are not the actual operating expenses incurred and

paid by the defendant in connection with its public service business as a whole nor are they the operating expenses actually paid and incurred by the defendant in connection with the conduct of its intrastate business in the State of Texas, and because by eliminating from actual operating expenses the amounts actually paid by the defendant, Lone Star Gas Company, to Lone Star Corporation for the periods in question, the witness has usurped the functions of the managing officers and officials of the Lone Star Gas Company with respect to proper operating expenses and invade the province of the jury in any event if the question of the propriety of such an operating expense is one for determination by anyone other than officers of the company.

IV

Because in the computation of the percentage amounts of 6.74 per cent and 6.76 per cent as available for return on property for the 12 months periods ending March 31, 1934, and December 31, 1933, respectively, the witness S. W. Freese in his testimony and in said exhibit wholly failed to include as a part of the public service of the de- [fol. 222] fendant gas leaseholds and gas reserves both developed and undeveloped, gas well construction, gas well equipment and all other items entering into and constituting the production system property of the defendant located in the State of Texas and used and useful by the company in connection with the conduct of its business in intrastate commerce in the State of Texas; and in lieu has erroneously attempted to substitute an alleged value for the gas produced by the defendant in the State of Texas.

V

Because said exhibit and the testimony of the witness in relation thereto insofar as temperatures are concerned are wholly speculative and theoretical and are not to be considered in connection with a test as to whether the opinion and order of the Railroad Commission, in evidence herein, operates to confiscate the public service property and business of the defendant over all and in intrastate commerce in the State of Texas and denies to defendant due process of law contrary to the 14th Amendment to the Constitution of the United States.

. . . . . .

[fol. 223]

VII

Because of the determination of degrees of deficiency as set forth in said exhibit and as testified to by the witness S. W. Freese is wholly theoretical and speculative and highly prejudicial and will cause and tend to cause the jury to believe that the earnings of the defendants for the 12 months ended December 31, 1933, and the 12 months ended March 31, 1934, should have been in excess of the actual net earnings of the defendant for said periods of 12 months each, and will permit the jury to find that the present rate of return which the defendant is able to earn under the charge and rate fixed by the Railroad Commission of Texas is reasonable at the present time based on such speculative testimony, whereas as a matter of fact under the undisputed evidence and based upon the return which the company would have earned under actual conditions, if the rate prescribed by the Commission had been in effect during the periods in question was less than that which as a matter of law would be necessary to avoid the confiscation of the defendant's property.

VIII

Because the operating expenses set forth in plaintiff's Exhibit No. 8 and the property of $40,256,862.39 and the revenues as therein set forth are not the operating expenses, property and revenues which are attributable solely to the intrastate business of the defendant in the State of Texas.

IX

Because the way and manner in which the witness has arrived at the amounts shown as representing the amount of company's produced gas is not calculated to and will [fol. 224] not result in a determination of the value of such gas or the value of the production system property which is now actually owned by the company and used and useful in connection with its public service and because the amounts determined by the witness as representing the amounts of company produced gas have been arrived at by a consideration of an erroneous legal principle and upon principles which will not result in a determination of the present fair value of items of property making up defendant's production system property which are actually

used and useful in the public service, and because by failing to include in the figure of $40,256,860.39, shown on page one of plaintiff's exhibit No. 8, an amount to cover production system property, the witness has failed to include an amount to cover the reproduction cost new or the present fair value of all defendant's property used and useful in the public service with the result that the computations of return expressed as a percentage of said figure are overstated to the prejudice of the defendant and in such a way as to mislead and confuse the jury and make it appear that the return computed on the basis as assumed in the exhibit is greater than it actually would be if the witness had included the fair value or reconstruction cost of all of defendant's public service property in the total amount upon which said percentage is computed.

* * * * * * *

[fol. 225] Karl F. Griffith, Thompson & Barwise, Ben H. Powell, Marshall Newcomb, by Karl F. Griffith, Attorneys for Defendant, Lone Star Gas Company.

The foregoing motion was duly and timely submitted to the court and counsel for plaintiffs in open court at the conclusion of the direct testimony of the witness S. W. Freese based upon and in explanation of plaintiff's Exhibit No. 8 and was by the court considered and overruled, to which action of the court in overruling the same defendant then and there in open court excepted.

C. A. Wheeler, Judge Presiding.

[fol. 226] In 53rd District Court, Travis County, Texas

[Title omitted]

Plaintiffs' Motion for an Instructed Verdict—Filed July 16, 1934

To Honorable C. A. Wheeler, Judge of Said Court:

Come now the State of Texas and the Railroad Commission, record plaintiffs in the above styled and numbered cause, at the close of all the testimony in this case and after

both plaintiffs and defendant have finally rested their case and closed their testimony and prior to the reading by the court of the main charge to the jury, and respectfully move and request the court to instruct the jury to render a verdict in their favor and against the defendant, Lone Star Gas Company, for the following reasons:

I

Said defendant has wholly failed to show that the order entered by the Railroad Commission in the light of the testimony introduced before it was unjust and unreasonable or confiscatory.

II

Said defendant has wholly failed to show by clear and satisfactory evidence that said order of the Railroad Commission is unjust and unreasonable, and has not discharged [fol. 227] the burden of proof, either by prima facie evidence, or otherwise to make out a fact case or issue that should be submitted to the jury.

III

Said defendant has failed to make any proper form or kind of segregation between Oklahoma business and Texas business or between interstate (claimed by it) and intrastate commerce.

Wherefore, premises considered, the record plaintiffs here respectively pray and move the court to instruct the jury to return a verdict in their favor and against the defendant, Lone Star Gas Company.

Respectfully submitted, James V. Allred, Attorney General of Texas; William C. Fitzhugh, Assistant Attorney General; A. R. Stout, Assistant Attorney General, Attorneys for Plaintiffs.

[fol. 228] The above and foregoing motion for an instructed verdict by the record plaintiffs herein was duly submitted to the court and counsel for the defendant, after both sides had rested and at the close of all the evidence in this case and prior to the reading of the court's main charge to the jury. Said motion for an instructed verdict was duly considered by the court and the same was overruled, to which Plaintiff duly excepted.

C. A. Wheeler, Judge Presiding.

[fol. 229] IN 53RD DISTRICT COURT, TRAVIS COUNTY, TEXAS

[Title omitted]

DEFENDANT'S REQUEST FOR A PEREMPTORY INSTRUCTION AT CLOSE OF TESTIMONY—Filed July 14, 1934

Gentlemen of the Jury:

You are instructed herein that you will return a verdict in this case for the defendant, Lone Star Gas Company, and the form of your verdict will be—

"We, the jury, find for the defendant, Lone Star Gas Company, and against the plaintiffs, State of Texas et al.

—— ——, Foreman."

Karl F. Griffith, Thompson & Barwise, Ben H. Powell, Marshall Newcomb, by Karl F. Griffith, Attorneys for Defendant, Lone Star Gas Company.

The above requested instruction was duly and timely requested at the conclusion of the evidence and before the preparation of the court's charge, in open court, was considered by the court and plaintiffs' counsel, and after due consideration was denied; to which action the defendant in [fol. 230-234] open court excepted and objected.

It is here stated that all other issues and instructions requested by defendant, were requested only after the court had refused its requested peremptory instruction and subject to its exception to such action of the court and without waiving its said motion and its exception to the action of the court in overruling same.

C. A. Wheeler, Judge Presiding.

[fol. 235] IN 53RD DISTRICT COURT, TRAVIS COUNTY, TEXAS

[Title omitted]

PLAINTIFFS' OBJECTIONS AND EXCEPTIONS TO PARAGRAPH THREE OF COURT'S CHARGE DEFINING "USED AND USEFUL"—Filed July 16, 1934

To Honorable C. A. Wheeler, Judge of Said Court:

Come now the State of Texas, et al., prior to the reading of the court's main charge to the jury and respectfully ob-

ject and except to paragraph three of the court's main charge, wherein the term "used and useful" is defined by the court, for the following reasons:

I

Because said definition does not adequately apply the law to the facts of this case and because same is on the weight of the evidence and will tend to and will confuse the jury, especially with reference to the Petrolia Gas Field, and which under the evidence costs more money to maintain the same than could in any way be realized therefrom, and which, under the plaintiffs' contention, should be entirely eliminated from the defendant's rate base.

[fol. 236] II

Under the definition as laid down by the court, said defendant could have any amount of property, no matter what the kind or character or cost thereof might be, and under the definition as submitted by the court, the jury would be bound to give effect to and include the same.

III

Plaintiffs respectfully suggest and represent to the court in this connection that the word "actually" in said paragraph three should be stricken and that the word "reasonably" should be included in lieu thereof and that the word "reasonably" should be included in the second portion of said definition between the words "been" and "acquired", thus making said definition to read as follows:

"3. By the term 'used and useful's is meant the property of the defendant reasonably being used by the defendant in the production, transportation, sale, and delivery of natural gas to its customers; and also such property as has been reasonably acquired by the defendant in good faith and now held for use in the reasonably near future in order to enable it to supply and furnish adequate and uninterrupted gas service."

IV

As said term "used and useful" has been defined, a greater burden of proof is put upon the plaintiffs than is required by law, and, moreover, said definition is an incorrect state-

ment of law, will likely tend to confuse and mislead the jury, and furthermore, same binds and instructs them to include [fol. 237] any property the defendant might have, regardless of whether the same is being reasonably used or efficiently used or even properly used, and regardless of expense thereof.

Respectfully submitted, James V. Allred, Attorney General of Texas. William C. Fitzhugh, Assistant Attorney General. A. R. Stout, Assistant Attorney General.

The above and foregoing objections and exceptions were duly presented to the court and adverse counsel prior to the reading of the main charge to the jury.

Same were duly considered, duly overruled, and ordered filed as a part of the record.

C. A. Wheeler, Judge Presiding.

[fol. 238] In 53rd District Court, Travis County, Texas

[Title omitted]

Defendant's Exceptions and Objections to the Court's Main Charge—Filed July 16, 1934

Be it remembered that upon the trial of the above styled and numbered cause, at the conclusion of all of the evidence herein, and after the court had overruled defendant's motion for a peremptory instruction, and without waiving the same, or its exceptions thereto, and after the court had prepared his main charge to the jury in writing, and after he had presented it to defendant's attorney of record for exceptions and objections thereto, the defendant by and through its attorneys of record did then and there in open court make and take the following objections and exceptions in writing to the court's main charge and the various parts thereof, all of which were taken and made within a reasonable time after a preparation of the court's main charge and the submission thereof to the defendant's counsel of record and within a reasonable time prior to the reading of the court's main charge to the jury and in the way and manner provided by law.

I

Defendant excepts and objects to the court's charge as a whole and to each and every portion and paragraph thereof because the same is a general charge and because the same denies to the defendant the opportunity of a full, fair and [fol. 239] complete judicial review upon specific findings as to each disputed fact issue in evidence before the jury, and because the submission of such charge denies to this defendant a full, fair and complete hearing and determination of the separate and essential elements entering into the determination of the reasonableness and legality of the Commission's order and entering into the effect of the enforcement of such order upon this defendant's rights under the Federal Constitution.

II

Because such charge denies to this defendant the right to a determination of the question of whether or not the order of the Commission and the rate prescribed therein are unjust and unreasonable upon the independent judgment of the jury as to the facts and upon the independent judgment of the court as to the law and denies to this defendant an opportunity to secure upon review by the appellate courts a determination of the questions of fair value, net operating revenues, rate of return and rate of depreciation reserve accrual entering into the determination of the reasonableness of said order and operates to deprive this defendant of the right to have the appellate courts pass upon the question of the correctness of the findings of fact which must necessarily be made by the jury in order to answer the special issue submitted by the court and to determine whether in each particular instance such findings were supported by competent evidence in the record and were reached by the application of proper legal principles.

III

Because such charge denies to this defendant a determination by the jury based on its independent judgment of each ultimate issue of fact as to which the evidence is disputed with respect to present fair value, net operating rev- [fol. 240] enues, rate of return, and rate of depreciation reserve accrual upon the Federal question raised by the defendant's answer in this case, namely, whether or not

the effect of the enforcement of the Commission's said order and the rates prescribed therein take defendant's property and the use thereof without due process of law, contrary to the Fourteenth Amendment to the Constitution of the United States, and denies to this defendant the equal protection of the laws, contrary to the Fourteenth Amendment to the Constitution of the United States, and denies to this defendant the right on this trial to reserve for review the determination of such ultimate fact issues separately, and prevents the defendant from reserving for review by the appellate courts the legality of the separate determinations of such ultimate fact issues as fair value, net operating revenues, rate of return, and rate of depreciation reserve accrual, and prevents this defendant from reserving for review the erroneous application of correct principles of rate making law to the facts found, and prevents this defendant from knowing and reserving for review by the appellate courts whether there have entered into the answer to the single question propounded by the court to the jury, findings made without evidence to support them, findings made contrary to the evidence in the case, findings made upon mixed questions of law and fact, and findings made upon the attempted application by the jury of inadmissible evidence admitted in evidence in the record over the objections of this defendant.

IV

Because such charge is based upon the erroneous assumption that this action is an appeal under the Texas statutes and particularly Article 6059 of the Revised Civil Statutes of Texas of 1925, and ignores and excludes from the jury [fols. 241-259] the determination of the Federal questions pleaded and urged by defendant in this case, namely, denial of due process by confiscation of defendant's property from the effect of the Commission's said order and the rate fixed therein, and denial of the equal protection of the laws by the enforcement of the Commission's said order and the rate fixed therein.

V

Defendant further excepts and objects to said charge as a whole for the reason that same wholly fails to give to the jury the necessary and proper instructions as to what they shall consider in determining whether the order of the Rail-

road Commission of Texas is reasonable or unreasonable and wholly fails to give to the jury the proper measure or means for determining said issue.

* * * * * * *

[fols. 260-261] XV

Defendant excepts and objects to special issue No. 1, contained in the court's main charge to the jury, for the following reasons, to-wit:

* * * * * * *

[fols. 262-263] (f) Because said special issue No. 1 submits only the question of whether or not the Commission's said order is unjust or unreasonable as defined by the Texas statutes and as such term is used in the Texas statutes and particularly those statutes commonly known and designated as the Gas Utilities Act, being article 6050 to 6066 of the Revised Civil Statutes of Texas of 1925, and permits the jury to answer said special issue against the defendant solely upon a finding that the order of the Railroad Commission is not unjust and unreasonable under the Texas statutes, and prevents the defendant securing answers of the jury to appropriate issues submitting to it the ultimate facts upon the basis of which answers the court may determine whether the effect of the said order is to deny to defendant a reasonable annual net rate of return upon the present fair value of its property; and the submission of said issue in the way in which it is submitted without further or additional issues being submitted covering the question of confiscation, prevents this defendant from securing a determination based upon appropriate fact findings of whether or not the effect of such order is to take this defendant's property and the use thereof without just compensation and without due process of law and to deny to this defendant the equal protection of the law.

* * * * * * *

[fol. 264] (k) Because in determining the answer to said special issue the jury is permitted to consider all of the testimony introduced in evidence upon the trial of this case including all of the legally insufficient and incompetent evidence offered by the plaintiffs relating to the book cost and

value of defendant's property physically located in the State of Texas without reference to its use, for intrastate or interstate commerce and the revenues and earnings from the sale of gas in Texas without reference to the source of such gas and without reference to whether the sale of same was a transaction in intrastate or interstate commerce, and in order that the jury may not predicate its answer on such incompetent testimony it should be instructed not to consider the same for any purpose or give any effect thereto in making its answer to said special issue and defendant now requests that the jury be so instructed.

* * * * * * *

[fol. 265] (n) Same permits the jury to find that the order of the Railroad Commission and the rate therein prescribed are just and reasonable and not confiscatory on the theory that line A, which is defendant's high-pressure natural gas pipe line extending from Wheeler County, Texas, into Oklahoma and back into the State of Texas is used exclusively in interstate commerce and sales from line A in Texas are intrastate sales, whereas, under the undisputed evidence, it appears that line A is used and useful in the conduct of defendant's interstate business and that gas sold in Texas off of line A is gas which moves throughout its entire transit up to delivery at the various cities' gates, in interstate commerce.

(o) Same permits the jury to find that the order of the Railroad Commission and the rate prescribed therein are reasonable by considering the value of property of the defendant located physically in Texas without reference to the use of such property even though located in Texas and without reference to the value of the use of such property and without reference to the fact that although such property is located in Texas some of it is nevertheless used and [fols. 266-267] useful in connection with defendant's interstate business; and the result is to permit the jury to answer said special issue on the erroneous legal principle that the order of the Railroad Commission can be upheld on the theory that defendant is earning a reasonable rate of return considering the value of property physically located in Texas and revenues from the sale of gas in Texas without reference to the source of such gas.

* * * * * * *

(q) The same permits the jury to find that the order of the Railroad Commission is reasonable on the basis of testimony of the allocation and segregation of property and sales according to the geographical location of the property and the places of the making of the sales regardless of the use to which such property is put and regardless of the source of the gas which is actually transported through such property and sold, which allocation in its nature is entirely arbitrary and made without reference to the use of the property or the value of such use and is incompetent, of no probative force and effect, of no legal significance and erroneous in law.

* * * * * * *

[fol. 268] XVI-a

Defendant further excepts and objects to the submission of special issue No. 1 to the jury and in the way and manner in which the same is submitted to the jury and particularly to that portion of the same wherein the court instructs the jury to find an answer to said issue from the evidence in this case because included in the evidence in this case is the testimony of plaintiffs' witnesses Phillips and Freese relating to the value of defendant's property physically located in the State of Texas and the amount available for return from the sales of gas in Texas without reference to [fol. 269] the use of such property or without reference to the source of the gas sold, all of such testimony being legally incompetent and insufficient as evidence under any proper issue made by the pleadings in this case and the result will be that the jury will be permitted to consider such incompetent testimony and defendant will be deprived of an opportunity on appeal to preserve this error through a consideration of the facts determined by the jury as a prerequisite to its answer to said issue.

XVI-b

Defendant further excepts and objects to said special issue No. 1 in the way and manner in which the same is submitted because:

(a) Same permits the jury to take into consideration in determining whether or not the order of the Commission is reasonable or unreasonable the amount of revenues which

the witness Freese calculated would have been available to the defendant and received by it from the sales of gas during the accounting periods in question had weather conditions been what he determined to be normal, and thereby the jury will be permitted to predicate its answer upon conditions which in fact did not exist and upon the basis of speculation as to the effect of such order if conditions different from those which actually existed, had existed, and thereby the jury will be permitted to answer said special issue against the defendant on the basis of conditions other than actual conditions with the result that although defendant's property is now being confiscated, it must suffer such confiscation because of such speculative testimony, and in this connection defendant here and now requests the court to instruct the jury that in answering said special issue they shall give no effect to additions to earnings made [fol. 270] by the witness Freese in plaintiffs' exhibit 8 and that they are to base their answer upon actual conditions resulting from actual operations of the defendant.

* * * * * * *

(c) Because said language in said special issue "as applied to points in Texas" is misleading and confusing because it does not differentiate between the different theories upon which the evidence in this case was predicated.

(d) Because an answer to said special issue can not be made the basis of a judgment against defendant enjoining it from collecting more than 32 cents for gas supplied at any point within the State of Texas for the reason that said issue does not differentiate between interstate and intrastate commerce and does not submit to the jury the question of whether or not the rate for gas sold in intrastate commerce is reasonable, and therefore even if the jury answers said issue against the defendant any judgment based on said answer enjoining defendant from charging more than 32 cents for gas which under the undisputed evidence is sold as a part of a transaction in interstate commerce would constitute a direct interference with defendant's interstate business and would violate the commerce clause of the Federal Constitution and consequently such [fol. 271] issue is irrelevant and immaterial and does not submit to the jury an ultimate fact issue determinative of this case.

XVII

Defendant further excepts and objects to the court's main charge and to the court's failure therein to submit appropriate special issues from which can be determined the question of whether or not the rate prescribed in the order of the Railroad Commission was unreasonable and confiscatory for the year 1933 considering defendant's property located both in Texas and in Oklahoma, and was unreasonable and confiscatory for the year 1933 and at the present time considering defendant's property used and useful in the production, transportation, sale and delivery of natural gas originating in and moving through-out its entire transit wholly within the State of Texas, and defendant here and now requests the court to submit appropriate special issues covering said matters of fact.

XVIII

Defendant here and now requests the court to submit to the jury in correct and proper form special issues covering each and everyone of the questions of fact set out and indicated in defendant's requested special issues Nos. 1 to 118, inclusive, together with appropriate definitions of legal terms employed in each and everyone of the same together with appropriate charges upon the burden of proof in connection with each of said special issues and here and now excepts and objects separately to the failure and/or refusal of the court to submit in one or more appropriate special issues each question of fact indicated in each of defendant's special requested issues together with appropriate defini-
[fol. 272] tions and appropriate charges upon the burden of proof, if the form of the question or any definition accompanying the question or any charge upon the burden of proof accompanying any such question is incorrectly set out or stated in any or all of defendant's said requested issues.

* * * * * * * *

[fol. 273] Karl F. Griffith, Thompson & Barwise, Ben H. Powell, Marshall Newcomb, Attorneys for Defendant, Lone Star Gas Company.

[fols. 274-514] The above and foregoing exceptions and objections and requests were made and taken and submitted

in writing under the signature of counsel for defendant within a reasonable time after a copy of the court's main charge had been presented to counsel for the defendant and before said charge was read to the jury and in due and seasonable time and having been presented to and considered by the court in open court before the court's main charge was read to the jury, each and all of such exceptions and objections and requests were by the court overruled and refused, to which action of the court in overruling and refusing the same, and each and everyone of the same contained therein, defendant, Lone Star Gas Company, then and there in open court duly excepted and said exceptions and objections are ordered filed as part of the record in this case.

C. A. Wheeler, Judge Fifty-third Judicial District Court.

[fol. 515] In 53rd District Court, Travis County, Texas

[Title omitted]

Charge of the Court—Filed July 17, 1934

Gentlemen of the Jury:

This cause will be submitted to you on a special issue in the form of a question, which you will answer from the evidence introduced before you as hereinafter instructed, and your answer to this special issue will constitute your verdict in this case. You will write your answer to the special issue upon the separate paper handed you herewith, numbered in proper form for your answer. You will select one of your number as foreman, who will preside over your deliberations and who will sign your verdict for you when you have agreed upon it.

You are the exclusive judges of the facts proved, of the credibility of the witnesses, and of the weight to be given to the testimony, and you will decide the issue submitted according to the evidence; but you must receive the law from the Court, as given in this Charge, and be governed thereby.

As to the rules of law applicable to the issue to be determined by you, and to assist you in answering said special issue, you are instructed as follows:

1. By "fair return" is meant that the Lone Star Gas Company is entitled to earn a rate on the present fair value of its property used and useful in the service of the public equal [fol. 516] to that generally being made at the same time within the same general part of the country upon investments in other business undertakings which are attended by like risks and uncertainties. The rate of return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate under efficient and economical management to maintain and support its credit and enable it to raise money necessary for the proper discharge of its duties.

2. By "fair value" is meant the reasonable worth of the property at this time that is being used and useful in the public service.

3. By the term "used and useful" is meant the property of the defendant actually being used by the defendant in the production, transportation, sale, and delivery of natural gas to its customers; and also such property as has been acquired by the defendant in good faith and now held for use in the reasonably near future in order to enable it to supply and furnish adequate and uninterrupted gas service.

4. By "operating expenses" is meant such expenses as are reasonably incurred by the Lone Star Gas Company in the operation of its property in furnishing gas to the various distributing companies.

5. By "annual depreciation" is meant the amount per annum that is reasonably necessary to compensate for the wearing out and any necessary replacements and retirements of property of the Lone Star Gas Company.

6. By the term "reproduction cost new" is meant the cost of constructing, new, as of the date in question, defendant's property used and useful in the public service.

7. By the term "going value" is meant the difference [fol. 517] between the value of defendant's property used and useful in the public service as an operating, functioning property, with a seasoned, organized, co-ordinating plant and personnel, with customers secured and business attached, in active and successful operation, rendering service

and capable of earning a fair rate of return, and the value of a like property of mere physical units built and operable, but not actually operating, and not actually having customers secured and business attached.

8. There have been introduced in evidence before you in this case certain findings and conclusions of the Railroad Commission of Texas from its hearing of the matter now on trial; and you are instructed that as to such findings and conclusions, you may consider same for the purpose for which same were admitted in evidence on this trial,—that is, for the purpose of assisting you (if same does assist you) in determining whether the order of the Railroad Commission of date September 13, 1933, is unreasonable and unjust to defendant, and for no other purpose.

9. You are instructed that the burden of proof is upon the defendant, Lone Star Gas Company, to show by clear and satisfactory evidence that the rate promulgated by the Railroad Commission in its said order of September 13, 1933, is unreasonable and unjust as to it.

10. By "unreasonable and unjust" is meant that the rate prescribed and adopted in the said order of the Railroad Commission was so low as to have not provided for a fair return upon the fair value of defendant's property used and useful in supplying the service furnished by said defendant.

[fol. 518] Now, bearing in mind the foregoing definitions and instructions, you will answer the following special issue:

Special Issue No. I. Do you find from the evidence in this case that, as applied to points in Texas, the order of the Railroad Commission of Texas, bearing date of September 13, 1933, providing for a rate of not exceeding 32 cents per thousand cubic feet of gas sold to the distributing companies at the gates of points served, is unreasonable and unjust as to the defendant, Lone Star Gas Company? Answer this question "yes" or "no".

(In determining your answer to said issue, you are instructed that the defendant, Lone Star Gas Company, is entitled to receive a fair return at this time on the present fair value of its property that is used and useful in the public service, after first deducting all necessary operating ex-

penses and a fair and reasonable amount for depreciation of said property; and that, in determining what is a fair value of said property, you will take into consideration the reasonable worth of the property at this time that is being used and useful in the public service, including the reproduction cost new of said property, annual depreciation, and the amount of going value, if any, that inheres in said property.)

C. A. Wheeler, Judge 53rd Judicial District of Texas.

[fols. 519-522] In 53rd District Court, Travis County, Texas

[Title omitted]

Verdict of the Jury—Filed July 21, 1934

We, the jury, answer the Special Issue submitted to us in this cause as follows:

Answer to Special Issue No. I. Yes.

P. R. Bible, Foreman.

[fol. 523] In 53rd District Court, Travis County, Texas

[Title omitted]

Plaintiffs' Motion for Judgment, Non Obstante Veredicto—Filed July 26, 1934

To the Honorable C. A. Wheeler, Judge of Said Court:

Come now the record plaintiffs in the above styled and numbered cause, and respectfully move and request the Court to enter judgment in their behalf, and against the defendant, Lone Star Gas Company, notwithstanding the verdict of the jury, for the following reasons:

I

Because, as a matter of law, there was no issue to be submitted to the jury in the first instance, and the Court should have granted the record plaintiffs' request for an instructed verdict in their behalf and against the defendant, Lone Star Gas Company.

II

Because, as a matter of law, the defendant has wholly failed to discharge the burden of proof incumbent upon it, and to prove by clear and satisfactory evidence that the [fol. 524] order of the Railroad Commission of Texas was or is unreasonable and unjust as to it.

III

Because for the further reason, as a matter of law, if a proper deduction is made for certain items that were merely set up on the defendant's books concerning which no clear or satisfactory evidence was ever shown, and after giving said defendant the full benefit of the fair value of its property within the State of Texas, or that could in any way be reasonably allocated to the State of Texas, the testimony clearly shows that the defendant was earning a fair net rate of return annually, is doing so at this time, and further that the testimony clearly not only shows that said order of the Railroad Commission is and was not unjust and unreasonable to said defendant, but that the same is both generous and just to it.

IV

Because, further, none of the testimony introduced before the Railroad Commission of Texas was introduced in this trial by said defendant, and for that reason it cannot be said as a matter of law that the order of September 13, 1933, is unreasonable and unjust to said defendant, Lone Star Gas Company. On the contrary, all of said record and the evidence adduced during the hearing held by the Railroad Commission was offered in evidence during the trial of this case, and the same was excluded by the Court, over the plaintiffs' exception, on account of the objection made by said defendant.

[fol. 525] The testimony of the hearing before the Railroad Commission that was so offered clearly shows that said order is not unreasonable or unjust, and as a matter of law, plaintiffs are entitled to a judgment, because their motion for an instructed verdict should have been granted, and this cause should have never been submitted to the jury in the first instance.

This motion is made without prejudice to plaintiffs' rights, motions and grounds for a new trial, in the event that the same is not granted.

Premises Considered, plaintiffs pray the Court that judgment be entered in their behalf Non Obstante Veredicto and against the defendant, Lone Star Gas Company; and they further pray for all proper orders of the Court in the premises, and for general relief.

Respectfully submitted, James V. Allred, Attorney General of Texas; William C. Fitzhugh, Assistant Attorney General; A. R. Stout, Assistant Attorney General, Attorneys for Plaintiffs.

[fols. 526-528] In 53rd District Court, Travis County, Texas

No. 53,033

The State of Texas et al.

vs.

Lone Star Gas Company

Judgment—Filed July 26, 1934

On the 11th day of June, A. D. 1934, came on to be heard the above styled and numbered cause, wherein the State of Texas, the Railroad Commission of Texas, Lon A. Smith, C. V. Terrell and Ernest O. Thompson, in their official capacities as members of and composing the Railroad Commission of Texas, and James V. Allred, in his official capacity as Attorney General of the State of Texas, are plaintiffs, and Lone Star Gas Company, a corporation, is defendant, and came the said parties herein and announced ready for trial, and came a jury of good and lawful men, towit, I. R. Bible and eleven others, who being duly impaneled and sworn, and having heard the pleadings, the evidence and argument of counsel from day to day, did on the 18th day of July A. D. 1934, retire to consider their verdict in response to the following charge submitted to them by the court:

• • • • • • •

[fol. 529] It is Therefore Ordered, Adjudged and Decreed by the Court that the order of the Railroad Commission of Texas, bearing date September 13, 1933, providing for a rate of not exceeding thirty-two (32¢) cents per one thousand cubic feet of gas, sold by Lone Star Gas Company to various distributing companies at the city gates of various towns and cities served by it, is unreasonable and unjust [fol. 530] to the defendant, Lone Star Gas Company, and is invalid and unenforcible.

It is Further Ordered, Adjudged and Decreed that the relief sought by plaintiffs in their suit against Lone Star Gas Company be, and the same is hereby denied, and that plaintiffs, the State of Texas, the Railroad Commission of Texas, Lon A. Smith, C. V. Terrell and Ernest O. Thompson, in their official capacities as members of and composing the Railroad Commission of Texas, and James V. Allred, in his official capacity as Attorney General of the State of Texas, take nothing by their suit against defendant, Lone Star Gas Company, and that defendant go hence without day.

It is Further Ordered, Adjudged and Decreed that the State of Texas, the Railroad Commission of Texas, Lon A. Smith, C. V. Terrell and Ernest O. Thompson, in their official capacities as members of and composing the Railroad Commission of Texas, and James V. Allred, in his official capacity as Attorney General of the State of Texas, plaintiffs herein, and each of them, and the successor or successors in office of each of them, as well as their servants, agents, employees and representatives, be and they are hereby permanently restrained and enjoined from enforcing or attempting to enforce, in any manner whatsoever, the said order of the Railroad Commission of Texas, of date September 13, 1933, or from enforcing or attempting to enforce any other order of the said Railroad Commission of Texas, based on said order of September 13, 1933, or giving effect thereto, and from compelling or attempting to compel defendant, Lone Star Gas Company, directly or indirectly, in any manner whatsoever to observe and comply with the said order of the Railroad Commission of Texas of September 13, 1933, or to observe or comply with any other order of the Railroad Commission of Texas, that may [fol. 531-32] be based in whole or in part on, or which gives any effect to, said order of the Railroad Commission of September 13, 1933, and from compelling or attempting

to compel defendant, Lone Star Gas Company, to charge, bill and collect from the distributing companies to which it delivers domestic gas, the rate of thirty-two (32¢) cents per thousand cubic feet of gas prescribed by the Railroad Commission of Texas in its said order, and from interfering with defendant, Lone Star Gas Company, in any manner whatsoever, in the charging, billing and collecting for domestic gas delivered by it at the city gate of various towns and cities served by it and located in the State of Texas, of forty cents per thousand cubic feet now, or at any time in the future, until and unless the said rate shall have been changed or modified by lawful order of duly constituted public authority.

It is Further Ordered, Adjudged and Decreed by the Court that defendant, Lone Star Gas Company, recover of and from plaintiffs herein, and each of them, all costs in this behalf expended, for which let execution issue.

To all of which action of the court in rendering judgment as aforesaid, plaintiffs, the State of Texas, et al., in open court duly excepted.

C. A. Wheeler, Judge, Fifty-third Judicial District Court, Travis County, Texas.

Final judgment dated July 26, 1934.

[fols. 533-534] In District Court of Travis County

[Title omitted]

Order Overruling Plaintiffs' Motion for Judgment Non Obstante Veredicto—Filed July 26, 1934

On this, the 26th day of July, A. D. 1934, came on to be heard and considered the plaintiffs' motion for judgment in its favor, and against the defendant, Lone Star Gas Company, non obstante veredicto of the jury;

And said motion having been duly considered by the Court, the Court is of the opinion and so finds that the same should not be sustained:

And it is hereby in all things overruled:

To which action and judgment of the Court in overruling said motion the plaintiffs then and there in open court duly excepted.

C. A. Wheeler, Judge of the 53rd Judicial District Court of Travis County, Texas.

[fol. 535] IN 53RD DISTRICT COURT, TRAVIS COUNTY, TEXAS

[Title omitted]

PLAINTIFFS' FIRST AMENDED MOTION FOR NEW TRIAL—Filed July 26, 1934

To the Honorable C. A. Wheeler, Judge of Said Court:

Come now the State of Texas and the Railroad Commission of Texas, composed of its duly elected and acting members, Lon A. Smith, Chairman, C. V. Terrell and Ernest O. Thompson, appearing herein by and through James V. Allred, the duly elected and acting Attorney General of Texas, and with leave of the Court first having been had and obtained, file this, their first amended original motion for a new trial, their original motion having been first duly filed on July 21st, 1934, and without waiving their motion for judgment non obstante veredicto, and respectfully move the Court to set aside the verdict of the jury and the judgment of the Court rendered herein, and also to grant them a new trial herein for the following reasons, to-wit:

1

The Court erred in defining the term "used and useful" in Paragraph 3 of the Court's main charge. Such error was duly and seasonably objected and excepted to by plaintiffs [fols. 536-537] and was pointed out to both the Court and adverse counsel prior to the Court's reading of his main charge to the jury. Plaintiffs' objections and exceptions and the Court's error in defining said term are again pointed out. Such definition was very prejudicial to plaintiffs, an incorrect statement of the law, on the weight of the evidence, all of which entitles plaintiffs to a new trial.

2

Because the verdict of the jury was contrary to all of the evidence in the case.

3

Because the verdict of the jury was so against the great weight of the competent and relevant evidence that the same should be set aside.

4

The defendant, Lone Star Gas Company, failed to show and to prove by clear and satisfactory evidence that the order of the Railroad Commission of Texas was unreasonable and unjust as to it.

5

The verdict of the jury should be set aside and a new trial granted, because the defendant failed and refused to discharge the burden of proof that rests heavily upon it by law.

6

Because the verdict of the jury is and was contrary to the law of the case.

* * * * * * *

[fol. 538] 11

The Court erred in allowing the defendant to introduce in evidence the defendant's styled Exhibit No. 28, and particularly Volumes 7 and 8 thereof, which was prepared by [fol. 539] the witness Connor, such evidence and exhibit being admitted over plaintiffs' objection and exception.

12

The Court erred in permitting the witness Connor to read and testify from the defendant's styled exhibit, being Volumes 7 and 8 of Exhibit No. 28, which same was admitted over the plaintiffs' objection and exception.

13

The Court erred in refusing to permit the record plaintiffs to introduce the record and statement of facts in the hearing of this case before the Railroad Commission.

14

The Court erred in sustaining the defendant's objection to the offer by plaintiffs to introduce the record and statement of facts adduced in the hearing of this cause before the Railroad Commission of Texas, to which action of the Court plaintiffs duly excepted.

15

The Court erred in not requiring the defendant to make a proper segregation of the value of its property in Texas, and the value of its property in Oklahoma, as same applied to the amount of business done in each of said states.

16

The Court erred in not requiring the defendant to make a proper segregation of the value of its property, as same applied to interstate and intrastate commerce.

[fols. 540-542] 17

The verdict of the jury should be set aside and a new trial granted herein, because said defendant wholly failed to segregate its Oklahoma and Texas property and the business done by it, insofar as same applied to interstate and intrastate commerce.

18

The verdict of the jury should be set aside and a new trial granted herein, because the defendant failed to discharge the burden of proof resting upon it to make a proper segregation of its interstate and intrastate business and property.

19

The Court erred in not granting the plaintiffs' motion and request for an instructed verdict after the defendant had first rested its main case in chief, at the, close of its direct testimony.

20

The Court erred in not granting the plaintiffs' motion and request for an instructed verdict, duly and timely made, at the close of all of the evidence in the case, after both sides had finally rested, and prior to the Court's reading of the main charge to the jury.

21

The Court erred in permitting the defendant to offer in evidence, over the objection and exception of plaintiffs, solely the order and opinion of the Railroad Commission, for the sole purpose of attacking the same.

* * * * * * *

[fol. 543] 33

The Court erred in sustaining the objection made by defendant to the plaintiffs' proffer of evidence from the witness D. A. Hulcy on cross-examination that the temperature conditions caused a loss of business in the years 1933 and 1934.

• • • • • • • •

35

The Court erred in allowing the defendant to introduce in evidence defendant's Exhibit No. 28, because same did not show any segregation between the value of the property in Texas and that in Oklahoma.

[fol. 544] 36

The Court erred in admitting in evidence defendant's styled Exhibit No. 31 with reference to gas leases and reserves, because the same did not show any division or allocation between Texas and Oklahoma business, or interstate and intrastate commerce.

37

The Court erred in permitting the witness E. A. Steinberger to testify concerning Exhibit No. 32, offered in evidence over the plaintiffs' objection and exception, and sponsored by said witness, because same included property which showed upon its face to not be used or useful in the public service.

38

The Court erred in admitting in evidence Volumes 7 and 8 of defendant's styled Exhibit No. 28, over plaintiffs' objection and exception, which same were vouched for by the witness Ed C. Connor.

39

The Court erred in admitting in evidence defendant's styled Exhibit No. 37, over the objection and exception of plaintiffs, because same did not show any segregation of any kind between Oklahoma and Texas property or business.

40

The Court erred in admitting in evidence defendant's styled Exhibit No. 40, over plaintiffs' objection and exception.

41

The Court erred in admitting in evidence defendant's [fol. 545] styled Exhibit No. 41, sponsored by witness Connor, over plaintiffs' objection and exception, because same did not show any segregation or separation between Oklahoma and Texas business or property.

42

The Court erred in admitting in evidence defendant's styled Exhibit No. 42, sponsored by the witness Connor, over plaintiffs' objection and exception.

* * * * * * *

[fol. 546] 46

The Court erred in sustaining the defendant's special exceptions as set out in Paragraphs 14, 15, 16 and 17 on pages 65 to 72 of defendant's answer, which same were directed to the first part of Paragraph 9 of plaintiffs' second amended original petition, being the following language which, on account of such special exceptions the Court erroneously struck out:

"That the defendant is attempting to evade the laws of this State and the order of the Railroad Commission of Texas in fixing and prescribing rates and charges for the sale and distribution of domestic and residential gas at the city gates of the various cities and towns served by the defendant in intrastate commerce, and."

* * * * * * *

[fol. 547] 48

The Court erred in sustaining the defendant's special exception to that portion of plaintiffs' second amended original petition, which reads as follows:

"Nor have the consumers of gas in the various cities and towns served by defendant in intrastate commerce any adequate remedy to protect themselves against the wrongs and unlawful acts herein alleged, and complained of, and."

49

The Court erred in sustaining defendant's special exception to the language appearing in plaintiffs' second amended original petition, as follows:

"And said consumers of domestic and residential gas within the State of Texas."

• • • • • • •

[fol. 548] 51

The Court erred in sustaining the special exceptions of the defendant, Lone Star Gas Company, to Paragraph 11 of plaintiffs' second amended original petition, wherein it was sought by plaintiffs to recover the difference between the higher forty cent (40¢) rate now in effect and the lower thirty-two (32¢) cent rate which was promulgated by said order of the Railroad Commission of Texas, because under the law plaintiffs in this case, in the event that they should be finally successful, have a right to recover this difference for the use and benefit of the domestic consumers and users of such gas.

52

The Court erred in sustaining the defendant's special exception to the next to the last paragraph of the prayer of plaintiffs' second amended original petition, relative to the refund to the domestic consumers of gas in the event the lower rate should finally be put in force and effect and the order of the Railroad Commission of Texas finally upheld.

53

The Court erred in sustaining defendant's special exception to sub-paragraph 2, Paragraph 8, of plaintiff's second supplemental petition.

54

The Court erred in sustaining the defendant's special exception to Paragraph 9 of plaintiffs' second supplemental petition, and in striking such paragraph out in toto.

[fol. 549] 55

The Court erred in sustaining defendant's special exception and in striking out the following language in Paragraph 10 of plaintiffs' second supplemental petition, to wit:

"In this connection plaintiffs would show to the Court that that part of said pipeline that cuts across a portion of the southwestern corner of Oklahoma and thence into the State of Texas was erected at an economic loss, and that at the time same was installed and erected, all economics, practical business and sound judgment would have dictated that said pipeline should have been extended southward and southeasterly within the State of Texas instead of having same to traverse a part of the State of Oklahoma at a great economic loss, as was done by said defendant."

56

The Court erred in sustaining the defendant's special exception, and in striking from Paragraph 10 of plaintiffs' second supplemental petition the following language, to wit:

"Which would have made said line much more profitable to said defendant than the line that it did erect and install within the State of Oklahoma; that from the time of its installation and to the present time, that part of said pipeline within the State of Oklahoma is maintained at a high expense and great economic loss, which would not in any event have been or be entitled, had the same or should the same be maintained within the State of Texas, as herein alleged."

[fols. 550-552] 57

The Court erred in sustaining defendant's special exception to Paragraph 14. of plaintiffs' second supplemental petition, wherein the following language was stricken out by the Court:

"That the above mentioned methods of treating such gas as comes into the State of Texas from the State of Oklahoma is analogous to the breaking of an original package of merchandise, and."

* * * * * * *

[fols. 553-559] Wherefore, premises considered, on account of the many errors hereinbefore pointed out, plaintiffs pray that their first amended original motion for a new trial be granted, and that such verdict and judgment of the Court be set aside, and that they be awarded a new trial herein.

Plaintiffs further pray for all general and special relief to which they and each of them may be justly entitled.

James V. Allred, Attorney General of Texas; William C. Fitzhugh, Assistant Attorney General; A. R. Stout, Assistant Attorney General, Attorneys for Plaintiffs.

[fols. 560-561] In District Court of Travis County

[Title omitted]

Order Overruling Plaintiffs' First Amended Original Motion for New Trial—Filed July 26, 1934

On this, the 26th day of July, A. D., 1934, came on to be heard and considered the first amended original motion of the plaintiffs for a new trial in the above entitled and numbered cause:

And such amended motion having been presented to the Court in due time, manner and form, and with due notice, and it appearing to the Court that such motion should be overruled, it is accordingly

Adjudged and Decreed that the same be, and it is hereby in all things overruled:

To which action and ruling of the Court the plaintiffs did then and there in open court duly except, and did then and there in open court duly give notice of appeal to the Court of Civil Appeals for the Third Supreme Judicial District of Texas, sitting at Austin.

C. A. Wheeler, Judge of the 53rd Judicial District Court of Travis County, Texas.

[fol. 562] In 53rd District Court, Travis County, Texas

[Title omitted]

Stipulation That Exhibits Introduced During Trial May Be Carried Up as a Part of the Record Without the Necessity of Rewriting the Same in the Statement of Facts—Filed July 26, 1934

Be It Remembered in the above styled and numbered cause, on this the 26th day of July, A. D. 1934, that it is agreed by counsel for the appellants and counsel for the appellee that the original exhibits introduced in evidence during the trial of this case may be sent up as a part of the statement of facts, along with the general record, and that it will not be neeessary for such exhibits to be included by the Court reporter within the statement of facts proper.

[fols. 563-582] Witness our signatures, this the 26th day of July, A. D., 1934.

William C. Fitzhugh, Assistant Attorney General; A. R. Stout, Assistant Attorney General, Attorneys for Appellants. Ben H. Powell, Karl F. Griffith, Attorney- for Appellee.

[fol. 583] In District Court of Travis County

[Title omitted]

Order Allowing All Documentary Evidence and Exhibits To Be Sent Up as a Part of Record, Without Necessity of Filing Copies With Clerk of Copying Same Within Statement of Facts Proper—Filed August 4, 1934.

Whereas, in the above entitled and numbered cause, the attorneys for all parties have agreed that all original documentary evidence and exhibits may be sent up in the original form in and by which the same were introduced in evidence during the trial of this case; and,

Whereas, the Plaintiffs have requested that said exhibits and documentary evidence be sent up in their original form;

It is therefore ordered, adjudged and decreed by the Court that all documentary evidence and exhibits that were introduced in evidence during the trial of this cause be sent

up by the court reporter in their original form and as the same were introduced in evidence during the trial of this case, and that it shall not be necessary for said court reporter to re-copy such exhibits and documentary evidence [fol. 584] within the statement of facts proper, or file copies of such documentary evidence and exhibits with the clerk of this Court.

C. A. Wheeler, Judge of the 53rd Judicial District Court.

[fol. 585] IN 53RD DISTRICT COURT, TRAVIS COUNTY, TEXAS

[Title omitted]

DEFENDANT'S CROSS ASSIGNMENTS OF ERROR—Filed August 7, 1934

To the Honorable Judge of Said Court:

Comes now the defendant Lone Star Gas Company, and files these its Cross Assignments of Error, as contemplated by law, and would respectfully show:

* * * * * * *

[fol. 586] 5

The court erred in overruling defendant's Plea in Abatement contained in Subdivision 10 Section B of defendant's Second Amended Original Answer, found on pages 34-35 thereof.

* * * * * * *

[fol. 587] 15

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and [fol. 588] timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the Commission in its order of September 13, 1933, was unjust, unreasonable, and confiscatory in this, that if said rate had been in effect during the year 1931, and subsequent accounting periods, defendant would not have earned and

would not have been able to earn the minimum net rate of return to which the Railroad Commission found it was entitled, upon the fair value of its public service property, as determined by the Commission.

Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon.

16

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the Commission in its order of September 13, 1933, was unjust, unreasonable and confiscatory in this, that said rate was based on a determination of the value of defendant's public service property as of December 31, 1931, considering labor and material prices substantially less than those prevailing on the date of the inquiry; and even though it be assumed that the Railroad Commission correctly valued such property as of December 31, 1931, nevertheless, if effect be given to such increased labor and material prices, the Railroad Commission's valuation would be materially increased as of the [fol. 589] date of the inquiry; and if said rate of 32 cents had been in effect during 1931, and subsequent accounting periods, defendant would not have earned and would not have been able to earn anything like the minimum net rate of return to which the Commission found it was entitled upon the fair value of its public service property at the time of the inquiry.

Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon.

17

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the Commission in its order of September 13, 1933, was unjust, unreasonable and confiscatory in this, that if said rate had been

in effect during 1931, and subsequent accounting periods, defendant would not have earned and would not have been able to earn anything like the fair net annual rate to which it was entitled in law, or the minimum net rate of return to which the Commission found it was entitled upon the fair value, at the time of the inquiry, of all of its public service property, wherever located.

Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon.

18

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the [fol. 590] case, and after both plaintiffs and defendant had rested, because plaintiffs wholly failed to prove or offer any evidence to prove, nor was there any evidence in the record upon which it could be found that 32 cents was a reasonable charge to be made by the defendant for gas delivered by it at the city gates of various towns and cities within the State of Texas to which the Lone Star Gas Company supplies gas in intrastate commerce, this being the issue made by plaintiffs' pleadings. Under the undisputed evidence in the case it appears as a matter of law that defendant is engaged in interstate commerce in the State of Texas in the transportation, sale and delivery of natural gas in Texas, purchased or produced in Oklahoma or in Texas, and moving from or through the State of Oklahoma into the State of Texas, and none of the testimony offered by plaintiffs in this case constituted legal or sufficient evidence to raise an issue as to the reasonableness of the Railroad Commission's rate as applied to gas purchased and produced and transported, sold and delivered in intrastate commerce, and hence plaintiffs having failed to prove or offer testimony to support same appearing in the record, defendant was entitled to an instructed verdict and to judgment based thereon.

19

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because the only evidence offered by plaintiffs relative to

the value of defendant's public service property, a proper annual depreciation allowance, and the amount available [fol. 591] for return to the defendant during the accounting periods in question, was of no probative force and effect or legal significance in as much as same was predicated upon a segregation of the public service property of the defendant as between property located in Texas and property located in Oklahoma without reference to the use to which the property in Texas was put by the defendant, and upon a segregation of revenues received by the defendant from the sale of gas in Oklahoma and Texas and without reference to the source of such gas or the means and method and route by which it was transported to the places of delivery in Texas even though as a matter of law based upon the undisputed testimony in the case it appeared that a substantial portion of the entire amount of gas sold by defendant in the State of Texas was either produced or purchased in Oklahoma and transported to the points of delivery and sale in Texas in interstate commerce or was produced or purchased in Wheeler County, Texas, and transported to the points of delivery and sale in Texas through Oklahoma and back into the State of Texas in interstate commerce, and that the pipe lines used to transport said gas extended from and through the State of Oklahoma and into the State of Texas.

Wherefore, plaintiffs wholly failed to make out a case entitling them to go to the jury, and defendant was entitled to an instructed verdict and to judgment based thereon.

20

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from plaintiffs' own testimony that the [fol. 592] rate of 32 cents prescribed by the Commission in its order of September 13, 1933, was unjust, unreasonable, and confiscatory in this, that even adopting plaintiffs' valuation of defendant's public service property located in Texas, and assuming that such a valuation is of probative force and effect under the issues made in this case, nevertheless, if said rate had been in effect during 1933 and 1934, defendant would not have earned as much as the minimum net rate of return to which the Railroad Commission found it

was entitled. Hence, on the basis of plaintiffs' own testimony, defendant was entitled to an instructed verdict and to judgment based thereon.

21

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because the only testimony offered in this case as to the present fair value of defendant's public service property used and useful in the conduct of defendant's intrastate business within the State of Texas, was testimony of the defendant, plaintiffs offering no testimony whatsoever of a segregation of property or revenues according to the kind and character of business being carried on by the defendant in the State of Texas; and it appeared from such testimony that even assuming the annual depreciation allowance and the net annual rate of return fixed by the Railroad Commission were reasonable, nevertheless the rate of 32 cents prescribed in the Commission's order would not be sufficient and was not sufficient at the time of the inquiry to permit the defendant to earn a fair rate of return upon the fair value of its property used and useful in the conduct of its [fols. 593-594] intrastate business in Texas, or even as much as the minimum net annual rate of return found by the Commission to be fair, and said rate as a matter of law is unjust and unreasonable and confiscatory of defendant's public service property used in the conduct of its intrastate business in Texas.

Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon.

* * * * * * *

[fol. 595] 23

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the statement of the Railroad Commission of Texas attached to the opinion and order of the said Commission, marked Exhibit "A" and referred to in plaintiffs' second amended original petition, that defend-

ant was engaged in the production and sale at wholesale of natural gas, engaging in both interstate and intrastate commerce in the sale of gas to some 300 cities and towns in the states of Oklahoma and Texas. The order of the Railroad Commission undertook to fix a reasonable rate for all of the gas supplied by the defendant to the various distributing companies. A part of the gas being delivered by the defendant at the city gates of various towns and cities in Texas at the time of the investigation of the Railroad Commission, and at all times in question was being transported uninterruptedly through defendant's high pressure pipe lines from and through the State of Oklahoma into the State of Texas. The business of transporting natural gas uninterruptedly through defendant's high pressure pipe lines from the State of Oklahoma into the State of Texas, and from the State of Texas through Oklahoma and back into the State of Texas is national in character and constitutes interstate commerce and transportation, and also constitutes a substantial portion of defendant's entire natural gas business. The order of the Railroad Commission was intended to and did, in fact, prescribe the rate to be charged for all gas sold by the defendant, including interstate gas, and thereby prevented the [fols. 596-600] defendant from charging and receiving the price for interstate gas which it was charging and receiving, and, therefore, was a burden upon a direct regulation of interstate commerce. The order of the Railroad Commission therefore was void insofar as it related to interstate commerce, and gas sold by the defendant moving in interstate commerce under the Commerce Clause of the Federal Constitution, and, being void in part, and being indivisible in character, it was void in its entirety and could not be enforced in whole or in part by the plaintiffs in this suit.

Wherefore, defendant was entitled to an instructed verdict and judgment of the court entered thereon.

24

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendants had rested, because plaintiffs wholly failed to make out a case showing

irreparable injury or calling for the exercise of the equitable jurisdiction of the court.

Karl F. Griffith, Thompson & Barwise, Ben H. Powell, Marshall Newcomb, Attorneys for Defendant, Lone Star Gas Company.

[fols. a-2] IN DISTRICT COURT OF TRAVIS COUNTY

[File endorsements omitted]

No. 53,033

THE STATE OF TEXAS

vs.

LONE STAR GAS COMPANY

Statement of Facts of Hearing on Plea in Abatement and Pleas to Jurisdiction—Filed September 7, 1934; Filed in C. C. A., September 12, 1934

[fol. 3] E. F. SCHMIDT, a witness produced by the defendant, being first duly sworn, testified as follows:

Direct examination.

By Mr. Griffith:

* * * * * * *

[fol. 4] Q. In the performance of your duties as general superintendent of the Lone Star Gas Company, would you say that you have a general familiarity with all of the ramifications of the Company's business operations relating to the production, transportation and sale, and wholesale, of natural gas?

A. I have.

Q. Mr. Schmidt, have you prepared any data in written form, to be submitted to this court, showing the general scope of the operations of the Lone Star Gas Company at the present time and for a number of years past?

A. I have.

Q. Together with a pipe line map, showing the intergrated pipeline system of the Company, its sources of gas supply, and routes over which the gas travels?

A. I have, yes, sir.

[fols. 5-7] Q. Is this the compilation of data to which you refer?

A. Yes, sir.

Q. And is the data therein collected and set forth correct, including the pipeline map which appears there and all the compiled data?

A. It is.

Mr. Griffith: If Your Honor please, we now offer in evidence said compiled data, identified by the witness E. F. Schmidt.

* * * * * * *

[fol. 8] Mr. Griffith:

Q. Turn to the compilation of data which has just been introduced in evidence and styled Defendant's Exhibit No. 4. What is shown on the first page, styled, "Five year summary Gas transportation, Lone Star Gas Company"?

A. The amount of gas transported through Oklahoma by years, the quantity of gas transported on the entire system and percentage of gas transported in interstate commerce.

Q. Does that sheet purport to be, and is it, a summarization of the five sheets immediately succeeding?

A. It is.

Q. On the following page, under the year 1929, do you show the gas transported in interstate commerce by the Lone Star Gas Company?

A. I do.

Q. Where are the Chicasha and Nellie fields, referred to in Defendant's Exhibit 4?

A. In Oklahoma.

[fol. 9] Q. In the State of Oklahoma?

A. Yes.

Q. In what counties?

A. Grady and Cotton counties.

Q. Where is the Duncan field located?

A. In Stephens County, Oklahoma.

Q. Where is the Loco field located?

A. In Stephens County, Oklahoma.

Q. Where is the Fox field located?

A. In Carter County, Oklahoma.

Q. Where is the Robberson field located?

A. In Garver County, Oklahoma.

Q. Where is the Palacine field located?

A. Stephens County, Oklahoma.

Q. Where is the Shamrock field located?

A. Wheeler County, Texas.

Q. Does gas moving from the Shamrock field in Wheeler County, Texas, pass through the state of Oklahoma and thence back into the state of Texas?

A. It does.

Q. Is that shown by the pipeline map which is at the end of this compilation of data known as Defendant's Exhibit 4?

A. It does.

Q. At the bottom of the page covering operations for the year 1929, do you show that the total of gas transported by the Lone Star Gas Company from all sources was 44,625,913 M cubit feet?

A. That is correct.

Q. And the amount transported through Oklahoma was 15,790,131,000 cubit feet?

A. That is correct.

[fol. 10] Q. And that the total of gas transported in interstate commerce was 35.4 percent?

A. That is correct.

Q. Similarly, what do you show on the succeeding page covering the year 1930?

A. Total gas transported through Oklahoma 14,087,358,000; gas transported on entire system 42,472,195,000, or 33.2 percent transported in interstate commerce.

Q. On the succeeding page, covering 1931 operations—that is, operations for the year 1931, what do you show?

A. Gas transported through Oklahoma 9,972,671,000. Gas transported from all sources 34,703,119,000 or 28.7 percent transported through Oklahoma.

Q. On the next page, covering operations of the Company for the year 1932, what do you show?

A. Gas transported through Oklahoma, 10,397,693,000.

Q. Is it not 597?

A. Yes, sir; 10,597,693,000. That is correct. The total gas transported from all sources 32,967,130,000 or 32.1 percent transported through Oklahoma.

Q. Similarly, what do you show on the next page covering the operations for the year 1933?

A. Total gas transported through Oklahoma 8,138,480,000. Total gas transported 31,385,293,000 or a percentage of 25.9 transported through Oklahoma.

Q. All of the data which has been set forth in these several pages, covering the years 1929 to 1933 inclusive, has been summarized on the first sheet, exclusive of the title sheet, of this compilation of data?

A. That is correct.

[fol. 11] Q. And it shows weighted average per cent transported through Oklahoma 31.5 for the five-year period covered?

A. That is right.

Q. Throughout this compilation of data, wher-ver you show, as for example covering the year 1929 Chickasha and Nella fields, 2,981,976 M, does that signify the amount of gas purchased by the company in those fields for the year in question and which gas was transported in the high pressure pipelines of the company, running into the State of Texas?

A. That is correct.

Q. Would a similar explanation be given in respect of the Duncan, Loco, Fox, Robberson, Palacine and Shamrock fields?

A. That is right.

Q. Except that the Shamrock field is in Wheeler County, Texas?

A. That is correct.

Q. Will you refer to the map which appears at the end of this compilation of data? Will you please explain to the court what this map represents?

A. It represents the pipeline system of the Lone Star Gas Company in the states of Texas and Oklahoma. The yellow line on the map indicates the Oklahoma-Texas boundary line. The lines in red are the lines transporting gas from Oklahoma into Texas and the blue lines indicate the lines in Texas.

Q. What is denoted by the circles which appear right under the Red River boundary line and in connection with numerous municipalities?

A. The red circles are encircling towns and cities in Texas whose consumption during the year 1933 was equivalent to the gas transported in interstate commerce, with the exception of Fort Worth and Dallas, where in Fort Worth,

approximately fifty percent of the gas was interstate com-
[fol. 12] merce, and in Dallas about one-third.

Q. Now, Mr. Schmidt, in the usual and ordinary conduct of its business, does the Lone Star Gas Company transport natural gas through its pipeline system, as its existence is determined by this map, from the various gas fields in the State of Oklahoma and from the Shamrock field in Wheeler County, Texas, to the city gates of the various municipalities which you have circled on this map?

A. They do.

Q. Is that gas transported continuously from the field to the city gates of these numerous municipalities in high pressure pipelines?

A. It is.

Q. Is delivery and sale thereof, made at wholesale, made at the city gates of these several municipalities?

A. That is correct.

Q. Is the forward flow of the gas continuous from the time it leaves the gas well or gas field until delivery is made at the city gates station?

A. It certainly is.

Q. At the city gate station, what disposition is made of the gas?

A. At the city gate station, the pressure is reduced, the gas is measured, and delivered at a pressure of twenty-five, to varying perhaps as high as fifty pounds, to the distributing plant.

Q. Is that reduction in pressure made for the purpose of accommodating the distributing operation of the various companies?

A. It is.

Q. In all cases, Mr. Schmidt, does the Lone Star Gas Company deliver the gas at wholesale at the city gates?

A. They do.

[fol. 13] Q. And title to such gas passes at the city gate?

A. That is correct.

Q. That would be true of all towns except the city of Fort Worth, where the company is engaged in local distribution?

A. That is right.

Q. With that qualification, your answer would stand?

A. That is right.

Q. Refer again to the map at the end of the compilation of data, known as Defendant's Exhibit 4. What is the size

of the pipeline extending from Wheeler County, Texas, in the Shamrock field, in a southeasterly direction into the State of Oklahoma and thence in a southeasterly direction to the city of Wichita Falls and beyond?

A. Eighteen inch.

Q. Is that what is known as a high pressure pipeline?

A. It is.

Q. What are the pressures carried on that pipeline?

A. From 400 pounds in the field to delivery pressure at the city gates.

Q. What is the pressure at the city gates before the pressure is reduced for the purpose of making delivery to the local distributing companies?

A. That will vary from 350 pounds to about 100 pounds.

Q. Refer, please, again to the map at the end of Defendant's Exhibit 4. There would appear to be two pipelines coming south out of Oklahoma, through Cotton County, Oklahoma.

A. That is correct.

Q. What are the sizes of those two pipelines?

A. They are each twelve inches in diameter.

Q. Are those lines operated at high pressure?

[fol. 14] A. They are.

Q. Will you next look at the line which appears to come in a southeasterly direction through Love County, Oklahoma to Gainesville, Texas and beyond. What is the size of that pipeline?

A. Sixteen inches in diameter.

Q. Is that a high pressure pipeline?

A. It is.

Q. What pressure is carried on that pipeline?

A. From 400 pounds to 350 pounds approximately.

Q. Now, Mr. Schmidt, referring again to this map, in the usual and ordinary course of business of the Lone Star Gas Company, from what source do the towns and cities of Wichita Falls, Iowa Park, Electra, Oklaunion, Vernon, Talbot and Chillicothe receive their gas supply?

A. From Wheeler County.

Q. Through the eighteen-inch line from Wheeler County into Oklahoma, and back into the State of Texas?

A. That is correct.

Q. Refer to the sixteen-inch line which you have identified as coming out of Love County, Oklahoma to, or near to, the city of Gainesville, Texas and beyond. From what

source, in the usual conduct of the defendant's business, does the city of Gainesville, Muenster, Saint Jo and other municipalities west of Gainesville and including Gainesville, receive their gas supply?

A. From Oklahoma fields, the Fox field, Loco field, Palacine field and Robberson field.

Q. Does the amount of gas moving through the State of [fols. 15-18] Oklahoma and into the State of Texas vary and depend upon changes in temperature and the demands for gas supply?

A. It does.

Q. The demands of the several distributing companies?

A. That is correct.

Q. And one volume of gas may be transported today and a different volume transported tomorrow, due to temperature changes?

A. That is right.

Q. What is the purpose of the Lone Star Gas Company reducing the pressure of gas at the city gates of the several municipalities where delivery is made to local distribution companies?

A. It is necessary to reduce pressure in order to make it safe for use in domestic consumption and for delivery into the distribution system of the city plants.

Q. At what pressure is the gas distributed by the local distributing companies to the domestic and residential customers served by said plants?

A. The low pressure, from two to eight ounces—six ounces.

* * * * * * * *

[fol. 19] Q. You don't mean to say that every town where you have a red line drawn around, is served exclusively with Oklahoma gas, do you?

A. No, sir.

Q. What is the amount of business done in Texas as compared to the amount of business done in Oklahoma per annum?

A. I don't know what you mean by business.

Q. I mean the amount of revenue taken in.

A. I don't know.

Q. Have you any idea?

A. No, sir.

Q. Now, in computing your statement that you have here, you include the Wheeler field in Texas as gas coming from Oklahoma.

A. As gas transported through Oklahoma.

Q. That little narrow line up there?

A. That is right.

Q. But the gas is produced in Texas, isn't it?

A. I testified so.

Q. I just wanted to make it clear. Isn't it true and isn't it a fact that you have practically the largest gas reserves in the world in Texas?

A. We have?

Q. Yes.

A. I don't think so.

[fol. 20] Q. Don't you have more than enough than is necessary or adequate to serve the State of Texas?

A. No, sir.

Q. Gas reserves.

A. No.

Q. You don't have more than enough up in the Panhandle field alone to serve Texas?

A. I don't think so.

Q. Don't you have more than is adequate to serve the entire United States?

A. No, sir.

Q. Don't you serve a great deal of the North and as far as Chicago and Denver with gas from the Panhandle field?

A. We don't.

Q. Don't it come from there?

A. Yes, sir.

Q. What is the percentage of gas reserves in Oklahoma as compared with gas reserves in Texas, owned by your company?

A. I don't know.

Q. Have you no idea about that?

A. No, sir.

Q. For the sake of argument, or rather forgetting about the gas transported across that narrow neck up from the Panhandle field, how much gas is produced in Oklahoma as compared to the gas produced in Texas per annum?

Mr. Griffith: What do you mean? By the Lone Star Gas Company?

Mr. Stout: Yes, sir. How much does your company produce per annum in Texas, as compared to what it produces per annum in Oklahoma?

[fol. 21] A. I don't have any figures on that at all.

Q. You just don't know anything about that either?

A. I don't have that figure.

Q. About all the gas practically that ever comes into Texas from Oklahoma is compressed or re-compressed somewhere along the line?

A. Not all of it.

Q. Practically all of it.

A. No.

Q. Didn't you so testify the other day?

A. No, sir. All the gas from the Fox field is not compressed.

Q. Which field is the Fox field?

A. It is the one in Carter County, Oklahoma.

Q. What amount, coming from the Fox field, that finds its way into Texas—what amount is ever compressed?

A. Sometimes a very small amount is compressed.

Q. What average, if you know?

A. On a peak load, possibly less than five per cent is compressed.

Q. What kind of load?

A. Peak load.

Q. When it is not a peak load, how much is compressed?

A. Depends on conditions, whether we are running that compressor station or not.

Q. On the one running through Petrolia, is all of that compressed?

A. Not in getting into Texas, no.

Q. Is it compressed after getting into Texas at Petrolia?

A. Yes, sir.

Q. Isn't that what I asked you?

A. I didn't think so.

Q. It is all compressed in Petrolia at the time it makes another step.

[fol. 22] A. That is correct, except in the summer time we often bring gas from Shamrock.

Q. That is not in Texas.

A. Yes, sir; but we bring it down from Oklahoma without any compressing.

Q. But all that comes from Oklahoma is compressed except what comes from Shamrock?

A. No. Sometimes in the summer we get some from Chicasha without compressing.

Q. None of it is ever compressed?

A. I didn't say that. I said part of it sometimes is not compressed.

Q. Your company has a monopoly on all this gas that comes into Texas on its lines?

A. I don't know what you mean.

Q. Allright, if you don't know what it means. You have got control of the pipes, haven't you?

A. Yes, sir.

Q. You can do anything with it you want to.

A. Not anything. We have to take care of the loads through these various lines as the demand occurs.

Q. When the gas starts out from the field in Oklahoma, do you know where the ultimate destination of it is going to be?

A. Not definitely.

Q. And when it starts out at that field, you don't know what place it is going to?

A. Not exactly.

Q. It is just in your pipe and you have got control of it?

A. Yes, sir.

[fols. 23-25] Q. Another thing—when you compress this gas, you make gasoline out of it, too?

A. Not when we compress it, no, sir.

Q. Do you make any at all?

A. No, sir, not by compression.

Q. Tell how you do make it and when?

A. We make gasoline by the absorption method.

Q. When, where and how?

A. On all of the lines coming down from Oklahoma, we extract the hydrocarbons that would normally condense in the line and cause stoppage and interfere with service. We take those hydrocarbons out.

Q. That is all the gas that comes from Oklahoma into Texas?

A. Yes, sir.

* * * * * * *

[fol. 26] Cross-examination.

By Mr. Fitzhugh:

Q. Referring to your map, Mr. Schmidt, where is the Robberson field?

A. It is in Garvin County, Oklahoma.

Q. It is at the norther-most trip of the red line shown for the G-16 inch?

A. That is right.

Q. North and east of the Robberson field, you have some more lines in Oklahoma, have you not?

A. Yes, sir.

Q. Where does that gas come from?

A. Comes from the Fox and Robberson fields.

Q. Those lines serve some very sizeable towns in Oklahoma, do they not?

A. They are rather small towns.

Q. Including Elmore City, Hoover, Sulphur, Pauls Valley, Maysville, Lexington, and others?

A. That is correct.

Q. How much gas did those towns consume in the year 1933?

A. I don't have any figures on that.

Q. You are superintendent, aren't you?

A. Yes, but I don't have the figures here.

Q. About how much?

A. I couldn't estimate it.

Q. Couldn't give us any guess at all?

A. No, sir.

[fol. 27] Q. It was in excess of 300,000 M. C. F. for the year, wasn't it?

A. I don't think so.

Q. About how much was it?

A. I don't have any figures here at all.

Q. Refer to your sheet in your exhibit number four for the year 1933. How much gas do you show was produced and purchased in the Robberson field for that year?

A. Robberson field, 207,807,000.

Q. Isn't it possible that all that gas and some more besides, that came from the Fox field, was necessary to supply those towns shown on the black portion of the line "G" in Oklahoma for the year 1933?

A. No, sir.

Q. Can you tell approximately, anywhere near to correct figures, how much the production from the Robberson field exceeded the amount needed by those towns in Oklahoma on the dark sections of the line "G"?

A. No, I don't have any figures of that kind here at all.

Q. Do you know how much gas produced and purchased in the Robberson field ever got as far as Texas state line?

A. Approximately 207,000,000.

Q. Some of that has to be used in Oklahoma, doesn't it?

A. Not necessarily.

Q. Why do you say that?

A. Because there are times when we are taking gas from that field in both directions.

Q. Where in the world are these towns on the dark portion of the line "G"—Oklahoma towns—where in the world do they get their gas? Didn't you say from the Robberson and Fox fields?

[fol. 28] A. That is correct.

Q. Doesn't it stand to reason some gas had to go from those fields to supply them?

A. Possibly so.

Q. Doesn't that take off some of the gas that you said went into Texas?

A. And it is offset by the amount that goes back into Oklahoma from various points.

Q. Coming from Texas into Oklahoma?

A. Yes, sir.

Q. Give us some approximate figures.

A. I don't have any exact figures here.

Q. You don't know, then, do you?

A. Only from that territory, my judgment is that is correct.

Q. How much of the 653,527 M. C. F. of gas produced and purchased in the Fox field in Oklahoma ever reaches the Texas state line?

A. Practically all of it.

Q. Haven't you just testified some of that gas is used by Oklahoma towns?

A. Small part of it. I said practically all of it.

Q. Beside all of the towns I referred to, being towns on the dark shaded portion of your line on your map, there are the towns of Marietta and Asphaltown——

Mr. Griffith: No.

Mr. Fitzhugh: Isn't that on your line?

Mr. Griffith: No.

Mr. Fitzhugh: —Dixie—I don't know as I can trace all the towns.

A. About three customers at Dixie.

[fol. 29] Q. But there are some other towns on the red shaded portion of the line "G" that are served in Oklahoma?

A. I don't think so.

Q. How about Marietta?

A. Except Marietta.

Q. That is a pretty sizeable town?

A. It is a small town.

Q. More than three customers there, aren't there?

A. It is a small town.

Q. You say that all of that six million cubic feet of gas produced and purchased in the Fox field reaches the Texas line?

A. Practically all of it.

Q. And you say that, because you offset that with gas that moves from Texas to Oklahoma?

A. Yes, sir.

Q. How much of the gas produced in Oklahoma, without any offsets, reaches the boundary of Texas?

A. Substantially all of it.

Q. In order to say that, you have to regard all the Oklahoma towns as being served exclusively with Texas gas, don't you?

A. I didn't quite understand.

Q. You are trying to say, if I understand you correctly, that all the amounts you show on your exhibit for the Robberson field and the Fox field and all other Oklahoma fields, is not diminished consumption, and that virtually all of it reaches Texas?

A. That is approximately correct.

Q. In order for that to be true, you have to regard all the Oklahoma towns as being served exclusively with Texas gas, don't you?

[fol. 30] A. Well, they are not served with Texas gas. I don't know that that is the conclusion you have to draw.

Q. No diminution of the supply taken from Oklahoma, and still you serve towns in Oklahoma—then those towns must be served from some other source in Oklahoma?

A. I think so.

Q. Which isn't the truth.

A. Yes, because the figures are close to being correct.

Q. Your Oklahoma gas and Texas gas, if there is any back and forward surge of gas, is all mixed up?

A. Yes, sir.

Q. You don't know which is Texas gas and which is Oklahoma gas, do you?

A. Not exactly.

Q. Referring to the same sheet still, 1933, all of the fields listed on that sheet, with the exception of the Shamrock field, are Oklahoma fields, are they not?

A. That is correct.

Q. Now, all of the fields, except the Shamrock field, if my figures are correct, add up to be 1,690,340 M.C.F.; and that would represent, would it not, all the Oklahoma gas purchased and produced by your company in 1933?

A. I think so.

Q. Don't you know, as a matter of fact, and don't the records of your company show, that one million M.C.F. of gas was consumed by your Oklahoma towns for the year 1933?

A. No, I don't know. I am sure that is wrong.

Q. To be exact, the figures are 1,135,394 M.C.F. Isn't that correct? That would be one billion cubit feet.

[fol. 31] A. Consumption in Oklahoma?

Q. Yes.

A. I wouldn't think it was anywhere near that.

Q. Do you have any figures on that?

A. No.

Q. Could you check our figures?

A. I have not got the information here, no, sir.

Q. If those are correct figures, there would remain then about 500,000 M.C.F. of your Oklahoma gas for consumption any place else than Oklahoma; isn't that correct?

A. If those figures are correct.

Q. Would you make a check of those figures for us to see if they are correct?

A. I have no way of doing it here.

Q. Passing from line "G" to "H" and "2nd H"—is there ever any change of gas passing through lines "H" and "2nd H"?

A. No, sir.

Q. All that gas comes south from Oklahoma into Texas?

A. That is correct.

Q. I believe you say that is not the condition on line "G"; that there is a change of direction of the gas there. Sometimes going from Texas to Oklahoma and sometimes from Oklahoma to Texas?

A. No, I didn't say that.

Q. Does all gas in line "G" come south at all times?

A. There might be a very short interval when it flows north.

Q. There are occasional changes in the direction, in the gas passing through line "G"?

A. Very seldom.

Q. On the occasions when gas in line "G" is passing from Texas into Oklahoma, that would show that the gas pro- [fol. 32] duced in Oklahoma from the Robberson, Fox and other fields on those lines was insufficient to serve Oklahoma towns and that some additional gas was needed from Texas in order to serve them?

A. Or it might be trouble in the line—blow-out or stoppage somewhere.

Q. You mean to say every time that gas passes from Texas to Oklahoma that was the reason, trouble in the lines?

A. It has been a very few times that I know of.

Q. Wasn't it because the Oklahoma production was insufficient to furnish the Oklahoma consumption?

A. I should think that would be the main reason.

Q. Now, on your map, from Oklahoma or points close to there on line "A", you have line "A-1-6" "that runs north and slightly east across the Texas line into the state of Oklahoma.

A. That is correct.

Q. All the gas used by line "A1-6" comes from line "A" in Texas?

A. Yes, sir.

Q. And is gas from the Shamrock field?

A. That is right.

Q. That is, on line "A1" there are no gas fields or production in the State of Oklahoma?

A. No, sir.

Q. How much gas passed from Texas through line "A1" into Oklahoma in the year 1933?

A. I don't have any figures on that.

Q. That is the gas that you are relying on, isn't it, to offset what you say passes from—the gas that you say is offset, passing from Texas into Oklahoma?

A. That, and other towns.

Q. Sir?

[fol. 33] A. That line, and other towns in Oklahoma that are supplied from Texas.

Q. What are the other towns? Are you talking about line "E"?

A. Yes, sir.

Q. On line "E 5", that goes from Denison, Texas across Oklahoma line to serve Durant and towns in that vicinity?

A. That is correct, and also a line to Hugo.

Q. And the line at Hugo, being "E-16", going from Paris, Texas across the line to Hugo?

A. That is correct.

Q. In both of those last two lines, gas passes always in a northerly direction from Texas into Oklahoma?

A. Yes, sir.

Q. In those three instances, "E-16", "E-5" and "A-1", are the lines having Texas gas going into Oklahoma and which you used as offsets while ago in answering questions put to you?

A. Yes, sir, that is correct.

Q. And you are unable to give us, you say, figures on the amount of gas passing through those lines from Texas into Oklahoma for the year 1933?

A. I don't have them here.

Q. Those figures are part of the records of the company and are just as much available as those you cite in your exhibit, are they not?

A. I think so, yes, sir.

Q. Mr. Schmidt, does any Oklahoma gas ever reach the city of Dallas, Texas?

A. Yes, sir.

Q. What lines does that gas come from?

[fols. 34-36] A. That can come down line "F" or line "C" between Fort Worth and Dallas or "J-2" between Fort Worth and Dallas.

Q. What is the proportion of Oklahoma gas to the total amount in the line serving Dallas?

A. That would be pretty hard to tell.

Q. You can approximate it, can't you?

A. No; I don't know how you could tell.

Q. Do you know the figures for Fort Worth?

A. No, sir.

Q. Can you tell what the proportion of Oklahoma gas is to the total gas being consumed at Fort Worth?

A. I don't know exactly, no, sir.

Q. Wouldn't it be just a fraction of one per cent?

A. No, it would be a substantial percentage.

Q. Would it be as much as one per cent of the total volume of gas?

A. Yes; it might be one hundred per cent.

Mr. Griffith: As of any special time?

A. That is right.

Mr. Fitzhugh: Besides lines "A", "H", "2nd H" and "G"—the four lines that run into Oklahoma, the company has a number of other lines?

A. Yes, sir.

Q. On your map you show lines going into West Texas. There are a number of fields in that section of Texas?

A. Yes, sir.

Q. And you get a substantial production from Company reserves, as well as purchase a great deal of gas in those areas, do you not?

* * * * * * *

[fol. 37] The Court: You have a number of blue lines indicated on the map, in Texas, connected with different pumps on gas fields in West Texas?

Mr. Shannon: Yes, sir.

The Court: What per cent of these lines are in Texas, as compared with Oklahoma?

Mr. Shannon: I am not prepared to answer.

The Court: A large part of it is in Texas?

The Witness: Yes, sir, quite a large part.

The Court: Then, you take the position, do you, Mr. Shannon, that while all this country out in West Texas is more or less covered with these connecting lines, that if you run one line up into the Chickasha territory and get gas from that territory, that becomes interstate commerce?

Mr. Shannon: Yes, sir.

The Court: Does that taint the entire field, then—all this territory?

Mr. Shannon: We are not contending that under appropriate circumstances and appropriate proceedings the [fols. 38-39] Railroad Commission might not have jurisdiction and authority to fix a rate on gas moving exclusively in intrastate commerce. We do not think it necessary for us to take that position here.

* * * * * * *

[fol. 40] Q. At any rate, as shown on your map, Mr. Schmidt, it is not your contention, is it, that any of the lines south of Fort Worth or Dallas or west of Fort Worth are served by any Oklahoma gas or a mixture of Oklahoma and Texas gas?

A. You are covering quite a little territory. There are times when that is undoubtedly true.

Q. Maybe we can get at it this way. Is there ever any Oklahoma gas passing through your lines in the lines west of Joshua, Texas?

A. There has been.

Q. Is there any now?

A. Not today.

Q. Was there any in 1933?

A. I don't think so.

Q. Has there been any in 1934 so far?

A. No, sir.

Q. Would there ever be any gas current west of Joshua from Oklahoma until and unless the fields in West Texas play out?

A. Unless we had an accident on the lines which would cause it to go down that way.

Q. The ordinary current of gas would be easterly instead of westerly?

A. That is correct.

Q. That is, you never would have any Oklahoma gas at Abilene or Baird or Putnam or Breckenridge or Ranger or that section out there?

[fols. 41-45] A. Not at the present time.

Q. Would you be likely to have any at Waco or towns on that line south of Fort Worth?

A. We have had.

Q. When was the last time you served that section with gas, part of which was Oklahoma gas?

A. 1929.

Q. But since that time you have not served them with Oklahoma gas?

A. Not that I know of.

Q. About the line that comes south from Dallas down to Corsicana and that section?

A. We have served gas from Oklahoma several times through those lines.

Q. Recently?

A. In 1932. Not in 1933.

Q. Or in 1934?

A. No, sir.

Q. Now, at every point where your line goes across the state line, you have a meter, do you not?

A. No, sir.

Q. Well, if you don't have a meter at the state line, you have one somewhere close so you can always tell how much gas passes over the state line; isn't that true?

A. Not in the case of the Panhandle line.

Q. With that one exception, you would be able to tell the amount of gas passing over the state lines?

A. That is correct.

* * * * * * *

[fol. 46] The Court: Take Oklahoma part away from that would show the balance, wouldn't it?

Mr. Fitzhugh: Yes, sir, but the witness says he doesn't know the amount and cannot take it away. He cannot show in this exhibit, as he says he does, the per cent that is interstate commerce.

The Court: It shows the amount he says comes from Oklahoma.

Mr. Fitzhugh: No, it doesn't, by his own testimony.

The Court: From this statement here in this paper——

Mr. Fitzhugh: He has it headed, "For the year 1933, Gas transported in interstate commerce". Now a whole lot of gas he has in this exhibit is intrastate, produced in Oklahoma and used in Oklahoma, and he doesn't know the [fols. 47-50] amounts of it. The whole thing is misleading.

The Court: These words appear here, as I see it, "Total gas transported through Oklahoma."

Mr. Fitzhugh: In interstate commerce. That is the catch. There is no interstate commerce in gas that comes from this little field on up north into Oklahoma and that gas is all in this exhibit.

The Court: Where those words appear: "Total gas transported through Oklahoma"—does that have reference to gas brought from Oklahoma to Texas?

The Witness: I have in mind gas transported from Oklahoma into Texas and back into Oklahoma and approximately offset with consumption in Oklahoma, and I think it does very closely. It was almost impossible to make those figures exact and these percentages would be as close as anybody could get them.

Mr. Fitzhugh: Isn't it a fact that your heading: "Gas transported in interstate commerce" is absolutely misleading?

A. I don't think so.

Q. I think ordinary candor would allow that admission.

Mr. Stout: I want to further object to the exhibit, wherein it seeks to state what is interstate commerce, because it is a conclusion of law, which this court only can determine, and because it is an incorrect attempt to state the law and incorrectly arrived at, and this witness is not competent to pass on an intricate matter as interstate and intrastate commerce.

Mr. Griffith: We are striking the words "interstate commerce" from the exhibit, with the permission of the court.

The Court: Yes, sir.

* * * * * * *

[fol. 51] KARL F. GRIFFITH, being first duly sworn, testified as follows, to-wit:

Direct examination.

By Mr. Stout:

Q. Your name is Karl F. Griffith?

A. My name is Karl F. Griffith.

Q. What is your business?

A. Well, I would say that my business consists of about fifty per cent of practice of law and the remaining fifty per cent is devoted to attempting to be a public utility executive.

Q. Fifty per cent that business and fifty per cent law?

A. That would be approximately correct.

Q. Mr. Griffith, are you a share holder in the Lone Star Gas Corporation?

A. I am.
Q. Are you a director?
A. I am.
Q. Are you an officer?
A. I am.
Q. How many directors, and who are they, in that?
A. Mr. George W. Crawford, T. B. Gregory, David E. Mitchell, J. M. Simpson, all residing at Pittsburgh, Pennsylvania; R. A. Crawford, L. B. Denning and myself, residing at Dallas.
Q. 1915 Wood Street?
A. That is the business address of Mr. R. A. Crawford, Mr. L. B. Denning and myself.
Q. That is where you gentlemen transact business?
[fol. 52] A. In reality, we transact business at 301 Harwood Street, but 1915 Wood Street is our mail address.
Q. The Lone Star Gas Corporation, does it have a permit to do business in Texas?
A. It does not.
Q. Is it a Delaware chartered corporation?
A. It is.
Q. What per cent of stock does the Lone Star Gas Corporation—I mean voting stock—own in the Lone Star Gas Company?
A. Something in excess of ninety-nine per cent. There are a number of shares outstanding of the capital stock of the Lone Star Gas Company in the hands of the public, but in excess of ninety-nine per cent is owned by the Lone Star Gas Corporation.
Q. In excess of ninety-nine per cent of the Lone Star Gas Company's voting stock is owned by the Lone Star Gas Corporation?
A. That is correct. All of the stock of the Lone Star Gas Company is voting stock.

• • • • • • •

[fol. 53] Q. Mr. Griffith, what other companies in Texas does the Lone Star Gas Corporation own any interest in?
A. The Municipal Gas Company, The Stamford and Western Gas Company, the Community Natural Gas Company and the Texas Cities Gas Company.
Q. The Dallas Gas Company?
A. No, the Lone Star Gas Corporation does not directly own any stock in the Dallas Gas Company or the County

Gas Company. However, what you desire, I assume, is to be informed as to the ownership.

Q. Yes, sir.

A. The Lone Star Gas Corporation owns all, or substan-
[fol. 54] tially all, of the common capital stock of the Dallas Gas Corporation, which corporation in turn owns a majority of the capital stock of the County Gas Company and the Dallas Gas Company.

Q. Yes, sir—are those all the companies the Lone Star Gas Corporation owns a voting interest in, in Texas?

A. It has just been suggested that the Lone Star Gas Corporation owns the Galveston Gas Service Company, or substantially all of its stock. As a matter of fact, the ownership is not direct; the Lone Star Gas Corporation owns all, or substantially all, of the stock of the Galveston Gas Shares, Inc., which corporation owns all, or substantially all, of the stock of the Galveston Gas Service Company. I am not sure whether the Lone Star Gas Corporation owns stock of the Northwest Texas Gas Company or whether that stock is owned by the Stamford & Western Gas Company. I do know that the Stamford & Western Gas Company, unfortunately, has guaranteed principal and interest upon bonds of the Northwest Texas Gas Company.

Q. Meaning what?

A. I was merely trying to apprize you of the corporate interests. I wanted to be frank about it.

Q. With the exception of the gas company in Waxahachie and the gas company in Gainesville, is it correct or not that the Lone Star Gas Corporation owns the controlling voting stock of all the gas companies in Texas, with which it or the Lone Star Gas Company does business?

A. No, that is not true.

Q. How is it not?

A. If I understand your question correctly——
[fol. 55] Q. I think you do.

A. Texas Cities Gas Company, at El Paso, for example, buys gas from the El Paso Natural Gas Company—the pipe line company. The Galveston Gas Service Company and/or Texas Cities Gas Company buy gas from the Houston Pipe Line Company and not from the Lone Star Gas Company.

Q. Then you don't do any business with them if they don't buy gas from you, do you?

A. Mr. Stout, I don't comprehend your question; will you re-phrase it, please?

Q. The question I asked was whether or not the Lone Star Gas Corporation did not own a controlling voting interest in every company it did business with in Texas, or in every company the Lone Star Gas Company did business with in Texas, save and except the companies in Waxahachie and in Gainesville, Texas?

A. If you mean by controlling voting interest, the voting capital stock in excess of ninety-nine per cent, that would be true. It is my understanding that the control of a corporation is vested by law in its board of directors.

Q. Where does the Municipal Gas Company have its general office?

A. 301 South Harwood, Dallas.

Q. Where does the Stamford & Western Gas Company have its general office?

A. 1915 Wood Street, Dallas.

Q. Where does the Community Gas Company have its general office?

A. 1915 Wood Street, Dallas, Texas. Its principal office is 100 West Tenth Street, Wilmington, Delaware.

Q. Where does the Texas Cities Gas Company have its office?

[fol. 56] A. 1915 Wood Street.

Q. Where does the Dallas Gas Company have its office?

A. 800 Union Trust Building, Pittsburgh, Pennsylvania, and its principal office is at 100 West Tenth Street, Wilmington, Delaware.

Q. Where does the Lone Star Gas Corporation have its principal office?

A. Outside of Delaware, 800 Union Trust Building, Pittsburgh, Pennsylvania, and principal office at 100 West Tenth Street, Wilmington, Delaware.

Q. The Galveston Gas Service Company, where does it have its general office?

A. Its principal office is at 1915 Wood Street.

Q. The Galveston Gas Shares, Inc.?

A. It has its principal office, outside of Delaware, at 800 Union Trust Building, Pittsburgh, and its principal office in Delaware, I believe, is in Dover; I am not certain about that.

Q. Would you be so kind as to give us the directors of each of these corporations that you have just named?

A. I am unable to do that by memory.

Q. Would you get that data for us?

A. Well, I could get the data if time was given, but I cannot step outside of the courtroom and procure it.

Q. Would you prepare it?

• • • • • • •

[fol. 57] A. As I recall, there are five directors of the Dallas corporation. I may be in error about one of these names I shall give you, but I think the list is correct: D. E. Mitchell, J. M. Simpson, T. B. Gregory, L. B. Denning, R. A. Crawford.

Q. Is D. E. Mitchell the same as Daniel Mitchell?

A. Yes, sir, one and the same.

Q. Could you give us the officers in each of the corporations named by you?

A. I would not attempt to do that by memory. I would be very happy to give you the information if I could remember it, but there are too many companies involved and I do not recall.

Q. You have all the books of the corporations doing business in Texas where—where do you keep them?

A. All the corporations enumerated doing business in Texas, their books are kept either at 1915 Wood Street or [fol. 58] 301 South Harwood Street in Dallas, but I refer solely to the general books of the several companies.

Q. Does 301 South Harwood Street join the building known as 1915 Wood Street?

A. It does.

Q. Right jam up together?

A. Even more than that; they are connected.

Q. All of it is connected, isn't it?

A. Well, I don't know that I understand your question.

Q. Do you have the officers of the Dallas Gas Corporation?

A. No, sir, I do not recall the officers of the Dallas Gas Corporation.

• • • • • • •

Q. What amount, each year, does the Lone Star Gas Company pay to the Lone Star Gas Corporation for supervising fees, if any?

[fol. 59] A. It is a varying amount, determined by the application of one per cent to the gross receipts of the Lone Star Gas Company.

Q. All right. Approximately how much each year, in American money, does that amount to?

A. In round figures?

Q. Yes, sir, Mr. Griffith.

A. It approximates $80,000.00 to $100,000.00 a year.

Q. Just that?

A. Yes, sir; in other words, the gross receipts of the Lone Star Gas Company run from approximately eight to ten million dollars, and applying one per cent to that gives you eighty to one hundred thousand dollars.

Q. Is that a very nominal amount?

A. I think it is a nominal amount for the services rendered. That is about the only way I can answer your question.

Q. What service do they render?

* * * * * * *

[fol. 60] A. Among other services, the Lone Star Gas Corporation has furnished money and financed the Lone Star Gas Company to the extent that the Lone Star Gas Company is indebted, either upon open account, short term notes or demand notes, to the Lone Star Gas Corporation in the approximate amount of $18,000,000.00, as of this time, and as of the last several years—all periods. That money has been furnished by the Lone Star Gas Corporation to the Lone Star Gas Company at the rate of interest of six per cent per annum; notwithstanding the fact that over a period of the last several years the Lone Star Gas Corporation itself has been compelled to pay as high as ten per cent for money on current bank loans, and upon indebtedness funded for relatively short times. Now, the sum of $80,000.00 to $100,000.00 per annum, if my crude mathematics are correct, represents about one-half of one per cent upon the eighteen million [fol. 61] dollars; to-wit, one-half of one per cent of eighteen million dollars would be ninety thousand dollars per annum. I would say that is one of the most signal services rendered, but there are numerous others.

Q. What are the others?

A. The general purchasing office of the Lone Star Gas Corporation at Pittsburgh has purchased for the Lone Star Gas Company, free of all charge other than the application of the one per cent to the gross receipts of the Lone Star Gas Company, or the eighty to one hundred thousand dollars which I have mentioned, all of the steel pipe which has

entered into the pipe line system of the Lone Star Gas Company since that supervisory contract became effective about 1928, or 1927, possibly—I am not certain as to the date—through the consolidation of purchases in the hands of the general purchasing agent of the Lone Star Gas Corporation at Pittsburg. The Lone Star Gas Company has been able to secure prices for steel pipe and heavier materials much below the price which it would have been able to secure independently in the open market.

Q. Does it do all the purchasing for the Lone Star Gas Company?

A. Only pipe and some heavier materials. All other purchases are made by the Lone Star Gas Company purchasing agent, Mr. B. R. Newberry or his assistant.

Q. Pipe and pertinent equipment thereto is the biggest purchase made, isn't it?

A. Yes, sir, that is correct.

* * * * * * *

[fol. 62] Q. Now, Mr. Griffith, you say the Lone Star Gas Company owes to the Lone Star Gas Corporation, $18,000,000.00?

A. Approximately $18,000,000.00. As of this particular time it is something a little less than that.

Q. Did you give us the officers of the Lone Star Gas Corporation? I don't believe you did.

A. I gave the directors.

Q. Who are the officers?

A. The chairman of the board is Mr. George W. Crawford. The president of the corporation is L. B. Denning. The vice-presidents of the corporation are T. B. Gregory, R. A. Crawford, J. M. Simpson, myself, Karl F. Griffith, as vice-president and general counsel, D. L. Cobb is secretary and treasurer, David E. Mitchell is assistant secretary, and there are numerous, I might almost say countless, assistant secretaries and assistant treasurers and transit agents.

Q. They don't amount to much, do they, as far as power [fol. 63] and the rulership—they are no more than mist before the sun.

A. Each is supreme in the field where his duties operate.

Q. Are they clerical men?

A. No indeed.

Q. Give their names.

A. I don't recall them all. The assistant treasurer has charge of the books of the company. His authority is supreme in that direction.

Q. Who is he?

A. I believe the assistant treasurer is Mr. Fulton.

Q. And who else?

A. I do not recall all the assistant treasurers and assistant secretaries. There are several.

Q. But they operate under the——

A. They operate under the authority conferred by the board of directors and by the laws of the company.

Q. Now, Mr. Denning is of course connected with the Lone Star Gas Company?

A. Yes, sir, he is president of that company.

Q. You have a little connection with it, haven't you?

A. Yes, sir.

Q. And who are the other directors in the Lone Star Gas Company?

A. The directors of the Lone Star Gas Company are: D. L. Cobb, R. A. Crawford, F. L. Chase, R. E. Harding, sometimes referred to as Ellison Harding, Ben E. Keith and myself.

Q. Mr. Cobb lives in Dallas?

A. Yes, sir.

Q. Mr. Crawford, where?

[fols. 64-65] A. Dallas.

Q. Mr. Chase, where?

A. Dallas.

Q. Mr. Harding?

A. Fort Worth.

Q. Mr. Keith?

A. Fort Worth.

Q. You are a Dallas man, I believe?

A. Yes, sir.

* * * * * * *

[fol. 66] Q. Take the Community Gas Company, what service or fees does it pay to the Lone Star Gas Corporation annually, if any?

A. The Community Natural Gas Company, up until January 1st, 1934, and for a number of years, has paid to the Lone Star Gas Corporations for various services rendered,

the sum of fifty cents per domestic customer supplied by its local distributing plant. That fifty cents per customer is an annual payment and is the annual basis, and, I believe, was paid at the rate of four and one-third cents a month.

Q. What does it pay now?

A. Affective as of January 1st, 1934, it will pay that amount when, as and if it is able do so.

Q. But it still holds its obligation?

A. Only when, and as and if it is able to pay.

Q. But still there is an understanding that "if"—why, it will pay?

A. Only in the event its earnings are sufficient to take care of its charges, plus interest, upon the money which it has borrowed.

Q. As I understand it, it has always paid it in the past?

A. Prior to January the 1st, 1934, and for a period of several years it has paid, it has paid it in the past.

[fol. 67] Q. In other words, fifty cents per head it gets from the customer, goes to the Lone Star Gas Corporation; is that right?

A. It pays fifty cents per customer.

Q. And the Community gets it from the folks?

A. The Community Natural Gas Company has no means of obtaining money except through contribution of stockholders or out of the revenues from the patrons which it serves.

Q. What service does the Lone Star Gas Corporation perform for it?

A. I would say, taking them up in order of their importance, that the Lone Star Gas Corporation has advanced or has financed the Community Natural Gas Company, either on open account, short time loans or demand loans, to the approximate extent or amount of $8,000,000.00 or $9,000,000.00, and that has been done over the past several years, and over the past several years the Community Natural Gas Company has owed to the Lone Star Gas Corporation, either on open account, short time notes or demand notes, the sum of $8,000,000.00 or $9,000,000.00.

Q. Are all loans not secured by deeds of trust?

A. They are not.

Q. The Lone Star Gas Corporation owns over ninety-nine per cent, does it not?

A. In excess of ninety-nine per cent of the capital common stock.

Q. In other words, it owns it?

A. It owns it; that is, by owning it, I mean in excess of ninety-nine per cent of the capital common stock.

[fol. 68] Q. Does it do the buying for this company, either directly or indirectly?

A. You mean the Lone Star Gas Corporation?

Q. Yes.

A. The Lone Star Gas Corporation acts for the Community Natural Gas Company as it does for the Lone Star Gas Company in connection with the purchase of pipe and possibly some of the other heavier material.

Q. Now, the Lone Star Gas Corporation is what is known, understood to be and recognized to be, as the holding company, isn't it?

A. I think your statement is substantially correct.

Q. Both in law and in fact?

A. It is in fact, anyhow.

Q. Now, Mr. Griffith, is it not true and is it not a fact that the same and substantial services that are rendered by the Lone Star Gas Corporation to the Lone Star Gas Company and the Community Natural Gas Company are rendered to the other corporations or companies affiliated with it in Texas?

A. Yes, the services are substantially the same kind and character as rendered to the other distributing companies.

* * * * * * *

[fol. 69] Q. Is the same true as to the amount of money owed by each so called distributing company as the other [fol. 70] facts you have testified to?

A. I am unable to recall, without detailed accounting sheets, as to whether or what amounts the other distributing companies are indebted to the Lone Star Gas Corporation.

Q. Do all of the distributing companies owe money to the Lone Star Gas Corporation?

A. I think that probably all of them do, with the possible exception of the Municipal Gas Company.

Q. Who does it owe money to?

A. It owes money to a great number of people.

Q. Any to the Lone Star Gas Company?

A. I think it does. I think it has been unable to pay its bills for gas delivered at the city gates.

Q. How is all of this money owed secured—if by any kind of obligation or agreement in writing?

A. All the money of which I have spoken is either on open account—and that would be relatively small amounts—or evidenced by short term or demand notes.

Q. And no other evidence of the debt?

A. I think that would be generally true. There might be some minor exception to that general statement.

Q. In addition to the services you have mentioned, furnished by the Lone Star Gas Corporation to each one of the companies named by you, does it not furnish, in addition to furnishing money, does it not furnish financial advice?

A. Oh, yes, sir.

Q. Does not it furnish legal advice?

A. Yes, sir, it does.

[fol. 71] Q. And when operating problems come up, do not they consult with the Lone Star Gas Corporation?

A. When a major operating problem of any consequence comes up, they do consult with the officers and directors of the Lone Star Gas Corporation, who have had long experience in the natural gas business; in fact, longer than any similar group of men in this country.

Q. Is the same true as to accounting?

A. I don't know that the underlying companies consult the chief officers and directors of the Lone Star Gas Corporation as to accounting, but the Lone Star Gas Corporation does furnish to the underlying companies the advice of experts in accounting matters.

Q. And they take that advice always, don't they?

A. They do, if they think it is good.

Q. If they did not, what would happen to them? Wouldn't off go their necks?

A. I would be unable to answer that question.

Q. Isn't the same true as to engineering?

A. In matters of engineering, either construction or operation, the Lone Star Gas Corporation, from time to time and as requested by the several operating companies, makes available to those companies the services of engineers who are skilled and experienced and largely recognized as authorities on natural gas matters.

Q. And isn't the same true as to the buying of supplies?

A. As I have previously stated, the purchasing work done by the general purchasing agent of the Lone Star Gas Corporation for the benefit of the several operating companies [fol. 72] is largely restricted to the purchase of steel pipe and possibly some of the other heavier materials. Each of

the operating companies has its own purchasing organization that does all other purchasing.

Q. How many of these companies designated by you owe money to the Lone Star Gas Company, if any beside the Municipal Gas Company?

A. I would be unable to say. A great many people owe money to the Lone Star Gas Company—trade men, merchandisers, and I do not recall any exact amounts, and I am unable to say as of any specific date any of the affiliated companies owed money to the Lone Star Gas Company.

Q. You said the Municipal Gas Company?

A. I said that was my best recollection; that several months ago the Municipal Gas Company owed the Lone Star Gas Company something over $100,000.00 for gas purchased at the city gates.

Q. I believe yesterday, Mr. Griffith, you gave us the names of the directors of the Lone Star Gas Corporation and the Lone Star Gas Company?

A. That is correct.

Q. And then you gave us the names of the officers of each corporation, did you not?

A. In any event, the major officers.

Q. Now, will you explain to the court what directors each corporation has in common?.

A. Three of the directors of the Lone Star Gas Corporation out of a total of seven of that corporation are directors as well of the Lone Star Gas Company, which company in [fol. 73] turn has a directorate consisting of seven members.

Q. Those three are who?

A. L. B. Denning, R. A. Crawford and myself, not constituting a majority.

Q. I had not asked you that. Who are the common officers between the two corporations?

A. I don't know what you mean by "common officers," but there are certain of the members of the board who are officers of Lone Star Gas Corporation and who at the same time are officers of the Lone Star Gas Company.

Q. Name them.

A. Mr. L. B. Denning is president of the Lone Star Gas Corporation and the Lone Star Gas Company. Mr. R. A. Crawford is one of the vice-presidents of the Lone Star Gas Corporation and also a vice-president of the Lone Star Gas Company. I happen to be vice-president and general counsel

of Lone Star Gas Corporation and hold a similar office and position with the Lone Star Gas Company.

Q. Who else?

A. Mr. D. L. Cobb, who is secretary and treasurer of the Lone Star Gas Corporation and also secretary and treasurer of the Lone Star Gas Company. Mr. Cobb is a director of the Lone Star Gas Company but not of the Lone Star Gas Corporation.

Q. What other officers are in common?

A. I think there are some minor officers.

Q. Who are they?

A. I believe Mr. T. J. Uhl is an assistant secretary of the Lone Star Gas Corporation as well as the Lone Star Gas Company.

[fol. 74] Q. Where does he stay?

A. Mr. Uhl spends most of his time at 301 South Harwood Street in the city of Dallas.

Q. He does not have much say so or power, has he?

A. He has all of the powers that are covered by the bylaws of the corporation, by resolutions of the board of directors and by law appointing him acting in the capacity wherein he has been appointed to serve.

Q. And when he is told he does it, doesn't he?

A. He endeavors faithfully to discharge the duties of his office.

Q. Who else?

A. There are possibly one or two others but I am uncertain as to them, and I will not attempt to testify from memory.

Q. Now, Mr. Griffith, as I understand from your testimony of yesterday, all the officers of one company or the other are located in the same place in Dallas, the same place in Pittsburgh or the same place in Wilmington, Delaware?

A. Do you mean offices or officers?

Q. Both.

A. That is hardly true, Mr. Stout.

Q. What is correct about it?

A. What I have heretofore testified to is correct as to addresses and names. Some of the officers and directors of the Lone Star Gas Corporation live in Pittsburgh, Pennsylvania.

Q. Do you have any offices except these four; is that correct?

A. Of the companies I have enumerated?

Q. Yes.

[fol. 75] A. If we refer to general offices, that is correct.

Q. Mr. Denning and you and Mr. Crawford are all in Dallas, Texas?

A. That is our voting address.

Q. Does Mr. Denning stay in Dallas, Texas?

A. I should say Mr. Denning is there about fifty per cent of his time.

Q. How about Mr. Crawford?

A. Mr. Crawford is gone a good deal.

Q. I notice the name Crawford appearing quite often in one of your corporations or the others; are they related to each other?

A. Mr. George W. Crawford is the uncle of Mr. R. A. Crawford. You may have seen the name of Mr. T. W. Crawford. Mr. T. W. Crawford died just about a year ago.

Q. Wherever the name "Crawford" appears, it is either father or son or brother?

A. No.

Q. Is it related?

A. As I have stated, there are only two Crawfords who are directors and officers of the Lone Star Gas Corporation, and Mr. George W. Crawford is the uncle of Mr. R. A. Crawford.

Q. Are you not related to some of the board, or directors, too?

A. I happen to be a brother-in-law of Mr. L. B. Denning.

Q. Is there any other relationship between the Dennings and the Crawfords and the Griffiths, or any of the other directors or officers of the Lone Star Gas Corporation or Lone Star Gas Company?

A. As far as I know, none whatever.

[fol. 76] Q. Is it not true that the gas business, insofar as your company or companies are concerned, in Texas, are practically run under one management in Dallas, Texas?

A. That is not true.

Q. You are general attorney for the Lone Star Gas Corporation, are you not?

A. Yes, sir.

Q. And you are general attorney for the Lone Star Gas Company?

A. Yes, sir.

Q. And you are general attorney for every gas company in Texas you do any business with?

A. That is not correct.

Q. You represent them, don't you; at every rate hearing any of them ever have had, haven't you been the leading lawyer?

A. I have participated in most of the cases involving the Community Natural Gas Company, the Stamford & Western Gas Company, the Municipal Gas Company, the Texas Cities Gas Company, the Lone Star Gas Corporation and the Lone Star Gas Company.

Q. Everything done on those cases was done under your direction?

A. I think I was responsible for that rate litigation as a lawyer usually is in charge of litigation or proceedings.

* * * * * * *

[fol. 77] Q. In the event anything came up between the Lone Star Gas Company and the Lone Star Gas Corporation, which I am sure that things do do, you, Karl F. Griffith, would be the lawyer for each concern, being general counsel for both?

A. If there was any conflict of interests, I doubt——

Q. I am not talking about that—you would be the lawyer?

A. I am vice-president and general counsel of each company.

* * * * * * *

Q. You have testified that as much as $18,000,000.00 has been loaned to the Lone Star Gas Company by the Lone Star Gas Corporation—that that debt now existed; isn't that correct?

A. As much as that amount has been loaned and the indebtedness is now between $17,000,000.00 and $18,000,000.00.

Q. And there were similar amounts owing to the Lone Star Gas Corporation by every other affiliated company in Texas except the Municipal Gas Company, which owed the Lone Star Gas Company around $100,000.00?

A. As of some months past, yes. I don't know the exact status now.

[fol. 78] Q. Do any of the affiliated companies doing business in Texas owe any sizable sum of money to any other company other than the Lone Star Gas Corporation or the Lone Star Gas Company?

A. Oh, yes, several of the companies owe sizable sums of money to banks and trust companies, and then several of

the companies are indebted to the extent of some millions of dollars, evidenced by bonds secured by deed of trust or mortgage indenture, and which bonds are in the hands of the public and widely scattered.

Q. What banks do they borrow money from?

A. They borrow from banks, usually, in the communities wherein they operate and the banks with which they ordinarily do business—in the last analysis, with the particular ones of those particular banks who name the lowest interest rates.

Q. Isn't most of the banking of your company under one bank in Pittsburgh?

A. No, that is not true. As I recall, the several companies, which I have enumerated, do business with approximately two hundred banks. I recall that figure because twenty of them were closed during the banking moratorium.

Q. Did you make those loans?

A. No, sir.

Q. Are you talking about current loans?

A. I assumed that is what you were talking about.

Q. Well, I was not. Did you represent anyone by proxy or power of attorney, ever?

A. Oh, I have acted as proxy or attorney in fact at various stockholders' meetings of various companies.

* * * * * * *

[fol. 79] Q. Do not the officers or directors of the Lone Star Gas Company or the Lone Star Gas Corporation, either or both together, control the policies of the affiliate corporations in Texas with which the Lone Star Gas Company does business?

A. No, they do not attempt to control the policies, as is evidenced by the fact that the majority of the board of directors of each one of the operating companies which I have enumerated is not composed of men who are either directors of Lone Star Gas Company or Lone Star Gas Corporation.

Q. And that is your answer to that question?

A. That is my answer to the question.

Q. You are very careful to keep it that way on paper, are you not?

A. No, there is no particular care exercised about it; that is the fact.

Q. You and Mr. Denning and Mr. Crawford, all of you, are at Dallas, where the general offices are for all companies?

[fol. 80] A. Yes.

Q. And the other two Texas gentlemen who are directors in the Lone Star Gas Company are not in Dallas; is that correct?

A. No, there are seven directors of the Lone Star Gas Company in addition to Mr. L. B. Denning, Mr. R. A. Crawford and myself. Mr. F. L. Chase and Mr. D. L. Cobb, both residing in Dallas, are directors of the Lone Star Gas Company. Mr. R. E. Harding and Mr. Ben E. Keith of Fort Worth are also directors. That makes the total of seven on the board of directors of the Lone Star Gas Company.

* * * * * * *

Q. You spoke of a good deal of financing of various companies, and a good deal of bonded debt. Was not that all arranged and largely worked through one bank in Pittsburgh?

A. No, sir, it was not. However the chief bank of the Lone Star Gas Corporation has been the Union Trust Company of Pittsburgh.

Q. How about the bonded indebtednesses; were they not [fol. 81] worked out and handled through one bank in Pittsburgh?

A. No; the debenture bonds of the Lone Star Gas Corporation were placed through the Union Trust Company of Pittsburgh and the Guaranty Company, or the Guaranty Trust Company of New York City.

* * * * * * *

[fol. 82] OLIN CULBERSON, a witness produced by the plaintiff, being first duly sworn, testified as follows:

Direct examination.

By Mr. Fitzhugh:

Q. State your name.
A. Olin Culberson.
Q. Where do you live?
A. Austin, Texas.

Q. What is your occupation?

A. Director of the Gas Utilities Division of the Railroad Commission of Texas.

Q. How long have you been connected with the Railroad Commission?

A. Since September, 1932.

Q. Are you familiar with the documents that comprise the records of the Gas Utilities Division of the Railroad Commission of Texas?

A. Yes.

Q. What reports do the gas utilities of Texas—and particularly I refer to the Lone Star Gas Company and its affiliated companies—file with your division?

[fol. 83] A. They file what is termed an annual report, showing the annual business, the capital set-up, the stock ownership, the officers, directorates and general resume of the company's business, and then they file what we term a G. U. 2 report which is their gross receipts taxes that is paid into our division.

Q. Do you have with you the annual report submitted by the Lone Star Gas Company for the year just past?

A. Yes.

Q. Do you have the reports for any prior years?

A. I don't have the annual reports for any years except 1933. I have the quarterly reports covering the gross receipts back to 1931.

Q. Will you refer to the last annual report you got from the Lone Star Gas Company.

A. Yes.

Q. Is this report sworn to by an officer of the company?

A. Yes, sir.

Q. Who is the person swearing to the report?

A. Mr. F. L. Chase, Vice-President, and Mr. L. T. Dyer, Comptroller.

* * * * * * *

[fol. 84] Q. Refer yourself to the study you have made as taken from the annual reports of the Lone Star Gas Company and its affiliated companies on file with the Railroad Commission——

A. All right.

Q. Do you hold in your hand a diagram which shows the interlocking officers and directors in the Lone Star Gas Cor-

poration, the Lone Star Gas Company, and its affiliated companies?

A. Yes.

* * * * * * *

Mr. Fitzhugh: We offer it in evidence.

(Which said "Interlocking Directorate in Lone Star Gas Corporation System" was admitted in evidence as "State's Exhibit No. 2.")

Mr. Fitzhugh:

Q. Have you compiled another chart which shows the officers which are common to the Lone Star Gas Company and its affiliated companies?

[fol. 85] A. I have not with reference to officers. I have, however, compiled a list of officers and directors in the various holding companies of those gentlemen who are connected with the Lone Star Gas Corporation, the Lone Star Gas Company, and its underlying subsidiaries. This, however, is taken from the recent report that was made by Mr. Splawn, who is now a member of the Interstate Commerce Commission for Chairman Rayburn of the Interstate and Foreign Commerce Committee of the House of Representatives in Washington, D. C. I did not know that it was wanted as a list of the officers and directors of each of the underlying subsidiaries.

Q. Have you made an independent check of the compilation as made by the Splawn report?

A. I have. I have checked it with the reports that have been filed by each of these respective companies making reports to us and on this compilation taken from the report of the Interstate and Foreign Commerce Committee, I have indicated by a red check or red dot those companies that do make reports to us and have verified the fact as to the position held as an official and as a director, if any, in those companies.

Mr. Fitzhugh: We offer it in evidence.

(Which said "Chart" was admitted in evidence as "State's Exhibit No. 3." See Index for page reference.)

* * * * * * *

[fol. 86] Mr. Fitzhugh:

Q. What reports does the Railroad Commission get that show the amount of gas the Lone Star Gas Company produces in Texas?

A. That is indicated on what is known as Form G. U. 2, which is a gross receipts tax statement for gas utilities.

Q. When are those statements submitted by the companies?

A. Quarterly.

[fol. 87] Q. Do you have photostats prepared of the quarterly gross receipts statements for the period of time extending from January 28, 1932, up to and including the statement submitted by the company dated January 30, 1934?

A. Yes sir.

Q. And those photostats are copies of the originals filed by the company with the Railroad Commission?

A. Yes.

Mr. Fitzhugh: We offer them in evidence.

(Which said "Photostat Copies of Reports, Form G. U. 2" were admitted in evidence as "State's Exhibit No. 4." See Index for page reference.)

Mr. Fitzhugh:

Q. Now, refer to State's Exhibit 4 and locate on the exhibit the statement made by the company as to the amount of gas delivered in Texas on each statement and read the same.

A. For the quarter ending December 31, 1931, dated January 28, 1932, it shows a total of 8,049,734 M. c. f.

Q. The meaning of that is one thousand cubic feet?

A. Yes (reading from State's Exhibit 4). "90% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas; 10% was from the State of Oklahoma. The Company, therefore, bases this payment on 90% of the receipts as indicated above." This report was dated January 28, 1932, sworn to by D. L. Cobb, Treasurer of the Company, and states "Subscribed and sworn to before me this the 29th day of January, 1932. Chas. G. Hess, Jr., Notary Public, Dallas County, Texas," with seal.

[fol. 88] Q. Now refer to the next statement and give the same data.

A. There was a grand total of 10,094,678 MCs, with this note: "88% of the amount of gas delivered in Texas for the

past quarter was from gas produced and purchased in Texas; 12% was from the State of Oklahoma. The Company, therefore, bases this payment on 88% of the receipts as indicated above." That was for the quarter ending March 31, 1932.

Q. Refer to the next statement.

A. For the quarter ending June 30, 1932, there was 5,380,485 MCs sold in Texas, with this note at the bottom: "97% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 3% was from the State of Oklahoma. The Company, therefore, bases this payment on 97% of the receipts as indicated above."

Q. Refer to the next statement.

A. For the quarter ending September 30, 1932, there was a total of 4,646,616 MCs with this note: "99% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 1% was from the State of Oklahoma. The Company, therefore, bases this payment on 99% of the receipts as indicated above."

Q. Refer to the next statement.

A. The next one is for the quarter ending December 31, 1932, a grand total of 10,014,920 MCs, with this note: "93% [fol. 89] of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 7% was from the State of Oklahoma. The Company, therefore, bases this payment on 93% of the receipts as indicated above."

Q. Refer to the next statement.

A. The next one is for the quarter ending March 31, 1933, and shows a total of 9,563,755 MCs sold in Texas, with this note: "93% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 7% was from the State of Oklahoma. The Company, therefore, bases this payment on 93% of the receipts as indicated above."

Q. Refer to the next statement.

A. For the quarter ending June 30, 1933, there was 5,625,748 MCs sold in Texas, with this note: "98% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 2% was from the State of Oklahoma. The Company, therefore, bases this payment on 98% of the receipts as indicated above."

Q. Refer to the next statement.

A. For the quarter ending September 30, 1933, it shows a grand total of 5,457,154 MCs sold in Texas, with this note: "98% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 2% was from the State of Oklahoma. The Company, therefore, bases this payment on 98% of the receipts as indicated above."

[fol. 90] Q. Refer to the next statement.

A. The next is for the quarter ending December 31, 1933, with a grand total of 7,455,767 MCs sold in Texas, with this note: "95% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 5% was from the State of Oklahoma. The Company, therefore, bases this payment on 95% of the receipts as indicated above."

Q. Refer to the next statement.

A. The next is for the quarter ending March 31, 1934, which shows a total of 10,338,034 MCs sold in Texas, with this note: "93% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 7% was from the State of Oklahoma. The Company, therefore, bases this payment on 93% of the receipts as indicated above." And each of these respective reports bears the same affidavit, signed by Mr. D. L. Cobb.

Q. The Railroad Commission has never made an independent check to find the correctness of those figures, has it?

A. Nothing further than to verify the correctness of the total as shown on the report.

Q. But has accepted as true the figures given the Commission by the Company for payment of the gross receipts tax?

A. Yes.

Q. The most shown on any of these statements for any one period for gas coming from Oklahoma is twelve per cent, isn't it?

* * * * * * *

[fol. 91] Mr. Fitzhugh:

Q. The most for any one period was twelve per cent?

A. Yes.

Q. And the average as shown by these items is considerably below five per cent, is not it?

A. Yes.

Mr. Shannon: Do you mean the weighted average or the arithmetical average?

A. I made a calculation for 1931, 1932 and 1933 and the weighted average on that was four and one-half. I have not got a weighted average on 1932, 1933 and part of 1934.

Mr. Fitzhugh:

Q. The weighted average was below five per cent?

A. I have not made a calculation on the weighted average for 1932, 1933 and 1934. I would say it was less than five but I would not want to swear to it.

Q. Now, are you generally familiar with reports that were submitted by the Company prior to this time?

A. Yes sir.

* * * * * * *

[fol. 92] Mr. Fitzhugh:

Q. Have you from an investigation that you have made of the tax statements made any sort of a study or diagram in written form to show the weighted average of gas produced and purchased in Oklahoma and brought into the State of Texas for consumption?

A. Yes sir.

Q. This data is all taken from the sworn reports submitted by the Company to the Railroad Commission?

A. Yes.

Mr. Griffith: Is it based upon the gross receipts reports which you have just introduced in evidence?

A. Yes.

Mr. Griffith: And no other?

A. That is what I took the information from.

Mr. Fitzhugh:

Q. What is the per cent shown on this chart for the per cent of gas produced and purchased in Texas and the same for the per cent produced and purchased in Oklahoma?

A. For the year 1931 it shows ninety per cent produced and purchased in Texas; ten per cent in Oklahoma.

Q. 1932?

A. Ninety-three per cent produced and purchased in Texas, seven per cent produced and purchased in Oklahoma. [fol. 93] 1933 ninety-five and one-half per cent produced and

purchased in Texas, four and one-half per cent produced and purchased in Oklahoma. And for the first quarter of 1934 ninety-three per cent produced and purchased in Texas and seven per cent produced and purchased in Oklahoma.

Mr. Fitzhugh: We offer this in evidence.

(Which said "Compilation" was admitted in evidence as "State's Exhibit No. 5." See Index for page reference.)

Mr. Fitzhugh:

Q. Now, the only two distributing companies served by the Lone Star Gas Company pipe line that are not affiliated with the Lone Star Gas Company are the Gainesville Gas & Electric Company and the Waxahachie Gas Company, isn't that true?

A. According to my investigation that is the only two.

Mr. Griffith: The question is confined to Texas, isn't it?

Mr. Fitzhugh: Yes. What do the records of the Commission show has been the amount of gas delivered the Gainesville Gas & Electric Company for the year 1933?

* * * * * * *

[fol. 94] Mr. Fitzhugh: Have you prepared a tabulation from the reports that will show the per centages of gas delivered to those companies as compared with the total deliveries?

A. Yes.

Q. What do your tabulations show?

A. For the year 1931 there was delivered to the Gainesville plant .85 of one per cent and to the Waxahachie plant .29 of one per cent of the total gas delivered in Texas. In 1932 to the Gainesville Plant there was .77 of one per cent and to the Waxahachie plant .28 of one per cent. 1933 there was .80 of one per cent to Gainesville and to Waxahachie .31 of one per cent of the total amount of gas delivered in Texas, according to the G. U. 2 reports.

Q. Now, all of the fundamental data you used in making this compilation came from a sworn report made by the Company to the Railroad Commission, didn't it?

A. Yes.

Mr. Fitzhugh: We offer this compilation in evidence.

(Which said "Compilation" as admitted in evidence as "State's Exhibit No. 6." See Index for page reference.)

Cross examination.

By Mr. Griffith:

Q. You have identified several gross receipts tax statement returns of the Lone Star Gas Company to the Rail-
[fol. 95] road Commission of Texas and to the State Treasurer, and which statements have been introduced in evidence, or rather photostat copies have been introduced in evidence?

A. Yes.

Q. And from those several gross receipts tax statements you have made certain compilations reflecting the total volume of gas delivered by the Lone Star Gas Company in Texas and the volume of gas produced and purchased in Texas and the per centage of the total produced and purchased in Texas and the per centage of the total produced and purchased in Oklahoma?

A. Yes.

Q. Examine Defendant's Exhibit No. 4 and particularly the map which appears at the close of that exhibit. Do you identify this map as being a true and correct map of the Lone Star Gas Company pipe line system?

A. Substantially, it is, yes.

Q. As far as you can now identify it, it seems to be correct?

A. Yes, it seems to be a copy of a map which we have in our files.

Q. A copy which has been furnished to the Commission?

A. Yes sir.

Q. Do you know the location of the Shamrock Gas Field in Wheeler County, Texas?

A. Approximately, yes.

[fol. 96] Q. Do you know how gas from the Wheeler County gas field or the Shamrock Gas field is transported by the Lone Star Gas Company to the various points of delivery at the city gates in the State of Texas?

A. Yes. It originates in Wheeler County, Texas, and is brought down in an eighteen inch line, down through the western edge of Oklahoma for about three miles and then into Texas and where it comes down it follows the general line of the Fort Worth & Denver City Railroad down to Fort Worth and Dallas and up to Gainesville.

Q. Now, all of the gross receipts tax statements which you have identified and all of the compilations which you have made in respect of gas produced and purchased in Oklahoma and in Texas have nothing whatever to do with the transportation of the gas by the Lone Star Gas Company from the Shamrock field in a southeasterly direction through the State of Oklahoma and back into the State of Texas?

Mr. Fitzhugh: We object. The statements speak for themselves.

A. I don't just understand. The report as made covers the volume of gas sold and the amount of money received for it at the various city gates.

Mr. Griffith:

Q. Now, the gas produced and purchased by the Company in the Shamrock field of Wheeler County Texas and which gas subsequently moves through the eighteen inch line into the State of Oklahoma and back into the State of Texas is rendered in the gross receipts tax statements which you have identified and in the compilation of gas produced and purchased in Oklahoma and Texas as gas which is produced and [fol. 97] purchased in the State of Texas or Oklahoma?

A. That is the conclusion I draw. We were guided by the statements made on the reports themselves and calculated them according to the statements as shown there, and I am sure they included the gas produced in Wheeler County.

Q. In other words, as far as you know, the gas which was produced and/or purchased by the defendant Lone Star Gas Company in the Shamrock field of Wheeler County, Texas, was reported upon these gross receipts tax statements which you have identified and put in evidence as a part of the gas which was produced and/or purchased by the defendant Company in the State of Texas?

Mr. Fitzhugh: We object to that as calling for a conclusion and the reports speak for themselves.

The Court: Objection overruled.

Mr. Fitzhugh: We except.

A. I took my calculations off of the reports and took them for exactly what they said they were, and that was that the various per centages shown were produced and purchased in Texas and in Oklahoma respectively.

[fol. 98] S. W. FREESE, a witness produced by the Plaintiff, being first duly sworn, testified as follows:

Direct examination.

By Mr. Fitzhugh:

Q. What is your name?
A. S. W. Freese.
Q. Where do you live?
A. Fort Worth.
Q. What is your business?
A. Consulting Engineer.
Q. Are you connected with any firm?
A. Hawley, Freese and Nichols.
Q. Are you a graduate of any college?
A. Yes, the Massachusetts Institute of Technology.
Q. Did you take a degree there?
A. Yes.
Q. What degree?
A. B. S.
Q. How long have you been practicing your profession of engineering?
A. Since 1921.

[fol. 99] Q. Your firm was employed, was it not, Mr. Freese, by the Railroad Commission of Texas to investigate the properties of the Lone Star Gas Company and to render an appraisal?

A. Yes. That was in the latter part of 1931 and we worked more or less continuously upon that matter ever since.

Q. Has your investigation not only been of the properties of the company but of the business as shown by its accounting records?

A. Yes, we retained the firm of J. A. Phillips & Company of Houston to make an investigation of the accounting records of the company for us.

Q. Is Mr. Phillips a Certified Public Accountant?
A. Yes.
Q. And has he been associated with you in this work continuously since you undertook it for the Commission?
A. Yes.
Q. Have you made an investigation to find the amount of gas reserves that the company has in the state of Texas as compared with its gas reserves in other states?

A. Yes.

* * * * * * *

Mr. Fitzhugh:

Q. Have you made it a part of your business the last few years in practice and in the years prior thereto to make a stufy of gas wells and the production of gas wells and [fol. 100] transportation and so forth, such as the Lone Star Gas Company is engaged in?

A. I have made a careful study of the records of the Lone Star Gas Company which show and reflect the amount of gas reserves in Texas and in Oklahoma.

Q. Do you know the gas fields from which the Lone Star Gas Company gets its gas?

A. Yes.

Q. Have you made a study of the particular wells in each field?

A. I have made a study of the gas reserves in those fields as shown by the records of the company.

Q. Are you acquainted with the lines that connect with the wells in the various fields and that connect with the main lines of the company?

A. Yes, sir.

Q. Are you familiar with the records of the company, the maps and other data in the general office at Dallas that show the undeveloped reserves of the company?

A. We have had those records examined, and I have checked the data submitted by the company and shown by the company's records as to those matters.

Q. What do you mean by the term "gas reserves?"

A. The amount of gas which the records of the company show as being under the ground both in the developed leaseholds and the undeveloped leaseholds of the company. [fol. 101] Q. Have you made a study to find the amount of such gas reserves in Texas as compared with the State of Oklahoma?

A. Yes.

Q. Will you give the Court the benefit of your findings?

Mr. Griffith: We object because it is immaterial and irrelevant and because the witness is not qualified.

The Court: He says he gets his information from the books and the books speak for themselves. If he can tes-

tify from his independent knowledge he could testify to that, but that is a question as to whether it is reserved or not.

Mr. Stout: May we prove it up for the bill of exceptions?

The Court: Yes.

Mr. Shannon: May it be understood that our objection goes to all the line of testimony which has to do with a compilation of the reserves in Texas and the reserves in Oklahoma and the sources of gas?

Mr. Fitzhugh: Yes.

Q. Go ahead.

A. As of December 31, 1931 I made a check of all of the leaseholds of the company. That was an independent check of their records, all of this data as to the thickness of the sands and the amount of gas reserves and such as that can only come from the records of the Company.

The Court: You have no independent knowledge of it?

A. No.

[fol. 102] The Court: You just know that from their reports?

A. Yes. The result as of these different dates from which I judge the amount of gas in these leaseholds. On January 1, 1932 the Texas reserves were 415,728,939,000 cubic feet. The Oklahoma reserves were 1,246,898,000 cubic feet. At that time the ratio was about one-fourth of one per cent in Oklahoma as compared to the amount in Texas. Since that time the company has purchased certain reserves in Oklahoma and certain reserves in Texas, and I know that as of this date the amount of reserves in Texas are more than ninety-nine per cent of the total gas reserve.

Mr. Fitzhugh: In those figures are you considering only the company owned reserves?

A. Yes.

Q. What is the price paid by the company for gas purchased in Texas.

Mr. Shannon: Have you concluded the testimony on the reserves? If so, we renew our objection for the reason that that testimony is immaterial and irrelevant and ask that it be stricken.

The Court: He is only proving up his bill now.

Mr. Shannon: All right.

Mr. Fitzhugh: What is the price paid by the company for gas purchased in Texas?

A. For the year 1933 the gas purchased in Texas cost .035279, or approximately three cents, per thousand cubic feet.

[fol. 103] Q. Is that an average figure for all Texas?

A. Yes, for the year 1933.

Q. What is the comparable figure for the State of Oklahoma?

A. The gas purchased in Oklahoma cost $061002, or approximately six cents.

Q. The gas purchased by the company in Oklahoma cost it per thousand cubic feet a little less than twice as much as the gas purchased in Texas?

A. Yes, a ratio of approximately six cents to three and one half cent.

Q. Referring back to the testimony as to the gas reserves, is it your opinion as an expert from what you know, from what you have investigated and from a careful check of the company's records that the figures and statements given you in connection with the gas reserves are true and correct?

A. Yes.

Q. Is there enough gas in the gas reserves of the Company in Texas and controlled by it through gas purchase contracts to supply all of the Texas consumption, the needs of Texas consumers, with Texas gas?

A. Yes.

Mr. Griffith: We object to that as immaterial and irrelevant, and the witness having answered before we could object, we now move to strike it out.

[fol. 104] The Court: Sustained.

Mr. Stout: May we prove it for our bill of exception?

The Court: Yes. I don't think it is admissible. You may have your bill on it if you want that.

Mr. Fitzhugh: Are you ruling out all of the testimony we seek to offer showing the subterfuge of the company in running its line through a corner of Oklahoma?

The Court: That is not the question now.

Mr. Stout: May we have a full bill on the questions up to this time on that matter?

The Court: Yes.

Mr. Stout: That is all we care to put in on the bill of exception.

The Court: All right.

Mr. Fitzhugh: I would like to ask the same question, and if the Court overrules it, for the purpose of the record.

The Court: You have got that in the record. It has been asked and objected to. You have it in the record for the bill.

Mr. Fitzhugh:

Q. Have you made a study of an exhibit—Defendant's Exhibit No. 4—submitted by Mr. Smith?

A. Yes.

Q. Refer to the page for the year 1933?

A. All right.

[fol. 105] Q. Have you made a check of the amounts of gas in thousands of cubic feet shown by the various fields from Oklahoma to have been produced and purchased by the company during the year 1933?

A. Yes, I have made a check of the total amount of gas produced and purchased in Oklahoma. My figures show 1,690,342 M. C. feet which checks exactly with the condition of the totals shown by the various fields for the year 1933 in this exhibit submitted by Mr. Smith.

Q. Your total includes all of the gas as shown on Mr. Smith's page for 1933 with exception of the Shamrock field?

A. Yes.

Q. What is that total?

A. 1,690,343 M. cubic feet.

Q. Does that total represent the amount of gas produced and purchased in the State of Oklahoma that actually came across the border into Texas?

A. No, it does not.

Q. What are the correct figures?

A. That was produced in Oklahoma during the year 1933?

Mr. Griffith: Are you making a bill of exceptions now?

Mr. Stout: No.

Mr. Griffith: Where do you get the information from which you are now testifying?

A. From the books of the company.

Mr. Griffith: When were you present at Dallas and ex-
[fol. 106] amined the books of the company for the year 1933?

A. I sent a man over there to get these figures, I think week before last.

Mr. Griffith: It is hearsay on your part?
A. No it is not hearsay.
Q. You did not personlly see the books?
A. No. I did not personally see the books.

Mr. Griffith: We object to it as hearsay.
The Court: Were you present when that work was done?

A. No, but I checked over the figures with him, and I know the number of people in these various towns, and I do know that that is a reasonable figure.
Mr. Fitzhugh: Your figure checks exactly with the figures given by Mr. Smith, does not it?
A. Yes, as to the amount of gas produced in these fields.
Mr. Griffith: We will withdraw the objection.
A. The figures show that there was produced for the year 1933 in Oklahoma 1,690,342 M. cubic feet.

Mr. Fitzhugh:

Q. Those are Mr. Smith's figures?
A. Yes, and also the figures prepared for us by our auditors.
Q. And you state those are not the correct ones for the amount of gas that is purchased and produced in Oklahoma that actually passes the border into Texas?
[fol. 107] A. No. A large amount of this gas was used in Oklahoma. The total usage in Oklahoma during 1933 was 1,135,394 M. cubic feet, a large part of which was from these fields and never reached the state of Texas.
Q. Now, deducting that amount that was consumed in Oklahoma from the total amount that was produced and purchased in Oklahoma, what figure do you get?
A. The net amount of gas reaching Texas from the Oklahoma fields. A small amount of Texas gas went back up into Oklahoma as part of this 1,135,394 but the net amount of gas produced and purchased in Oklahoma which reached Texas was 556,947 M. cubic feet or approximately two per cent of the amount of gas sold in Texas in 1933.
Q. What is the relative difference in the cost of gasoline delivered as between gas coming from Oklahoma sources and that coming from Texas sources?

Mr. Shannon: We object to that for the reasons stated—as being immaterial and irrelevant and not having any bearing on the question of whether or not the company is now

engaged in transporting and selling gas in interstate commerce.

The Court: Sustained.

Mr. Stout: We except.

Mr. Fitzhugh:

Q. What is the relative difference in the cost of gas delivered in Texas as gas coming from Oklahoma sources and gas coming from Texas sources?

[fol. 108] Mr. Shannon: We object to that for the reasons stated.

The Court: Sustained.

Mr. Fitzhugh: I mean the gas delivered in Texas.

The Court: I understand.

Mr. Stout: Note our exception. May we ask just one question on it for the record?

The Court: Yes.

Mr. Stout:

Q. Can you give the comparative cost between gas that comes from Oklahoma and that is delivered from Oklahoma to the service of users within the State of Texas, as to the gas that comes from within the State of Texas and that is delivered and served by the Lone Star Gas Company to the users of gas within this state?

Mr. Shannon: Is that for the purpose of the bill?

Mr. Stout: If the Court so construes it. Can you do that?

A. Yes. Not exactly. The exact proportion of gas coming into each of these lines can be determined approximately. So far as the cost of producing the gas and the compressor station costs in Oklahoma and Texas, and the transmission expense in Oklahoma and Texas, those costs have been subdivided and have been furnished me.

Q. Does it cost more money, and is the expense greater, on gas transmitted from Oklahoma to and within the State of Texas and delivered within the state——

[fol. 109] Mr. Griffith: Is this part of your bill of exceptions?

Mr. Stout: If the Court so construes it.

Mr. Griffith: We object to it as immaterial and irrelevant and the witness is not qualified.

The Court: Sustained.
Mr. Stout: We except.

A. Yes, the Oklahoma gas cost during 1933 approximately two and one half times that of the Texas gas.

Mr. Stout:

Q. Does that condition still obtain at this time?
A. Yes. There is nothing that could be changed greatly since these figures were prepared in that connection.
Q. In other words, the cost is far greater to the Lone Star Gas Company to get gas from Oklahoma to its distributing companies than it would be for the gas produced within the State of Texas?

Mr. Griffith: Is this still part of your bill?
Mr. Stout: If the Court says "yes", yes sir.

A. Yes.

Mr. Stout:

Q. And you have previously testified that the supply of gas in Texas is more than sufficient to serve the needs of Texas and/or the needs of the Lone Star Gas Company?
A. Yes.
Q. And I believe you testified that the gas reserves and the amount of gas developed in Texas as compared to the gas reserves and amount of gas developed in Oklahoma bears a ratio in Texas as to Oklahoma of over four hundred to less than one half of one per cent?
[fol. 110] A. I testified that as of December 31, 1931 the Texas reserves were approximately four hundred billion as compared with one billion in Oklahoma, and that at this time not more than one per cent of the reserves are in Oklahoma.
Q. In other words, the ratio is approximately four hundred in Texas to one half of one per cent in Oklahoma?
A. As four hundred is to one. It would be one fourth of one per cent as of December 31, 1931.
Q. That is, one fourth of one per cent of gas reserves, gas developed in Oklahoma as compared to that in Texas?
A. As of December 31, 1931, and that will not have changed substantially since that time.
Q. On up to now?
A. It could not have changed to more than one per cent at this time.

Mr. Stout: As I understand it, the questions and answers of the witness are all stricken out; that we may have a full bill of exceptions to the court's ruling thereon?

The Court: Yes.

Mr. Shannon: So that the record may be clear they began their bill at the time they began to inquire into the question of gas reserves and costs of gas?

Mr. Stout: And the extent of serving gas, and the Court [fol. 111] sustained all objections made to the cost of gas, the expense of gas and to gas reserves, and the development of gas and to any comparison of the same between Texas and Oklahoma.

Mr. Stout:

Q. Are you familiar or not with what is called line extension of the Lone Star Gas Company extending from the Shamrock field in Wheeler County, Texas, through a little narrow part of Oklahoma on down into Texas?

A. Yes.

Q. Have you made any study and any investigation as to whether or not it would have been cheaper to have built that line within Texas instead of having a part of it in Oklahoma, as was done?

Mr. Griffith: We object to that as immaterial and irrelevant and not germaine to the question of whether this company is in fact engaged in interstate commerce, and this witness is not qualified in respect to costs.

The Court: Sustained.

Mr. Stout: Tell what qualifications you have, if any, to know why it would have been cheaper to have built the line wholly within the State of Texas instead of as was done?

A. Well, during the past ten years I have had direct charge of some fifteen or twenty million dollars worth of construction work. During that time I have investigated costs of properties running up over one hundred million dollars. I have been over the territory covered by this line and I have had occasion to study in detail the costs of such [fol. 112] lines, particularly as reflected by the books of the Lone Star Gas Company.

Q. Are you a civil engineer?

A. Yes.

Q. You stated you were a graduate of the Massachusetts Institute of Technology?

A. Yes.

Q. You have taken a post graduate course along the same lines in Cambridge, England?

A. Yes, I have taken a post graduate course at Cambridge, England.

Q. And you have done work of this kind over a great deal of the territory covered by the Lone Star Gas Corporation since that time?

A. Yes.

Q. How long have you been working along the line of work?

A. Ever since this case began.

Q. You are a member of the firm of Hawley, Freese & Nichols?

A. Yes.

Q. Tell the Court, if you know, why it was more expensive to build that line extension as it was built than it would have been to have built it wholly within the State of Texas in a shorter and more direct route?

Mr. Griffith: We object to that as immaterial and irrelevant and because the witness is not qualified.

The Court: I think he has shown himself qualified to testivy.

[fol. 113] Mr. Griffith: We urge the objection that it is immaterial and irrelevant and has nothing to do with the fact whether the Lone Star Gas Company is engaged in interstate commerce, and particularly in regard to line gas.

The Court: Are they selling gas on that line in Oklahoma?

A. Yes.

The Court: At what towns?

A. Hollis, Frederick, Tipton, Manitou, Mountain Park——

The Court: I think it is immaterial and irrelevant.

Mr. Stout: We except.

Mr. Stout:

Q. To get to the point where the line went to in Texas could it have been built in a much more direct manner?

Mr. Griffith: We make the same objection.

The Court: The objection is sustained.

Mr. Stout: We except.

Mr. Stout:

Q. State whether or not that line is actually built in Oklahoma through a rough, rocky territory beneath the surface of the soil?

Mr. Griffith: Same objection.
The Court: Sustained.
Mr. Stout: We except.

Mr. Stout: Do you know whether or not if the line station had been built in Texas instead of the route as was built in Oklahoma, whether or not it would have run through a more populous territory and would have been contiguous [fol. 114] to a greater population than it was contiguous to in Oklahoma as it was built?

Mr. Griffith: Same objection.
The Court: Sustained.
Mr. Stout: We except. For the purpose of incorporating it in our bill of exception, may we not let the witness briefly testify just to the fact that he would testify to relative to this line?
The Court: Yes.

Mr. Stout: Would it have been cheaper to have built this line within Texas instead of in Oklahoma, as it was built?

A. I can safely say that it could have been moved over into Texas and built just as cheaply as it was built through Oklahoma.

Q. Now, as to the soil. Would there have been any difference in the condition of the soil in Texas as compared to where it was actually laid in Oklahoma?

A. If the line had been built in a practically straight line there would have been less rock excavation than there was across the corner of Oklahoma.

Q. If it had been built in practically a straight line, would it have been within the State of Texas?

A. If it had been built in an exactly straight line to the point where it crossed into Texas there would have been a small tip right at the corner of two or three miles.

[fol. 115] Q. Could it have been built wholly within the State of Texas in a much shorter distance than it was as it was built and through a better soil than it is as it is actually laid?

A. It could have been built through Texas with a shorter length than as it was actually built.

Q. And by taking such route would the rough rocky soil have not been there?

A. There would have been some less rock excavation in Texas than in Oklahoma.

Q. Did the rough rocky soil make the construction cost greater?

A. Yes.

Q. What other reasons, if any, do you have for knowing that it cost more money to built it in Oklahoma than if it had been built in Texas?

Mr. Griffith: Is this still your bill of exception?

Mr. Stout: Yes.

Mr. Griffith: He said it could have been built as cheaply in Texas?

Mr. Stout: What is your answer?

A. I think my answers to your previous questions are substantially all I can say in that respect.

Q. Would a more populous territory be served had the line been built in Texas?

A. The line could have been built through Wellington.

[fol. 116] Q. Is Wellington on a direct route?

A. Yes, with a population of 1968 in 1930 instead of by Hollis with a population of 1699 in 1930, Hollis being the only town served in Oklahoma by that particular line station as it cuts across the corner of Oklahoma.

Q. Is there any sound practical reason why the line should have been built as it was that you know of?

A. In preference to a line wholly in Texas, no.

Q. The first city of any size this line strikes in Texas is what place?

A. Quanah. I don't recall whether that is served by the Lone Star Gas Company or not.

Q. From the Shamrock Field to Quanah, Texas, how much distance would have been saved had the line been built in a direct manner instead of being built as it was built?

A. Approximately, I should say, judging from this map, five miles.

Q. How much would have been saved?

A. Five miles.

Q. Had it been built direct would not more distance than that have been saved?

A. No, I think that is approximately correct.

Q. What is the total population of the towns served on that line in Oklahoma where the line is actually built?

A. Hollis is the only one. It has a population of 1699.

[fol. 117] Q. Were the transportation facilities by the public highways and roads better at the time the line was built within the State of Texas than they were within the State of Oklahoma when it was built?

A. The road and highway connections would have been somewhat better in Texas than in Oklahoma at the time the line was built.

Q. Is there an earthern soil in Texas as compared to the rocky soil in Texas where the line was actually built?

A. As you tend to go west from the line as it is, the soil becomes more earthy and less rocky.

Q. And as you go east it becomes rough and rocky?

A. No, I don't know that I can say that it would. As you get on over east you get into an earthern soil until you get into the bed rock.

Q. But where the line is built it traverses a rocky soil in part at least?

A. Yes.

Q. And that condition would not have existed had it been built in the State of Texas?

A. Not to such an extent.

Q. As in Oklahoma where it was built?

A. Yes.

Cross-examination.

By Mr. Griffith:

[fol. 118] Q. Do you have before you a copy of Defendant's Exhibit 4, introduced in evidence in this case by the witness E. F. Smith?

A. Yes.

Q. You stated that the gas produced and purchased in the State of Oklahoma by Lone Star Gas Company during the calendar year 1933, as reflected by this Exhibit, and as independently verified by you was approximately 1 690 000 M. cubic feet, and that the total sales of gas by Lone Star Gas Company in the State of Oklahoma for the calendar year of 1933 was 1 135 000 M. cubic feet?

A. Yes.

Q. And did you further testify that that left a net of gas moving over the border in to Texas of 554 000 000 cubic feet?

A. Yes.

Q. Now, examine the map which appears at the end of Defendant's Exhibit 4. How many towns and cities in Oklahoma does the Lone Star Gas Company deliver gas to at the city gates?

A. I think about forty.

Q. To refresh your memory, isn't it twenty six?

A. That may be correct. I would have to count them.

Q. Is any Oklahoma gas delivered to Hollis, Oklahoma?

A. No.

Q. No gas purchased and produced by the company is delivered to Hollis, Oklahoma?

A. No.

[fol. 119] Q. Is any gas purchased or produced by the Lone Star Gas Company in the State of Oklahoma transported and delivered by the Lone Star Gas Company to the town of Frederick?

A. No.

Q. Tipton? Or Mountain Park, Manitou or Snyder?

A. No,

Q. From what source do those towns receive their gas supply?

A. From Wheeler County, Texas.

Q. Do you know how much gas the towns Hollis, Frederick, Snyder, Mountain Park, Tipton and Manitou consume?

A. Judging from the population of those cities as compared with the total population of Oklahoma, I should say about ten per cent of the Oklahoma gas.

Q. Well, assuming that it would be correct to the extent that these towns use ten per cent of the total sales of the company in Oklahoma, that ten per cent would not be distributed from Oklahoma gas produced and/or purchased, would it?

A. No.

Q. Now, will you refer to the towns of Durant, Caddo and Hugo, Oklahoma? Do you see those towns shown on that map?

A. Yes.

273

Q. Those are supplied by the Lone Star Gas Company at the city gates, are they not?

A. Yes.

[fol. 120] Q. And the town of Achille?

A. Yes.

Q. Do you know from what source, whether it is Oklahoma produced gas or Texas produced gas that is supplied to those small towns, that is Durant, Achille, Caddo and Hugo? That is, at least a considerable portion of the time?

A. Yes. Texas gas goes to those towns for some part of the time.

Q. Part of the time you know Texas produced and/or purchased gas is delivered to those towns?

A. Yes.

Q. Now, to the extent that I have called your attention to Texas produced and/or purchased gas being delivered to some ten or twelve towns in the State of Oklahoma, isn't it true that your figure of 554,000,000 cubic feet as the net amount of gas produced and/or purchased in the State of Oklahoma and moving from the State of Oklahoma into the State of Texas is in error?

A. No, not the net figure. The gross figure might be in error.

Q. The net figure would not be indicative of the net amount of Oklahoma gas produced and/or purchased in the State of Oklahoma and moving over into the State of Texas?

A. No, but the figures would not be off over twenty per cent for that reason.

Q. They might be off to the extent of twenty per cent?

A. I doubt it.

[fols. 121-133] Q. Now, refer back to the year 1929 as shown by Defendant's Exhibit 4, what would be the net amount, assuming the same Oklahoma sales for 1929 for Lone Star Gas Company, what would be the net amount of Oklahoma gas moving over into Texas for that year?

A. I have not checked the figures for 1929. They would not check with the figures furnished us by an audit.

Q. Can you answer the question in respect to the year 1930?

A. No.

Q. 1933 was the only year that you were able to check those figures?

A. Yes.

Q. Isn't it true that as reflected by Defendant's Exhibit 4, that the year 1933 discloses the smallest amount of Oklahoma gas produced and/or purchased by the Company?

A. Yes, I can say that that amount has been going down each year.

* * * * * * *

[fol. 134] STATE'S EXHIBIT No. 3—DATA

The following data were gathered from the Report on the Relations of Holding Companies to Operating Companies in Power and Gas Affecting Control. (1).

Official, Address, and Affiliations	Capacity in which serving as of April 30, 1933
Chase, Frank L.	
1915 Wood Street, Dallas, Texas	
√ Community Natural Gas Co.	Director, President
√ Lone Star Gas Company	Director, Vice-President
√ North West Texas Gas Company	Director, President.
√ Stamford and Western Gas Company	Director, President.
Cobb, D. L.	
1915 Wood Street, Dallas, Texas.	
√ Community Natural Gas Company	Vice President, Secretary
√ Galveston Gas Service Company	Secretary, Treasurer
√ Lone Star Gas Company	Director, Secretary and Treasurer
Lone Star Gas Corporation	Secretary, Treasurer
√ Municipal Gas Company	Director, Vice President Treasurer
√ Northwest Cities Gas Company	Secretary, Treasurer
√ Stamford & Western Gas Company	Secretary, Treasurer
√ Texas Cities Gas Company	Secretary, Treasurer.
[fol. 135]	
H. G. Cornatzar	
1915 Wood Street, Dallas, Texas.	
√ Community Natural Gas Company	Director, Treasurer
Lone Star Gas Corporation	Assistant Treasurer
Lone Star Gas Company	Assistant Secretary Assistant Treasurer
Crawford, R. A.	
1915 Wood Street, Dallas, Texas.	
√ County Gas Company	Director
√ Dallas Gas Company	Director
√ Galveston Gas Service Company	Director
√ Lone Star Gas Company	Vice President, Director
Lone Star Gas Corporation	Director, Vice President
√ Stamford and Western Gas Company	Director
Denning, L. B.	
1915 Wood Street, Dallas, Texas.	
√ County Gas Company	Director
√ Dallas Gas Company	Director
√ Galveston Gas Service Company	Vice President, Director

Official, Address, and Affiliations	Capacity in which serving as of April 30, 1933

(1) Mr. Rayburn, Chairman, Interstate & Foreign Commerce Committee submitted the report February 21, 1934.

√ Lone Star Gas Company	President, Director
Lone Star Gas Corporation	President, Director
√ Municipal Gas Company	Director
√ Texas Cities Gas Company	Vice President, Director

[fol. 136]

Gregory, Thomas B.
800 Union Trust Building, Pittsburgh, Pa.

Lone Star Gas Corporation	Director, Vice President.
√ Galveston Gas Service Company	Director, Vice President.

Griffith, Karl F.
1915 Wood Street, Dallas, Texas.

√ Community Natural Gas Company	General Counsel
√ Galveston Gas Service Company	General Counsel
√ Lone Star Gas Company	Director, Vice President, General Counsel.
Lone Star Gas Corporation	Director, Vice President, General Counsel
√ Municipal Gas Company	General Counsel
√ Stamford & Western Gas Company	Director, General Counsel
√ Texas Cities Gas Company	General Counsel

Hulcy, D. A.
1915 Wood Street, Dallas, Texas.

Lone Star Gas Company	Assistant to President
Lone Star Gas Corporation	Assistant to President.
√ Texas Cities Gas Company	Director, Assistant Secretary, Assistant Treasurer

[fol. 137]

Kizer, C. C.
301 S. Harwood Street, Dallas, Texas

√ County Gas Company	Director, Treasurer
√ Dallas Gas Company, The	Director, Treasurer

May, C. L.
1915 Wood Street, Dallas, Texas.

√ Community Natural Gas Company	Director, Vice President
√ Stamford & Western Gas Company	Director, Vice President
√ Texas Cities Gas Company	Director

Redding, R. M.
301 S. Harwood Street, Dallas, Texas

√ Texas Cities Gas Company	Director, Vice President
√ Dallas Gas Company	Chief Engineer

Soper, R. G.
301 South Harwood Street, Dallas, Texas

√ County Gas Company	Director)
County Gas Company	Vice President, Secretary)
√ Dallas Gas Company, The	Director, Vice President Secretary
√ Municipal Gas Company	Director

(√) Indicates the company and official capacity is recorded in the Annual report filed by that company with the Gas Utilities Division.

BLANK

PAGE

STATE'S EXHIBIT 4

FORM GU-2

RAILROAD COMMISSION OF TEXAS

GAS UTILITIES DIVISION

GROSS RECEIPTS TAX STATEMENT

FOR GAS UTILITIES

Dallas, Texas, January 30th 1932

To the Railroad Commission of Texas,
Austin, Texas

Gentlemen:

In compliance with Article 6060 Revised Civil Statute of Texas, 1925, I have to report the gross receipt of

Lone Star Gas Company 1915 Wood St

of Dallas, Texas, a gas utility, from all the business done by it as such within the State of Texas for the quarter ended DEC 31 1931 DEC 31 1930

19 , amounted to $2,288,567.40

One-fourth of one per cent of which equals $5,721.42

Make remittance payable to "Treasurer, State of Texas," but mail same, together with this report, to Railroad Commission of Texas

FED 1 - 1932
RAILROAD COMMISSION

DISPOSITION MADE OF GAS

Give below in detail the information asked for.

√ For Pipe Line Companies

S-1
3824
2874

(a.) Sold to Distributing Companies	Name of Distributing Company	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts

Lone Star Gas Company
Fourth Quarter of 1 9 3 1.

	M. Cu. Ft.	Rate	Amount
"A"			
Dallas Gas Company	1 902 552	.3068	583 713 31
County Gas Company	464 655	.3935	182 857 57
Lone Star Gas Company - Fort Worth	1 412 170	.4366	616 640 82
Municipal Gas Company	1 066 923	.3217	343 211 89
Gainesville Gas and Electric Co.	70 856	.2987	21 168 49
Texas Cities Gas Company	402 848	.3233	130 249 96
Waxahachie Gas Company	26 899	.3641	9 793 44
Shasta Oil Company	71 479	.1100	7 862 69
West Texas Utilities Company	42 517	.2119	9 010 82
Community Natural Gas Company	1 466 228	.3152	462 137 88
Total	6 927 107	.3416	2 366 640 27
"C"			
Miscellaneous - Texas	1 122 627	.1570	176 212 40
Grand Total	8 049 734	.3159	2 542 852 67
90% of Grand Total	7 244 760	.3159	2 288 567 40

90% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas; 10% was from the State of Oklahoma. The Company, therefore, bases this payment on 90% of the receipts as indicated above.

138

277

For Pipe Line Companies—Continued

(b.) Sold to other Pipe Line Cos.	Name of Pipe Line Co.	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts
				$
				$
				$
				$

(If additional space is needed attach sheet with information).

(c.) Industrial and Commercial Sales .... $.....

AFFIDAVIT

The State of Texas,

County of Dallas Before me, the undersigned authority, on this day personally appeared,

D.L. Cobb, who being by me duly sworn, on oath states that he is Treasurer

of Lone Star Gas Company, a gas utility; that the foregoing statement shows the gross receipts of said Lone Star Gas Company from all business done by it in the State of Texas for the period indicated and that said statement is true and correct.

D L Cobb ✓
Treasurer.

Subscribed and sworn to before me, this the 29 day of January 1932

(Seal)

Ok J G Hesselden

Notary Public Dallas County, Texas

Form 33b—G541-231-2M

138-a

278

FORM GU-2

RAILROAD COMMISSION OF TEXAS

GAS UTILITIES DIVISION

GROSS RECEIPTS TAX STATEMENT

FOR GAS UTILITIES

Dallas, Texas, April 28th 1932

To the Railroad Commission of Texas,
Austin, Texas

Gentlemen:

In compliance with Article 6060 Revised Civil Statute of Texas, 1925, I have to report the gross receipt of Lone Star Gas Company of Dallas, Texas, a gas utility, from all the business done by it as such within the State of Texas for the quarter ended MAR 31 1932 19 , amounted to $3,093,236.39

One-fourth of one per cent of which equals $7,733.09

Make remittance payable to "Treasurer, State of Texas," but mail same, together with this report, to Railroad Commission of Texas

DISPOSITION MADE OF GAS

Give below in detail the information asked for.

For Pipe Line Companies

(a.) Sold to Distributing Companies	Name of Distributing Company	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts

L-1
3931
2921

Lone Star Gas Company
First Quarter of 1932.

	M. Cu. Ft.	Rate	Amount
"A"			
Dallas Gas Company	2 279 007	.3129	713 029 40
County Gas Company	786 840	.3958	311 331 56
Lone Star Gas Company-Fort Worth	1 995 417	.4871	972 260 97
Municipal Gas Company	1 303 950	.3421	446 103 11
Gainesville Gas & Electric Company	83 670	.3598	30 055 23
Texas Cities Gas Company	535 925	.3304	177 035 58
Waxahachie Gas Company	38 868	.3833	12 597 48
Shasta Oil Company	71 042	.1115	7 921 63
Community Natural Gas Company	1 738 655	.3526	613 090 22
Total	8 827 172	.3720	3 283 425 18
"C"			
Miscellaneous - Texas	1 267 506	.1828	231 616 06
Grand Total	10 094 678	.3482	3 515 041 24
88% of Grand Total	8 883 316	.3482	3 093 236 39

88% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 12% was from the State of Oklahoma. The Company, therefore, bases this payment on 88% of the receipts as indicated above.

138-b

672

For Pipe Line Companies—Continued

(b.) Sold to other Pipe Line Cos.

Name of Pipe Line Co.	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts
.....	.....	.....	$ .....
.....	.....	.....	$ .....
.....	.....	.....	$ .....
.....	.....	.....	$ .....

(If additional space is needed attach sheet with information)

(c.) Industrial and Commercial Sales .... $ .....

AFFIDAVIT

The State of Texas,

County of Dallas ..... Before me, the undersigned authority, on this day personally appeared, D. L. Cobb ....., who being by me duly sworn, on oath states that he is .....

of Lone Star Gas Company ....., a gas utility; that the foregoing statement shows the gross receipts of said Lone Star Gas Company from all business done by it in the State of Texas for the period indicated and that said statement is true and correct.

D L Cobb
Treasurer.

Subscribed and sworn to before me, this the 27 day of April 19 37

(Seal)

Rae I Stew Jr.
Notary Public Dallas County, Texas

Form 33b—G841-931-3M

138-c

280

FORM GU-2

RAILROAD COMMISSION OF TEXAS

GAS UTILITIES DIVISION

GROSS RECEIPTS TAX STATEMENT

FOR GAS UTILITIES

Dallas, Texas, July 30 19 32

To the Railroad Commission of Texas,
Austin, Texas

Gentlemen:

In compliance with Article 6060 Revised Civil Statute of Texas, 1925, I have to report the gross receipt of

Lone Star Gas Company

of Dallas, Texas, a gas utility, from all the business done by it as such within the State of Texas for the quarter ended JUN 30 1932 19 , amounted to $ 1,565,661.39

One-fourth of one per cent of which equals $ 3,914.15

L-1 3995/2985

Make remittance payable to "Treasurer, State of Texas," but mail same, together with this report, to Railroad Commission of Texas

RECEIVED
JUL 30, 1932
RAIL ROAD COMMISSION

DISPOSITION MADE OF GAS

Give below in detail the information asked for.

For Pipe Line Companies

(a) Sold to Distributing Companies — Name of Distributing Comp — No of M — Price per M. Cu. Ft. — Receipts

Lone Star Gas Company
Second Quarter of 1938.

	M. Cu. Ft.	Rate	Amount
"A"			
Dallas Gas Company	969 054	.2604	257 552 50
County Gas Company	388 725	.3894	151 389 04
Lone Star Gas Company-Fort Worth	1 157 868	.4366	505 881 40
Municipal Gas Company	625 601	.2989	187 017 54
Gainesville Gas and Electric Co.	39 751	.3388	13 468 49
Texas Cities Gas Company	239 191	.3059	73 163 36
Waxahachie Gas Company	11 765	.3966	4 666 39
Shasta Oil Company	44 185	.1133	5 005 06
Community Natural Gas Company	768 893	.3239	248 986 93
Total	4 864 733	.3392	1 446 750 71
"C"			
Miscellaneous - Texas	1 115 752	.1500	167 333 20
Grand Total	5 380 485	.3000	1 614 083 91
97% of Grand Total	5 219 070 761,415	.3000	1 565 661 39

97% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 3% was from the State of Oklahoma. The Company, therefore, bases this payment on 97% of the receipts as indicated above.

138-d

281

For Pipe Line Companies—Continued

(b.) Sold to other Pipe Line Cos.	Name of Pipe Line Co.	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts
				$
				$
				$
				$

(If additional space is needed attach sheet with information)

(c.) Industrial and Commercial Sales _____ _____ $_____

(d) Sold to Domestic Consumers

Name of Town			
			$
			$
			$
			$
			$
			$

(if additional space is needed attach sheet with information)

AFFIDAVIT

The State of Texas,

County of Dallas Before me, the undersigned authority, on this day personally appeared,

D. L. Cobb, who being by me duly sworn, on oath states that he is Treasurer

of Lone Star Gas Company, a gas utility; that the foregoing statement shows the

gross receipts of said Lone Star Gas Company from all business done by it in the State of Texas for the period indicated and that said statement is true and correct.

D. L. Cobb ✓
Treasurer.

Subscribed and sworn to before me, this the 7 day of July 193 7

(Seal)

Chas. J. Stevens, Jr.
Notary Public Dallas County, Texas

Form 88b—C641-981-2M

138-e

282

FORM GU-2

RAILROAD COMMISSION OF TEXAS

GAS UTILITIES DIVISION

GROSS RECEIPTS TAX STATEMENT

FOR GAS UTILITIES

Dallas, Texas, October 29 1932

To the Railroad Commission of Texas,
Austin, Texas

Gentlemen:

In compliance with Article 6060 Revised Civil Statute of Texas, 1925, I have to report the gross receipt of

Lone Star Gas Company

of Dallas, Texas, a gas utility, from all the business done by it as such within the State of Texas for the quarter ended SEP 30 1932 19..., amounted to $1,207,308.92

One-fourth of one per cent of which equals $3,018.27

4046
3036
L-1

Make remittance payable to "Treasurer, State of Texas," but mail same, together with this report, to Railroad Commission of Texas

DISPOSITION MADE OF GAS

Give below in detail the information asked for.

For Pipe Line Companies

(a.) Sold to Distributing Companies	Name of Distributing Company	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts

Lone Star Gas Company
Third Quarter of 1932.

	M. Cu. Ft.	Rate	Amount
"A"			
Dallas Gas Company	905 137	.2374	214 961 17
County Gas Company	284 542	.3830	108 985 18
Lone Star Gas Company - Fort Worth	889 366	.3839	341 513 79
Municipal Gas Company	583 542	.2651	154 693 18
Gainesville Gas and Electric Co.	37 954	.2749	10 434 61
Texas Cities Gas Company	200 076	.2945	58 935 17
Waxahachie Gas Company	8 681	.3806	3 304 06
Shasta Oil Company	39 899	.1150	4 589 34
Community Natural Gas Company	724 283	.2811	203 601 64
Total	3 673 270	.2997	1 101 016 14
"C"			
Miscellaneous - Texas	973 346	.1217	118 487 82
Grand Total	4 646 616	.2624	1 219 503 96
99% of Grand Total	4 600 150 / 4646	.2624	1 207 308 92

99% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 1% was from the State of Oklahoma. The Company, therefore, bases this payment on 99% of the receipts as indicated above.

138-f

283

For Pipe Line Companies—Continued

(b.) Sold to other Pipe Line Cos.	Name of Pipe Line Co.	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts
				$
				$
	✓			$
				$

(If additional space is needed attach sheet with information)

(c.) Industrial and Commercial Sales _____ _____ $_____

(d) Sold to Domestic Consumers

Name of Town			
			$
			$
			$
✓			$
			$
			$

(if additional space is needed attach sheet with information)

AFFIDAVIT

The State of Texas,

County of Dallas Before me, the undersigned authority, on this day personally appeared,

D. L. Cobb, who being by me duly sworn, on oath states that he is Treasurer

of Lone Star Gas Company, a gas utility; that the foregoing statement shows the

gross receipts of said Lone Star Gas Company from all business done by it in the State of Texas for the period indicated and that said statement is true and correct.

D L Cobb

Treasurer

Subscribed and sworn to before me, this the 18 day of October 1932

(Seal)

Chas. G. Stern, Jr.

Notary Public Dallas County, Texas

Form 1Pb—G641-481-SM

138-g

284

FORM GU-2

RAILROAD COMMISSION OF TEXAS

GAS UTILITIES DIVISION

GROSS RECEIPTS TAX STATEMENT

FOR GAS UTILITIES

Dallas, Texas, January 30 1933

To the Railroad Commission of Texas,
Austin, Texas

Gentlemen:

In compliance with Article 6060 Revised Civil Statute of Texas, 1925, I have to report the gross receipt of

Lone Star Gas Company

of Dallas, Texas, a gas utility, from all the

business done by it as such within the State of Texas for the quarter ended December 31

19 32, amounted to $ 2,784,997.38

One-fourth of one per cent of which equals $ 6,962.49

Make remittance payable to "Treasurer, State of Texas," but mail same, together with this report, to Railroad Commission of Texas

RECEIVED
FEB 1 1933
RAILROAD COMMISSION

fo-1
4096
3056

DISPOSITION MADE OF GAS

Give below in detail the information asked for.

For Pipe Line Companies

(a.) Sold to Distributing Companies	Name of Distributing Company	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts
				$

Lone Star Gas Company
Fourth Quarter 1932.

	M. Cu. Ft.	Rate	Amount
"A"			
Dallas Gas Company	2 104 629	.3051	637 930 02
County Gas Company	725 336	.3934	285 364 78
Lone Star Gas Company - Fort Worth	1 499 007	.4536	679 829 54
Municipal Gas Company	1 124 437	.3368	378 722 45
Gainesville Gas and Electric Company	71 693	.3227	23 137 84
Texas Cities Gas Company	493 634	.3305	163 138 45
Waxahachie Gas Company	29 819	.3681	10 975 28
Shasta Oil Company	43 317	.1141	4 944 38
Community Natural Gas Company	1 571 853	.3868	613 380 25
Total	7 663 725	.3520	2 697 422 91
"C"			
Miscellaneous - Texas	2 351 195	.1264	297 197 93
Grand Total	10 014 920	.2990	2 994 680 84
93% of Grand Total	9 313 876	.2990	2 784 997 38
	781644		

93% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 7% was from the State of Oklahoma. The Company, therefore, bases this payment on 93% of the receipts as indicated above.

138-h

285

For Pipe Line Companies—Continued

(b.) Sold to other Pipe Line Cos.	Name of Pipe Line Co.	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts
				$
				$
				$
				$

(If additional space is needed attach sheet with information)

(c.) Industrial and Commercial Sales _____ _____ $_____

(d) Sold to Domestic Consumers

Name of Town			
			$
			$
			$
			$
			$
			$

(if additional space is needed attach sheet with information)

AFFIDAVIT

The State of Texas,

County of Dallas Before me, the undersigned authority, on this day personally appeared,

D. L. Cobb, who being by me duly sworn, on oath states that he is Treasurer

of Lone Star Gas Company, a gas utility; that the foregoing statement shows the

gross receipts of said Lone Star Gas Company from all business done by it in the State of Texas for the period indicated and that said statement is true and correct.

D. L. Cobb
Treasurer

Subscribed and sworn to before me, this the 30 day of January 1933.

(Seal)

Chas. J. Howe, Jr.
Notary Public Dallas County, Texas

Form 33b—G641-681-33M

138-1

FORM GU-6

RAILROAD COMMISSION OF TEXAS

GAS UTILITIES DIVISION

GROSS RECEIPTS TAX STATEMENT

FOR GAS UTILITIES

Dallas, Texas, April 29th 1933

To the Railroad Commission of Texas,
Austin, Texas

Gentlemen:

In compliance with Article 6060 Revised Civil Statute of Texas, 1925, I have to report the gross receipt of Lone Star Gas Company of Dallas, Texas, a gas utility, from all the business done by it as such within the State of Texas for the quarter ended MAR 31 1933 19 , amounted to $2,960,875.62

One-fourth of one per cent of which equals $7,402.19

Make remittance payable to "Treasurer, State of Texas," but mail same, together with this report, to Railroad Commission of Texas

L-1
#154
31 44

DISPOSITION MADE OF GAS

Give below in detail the information asked for.

For Pipe Line Companies

(a.) Sold to Distributing Companies	Name of Distributing Company	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts

RECEIVED
MAY 1, 1932
GAS UTILITIES DIV.
RAILROAD COMMISSION

Lone Star Gas Company
First Quarter 1933.

	M. Cu. Ft.	Rate	Amount
"A"			
Dallas Gas Company	2 042 965	.3022	617 317 39
County Gas Company	797 887	.3935	313 995 68
Lone Star Gas Co. - Fort Worth	1 717 564	.5022	862 534 23
Municipal Gas Company	1 138 213	.5403	387 348 89
Gainesville Gas and Electric Company	82 741	.3479	28 782 80
Texas Cities Gas Company	450 893	.3197	144 131 28
Waxahachie Gas Company	28 63	.3866	11 075 43
Shasta Oil Company	41 043	.1145	4 698 59
Community Natural Gas Company	1 555 978	.3524	548 403 37
Total	7 855 917	.3715	2 918 287 66
"C"			
Miscellaneous - Texas	1 707 838	.1554	265 449 97
Grand Total	9 563 755	.3329	3 183 737 83
93% of Grand Total	8 894 898	.3329	2 960 875 62

93% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 7% was from the State of Oklahoma. The Company, therefore, bases this payment on 93% of the receipts as indicated above.

138-j

287

For Pipe Line Companies—Continued

(b.) Sold to other Pipe Line Cos.	Name of Pipe Line Co.	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts
				$
				$
				$
				$

(If additional space is needed attach sheet with information)

(c.) Industrial and Commercial Sales _____ _____ $_____

(d) Sold to Domestic Consumers

Name of Town			
			$
			$
			$
			$
			$
			$

(if additional space is needed attach sheet with information)

AFFIDAVIT

The State of Texas,

County of Dallas Before me, the undersigned authority, on this day personally appeared,

D. L. Cobb, who being by me duly sworn, on oath states that he is Treasurer

of Lone Star Gas Company, a gas utility; that the foregoing statement shows the gross receipts of said Lone Star Gas Company from all business done by it in the State of Texas for the period indicated and that said statement is true and correct.

D. L. Cobb
Treasurer.

Subscribed and sworn to before me, this the 28 day of April 1933.

(Seal) Chas. F. Thomas

Notary Public Dallas County, Texas

Form 35b—G641-661-5M

138-k

288

FORM GU-2

RAILROAD COMMISSION OF TEXAS

GAS UTILITIES DIVISION

GROSS RECEIPTS TAX STATEMENT

FOR GAS UTILITIES

Dallas, Texas, July 29th 1933

To the Railroad Commission of Texas,
Austin, Texas

Gentlemen:

In compliance with Article 6060 Revised Civil Statute of Texas, 1925, I have to report the gross receipt of

Lone Star Gas Company

of Dallas, Texas, a gas utility, from all the business done by it as such within the State of Texas for the quarter ended June 30th 19 33, amounted to $ 1,511,909.41

One-fourth of one per cent of which equals $ 3,779.77

3184
4194
L-1

Make remittance payable to "Treasurer, State of Texas," but mail same, together with this report, to Railroad Commission of Texas

RECEIVED
JUL. 29 1933
GAS UTILITIES DIV.
RAILROAD COMMISSION

DISPOSITION MADE OF GAS

Give below in detail the information asked for.

For Pipe Line Companies

(a.) Sold to Distributing Companies	Name of Distributing Company	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts

Lone Star Gas Company
Second Quarter 1933.

	M. Cu. Ft.	Rate	Amount
"A"			
Dallas Gas Company	1 086 137	.2626	285 195 87
County Gas Company	317 844	.3764	119 621 35
Lone Star Gas Company - Fort Worth	1 012 602	.4328	438 254 15
Municipal Gas Company	577 824	.3017	174 312 11
Gainesville Gas and Electric Company	42 326	.3187	13 489 66
Texas Cities Gas Company	213 126	.3027	64 516 53
Waxahachie Gas Company	12 125	.3743	4 538 36
Shasta Oil Company	32 511	.1152	3 746 73
Community Natural Gas Company	714 472	.3300	235 792 80
Total	4 008 967	.3341	1 339 467 56
"C"			
Miscellaneous - Texas	1 616 781	.1257	203 297 14
Grand Total	5 625 748	.2742	1 542 764 70
98% of Grand Total	5 513 233	.2742	1 511 909 41

98% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 2% was from the State of Oklahoma. The Company, therefore, bases this payment on 98% of the receipts as indicated above.

138-1

289

For Pipe Line Companies—Continued

(b.) Sold to other Pipe Line Cos.	Name of Pipe Line Co.	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts
				$
				$
				$
				$

(If additional space is needed attach sheet with information)

(c.) Industrial and Commercial Sales _____ _____ $_____

(d) Sold to Domestic Consumers

Name of Town			
			$
			$
			$
			$
			$
			$

(if additional space is needed attach sheet with information)

AFFIDAVIT

The State of Texas,

County of Dallas Before me, the undersigned authority, on this day personally appeared,

D. L. Cobb, who being by me duly sworn, on oath states that he is Treasurer

of Lone Star Gas Company, a gas utility; that the foregoing statement shows the gross receipts of said Lone Star Gas Company from all business done by it in the State of Texas for the period indicated and that said statement is true and correct.

D L Cobb
Treasurer.

Subscribed and sworn to before me, this the 27 day of July 1933

(Seal)

Chas J Stone, Jr
Notary Public Dallas County, Texas

Form 233—G541-921-33M

138-m

230

FORM GU-2

RAILROAD COMMISSION OF TEXAS

GAS UTILITIES DIVISION

GROSS RECEIPTS TAX STATEMENT

FOR GAS UTILITIES

Dallas, Texas, October 28th 1933

To the Railroad Commission of Texas,
Austin, Texas

Gentlemen:

In compliance with Article 6060 Revised Civil Statute of Texas, 1925, I have to report the gross receipt of

Lone Star Gas Company

of Dallas, Texas, a gas utility, from all the business done by it as such within the State of Texas for the quarter ended September 30th 1933, amounted to $ 1,217,108.21

One-fourth of one per cent of which equals $ 3,042.77

L-1
3250
4260

Make remittance payable to "Treasurer, State of Texas," but mail same, together with this report, to Railroad Commission of Texas

RECEIVED
OCT. 30 1933
GAS UTILITIES DIV.
RAILROAD COMMISSION

DISPOSITION MADE OF GAS

Give below in detail the information asked for.

For Pipe Line Companies

(a.) Sold to Distributing Companies	Name of Distributing Company	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts

Lone Star Gas Company
Third Quarter 1933.

	M. Cu. Ft.	Rate	Amount
"A"			
Dallas Gas Company	936 096	.2390	223 725 84
County Gas Company	232 816	.3465	80 663 56
Lone Star Gas Company - Fort Worth	860 670	.3635	312 825 28
Municipal Gas Company	557 395	.2541	141 620 68
Gainesville Gas and Electric Company	37 421	.2541	9 509 37
Texas Cities Gas Company	170 474	.3012	51 347 99
Waxahachie Gas Company	8 652	.3777	3 267 87
Shasta Oil Company	30 781	.1153	3 549 47
Community Natural Gas Company	715 726	.2708	193 784 02
Total	3 550 031	.2874	1 020 294 08
"C"			
Miscellaneous - Texas	1 907 123	.1162	221 653 08
Grand Total	5 457 154	.2276	1 241 947 16
98% of Grand Total	5 348 010	.2276	1 217 108 21

98% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 2% was from the State of Oklahoma. The Company, therefore, bases this payment on 98% of the receipts as indicated above.

138-n

291

For Pipe Line Companies—Continued

(b.) Sold to other Pipe Line Cos.	Name of Pipe Line Co.	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts
				$
				$
				$
				$

(If additional space is needed attach sheet with information)

(c.) Industrial and Commercial Sales _____ _____ $_____

(d) Sold to Domestic Consumers

Name of Town			
			$
			$
			$
			$
			$
			$

(if additional space is needed attach sheet with information)

AFFIDAVIT

The State of Texas,

County of Dallas Before me, the undersigned authority, on this day personally appeared,

D. L. Cobb, who being by me duly sworn, on oath states that he is Treasurer

of Lone Star Gas Company, a gas utility; that the foregoing statement shows the gross receipts of said Lone Star Gas Company from all business done by it in the State of Texas for the period indicated and that said statement is true and correct.

D. L. Cobb ✓
Treasurer.

Subscribed and sworn to before me, this the 18 day of October 1933

(Seal) Chas. E. Akers, Jr.
Notary Public Dallas County, Texas

Form 21b—G541-931-32M

138-O

202

FORM GU-2

RAILROAD COMMISSION OF TEXAS

GAS UTILITIES DIVISION

GROSS RECEIPTS TAX STATEMENT

FOR GAS UTILITIES

Dallas, Texas, January 30 19 34

To the Railroad Commission of Texas,
Austin, Texas

Gentlemen:

In compliance with Article 6060 Revised Civil Statute of Texas, 1925, I have to report the gross receipt of

Lone Star Gas Company

of Dallas, Texas, a gas utility, from all the business done by it as such within the State of Texas for the quarter ended DEC 31 1933 19 ..., amounted to $ 2,073,347.17

One-fourth of one per cent of which equals $ 5,183.37

Make remittance payable to "Treasurer, State of Texas," but mail same, together with this report, to Railroad Commission of Texas

RECEIVED
JAN 31 1934
GAS UTILITIES DIV.
RAILROAD COMMISSION

4325
3315
8-1

DISPOSITION MADE OF GAS

Give below in detail the information asked for.

For Pipe Line Companies

(a) Sold to Distributing Companies	Name of Distributing Company	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts

Lone Star Gas Company
Fourth Quarter 1933.

"A"	M. Cu. Ft.	Rate	Amount
Dallas Gas Company	1 671 238	.2879	481 108 32
County Gas Company	578 178	.3660	211 609 43
Lone Star Gas Company - Fort Worth	1 146 440	.4668	535 192 97
Municipal Gas Company	928 819	.3097	287 671 56
Gainesville Gas and Electric Company	61 680	.2805	17 299 85
Texas Cities Gas Company	320 367	.3276	104 953 50
Waxahachie Gas Company	20 212	.3803	7 686 21
Shasta Oil Company	34 772	.1151	4 001 82
Community Natural Gas Company	1 079 401	.2986	322 320 62
Total	5 841 107	.3376	1 971 844 28
"C" Miscellaneous - Texas	1 614 660	.1304	210 626 43
Grand Total	7 455 767	.2927	2 182 470 71
95% of Grand Total	7 082 978	.2927	2 073 347 17

372789

95% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 5% was from the State of Oklahoma. The Company, therefore, bases this payment on 95% of the receipts as indicated above.

138-p

293

For Pipe Line Companies—Continued

(b.) Sold to other Pipe Line Cos.

Name of Pipe Line Co.	No. of M. Cu. Ft.	Price per M. Cu. Ft.	Total Receipts
			$
			$
			$
			$

(If additional space is needed attach sheet with information)

(c.) Industrial and Commercial Sales _____ _____ $_____

(d) Sold to Domestic Consumers

Name of Town			
			$
			$
			$
			$
			$
			$

(If additional space is needed attach sheet with information)

AFFIDAVIT

The State of Texas,

Count, of Dallas Before me, the undersigned authority, on this day personally appeared,

D. L. Cobb, who being by me duly sworn, on oath states that he is Treasurer

of Lone Star Gas Company, a gas utility; that the foregoing statement shows the gross receipts of said Lone Star Gas Company from all business done by it in the State of Texas for the period indicated and that said statement is true and correct.

D L Cobb
Treasurer.

Subscribed and sworn to before me, this the 30 day of January 1934

(Seal)

Chas. G. Hoss, Jr.
Notary Public Dallas County, Texas

Form 83b—C541-931-2M

138-q

294

FORM GU-3

RAILROAD COMMISSION OF TEXAS

GAS UTILITIES DIVISION

GROSS RECEIPTS TAX STATEMENT

FOR GAS UTILITIES

RECEIVED
APR 30 1934
GAS UTILITIES DIV.
RAILROAD COMMISSION

Dallas, Texas, April 28, 1934

To the Railroad Commission of Texas,
Austin, Texas

Gentlemen:

In compliance with Article 6060 Revised Civil Statute of Texas, 1925, I have to report the gross receipt of Lone Star Gas Company of Dallas, Texas, a gas utility, from all the business done by it as such within the State of Texas for the quarter ended March 31, 1934, 19____, amounted to $3,085,735.63

One-fourth of one per cent of which equals $ 7,714.34

Make remittance payable to "Treasurer, State of Texas," but mail same, together with this report to Railroad Commission of Texas

Lone Star Gas Company
First Quarter 1934

"A"	M. Cu. Ft.	Rate	Amount
Dallas Gas Company	2 126 394	.2886	613 748 06
County Gas Company	1 146 073	.3701	424 192 16
Lone Star Gas Company - Ft Worth	1 764 342	.4730	834 600 29
Municipal Gas Company	1 263 056	.3333	420 987 64
Gainesville Gas and Electric Company	83 269	.3258	27 131 18
Texas Cities Gas Company	477 690	.3235	154 542 78
Waxahachie Gas Company	31 906	.3760	11 997 62
Shasta Oil Company	44 968	.1141	5 131 50
Community Natural Gas Company	1 605 942	.3399	545 868 38
Total	8 543 640	.3556	3 038 199 61
"C" Miscellaneous - Texas	1 839 394	.1521	279 795 69
Grand total	10 383 034	.3196	3 317 995 30
95% of Grand Total	9 656 221	.3196	3 085 735 63

3372
4382
L-1

95% of the amount of gas delivered in Texas for the past quarter was from gas produced and purchased in Texas, 7% was from the State of Oklahoma. The Company, therefore, bases this payment on 95% of the receipts as indicated above.

138-r

205

For Pipe Line Companies—Continued

(b.) Sold to other Pipe Line Cos.

Name of Pipe Line Co.	No. of M. Cu. Ft	Price per M. Cu. Ft.	Total Receipts
_____	_____	_____	$_____
_____	_____	_____	$_____
_____	_____	_____	$_____
_____	_____	_____	$_____

(If additional space is needed attach sheet with information)

(c.) Sold to Domestic Consumers

Name of Town			
_____	_____	_____	$_____
_____	_____	_____	$_____
_____	_____	_____	$_____
_____	_____	_____	$_____
_____	_____	_____	$_____
_____	_____	_____	$_____

(If additional space is needed attach sheet with information)

(d.) Industrial and Commercial Sales _____ _____ $_____

AFFIDAVIT

The State of Texas,

County of DALLAS Before me, the undersigned authority, on this day personally appeared,

D. L. Cobb, who being by me duly sworn, on oath states that he is Treasurer

of Lone Star Gas Company, a gas utility; that the foregoing statement shows the gross receipts of said Lone Star Gas Company from all business done by it in the State of Texas for the period indicated and that said statement is true and correct.

D L Cobb

Treasurer.

Subscribed and sworn to before me, this the 27 day of April 1934

(Seal)

Chas. J. Haas

Notary Public Dallas County, Texas

Form 33b—O-609-134-2m.

138-S

BLANK

PAGE

[fol. 139] STATE'S EXHIBIT 5

Compilation of the Total Volume of Gas Delivered in Texas by the Lone Star Gas Company; Total Number of M. C. F. Produced and Purchased in Texas; Percentage of Total Produced and Purchased in Texas; and Percentage of Total Produced and Purchased in Oklahoma.

Year	Total M. C. F. delivered in Texas	Produced and purchased in Texas only	Per cent Texas	Per cent Oklahoma
1931				
1st 1/4	11,028,448 M. C. F.	9,594,750 M. C. F.	87%	13%
2nd	6,691,110 M. C. F.	6,222,732 M. C. F.	93%	7%
3rd	5,337,250 M. C. F.	4,910,270 M. C. F.	92%	8%
4th	8,049,734 M. C. F.	7,244,760 M. C. F.	90%	10%
Total	31,106,542 M. C. F.	27,972,512 M. C. F.	90%	10%
1932				
1st	10,094,678 M. C. F.	8,883,316 M. C. F.	88%	12%
2nd	5,380,485 M. C. F.	5,219,070 M. C. F.	97%	3%
3rd	4,646,616 M. C. F.	4,600,150 M. C. F.	99%	1%
4th	10,014,920 M. C. F.	9,313,876 M. C. F.	93%	7%
Total	30,136,699 M. C. F.	28,016,412 M. C. F.	93%	7%
1933				
1st	9,563,755 M. C. F.	8,894,292 M. C. F.	93%	7%
2nd	5,625,748 M. C. F.	5,513,233 M. C. F.	98%	2%
3rd	5,457,154 M. C. F.	5,348,010 M. C. F.	98%	2%
4th	7,455,767 M. C. F.	7,082,978 M. C. F.	95%	5%
Total	28,102,424 M. C. F.	26,838,513 M. C. F.	95-1/2%	4-1/2%
1934				
1st	10,383,034 M. C. F.	9,656,221 M. C. F.	93%	7%

[fols. 140-147] STATE'S EXHIBIT 6

Statement of Volume of Gas Sold to Gainesville and to Waxahachie Distributing Systems by the Lone Star Gas Company

Year	M. C. F. Gainesville		M. C. F. Waxahachie		Total gas delivered in Texas
1931					
1st	95,717		36,545		
2nd	56,297		16,307		
3rd	41,883		10,990		
4th	70,836		26,899		
Total	264,733	.85	90,741	.29	31,106,542
1932					
1st	83,670		32,868		
2nd	39,751		11,765		
3rd	37,954		8,681		
4th	71,693		29,819		
Total	233,068	.77	83,133	.28	30,136,699
1933					
1st	83,741		28,633		
2nd	42,326		12,125		
3rd	37,421		8,652		
4th	61,680		20,212		
Total	224,168	.80	69,622	.25	28,102,424
1934					
1st	83,269	.80	31,906	.31	10,383,034

[fol. 148] DEFENDANT'S EXHIBIT 4 (Consisting of the Immediately Following 6 Pages, and Being:

Five Year Summary Gas Transportation

1929-1933

Lone Star Gas Company

Year	Transported thru Oklahoma	Total transported	Per cent transported thru Oklahoma
1929	15,790,131 M	44,625,913 M	35.4
1930	14,087,358 M	42,472,195 M	33.2
1931	9,972,671 M	34,703,119 M	28.7
1932	10,597,693 M	32,967,130 M	32.1
1933	8,138,480 M	31,385,293 M	25.9

Weighted Average Per Cent Transported Thru Oklahoma 31.5

[fol. 149] Year 1929

Gas Transported in Interstate Commerce by Lone Star Gas Company

	M. C. F. (8 oz.)
Chickasha & Nellie Fields	2,981,976
Duncan Field	936,554
Loco Field	474,937
Fox Field	3,393,734
Robberson Field	997,965
Palacine Field	
Shamrock Field	7,004,965
Total Gas Transported Thru Oklahoma	15,790,131
Total Gas Transported from all Sources	44,625,913
Per cent of Total which was Transported Thru Okla.	35.4

[fol. 150] Year 1930

Gas Transported in Interstate Commerce by Lone Star Gas Company

	M. C. F. (8 oz.)
Chickasha & Nellie Fields	2,074,735
Duncan Field	591,458
Loco Field	242,210
Fox Field	2,718,338
Robberson Field	835,201
Palacine Field	244,571
Shamrock Field	7,380,845
Total Gas Transported Thru Oklahoma	14,087,358
Total Gas Transported from all Sources	42,472,195
Per cent of Total which was Transported thru Okla.	33.2%

[fol. 151] Year 1931

Gas Transported in Interstate Commerce by Lone Star Gas Company

	M. C. F. (8 oz.)
Chickasha & Nellie Fields	1,058,047
Duncan Field	651,557
Loco Field	153,940
Fox Field	1,521,928
Robberson Field	296,081
Palacine Field	41,483
Shamrock Field	6,249,635
Total Gas Transported thru Oklahoma	9,972,671
Total Gas Transported from all Sources	34,703,119
Per cent of Total which was Transported thru Okla.	28.7%

[fol. 152] Year 1932

Gas Transported in Interstate Commerce by Lone Star Gas Company

	M. C. F. (8 oz.)
Chickasha & Nellie Fields	811,993
Duncan Field	216,455
Loco Field	114,574
Fox Field	1,041,899
Robberson Field	313,633
Palacine Field	43,392
Shamrock Field	8,055,747
Total Gas Transported thru Oklahoma	10,597,693
Total Gas Transported from all Sources	32,967,130
Per cent of Total which was Transported thru Okla.	32.1%

[fol. 153] Year 1933

Gas Transported in Interstate Commerce by Lone Star Gas Company

	M. C. F. (8 oz.)
Chickasha & Nellie Fields	734,629
Duncan Field	54,312
Loco Field	22,580
Fox Field	653,527
Robberson Field	207,807
Palacine Field	17,487
Shamrock Field	6,448,138
Total Gas Transported thru Oklahoma	8,138,480
Total Gas Transported from all Sources	31,385,293
Per cent of Total which was Transported thru Okla.	25.9%

(Here follows one map, side folio 153a-163)

BLANK

PAGE

HANSFORD
OCHILTREE
LIPSCOMB
ROBERTS
HEMPHILL
ARSON
GRAY
WHEELER
ARMSTRONG
DONLEY
COLLINGSWORTH
BRISCOE
HALL
CHILDRESS
FLOYD
MOTLEY
COTTLE
CROSBY
DICKENS
KING
STONEWALL
KENT
GARZA
THROCKMORTON
HARDEMAN
WILBARGER
JACKSON
COTTLE
FOARD
KNOX
BAYLOR
ARCHER
YOUNG
CLAY
MONTAGUE
JEFFERSON
JOHNSTON
CHOCTAW
POSHMATAHA
MCCURTAIN
LEFLORE
FRANKLIN
TITUS
WOOD
UPSHUR
ROCKWALL
HUNT
COOKE
GRAYSON
FANNIN
DELTA
LAMAR
RED RIVER
BOWIE
CASS
MARION
HARRISON
PANOLA
SHELBY
NACOGDOCHES
SABINE
SAN AUGUSTINE
JASPER
NEWTON
ORANGE
TYLER
POLK
HARDIN
LIBERTY
CHAMBERS
JEFFERSON
GALVESTON
BRAZORIA
MATAGORDA
WHARTON
FORT BEND
BRAZOS
GRIMES
WALLER
HARRIS
MONTGOMERY
SAN JACINTO
WALKER
MADISON
ROBERTSON
LEON
FREESTONE
LIMESTONE
NAVARRO
HILL
ELLIS
JOHNSON
TARRANT
PARKER
WISE
DENTON
COLLIN
HOPKINS
RAINS
WOOD
UPSHUR
SMITH
CHEROKEE
ANDERSON
HENDERSON
VAN ZANDT
KAUFMAN
ROCKWALL
DALLAS
ELLIS
NAVARRO
HILL
CORSICANA
WACO
MCLENNAN
BELL
CORYELL
FALLS
MILLS
HAMILTON
BOSQUE
HOOD
SOMERVELL
COMANCHE
ERATH
BOSQUE
CLEBURNE
GLEN ROSE
STEPHENVILLE
BROWNWOOD
BROWN
COLEMAN
RUNNELS
CONCHO
TOM GREEN
SAN ANGELO
MENARD
KIMBLE
MASON
LLANO
BURNET
WILLIAMSON
BELTON
TEMPLE
KILLEEN
FORT HOOD
GATESVILLE
COPPERAS COVE
LAMPASAS
GEORGETOWN
AUSTIN
TRAVIS
HAYS
CALDWELL
BASTROP
LEE
FAYETTE
COLORADO
WASHINGTON
BURLESON
GONZALES
GUADALUPE
CALHOUN
VICTORIA
GOLIAD
BEE
REFUGIO
ARANSAS
SAN PATRICIO
NUECES
CORPUS CHRISTI
KLEBERG
KINGSVILLE
JIM WELLS
ALICE
LIVE OAK
MCMULLEN
KARNES
WILSON
ATASCOSA
FRIO
LA SALLE
DIMMIT
ZAVALA
MAVERICK
EAGLE PASS
UVALDE
REAL
EDWARDS
KINNEY
VAL VERDE
DEL RIO
SUTTON
CROCKETT
PECOS
REEVES
WARD
CRANE
UPTON
REAGAN
IRION
TOM GREEN
SCHLEICHER
MENARD
KIMBLE
MASON
GILLESPIE
KERR
BANDERA
KENDALL
COMAL
GUADALUPE
BEXAR
SAN ANTONIO
MEDINA
HONDO
CASTROLVILLE
SEGUIN
NEW BRAUNFELS
BOERNE
FREDERICKSBURG
KERRVILLE
HUNTSVILLE
CONROE
THE WOODLANDS
LIBERTY
BEAUMONT
PORT ARTHUR
ORANGE
LAKE CHARLES
GALVESTON
TEXAS CITY
LA MARQUE
ALVIN
PEARLAND
SUGAR LAND
STAFFORD
MISSOURI CITY
PASADENA
BAYTOWN
LA PORTE
DEER PARK
PASADENA
HOUSTON
KATY
CYPRESS
TOMBALL
SPRING
HUMBLE
KINGWOOD
ATASCOCITA
CLEVELAND
PORTER
NEW CANEY
DAYTON
HARTBURG
ORANGE GROVE
ROBSTOWN
PORT ARANSAS
ROCKPORT
FULTON
PORT LAVACA
PALACIOS
EDNA
GANADO
LOUISE
EAGLE LAKE
WHARTON
EL CAMPO
BAY CITY
MATAGORDA
PALACIOS
COLUMBUS
SCHULENBURG
FLATONIA
LA GRANGE
BASTROP
SMITHVILLE
GIDDINGS
CAMERON
ROCKDALE
THORNDALE
TAYLOR
HUTTO
ROUND ROCK
PFLUGERVILLE
MANOR
DEL VALLE
LOCKHART
LULING
SAN MARCOS
BUDA
KYLE
WIMBERLEY
DRIPPING SPRINGS
BOERNE
FREDERICKSBURG
KERRVILLE
HUNTSVILLE
CONROE
THE WOODLANDS
LIBERTY
BEAUMONT
PORT ARTHUR
ORANGE
LAKE CHARLES

MICRO CARD

TRADE MARK ®

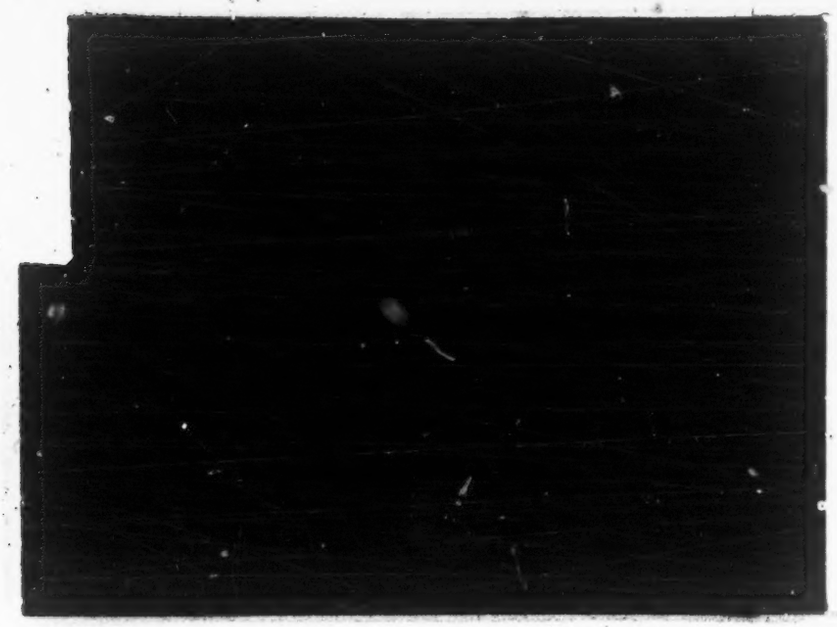
MICROCARD® EDITIONS, INC.

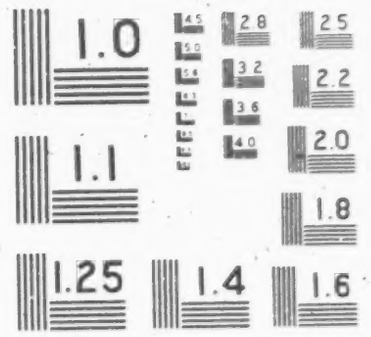
PUBLISHER OF ORIGINAL AND REPRINT MATERIALS ON MICROCARD AND MICROFICHES

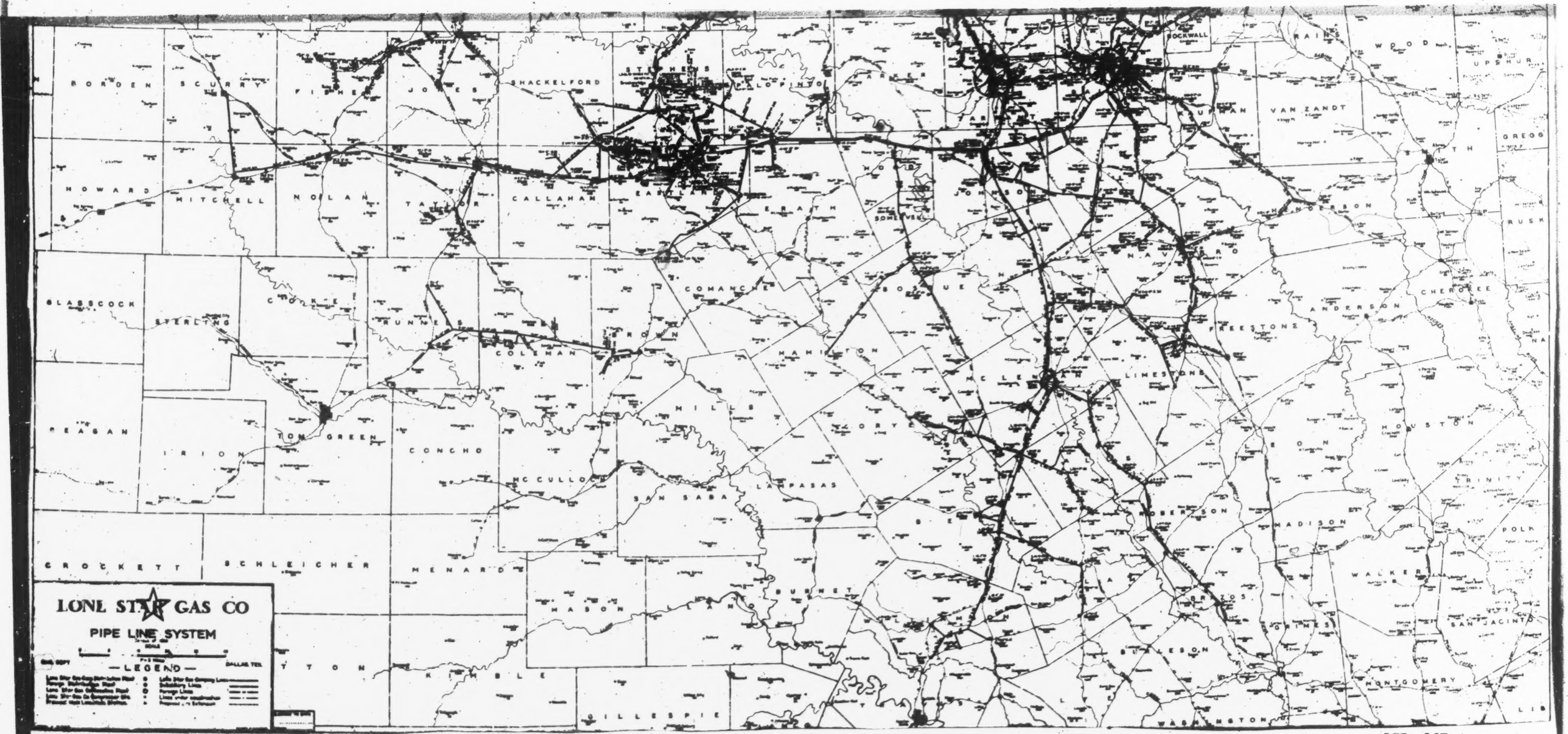
901 TWENTY-SIXTH STREET, N.W., WASHINGTON, D.C. 20037, PHONE (202) 333-6393

microcard

CARD 7






LONE STAR GAS CO
PIPE LINE SYSTEM
— LEGEND —
BORDEN
SCURRY
FISHER
JONES
SHACKELFORD
STEPHENS
PALO PINTO
ROCKWALL
RAINS
WOOD
UPSHUR
HOWARD
MITCHELL
NOLAN
TAYLOR
CALLAHAN
EASTLAND
ERATH
HOOD
SOMERVELL
VAN ZANDT
SMITH
GREGG
HENDERSON
RUSK
GLASSCOCK
STERLING
COKE
RUNNELS
COLEMAN
BROWN
COMANCHE
BOSQUE
HAMILTON
NAVARRO
CHEROKEE
ANDERSON
FREESTONE
LIMESTONE
REAGAN
IRION
TOM GREEN
CONCHO
MILLS
CORYELL
HOUSTON
ANGELINA
MCCULLOCH
SAN SABA
LAMPASAS
ROBERTSON
MADISON
TRINITY
POLK
CROCKETT
SCHLEICHER
MENARD
MASON
LLANO
BURNET
BRAZOS
GRIMES
WALKER
SAN JACINTO
UPTON
KIMBLE
GILLESPIE
WASHINGTON
MONTGOMERY
LIB

BLANK

PAGE

[fol. 1] IN FIFTY-THIRD DISTRICT COURT, TRAVIS COUNTY, TEXAS

No. 53,033.

THE STATE OF TEXAS, et al.

vs.

LONE STAR GAS COMPANY.

Statement of Facts of Trial on the Merits.

Before Hon. C. A. Wheeler, Judge, and a Jury.

Appearances:

Hon. A. R. Stout, Assistant Attorney General; Hon. W. C. Fitzhugh, Assistant Attorney General, for Plaintiffs.

Karl F. Griffith, Esq., Ogden K. Shannon, Esq., Judge Ben H. Powell, for Defendant.

Monday, June 11, 1934.

[fol. 2] Plaintiffs' Evidence.

C. F. PETET, a witness for plaintiffs, having been duly sworn, testified as follows:

Direct examination:

Questions by Mr. Stout:

Q. State your name, please.

A. C. F. Petet.

[fol. 3] Q. What do you do, Mr. Petet?

A. Secretary of the Railroad Commission of Texas.

Q. How long have you been Secretary?

A. Ten years, or a little better.

Q. I hand you here a document, Mr. Petet. What is it?

A. It is an opinion and order in the matter of an investigation of the city gate rate charged by the Lone Star Gas Company—a copy of the order.

Q. Is it a true and correct copy?—have you examined it sufficiently to verify that?

A. It is.

Q. Turn to page 84, please, sir. What, if anything, is set out on page 84?

* * * * * * *

Q. Well, is that the order of the Commission on page 84?
A. Yes, sir.

Mr. Stout: We offer that in evidence, if Your Honor please,—the order of the Commission.

The Court: Let's see it. (The Court inspects same) All right, Gentlemen. He is offering what is shown on page 84. Is there any objection?

Mr. Shannon: Yes, sir.

* * * * * * *

[fol. 4] OBJECTIONS TO INTRODUCTION OF ORDER OF COMMISSION

Defendant, Lone Star Gas Company, objects to the offer in evidence of the order of the Railroad Commission appearing on page 84 of the printed copy identified by the witness without plaintiffs' offering at the same time and in connection therewith the opinion of the Commission and the [fol. 5] statement of the case appearing on pages 1 and 2 of the printed copy identified by the witness, for the following reasons: First: It is recited on page 84 of the said opinion and order of the Commission and under the terms of the order of the Commission, as follows:

The Court: Now, Mr. Shannon, may I just relieve you maybe a little bit here? They have offered page 84. If they don't offer the other, you may offer it.

Mr. Shannon: I understand that.

The Court: So if you want that in evidence you may put it in without any hesitancy whatever.

Mr. Shannon: But for the purpose of making our record at this time I should like to object to their not offering the entire opinion and order as a whole, rather than offering the order by itself. I realize we have the right later to do that if we choose to do so.

The Court: I understand that at this time they offer the opinion and order, and you object to both of them?

Mr. Shannon: Yes, sir.

The Court: I don't think you can object to their doing it and then to their not doing it—don't blow hot and cold.

Mr. Shannon: Here is what I want to convey to Your Honor: We are going to object to their offering anything—

we object to their offering both the opinion and order. We are also going to object to their offering the order without the opinion. The reasons we don't think are inconsistent. [fol. 6] We think the objections are applicable to each proposition.

The Court: I will hear you.

Mr. Shannon: I simply don't want to be in the attitude of taking an inconsistent position before the Court, but we don't think our position is inconsistent.

The Court: All right.

Mr. Shannon: It is recited on page 84 of the order of the Commission as follows: "The Railroad Commission having instituted a proceeding upon its own motion inquiring into the rates charged by the Lone Star Gas Company for domestic gas sold to distributing companies at the city gate station, hereby finds as a fact that the rate of forty cents per thousand cubic feet as now charged by Lone Star Gas Company is unfair, unjust and unreasonable. Basing its order on the foregoing finding of fact and on such other findings and statements of facts as are set out in the opinion next preceding this order, or in this order.

"It is ordered, adjudged and decreed that effective as of the next billing date the Lone Star Gas Company shall charge, bill and receive for domestic gas at the City gate from all distributing companies served by it, a rate not to exceed thirty-two cents per thousand cubic feet."

It therefore appears from the order of the Commission offered in evidence that the order is based upon the findings and statements of facts set out in the opinion to which it is [fol. 7] annexed. The order of the Commission has no probative force, nor has it any evidentiary value, divorced from the opinion of the Commission and the statements of facts and findings of fact contained therein, inasmuch as it affirmatively appears that the said order is based upon the said findings of fact appearing in the opinion of the Commission. The said order, divorced from the opinion of the Commission, represents a mere arbitrary action on the part of the Commission, which is violative of the due process clause of the Federal Constitution and the rights of this defendant thereunder. The said order of the Commission, referring as it does, to the findings and statements of facts contained in the opinion of the Commission, in effect incorporates those findings and statements into the order, mak-

ing the same a part thereof, and therefore it is not proper to offer the order of the Commission without at the same time offering the opinion and the statements of fact and findings therein, based upon which the Commission arrived at the conclusion stated in the order.

We further object because plaintiffs' Second Amended Original Petition is allegedly predicated upon, not only the order of the Commission, but the opinion as well, which order and opinion are both attached to plaintiffs' Second Amended Original Petition and referred to therein as Exhibit "A"; and, inasmuch as their said suit is predicated upon both the opinion and order, the said order should not be admitted in evidence unless the opinion, upon which it is [fol. 8] based, is offered and received in evidence at the same time.

Those are our objections to their action in offering the order without at the same time offering the opinion in connection with it. We have some additional objections to their offering the order in any event, even though they offer it in this way.

The Court: You may state your objections.

Mr. Shannon: Defendant, Lone Star Gas Company, objects to the introduction of the order of the Railroad Commission in evidence, for the following reasons:

1. If the purpose of the plaintiffs' suit is to enjoin defendant from charging in excess of thirty-two cents per thousand cubic feet for gas delivered at the city gates of various towns and cities served by Lone Star Gas Company, exclusively in intrastate commerce—that is to say, if the purpose of plaintiffs' suit is to prevent Lone Star Gas Company from charging the various distributing companies in excess of thirty-two cents per thousand cubic feet for gas moving throughout its entire transit up to the city gate in intrastate commerce, the purpose and intent of plaintiffs' suit in this connection not clearly appearing, then the said order of the Railroad Commission and the finding therein that thirty-two cents is a reasonable price to be charged for all gas is not prima facie evidence, nor is it any evidence of the reasonableness of a charge of thirty-two cents per thousand cubic feet as the price to be received for gas moving exclusively in intrastate commerce, or for gas at the city gates of various towns and cities to which defendant sells gas in intrastate commerce; and, therefore, the said order

of the Commission is irrelevant and immaterial to any issue in this case and of no probative force and effect.

[fol. 9] 2. If the purpose of plaintiffs' suit is as above stated, then the material inquiry in this case upon a favorable determination of which rests plaintiffs' right to relief is whether or not 32¢ per thousand cubic feet is a reasonable price to be charged for gas moving throughout its entire transit up to the city gates in intra-state commerce. It affirmatively appears from the order and opinion of the Railroad Commission that the Railroad Commission did not find that 32¢ was a reasonable price to be charged for gas moving in intra-state commerce exclusively, that is to say, without reference to the reasonableness of the rate to be charged for all gas sold by defendant which, as appears from the order and opinion of the Commission, is in part gas moving in interstate commerce, but on the other hand found that 32¢ was a reasonable amount to be charged for all gas, including that moving in interstate commerce; it, therefore, appears that the Railroad Commission in its aforesaid opinion and order was not considering and did not determine what would be a reasonable rate to be charged for gas moving exclusively in intra-state commerce. It does not appear from the opinion and order of the Railroad Commission that the Commission would have found that 32¢ was a reasonable charge for gas moving throughout its entire transit up to the city gates in intra-state commerce, had it been advised or had it known that it did not have the right to determine and enforce a rate applicable to all gas sold by the defendant. To permit the introduc-[fol. 10] tion of the order of the Commission under the circumstances, opens the field for speculation and conjecture as to what the Railroad Commission might have done under other circumstances. Accordingly, the opinion and order of the Railroad Commission are irrelevant and immaterial to any issue in this case and of no probative force and effect and the Court should not receive same in evidence.

3. If the purpose of plaintiffs' suit is as above stated, then the order of the Railroad Commission sought to be introduced in evidence cannot be made the basis of the relief sought by plaintiffs and the introduction of the same will constitute a variance between the allegations contained in the plaintiffs' second amended original petition and the

proof offered in the form of the said order and opinion, for the reason that in order for plaintiffs to maintain their said suit and to be entitled to the relief sought it will be necessary for them to prove that 32¢ per thousand cubic feet is a reasonable rate to be charged for gas transported and sold in intra-state commerce to the various distributing companies; whereas, the order of the Commission sought to be introduced in evidence does not determine the reasonableness of the price to be charged for such gas, but on the contrary affirmatively shows that it fixes and purports to fix what is alleged to be a reasonable charge for all gas sold and delivered by defendant to various distributing companies. Wherefore, the Court should not permit [fol. 11] the introduction of the said order and thus permit the allegations of plaintiffs' second amended original petition to be varied by this character of proof.

4. If the purpose of plaintiffs' suit is as above stated, then the order of the Railroad Commission is irrelevant and immaterial and has no bearing on any issue in this case and should not be received in evidence and is of no probative force and effect because it is based upon the findings of fact set out in the opinion of the Commission from which it appears that the Commission findings that 32¢ per thousand cubic feet is a reasonable rate to be charged for gas sold by the defendant of various distributing companies, is based upon an evaluation of defendant's properties, both in Texas and in Oklahoma, and a determination of gross revenues, expenses, and so forth, in connection with the operation of defendant's entire pipe line properties, both in Texas and in Oklahoma, and in connection with its entire business, both intra-state and interstate. It, therefore, appears that the Railroad Commission's determination that 32¢ was a reasonable rate for all gas upon proof of an entirely different kind and character from that which plaintiffs might be required to offer herein if they would establish the fact that 32¢ is a reasonable rate to be charged for gas moving throughout its entire transit and up to the city gates in intra-state commerce; and the order of the Commission, predicated as it is upon proof of the kind and character offered before the Commission, is not evidence [fol. 12] that 32¢ is a reasonable rate for intra-state gas when the issues in this case may be entirely different and other than those considered by the said Commission.

5. If the order of the Railroad Commission has any force or effect and is material to any issue in this case, it must be on the theory that it is predicated upon findings of fact made by the Railroad Commission in an investigation held by it. It appears from said findings of fact upon which the order is based that the Commission did not undertake to determine what was a reasonable rate to be charged for gas moving in intra-state commerce exclusively, that is to say, without reference to the question of the reasonableness of a rate for all gas sold by defendant, which, as appears from the order and opinion of the Commission, is in part gas moving in interstate commerce, and that it did not pursue a theory in its investigation calculated to arrive at this determination. Therefore, the order of the Commission has no probative force or effect and is incompetent as testimony, germane to the inquiry of whether or not 32¢ is a reasonable rate to be charged for gas moving exclusively in intrastate commerce, which determination is the very basis of the relief asked by plaintiffs herein, if the purpose of their said suit is as has been stated hereinbefore.

6. If plaintiffs' second amended petition is to be construed as undertaking to prevent defendant from charg-
[fol. 13] ing in excess of 32¢ for all gas, whether moving to intrastate or interstate commerce, wherever any particular city or town is supplied in part with gas moving in intra-state commerce, then the said order of the Commission has no probative force or effect, and should not be admitted in evidence, and is irrelevant and immaterial, because it affirmatively appears from the opinion and order of the Railroad Commission that Lone Star Gas Company is engaged not only in intra-state but also interstate business in supplying gas to various distributing companies at the city gates of various towns and cities in Texas, and that the said order of the Railroad Commission was intended to, and does operate upon, affect and burden such interstate business of Lone Star Gas Company as is done in the State of Texas. It, therefore, appears that the aforesaid order of the Railroad Commission is void in so far as it was intended to and does in fact operate upon and affect interstate commerce directly, and being void, the same is of no probative force or effect, and has no validity prima

facie or otherwise, and the Court should not permit the introduction of same in evidence.

7. It affirmatively appears from the opinion and order of the Railroad Commission that the same was intended to apply to the interstate business carried on by defendant, and that it was the purpose and intention of the Railroad Commission of Texas in the promulgation and enforcement of said order to prevent Lone Star Gas Company [fol. 14] from charging and collecting in excess of 32¢ per thousand cubic feet for gas delivered by it at the city gates and moving in interstate commerce up to and at the time of such delivery. It, therefore, appears that said opinion and order of the Railroad Commission are unconstitutional and in violation of the Commerce Clause of the Federal Constitution, and being unconstitutional and invalid in part, and the said order being indivisible, it therefore appears that the order is void in its entirety and cannot be enforced at all; and, therefore, the said order being unenforceable and being void in toto, has no probative force or effect and the Court should not permit the same to be offered in evidence.

Now, your Honor, so that I might get myself straight with the Court on blowing hot and cold, possibly I should have stated that, first, we had our objections to the offer of the order in evidence, same being the objections that I have just urged—seven in number; and, second, that even if we were wrong in those objections, we still wanted to object to the offer of the order without the opinion being offered at the same time. It does not occur to us that there is anything inconsistent in our position.

The Court: Very well. The objections are overruled.

Mr. Shannon: Note our exception.

* * * * * * *

[fol. 15] Mr. Griffith: No; no ground of objection is made to go to the lack of certification.

The Court: May I suggest that in offering this, if you are going to offer page 84, that you tear it out of one of these books and hand it over there, so it won't get mixed up.

Mr. Stout: All right.

* * * * * * *

[fols. 16-18] Mr. Stout: We ask that this order of the Railroad Commission be marked as Plaintiff's Exhibit No. 1.

(Thereupon the document above referred to was marked as Plaintiffs' Exhibit No. 1. This exhibit appears in Book of Exhibits 6, page 3562.)

Q. That is all, Mr. Petet.

Cross-examination.

Questions by Mr. Griffith:

* * * * * * *

[fol. 19] Q. Will you please examine this pamphlet, Mr. Petet? Examine the last page in there, Mr. Petet. Does that pamphlet purport to be a copy of the opinion and order in the matter of an investigation of the city gate rate [fol. 20] charged by the Lone Star Gas Company, entered by the Railroad Commission of Texas in Gas Utilities Docket No. 75?

A. It does.

Q. Following page 86 in that pamphlet, does your certification appear in the following words: "I, C. F. Petet, Secretary of the Railroad Commission of Texas, do hereby certify that the attached pamphlet of 86 pages is a true and correct copy of an opinion and order issued by the Railroad Commission of Texas on September 13, 1933, in its Gas Utilities Docket No. 75, in the matter of an investigation of the city gate rate charged by the Lone Star Gas Company. Given under my hand and the Seal of the Railroad Commission of Texas, this the 20th day of September, 1933. C. F. Petet, Secretary, Railroad Commission of Texas."

A. Yes.

Q. And did you affix the seal of the Railroad Commission of Texas to that certificate?

A. Yes.

Q. We will ask the reporter to mark this for identification. That is the pamphlet so identified by the witness.

(Thereupon said pamphlet was marked by the reporter with the initials HB 6/12/34, for purposes of identification.)

Q. Were the opinion and order of the Railroad Commission of Texas in Gas Utilities Docket No. 75, in the matter of an investigation of the city gate rate charged by the Lone Star Gas Company, issued on the same day?

[fol. 21] A. I presume they were.

Q. That's all.

Mr. Stout: We next offer in testimony the Stay Order granted by the Federal Court in the case of Lone Star Gas Company, Plaintiffs, vs. Railroad Commission of Texas, et al., defendants, No. 467 in equity, in the District Court of the United States for the Western District of Texas, Austin Division.

(Thereupon the document above referred to was marked as Plaintiffs' Exhibit No. 2.)

* * * * * * *

[fol. 22] We now offer in evidence, if Your Honor, please, stipulation and agreement signed by attorneys for both sides, and this being in cause No. 53,033, State of Texas, et al., vs. Lone Star Gas Company, in the District Court of Travis County, Texas, Fifty-third Judicial District, and this being marked "Stipulation".

(Thereupon the document above referred to was marked as Plaintiffs' Exhibit No. 3, and read to the jury.)

Mr. Stout: We rest, if the Court please.

Mr. Shannon: We have a motion to make, if the Court please.

* * * * * * *

[fol. 23] [Title omitted]

DEFENDANT'S REQUEST FOR PEREMPTORY INSTRUCTION

GENTLEMEN OF THE JURY:

You are instructed herein that you will return a verdict in this case for the defendant, Lone Star Gas Company, and the form of your verdict will be:

"We, the jury, find for the defendant, Lone Star Gas Company, and against the plaintiffs, The State of Texas, et al.

—— ——, Foreman."

Karl F. Griffith, Thompson & Barwise, Ben H. Powell,
Attorneys for Defendant, Lone Star Gas Company.

[fol. 24] The above instruction was requested at the conclusion of plaintiffs' testimony and after plaintiffs had rested, and prior to the time defendant, Lone Star Gas Company, offered any testimony and in open court, was considered by the court and plaintiffs' counsel, to whom a copy of the same was furnished, and after due consideration was denied, to which action the defendant, Lone Star Gas Company, in open court, then and there duly excepted.

(Signed) C. A. Wheeler, Judge Fifty-third District Court, Travis County, Texas.

Defendant's Evidence.

Mr. Griffith: If the Court please, the defendant, Lone Star Gas Company, first offers in evidence a copy of the Bill of Complaint in Cause No. 467 in Equity, in the District Court of the United States for the Western District of Texas, Austin Division, in the case styled Lone Star Gas Company, Plaintiff, vs. The Railroad Commission of Texas, et al. I take it that will be Defendant's Exhibit Number 1.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 1.)

[fol. 25] The defendant next offers in evidence a copy of the Temporary Restraining Order issued by the Honorable Robert J. McMillan, United States District Judge, in Cause Number 467 in Equity, in the District Court of the United States for the Western District of Texas, Austin Division, in the cause styled Lone Star Gas Company, Plaintiff, vs. The Railroad Commission of Texas, et al.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 2.)

Stipulation re Order of Federal Court

Mr. Griffith: It is hereby stipulated by and between counsel for the plaintiffs and counsel for the defendant, in open court, that the Temporary Restraining Order issued by the Honorable Robert J. McMillan, United States District Judge, and signed by him on the 22nd day of September, A. D. 1933, and which Temporary Restraining Order has just been introduced in evidence and styled or labeled "Defen-

dant's Exhibit No. 2," was duly and properly extended, and was in full force and effect at the time of the institution of this suit in the Fifty-third Judicial District Court of Travis County, Texas.

Is that satisfactory, Mr. Stout?

[fol. 26] Mr. Stout: All right.

Mr. Griffith: The defendant next offers in evidence certified copy of the statement, opinion and order of the Railroad Commission of Texas, entered on September 13, 1933, in Gas Utilities Docket Number 75, in the cause styled, "In the Matter of an Investigation of the City Gate Rate and Charges of the Lone Star Gas Company," this being the same certified copy heretofore identified by Mr. C. F. Petet, Secretary of the Railroad Commission of Texas, the offer of the statement, opinion and order being for the sole purpose of laying a predicate for the attack to be made upon the same as reflected by and set out in the pleadings of the defendant in this case.

* * * * * * *

[fol. 27] (Thereupon the document above referred to was marked as Defendant's Exhibit No. 3.)

* * * * * * *

[fol. 28] D. A. Hulcy, a witness for defendant, having been duly sworn, testified as follows:

[fol. 29] Direct examination.

Questions by Mr. Griffith:

Q. Your name is D. A. Hulcy?

A. That is correct.

Q. Where do you live?

A. Dallas, Texas.

Q. What is your business, Mr. Hulcy?

A. I am an accountant by profession, presently engaged and employed by Lone Star Gas Company and certain of its affiliated companies.

Q. How long have you been engaged in accounting work?

A. About twenty-two years.

Q. Will you please relate briefly to the Court and jury the general nature of your experience in accounting work?

A. From 1912 until 1919 I was employed in railroad work, starting off in a local station as a clerk. I was there for something over a year, and went into the Auditor's office, where I was employed as a clerk, and for about the last two years I was with the railroad I was Auditor, and remained there until the latter part of 1919. In January of 1920 I was employed by the Lone Star Gas Company. For about the first two or three months after going to work for them my time was spent in special work, analyzing accounts, and other things of that kind. Then I went to work in the con-
[fol. 30] struction accounting business for a period of something over a year. I handled all of the charges, construction accounts, posted all charges, checked the records against the records of the Engineering Department to see that all materials and labor were properly accounted for. I then further checked and closed every job order against the construction records to the permanent investment records and made the vouchers covering those charges. At the end of that time, a little over a year after I made my connection with the company, then I was placed on the distribution desk, being charged with the responsibility of making distribution of all manner of charges, operating expenses, capital accounts, and all charges going into the books and records of the company. During that time I made two or three rather extensive trips to the field, where I went over the actual operations, in order that I might have an understanding and better idea of how the proper distribution of charges should be made. I remained on the distribution desk approximately a year. At that time I was made Chief Clerk of the Producing Department—that is, of the accounting section. Acting in that capacity, I had general supervision over the entire personnel employed in that department, charged with the responsibility of checking over and approving the distribution of all charges entering into the books and records of that department of the Lone Star Gas Company. I also made the monthly and annual financial reports covering that department. I stayed in that position for approximately two years,
[fol. 31] at which time I was made Chief Clerk of the entire accounting system—that is, the pipe line and producing section. My duties then were about the same as they had been in the producing department, only that they covered both pipe line and producing.

Q. In other words, all ramifications of the company's business?

A. That is quite true, yes, sir. I remained in that place until, I would say, about 1928, at which time I was made Assistant Comptroller of the Lone Star Corporation and all of its underlying companies, of which the Lone Star Gas Company was the principal one. Acting in that capacity, I had general supervision over all accounts of the several companies included in the group. I remained there in that position until the latter part of 1929, at which time I was made assistant to the President of Lone Star Gas Corporation and also of the Lone Star Gas Company. Acting in that capacity, I had general supervision over all of the accounts of all of the companies. I might add that, particularly from 1929 up to date I have had occasion to make investigations of the books and records—that is, of other companies—of the worth of property, of earnings, operating expenses, etc. Those to a certain extent have been checked against the operating cost and property cost of Lone Star Gas Company and certain of its affiliated companies. As of December 31, 1925, I made a valuation of all the oil and gas properties owned by the Lone Star Gas Company, and from 1922 up to 1927 I had charge and actually made the schedules for Fed-
[fol. 32] eral tax purposes, and since that time they have been made under my general supervision. In addition to those duties—in fact, since 1930—I have been charged with the responsibility of supervision of the accounting section of the Northern Natural Gas group, my position being Secretary and Comptroller of that group of companies, which comprise some seven or eight companies, I would say. I believe, Mr. Griffith, that that is all.

Q. Is the Northern Natural Gas Company of which you speak a company operating on a major scale?

A. Yes, sir; it is. They operate a pipe line system from the Panhandle field in Texas through the States of Oklahoma, Kansas, Nebraska, and into South Dakota, and also through the State of Iowa and on into the Twin Cities—that is, Minneapolis and St. Paul, Minnesota. They also own and operate distribution properties, in addition to the pipe line system that I have just mentioned, to such towns as Rochester, Minnesota, and several Nebraska towns, and Dodge City, Kansas, and other towns adjacent thereto.

Q. In order to give the jury an idea of the scope of operations and of your duties as Secretary and Comptroller of the

Northern Natural Gas Company, I will ask you to state what is the approximate book cost of its gas properties.

A. The actual cash cost of its gas properties is in excess of forty millions of dollars.

Q. Now, as I understood your testimony, Mr. Hulcy, you have been connected with the Lone Star Gas Company over a period of some fifteen years?

[fol. 33] A. Yes, sir; since January, 1920,—fourteen and a half years.

Q. In the discharge of your duties with that company have you thoroughly familiarized yourself with the company's operations?

A. Yes, sir; I have.

Q. Are you familiar with the books, records and accounts of the company, both in relation to cost of property and investment in property, gross and net operating revenues and operating expenses?

A. Yes, sir; I have. I would say, in addition to being familiar with it at one time, all along during the past fourteen and a half years, I actually performed work entering into almost every account kept in the accounting section of the Lone Star Gas Company.

Q. Are you familiar with the several classifications of accounts covering public utility properties?

A. Yes, sir; I think that I am.

Q. Are the books, records and accounts of Lone Star Gas Company kept in conformity with any standard or recognized classification of accounts?

A. Yes; they are kept in conformity with the classification of accounts prescribed by the American Gas Association; that is worked out by a Uniform Classification Account Committee; their report and their recommendation was accepted by the American Gas Association, and it was completed in the year 1930. That classification of accounts is very similar to the one used in the States of Ohio and [fol. 34] Pennsylvania, and the States of West Virginia has adopted the new classification of accounts; that is by law.

Q. When you say the classification has been adopted by the State of Ohio and other States do you mean that the classification has been adopted by the Public Service Commissions or Public Utility Commissions of those States?

A. That is correct—that is, the commission that has

authority to prescribe accounting classifications for gas properties.

Q. Is that classification substantially in effect as prescribed by the Corporation Commission of the State of Oklahoma, the regulatory body in Oklahoma?

A. Yes, sir; it is very similar to that classification.

Q. Is the classification modeled and patterned after the Interstate Commerce Commission's classification of accounts?

A. It is.

Q. Mr. Hulcy, are you familiar with the opinion and order of the Railroad Commission of date September 13, 1933, which has been attached and annexed to the plaintiff's Second Amended Original Petition in this case and which has been introduced in evidence and labeled Defendant's Exhibit 3?

A. Yes, sir; I am. I have had occasion to go over it several times.

Q. I assume you are the same D. A. Hulcy whose name appears throughout that opinion and order?

A. Yes, sir; I am the same.

Q. Would you say that you are familiar with the details [fol. 35] of the findings and conclusions of the Commission as expressed in that order?

A. Yes, sir; I think so.

Q. Mr. Hulcy, did the Railroad Commission of Texas in its findings and conclusions eliminate from the rate base the property value of the Lone Star Gas Company in relation to its public service property certain gas wells of the company, gas leaseholds, and other property in what is known as the Petrolia field?

A. Yes, sir; they did.

Q. In what amount?

A. The actual cost of the gas wells, leases, pipe lines, etc., to the Lone Star Gas Company as carried in the Petrolia field in the amount of $687,781.13. That was the cost at December 31, 1931.

Q. Do you have that amount subdivided as between leaseholds, wells, and other property?

A. Yes, sir. That amount is divided as follows: Gas rights, $347,922.91; gas wells, $137,689.06; pipe lines, $190,205.73; regulating and measuring stations, $6,503.99; buildings, $5,459.44; the total being $687,781.13.

Q. When you speak of gas rights, Mr. Hulcy, what do you mean? Explain it to the jury.

A. Gas rights, in this particular case, is the cost to the company for the right to explore and to develop and withdraw the gas located under certain lands, and this amount is the cash cost to the company for those rights in the Petrolia field.

[fol. 36] Q. Where is the Petrolia field located, Mr. Hulcy?

A. The Petrolia field is, I would say, twenty to twenty-five miles south of the Oklahoma line, east of Wichita Falls.

Q. And in what county?

A. In Clay County, Texas.

Q. Now, referring to the Commission's order and opinion, in the findings and conclusions therein stated did the Commission eliminate actual operating expenses of the company incurred for the year 1931 in any amount?

A. Yes, sir; they did. For the year 1931 the Commission eliminated operating expenses in the amount of $217,884.05.

Q. Will you please give a detail of the elimination of operating expenses by the Commission?

* * * * * * * *

A. All right. The first item is management fees and expenses, in the amount of $91,375.38. It is set out very [fol. 37] clearly and discussed on pages 9-11 of the printed opinion and order, where no allowance whatever was made for management fees and expenses. The next item is where the Commission eliminates $140,090.23 from cancelled and surrendered leases. The actual amount incurred for the twelve months ending December 31, 1931, reflected by the books of the company, was $239,230.96. The Commission finds and allows for the same accounting period an amount of $99,140.73, thereby making a difference of $140,090.23, that it eliminated from the operating expenses of the company for that accounting period. That is $99,140.73 as found by the Commission, which was based on the five year period ended December 31, 1931, and as shown on page 12 of the opinion and order. The next item, the Commission adds to the actual operating expenses for that accounting period, dry hole expense in the amount of $13,581.56. The actual amount as reflected by the books of the company for the twelve month period ended December 31, 1931, was $65,871.56. The Commission finds and allows on a five year

average an amount of $79,453.12, and that is shown on page 12 of the printed opinion and order. Those three items make a total of $217,884.05 that was eliminated from the operating expenses of the company for the year 1931.

[fol. 38] Q. Now this elimination of $217,884.05 for the calendar year of 1931 represented an elimination of cash actually expended by the company?

A. Yes, it did. When I say cash actually expended, of course, on the cancelled and surrendered leases it was writing off of property that was paid for in cash.

Q. In respect of the gas wells, gas leaseholds, gas rights and other property in the Petrolia field which was eliminated by the Railroad Commission in its opinion and order, and in the amount of $687,781.13, did that figure represent an actual cash cost to the company for that property?

A. Yes, it did.

Q. Was all of that property used and useful in the public service operations of the Lone Star Gas Company as of December 31, 1931, as of the date of the hearing before the Railroad Commission of Texas, and as of September 13, 1933?

A. It was.

Q. Mr. Hulcy, what has been the experience of the company in relation to the trend of its gross and net revenues for the calendar years of 1931, 1932 and 1933?

A. The trend of both gross and net has been downward.

Q. Did you testify before the Railroad Commission of Texas in Gas Utilities Docket No. 75, relating to the actual gross and net revenues of the Lone Star Gas Company, arising from its public service operations for the calendar year of 1931, the calendar year of 1932 and the twelve months ended April 30, 1933?

[fol. 39] A. I did.

Q. And did the actual experience of the company for those accounting periods reflect a decline in both gross and net revenues?

A. Yes, they did.

Q. Mr. Hulcy, have you prepared an exhibit, using the revenues of the Lone Star Gas Company as adjusted by the Commission and the actual expenses of the company for the calendar year of 1932, giving effect to the application of the Commission's rate base and the Commission's depreciation allowance?

A. Yes.

Q. Have you also prepared an exhibit covering the 12 months period ended June 30, 1933, giving effect to the adjusted revenues based on the rate prescribed by the Commission of 32 cents, the actual operating expenses as reflected by the company's books, depreciation and depletion allowances as calculated by the Commission and the rate base as determined by the Commission?

A. Yes, I have; the one exhibit includes both of those accounting periods.

Q. It includes both accounting periods; and is this the exhibit which you have prepared?

A. Yes, it is.

Q. It being styled on the title cover, "Lone Star Gas Company, Public Service Operations; Statement of Revenues, Expenses and Amount Available for Return, based on 32 cent Domestic Gate Rate, Actual Operating Expenses [fol. 40] as reflected by Company's Books, Depreciation and Depletion Allowances calculated by Commission, Rate Base as determined by Commission, for Periods shown Below: Twelve months ended December 31, 1932, and twelve months ended June 30, 1933"?

A. It is.

Q. We offer the Exhibit and statement so identified by the witness in evidence.

* * * * * * *

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 4.)

* * * * * * *

[fol. 41] Q. Mr. Hulcy, have you prepared an exhibit, showing the revenues, expenses and amount available for depreciation and return on the cost of the public service property of the Lone Star Gas Company for the twelve months ended December 31, 1931?

A. Yes, I have.

Q. Is this the statement to which you refer, same being styled on the title cover, "Lone Star Gas Company, public service operations, amount available for depreciation and return on rate base for twelve months ended December 31, 1931"?

A. It is.

Q. We offer the statement so identified by the witness in evidence; and that would be, I assume, Exhibit No. 5.

(Thereupon, the document above referred to was marked as Defendant's Exhibit No. 5.)

Q. Mr. Hulcy, have you likewise prepared a statement in exhibit form, covering the revenues, expenses and amount available for depreciation and return on Lone Star Gas [fol. 42] Company's public service properties for the twelve months ended December 31, 1932?

A. I have.

Q. Is this the statement to which you refer, the same being styled on the title cover: "Lone Star Gas Company, public service operations, amount available for depreciation and return on rate base for twelve months ended December 31, 1932"?

A. It is.

Q. We offer the statement so identified by the witness in evidence. That will be Exhibit No. 6, I take it.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 6.)

Q. Mr. Hulcy, have you also prepared a statement in form for an exhibit to be presented in this case, covering the public service revenues, expenses and amount available for depreciation and return for the twelve months ended June 30, 1933?

A. Yes, I have.

Q. Is this the statement to which you have referred, the same being styled on the title cover, "Lone Star Gas Company, Public service operations, amount available for depreciation and return on rate base, for twelve months ended June 30, 1933"?

A. It is.

Q. We offer the statement so identified by the witness [fol. 43] in evidence; and I presume it will be No. 7.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 7.)

Q. Mr. Hulcy, it is noted in connection with Exhibits 5, 6 and 7 that as the so-called rate base you have used the actual cost of the public service properties, as reflected by the books, for the several periods?

A. Yes, I have.

Q. You are not standing sponsor for the adoption of the actual cost as reflected by the books, for a rate base?

A. No, sir.

Q. And you do not so intend in connection with this exhibit or similar exhibits for other accounting periods?

A. No, sir; this is merely the actual cost of the public service properties as reflected by the books of the company at the various dates stated.

Q. Have you prepared a statement of the public service revenues, expenses and amount available for depreciation and return on the Lone Star Gas Company's property for the twelve months ended December 31, 1933?

A. Yes, I have.

Q. Is this the statement you have prepared, being styled on the title cover, "Lone Star Gas Company, public service operations, amount available for depreciation and return [fol. 44] on rate base for twelve months ended December 31, 1933?

A. It is.

Q. We offer the statement so identified by the witness in evidence; and it will be No. 8, I believe.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 8.)

Q. Mr. Hulcy, have you prepared an accounting statement covering the revenues, expenses and amount available for depreciation and return on Lone Star Gas Company's public service property for the twelve months ended March 31, 1934?

A. Yes, I have.

Q. Is this the statement which you have prepared, the same being styled on the title cover, "Lone Star Gas Company, public service operations, amount available for depreciation and return on rate base for twelve months ended March 31, 1934"?

A. It is.

Q. We offer the statement so identified by the witness in evidence; and I presume it will be No. 9.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 9.)

Q. Mr. Hulcy, have you prepared a statement covering the public service revenues, expenses and amount avail-
[fol. 45] able for depreciation and return on Lone Star Gas Company's public service property for the twelve months ended April 30, 1934?

A. Yes, I have.

Q. Is this the statement to which you refer, the same being styled on the title cover, "Lone Star Gas Company, public service operations, amount available for depreciation and return on rate base, for twelve months ended April 30, 1934"?

A. It is.

Q. We offer in evidence the statement so identified by the witness.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 10.)

Q. Mr. Hulcy, have you prepared a statement covering the detail of the operating expenses of the Lone Star Gas Company for the calendar years of 1931, 1932 and 1933 and the twelve months ended March 31, 1934?

A. Yes, and in addition to that, also for the period the twelve months ended June 30, 1933, which is included.

Q. Is this the statement to which you refer, being styled on the title cover, "Lone Star Gas Company, Statement showing detail of operating expenses for periods shown below: Twelve months ended December 31, 1931; December 31, 1932; June 30, 1933; December 31, 1933; and March 31, 1934"?

A. It is.

[fols. 46-47] Q. We offer the statement so identified by the witness in evidence as Exhibit No. 11.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 11.)

Q. Mr. Hulcy, have you also prepared a statement showing the detail of the operating expenses of the Lone Star Gas Company in relation to its public service properties, for the twelve months ended April 30, 1934?

A. I have.

Q. Is this the statement to which you have referred, the same being styled on its title cover, "Lone Star Gas Company, statement showing detail of operating expenses, twelve months ended April 30, 1934?

A. It is.

Q. We offer the statement so identified by the witness in evidence, as Exhibit No. 12.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 12.)

* * * * * * *

[fol. 48] Q. Mr. Hulcy, have you prepared a detailed accounting exhibit giving effect to the several findings by the Commission—I refer to the Railroad Commission of Texas—in its order and opinion dated September 13, 1933, and based upon both the 40 and the 32-cent domestic gate rate?

A. Yes, sir; I have.

Q. Is this the statement or exhibit to which you refer, Mr. Hulcy, it being styled on the title cover, "Lone Star Gas Company, Public Service Operations. Accounting Schedules based on Findings by Railroad Commission of Texas and set out in their Opinion and Order dated September 13, 1933."?

A. It is.

Mr. Griffith: We offer the statement so identified by the witness in evidence.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 13.)

Q. Mr. Hulcy, have you prepared a statement of the revenues and expenses of the Lone Star Gas Company in relation to its public service property showing the revenues, expenses, and amount available for return, after giving effect to the 32-cent domestic gate rate prescribed by the order of the Railroad Commission of Texas, of date Sep-[fols. 49-50] tember 13, 1933, basing your calculations upon the Commission's rate base, the Commission's depreciation and depletion allowance, but with the actual operating expenses incurred by the Company for the accounting period ended April 30, 1934?

A. Yes, sir; I have; only the exhibit shows, in addition to the 32-cent gate rate, it also shows the 40-cent gate rate, on the rate base as determined by the Commission; and one other calculation to show the same information for a 32-cent gate rate, but the rate base being the actual cost of public service property as reflected by the books of the Company.

Q. Is this the statement concerning which you have just testified, it being styled on the title cover, "Lone Star Gas Company, Public Service Operations, Statement of Revenues, Expenses, and Amount Available for Return. Cal-

culations Based on Actual Operating Expenses as Reflected by Company's Books. Twelve Months Ended April 30th, 1934''?

A. It is.

Mr. Griffith: We offer the statement so identified by the witness in evidence.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 14.)

* * * * * * *

[fol. 51] Examination by Mr. Fitzhugh:

Q. Mr. Hulcy, where you have exhibits that purport to [fol. 52] show operating revenues or operating expenses for any period of time, does that cover the operations of the Company both in Oklahoma and in Texas?

A. Yes, sir; it does.

Q. And does it include also the operations of the Company both in intra-state and in interstate commerce, if there be any such operation?

A. Yes, sir; it does. It covers the entire operations of the Lone Star Gas Company's public service properties, and operations. There is no distinction made at all.

Q. And where you show a rate base in some instances, it is a rate base taken from the order of the Railroad Commission, is it not?

A. That is quite true, yes, sir.

Q. And in others, where you show a book cost, or the worth of property as of any particular date, as of the books, have you taken the figure for that date as it may have been introduced in evidence before the Commission at its hearing, or is that one that you have calculated or taken from the books for this hearing, and which has not appeared in the evidence heretofore?

A. No; I think the December 31, 1931 and the December 31, 1932 exhibits were sponsored by me in the prior or former hearing held before the Railroad Commission, and I think you will find the actual cost, as reflected by the books, of the public service property, to be the same in those exhibits, as well as these.

[fols. 53-54] Q. You have taken the costs as shown on the books without any corrections?

A. Yes, sir; without any corrections,—that is of the public service property.

Q. In no instances where you have taken the cost of the Company's properties as per the books will that book cost reflect any accrued depreciation that the properties have suffered?

A. No, sir; it does not. It is the cost to the Company as reflected by its books.

Q. And in no case would that cost as per the books be indicative of the present worth or fair value, as you understand that term ordinarily used?

A. No, sir; the only thing it reflects is the actual cost. I would like to correct the statement made to you, Mr. Fitzhugh, when you inquired about any depreciation deducted. Depreciation has been deducted with reference to automobiles and to drilling tools; they are shown on the statements as net.

Mr. Fitzhugh: That is all that I care to ask at this time, I believe.

* * * * * * *

[fol. 55] Mr. Fitzhugh: We object to the introduction of the Exhibit marked for identification "Number 4" for the reason that the Exhibit attempts to show Gross Revenues, and by deductions from Gross Revenues is meant Operating Expenses that include the whole operation of the Company, whereas part of the operations of the Company are certainly of business done wholly within the State of Oklahoma, which involves gas produced in Oklahoma and consumed in Oklahoma, whereas in this hearing we are concerned only with the property and business over which the State of Texas may properly assume jurisdiction, and over which the Railroad Commission can validly pass its order.

We object to the showing on the Exhibit of the amounts [fol. 56] available for depreciation and depletion, Federal income tax and return, for the same reasons, because that amount is derived from a study of the whole operations of the Company, rather than of the operations of which Texas has jurisdiction.

We object to the showing of amounts for depreciation and depletion because on inspection we find that those amounts are derived from the findings of the Railroad Commission, whereas the findings of the Railroad Com-

mission are not binding on anybody, or admissible in a hearing de novo for proving any facts.

We object to the showing of amounts available for Federal Income Tax for the same reasons.

We object to the amount shown as available for Return, for the same reasons.

We object to any inclusion in the Exhibit or showing made as to the Rate Base as set out in findings by the Railroad Commission, and the amount shown as rate of return based on that rate base, because that is simply an argument assuming as basic at that time the findings of the Railroad Commission, which are not binding in this procedure, which is a hearing de novo, and because such an argument is an attempt to make an argument from the witness-stand that should properly be made by the lawyers in the case at the conclusion of this trial.

We object to the whole exhibit, because the purpose of [fol. 57] the Exhibit is to argue from the findings of the Railroad Commission, rather than to introduce at this hearing, which is a hearing de novo, the true basic data upon which the Company relies in making out its case.

And we object for the further reason that the Exhibit is introduced for the purpose of showing conclusions and arguments as the compiler has reasoned them out from basic data which is improbable, inexact, and not binding on the plaintiffs.

The Court: * * * the objections are overruled, and the testimony is admitted in evidence.

Mr. Stout: Our objections to the entire business will be more or less the same, and if the Court overrules Number 4, it follows that the rest will be overruled.

The Court: You may have the same objections and exceptions to each of them.

* * * * * * *

[fol. 58] Mr. Fitzhugh: The plaintiffs object to the introduction of the Exhibit marked for identification purposes "Number 5", for all of the reasons stated heretofore in objecting to Exhibit No. 4, plus these additional reasons: That on the first page inside the cover-sheet of this Exhibit is shown an amount of $47,776,749.63, said to be the Rate Base, and that is marked as the "Actual Cost of Public Service Property as Reflected by Books"; whereas the cost as shown by the books could not possibly constitute a rate

base for any purpose, it being undepreciated, not representing fair value, and not being determinative of anything.

* * * * * * *

[fol. 59] Mr. Fitzhugh: This shows on its face that it has something in here that is not a fact and is misleading, in that it states a figure for a rate base which cannot be a rate base.

* * * * * * *

The Court: The objection is overruled.

Mr. Fitzhugh: We except. The same objections we made to Number 5, Your Honor, will go to all exhibits from 5 to 10 inclusive.

The Court: All right; the objections are overruled.

Mr. Fitzhugh: Particularly do we want to urge the objection to all these exhibits from 4 to 14 inclusive the fact that these exhibits contain the Operating Expenses and Operating Revenues for business done in the State of Oklahoma, [fol. 60] including the business done on gas produced solely in Oklahoma and consumed solely in Oklahoma.

* * * * * * *

Direct examination continued.

Questions by Mr. Griffith:

Q. Mr. Hulcy, will you please refer to Defendant's Exhibit No. 4?

A. Yes, sir.

[fol. 61] Q. Throughout Exhibits 4 to 14, which were introduced in evidence on yesterday, there appears the phrase "Public Service Operations." Will you please state to the Court and jury what you mean, intend, and understand by the term "Public Service Operations," or by the term "Public Service Business," in connection with your testimony in explanation of Defendant's Exhibits 4 to 14, inclusive?

A. In addition to the natural gas properties, which are dedicated to public use and public service by the Lone Star Gas Company, they also own and operate natural gasoline plants, and certain oil properties, which are not public service properties and operations, inasmuch as they are not dedicated to public service; and when we refer to "Public

Service Operations" and/or "Public Service Business" in any of these exhibits, or in testimony I am giving, I refer particularly to the natural gas properties which are dedicated to the use of and for public service.

Q. What is the primary business of the defendant Lone Star Gas Company?

A. The primary business of the defendant Lone Star Gas Company is the production, transmission, and sale of gas at wholesale to distribution companies located in certain cities and towns in the States of Oklahoma and Texas.

Q. In addition to its business of producing, purchasing, transporting, and selling at wholesale natural gas, is the Lone Star Gas Company engaged in the retail distribution of gas at any place?

[fol. 62-64] A. Yes, sir; they are at Fort Worth, Texas.

Q. What is the Fort Worth, Texas distribution plant commonly referred to as being?

A. It commonly is referred to as the Lone Star Gas Company, Fort Worth Division—a distribution system operated within that city.

Q. Did the Railroad Commission in its order and opinion, in evidence in this case, consider the property values, or the operating revenues or expenses of the Fort Worth Division?

A. They did not.

Q. The Railroad Commission in Gas Utilities Docket No. 75 was only concerned with the fixation of a rate for gas wholesale at the City gate?

A. That is correct.

Q. In your Exhibits Nos. 4 to 14, inclusive, have you given any consideration whatsoever to the public service properties, revenues, and expenses, of the Lone Star Gas Company in so far as the retail distribution of gas is concerned by the Fort Worth Division of the Company?

A. I have not.

* * * * * * *

[fol. 65] Q. Now, those gross revenues are what the revenues would have been for the twelve months period ended December 31, 1932, if the city gate rate of thirty-two cents for domestic gas as determined by the Railroad Commission had been in effect?

A. That is quite true, yes, sir. That is giving effect to the thirty-two cent domestic gate rate.

Q. What is included in Miscellaneous Operating Revenues?

A. Miscellaneous Operating Revenues is some gas that is handled by the Lone Star Gas Company in the West Texas field. That accounts for practically all of that.

Q. What are other Non-Operating Revenues?

A. Other Non-operating Revenues are rentals—principally that—and other miscellaneous income, less the miscellaneous non-operating deductions. The twelve thousand dollars shown is a net figure for that period, or, rather, the difference between the revenues and the expenses in connection with the non-operating section, and when I say "non-operating", that is other than the natural gas business, which would include rentals and charges and credits of that kind.

Q. Proceed, Mr. Hulcy, with an explanation of the deduction shown from gross revenues for the twelve months period ended December 31, 1932.

A. The deductions shown here—that is, from gross revenues—are the actual amounts as reflected by the company's books for this twelve months period, and as follows: Gas purchased, $1,177,334.48; that is the actual amount paid by the company during this accounting period for gas purchased from others. Production system expense in the [fol. 66] amount of $82,923.07; that is the cost to the company of operating its own production system property—that is, the gas wells, all expense in connection with them up to the point where the gas is delivered from the wells into the gathering system. The next item is gathering system expense in the amount of $135,110.30; that classification of expense covers all charges incurred by the company from the point of delivery at the mouth of the well until such time as it is turned into what we term the transmission lines; it covers the well lines going to the individual lines from the major transmission or major gathering lines. The next item being transmission system expense in the amount of $454,086.37; that amount covers the entire cost of operating the transmission system pipe lines from such point where the gas is received from the gathering system until it is finally delivered to a customer located along those lines or to a city distribution system. Compressor Station Expense——

Q. By the way, explain what a compressor station is, Mr. Hulcy, and its function.

A. A compressor station is a plant located in some cases in the field, in other cases along main lines. The operation of this plant is to pick gas up at a lower pressure and boost the pressure to where the gas would be carried along—that is, the transmission lines—at sufficient pressure to deliver it at far removed points. I am sure that this jury or all of us could understand that gas is delivered at vary-
[fol. 67] ing pressures; from some fields, perhaps the main transmission line passing near by carries a line pressure of 350 or 400 pounds; perhaps the pressure in that particular field from which we are taking gas—that is, the well pressure I mean—might be perhaps as low as one hundred pounds. Therefore, before we are able to take or withdraw any gas from that field it is necessary that it be picked up to a pressure equal to the main line pressure, else it could not feed into the line. Now, the Lone Star Gas Company operates—I have forgotten the exact number, but somewhere around twenty of those stations over its entire system, and this classification of expense covers all charges incurred in the operation of those compressor stations.

Q. For the twelve months period ended December 31, 1932, compressor station expense as reflected by Defendant's Exhibit 4 was what amount?

A. $358,402.61. The next item covers new business expense, in the amount of $87,528.94. New business expense covers the cost to the company of all advertising; it covers also the cost of the operation of our Industrial Gas Department, I might add in that connection that the Lone Star Gas Company does maintain an Industrial Department; their duties are in connection with industrial gas sales; their time is made available and they do work with all of the distribution companies to which Lone Star Gas Company sells gas, inasmuch as the Lone Star Gas Company participates in any sale that is made by any distribution
[fol. 68] company that receives its gas from the Lone Star Gas Company. Now, those two items—that is, advertising and the Industrial Gas Department—are the principal items appearing in this classification of expense, and, as stated before, in the amount of $87,528.94 for the twelve months ended December 31, 1932. The next item appearing as a deduction is General Expenses, in the amount of $940,748.36. This amount covers all of the charges incurred by the com-

pany for general administrative salaries, all other general salaries, general office rents, general office supplies and expenses, stationery and printing, regulatory commission expenses.

Q. What do you mean by "regulatory commission expenses", Mr. Hulcy?

A. Regulatory commission expenses cover expenses to the company in connection with hearings before any regulatory body, particularly with reference to rates.

Q. And would it cover the expense to which the company was put before the Railroad Commission of Texas in Gas Utilities Docket No. 75?

A. Yes, sir.

Q. Would it as well cover expenses in connection with this hearing?

A. Yes, sir; it does. In addition to the items that I have just mentioned, it also covers the cost of operating the company's telephone system. The Lone Star owns and operates a telephone system along almost all of its pipe line [fol. 69] system, that well attendants may report in to the central office concerning pressures, leakages, breaks in the line, and all those things, and the cost of operating that telephone system is a part of the general expense.

Q. The company is not engaged in the general telephone business, Mr. Hulcy?

A. No, sir; they are not.

Q. In other words, this telephone system is one used in connection with its own operations?

A. That is quite true, yes, sir. The next item appearing in the classified section deduction from gross revenue is Uncollectible Bills, in the amount of $5,399.35. Well, that is just some bills that we didn't collect, we failed to get our money from the sale of gas. The next item is Taxes, other than Federal, in the amount of $343,693.30. As stated, that amount covers all of the taxes paid by the company for this accounting period, other than Federal income taxes—that is, ad valorem taxes and any special taxes which we might have had to pay. The next item is Cancelled and Surrendered Leases, in the amount of $255,829.03. The Lone Star owns certain undeveloped leases; I mean by that prospective gas leases. Naturally, at different times certain of those leases are deemed to be perhaps worthless; that is by adjacent development work and other general information pertaining to that particular district in which the

leases are located, or else they expired by their own terms, [fol. 70] and it becomes necessary to cancel and surrender those particular leases, and this amount represents the actual number and amount of leases that were cancelled and surrendered and written off the books as an asset during this accounting period; I mean by that December 31, 1932.

Q. You said it represents the actual number of leases. You mean, rather, the actual cost of the leases as reflected by the books?

A. That is quite true, yes, sir. The actual number and cost, it would be.

Q. Making a total of deductions from gross revenues in the amount of $3,841,055.81. What amount do you show as available for depreciation, depletion, Federal income tax and return?

A. An amount of $3,670,206.69.

Q. Now, what do you mean by "depreciation", Mr. Hulcy, as used in Exhibits 4 to 14, inclusive?

A. Most all of my exhibits are carried as depreciation and depletion. Depreciation is intended to cover an amount that will take care of the actual cost of replacements necessary and that will write off the property or the asset covered and upon which depreciation is claimed over the estimated life of the particular property. The word "depletion" pertains and applies to gas reserves; I mean by that that when the company withdraws by production and uses the gas from the ground or from the reserve which is owned by the company, naturally that particular asset has suffered depletion, and the allowance made for that is to [fol. 71] write off from the expected period or life of such reserves an amount which will return to the company at the end of that period an amount equal to the cost of such reserves. I think generally, Mr. Griffith, that is about what I had in mind with reference to depreciation and depletion.

Q. Have you stated the amount that is available for depreciation, depletion, Federal income taxes and return for the period ended December 31, 1932?

A. Yes, sir; I stated that into the record, in the amount of $3,670,206.69.

Q. Now, you have deducted from that amount for depreciation and depletion $987,598.35?

A. Yes, sir; I have.

Q. Was that the actual amount which was set up on the company's books for debit and credit for the twelve months ended December 31, 1932?

A. No, sir; it is not.

Q. From what source have you taken the figure which you have used—that is the nine hundred and eighty-seven thousand dollars plus?

A. That amount is based on the findings by the Railroad Commission and as set out in their opinion and order dated September 13, 1933.

Q. After making the deduction for depreciation and depletion, what amount do you have available for Federal income tax and return?

A. $2,682,608.34.

Q. Now, the Federal income tax applicable to such an amount shows to be $208,202.84?

[fol. 72] A. Yes, sir; that is true.

Q. That is based upon what, Mr. Hulcy?

A. That is based upon the amount available for Federal income tax, less the total interest charges paid by the company for that particular period, the remainder being calculated at a rate of 13.75 per cent, which was the prevailing rate during the year 1932.

Q. And which would have been payable by the company, assuming that its income had been changed to the thirty-two cent rate prescribed by the Commission and to the depreciation and depletion allowance prescribed by the Commission?

A. Yes, sir; that is quite true. That is the calculated income tax based upon the amount of net earnings available for such purposes.

Q. Now, what was the amount available for return for the twelve months ended December 31, 1932, as shown by Exhibit 4?

A. The amount available for return was $2,474,405.50.

Q. The next item appearing here is that of rate base, in the amount of $46,520,137.06?

A. Yes, sir; that is correct.

Q. From what source did you get the rate base as used in this exhibit?

A. That is the amount found by the Commission—I mean by the Railroad Commission—at December 31, 1932, and as set out on page 79 of their printed opinion and order dated September 13, 1933.

Q. And which opinion and order is in evidence here, labeled Defendant's Exhibit 3?

A. Yes, sir; that is correct.

[fol. 73] Q. Now, Mr. Hulcy, having taken the rate base determined by the Commission, and the amount available for return, what per cent do we find is available for return on the rate base so determined by the Commission for the twelve months ended December 31, 1931?

A. 5.32 per cent.

Q. Now, Mr. Hulcy, without going into detail on page 2 of Defendant's Exhibit 4, relative to the twelve months period ended June 30, 1933, I will ask you whether all of the explanations which you have given in respect to the several operating expenses, the gross revenues, and so forth, of the Company, would be equally applicable to the twelve months period ended June 30, 1933.

A. Yes, sir, they would, with the exception of the depreciation and depletion allowances. In the statement covering twelve months ended December 31, 1932, the Railroad Commission made specific allowances as at that date, or for this accounting period, and they are the exact amounts used in this exhibit for the year 1932. However, for the twelve months ended June. Following their same method of determining the rate base which was used here, we do find an amount for depreciation which is not exactly the same figure as quoted by the Commission, but does follow their procedure all the way through. I thought it well to make that explanation.

Q. For the twelve months ended June 30, 1933, applying the amount available for return to the rate base as deter-

[fol. 74] mined by the Commission, what does your Exhibit 4 reflect as the amount available for return for that period?

A. The amount available for return?

Q. Expressed as a percentage.

A. 5.01 per cent.

Q. Now, Mr. Hulcy, please refer to Defendant's Exhibit 5.

A. All right.

Q. Inside the title cover of Defendant's Exhibit 5 do you show a summary of this exhibit?

A. I do.

Q. By the heading "Rate Base" you are not adopting the figure of $47,776,749.63 actually as a rate base.

A. No, sir, I am just quoting that amount as being the

actual cost of the Public Service Property as reflected by the Company's books at December 31, 1931.

Q. Now, Mr. Hulcy, on the last page of Defendant's Exhibit 5 do you show a detail of the actual cost of the Public Service Property of the Lone Star Gas Company as reflected by its books at December 31, 1931?

A. Yes, sir, I do.

Q. Will you please explain that in detail—the classifications of property appearing upon that page?

A. The property—that is, the Public Service Property owned and operated by Lone Star Gas Company at December 31, 1931, is classified on this page, and is shown as follows: Undistributed Intangible Property in the amount of $6,338,000.00, which is shown as Investment Per Books. [fol. 75] The next column, having the heading of Completed Construction; the third money column, being the total of columns Nos. 1 and 2, for the total of the Undistributed Intangible Property, is brought over to the Total column in the amount of $6,338,000.00. The fourth money column, being headed Revaluation. By that I mean the result of an appraisal that was made of the Public Service Properties of the Lone Star Gas Company, the results of which were placed on the Company's books; however, set out so that there never would be any question on how much that sum amounted to—or, in other words, that we would not ever get any revaluation mixed up with the actual cash cost of the property. So for the reason or for the purpose of preparing this exhibit, which was to arrive at the actual cost as reflected by the books at December 31, 1931, we set out the revaluation and deducted it from the total, therefore,—the difference being the actual cost as at that date. So in the matter of the Undistributed Intangible Capital which was set out from the appraisal, the entire amount is deducted, and leaves nothing at December 31, 1931, as represented by actual cost. The next property account being Production System Property—Gas; Gas Leases, Rights, and Lands in Fee, shown in the amount of $1,369,744.17. The next column covering Completed Construction—by that we mean that certain leases had been purchased during the month of [fol. 76] December which had not been closed from the job order or authorization account into the permanent lease investment. So, in order that we may have the total investment for that classification of property at December 31, 1931, that amount is added to the amount carried in the

permanent investment account, making a total of $1,388,-907.88. There is no deduction for revaluation, for the reason that any revaluation was not set up against leases. Therefore, the total amount being the actual cash cost to the Company, and is so reflected in the last column appearing on the sheet. The next item is Gas Farms. By that we mean gas producing leaseholds, which includes the cost of the lease and the cost of the wells located thereon which have been charged to the Investment Account. The ledger or investment records show an amount of $5,127,856.43. Likewise, there was an amount of $5,681.80 in the construction ledgers as at that date, or making a total investment as reflected by the books of $5,133,538.23. However, included in that amount was $1,632,694.87, which was revaluation, or the effect given to an appraisal which had been set up. That amount, when deducted from the total investment, leaves $3,500,843.36 as representing the actual cash cost to the Company and as reflected by its books at December 31, 1931.

The Court: Now, Mr. Witness, I would like to ask you a question right here.

A. Yes, sir.

[fol. 77] The Court: As I understand your testimony, the difference between these two items you have just testified about is where you show gas leases, rights and lands, in fact, that is stuff that is not now producing gas, or was not at the time?

A. At December 31st, that is the date given there.

The Court: Gas Farms is those leases, and so forth, on which or which were at that time actually producing gas?

A. Yes, sir.

The Court: All right.

A. Yes, sir, that is the division between the two.

Mr. Griffith:

Q. In other words, one might be styled "Developed" and the other "Undeveloped"?

A. Yes, sir; yes, sir. The Total of the Production System Property—Gas, at December 31, 1931, reflected by its books, is $6,497,600.60; Completed Construction of $24,845.51, or a Total Investment, as reflected by the books at December 31st, of $6,533,446.11; and included in that amount is $1,632,-695.87, covering Revaluation, or the results of an appraisal, leaving for Production System Property, $4,889,751.24, as being the actual cash cost to the Company, and as reflected

by its books at December 31, 1931. The next classification of property is shown as Gathering and Transmission System Property. The Investment records reflected at December 31, 1931, a total amount of $50,233,511.94, and as Com-
[fol. 78] pleted Construction for that classification of property $31,516.13, or a total of $50,265,028.07. The statement also shows Revaluation in the amount of $13,848,567.57; and that amount, when deducted from the total investment as shown by the books, leaves $36,416,460.50 as being the actual cash cost to the Company, and reflected by its books at December 31, 1931. The next classification of property is Compressor Station Property, a Total Investment in the amount of $6,569,248.10, and in Completed Construction account $1,661.61, making a total of $6,570,909.71; and Revaluation in the amount of $1,509,894.51; and that amount deducted from the Total Investment leaves $5,061,015.20 as being the actual cost reflected by the Company's books at December 31, 1931. And under the general heading of Other Public Service Property we find the following investments: Automotive Equipment—Net. It might be well to explain just what we mean by "Net". Automobiles, of which the Lone Star Gas Company owns and operates quite a number of them, are handled through the records of the Company just as if they belonged to an outsider, and they are handled on a per diem rate—that is, for the use of such automobiles so much per day or so much per mile. We found that it was absolutely necessary to do that in order that we did not have great differences in charges made for the same class of work. We used to pro rate the total expense of each particular automobile over the amount of work actual- performed by
[fol. 79] that particular automobile in one month. In some cases we had an automobile that had been placed in the shop for general repairs. Perhaps it was only operated for four or five days. The cost of making those repairs to the automobile perhaps was a hundred dollars. Well, when we would pro rate that, that amount over the work actually performed, very likely it resulted in a per diem charge of twenty to twenty-five dollars a day; well, the following month the automobile was in good shape, the only expense incurred was the gasoline and oil. Perhaps it worked a full thirty days and with a total charge of sixty dollars for the month, which resulted in a charge of two dollars a day for the same class of work that the job last month stood twenty-five dollars a day for. So now we handle our automobiles, as I say,

on a per diem basis—that is, that the same charge is made every day, regardless of how much the expense amounts to. The depreciation on the automobiles is included in and made a part of this per diem charge. So it means that in so far as the depreciation actually incurred and charged out on these particular automobiles has actually been charged to operating expenses, or to other investment accounts, all depending upon which service the automobile was used for. So, inasmuch as that has been done, it is only right that the total automotive equipment be shown and the net depreciation reserve deducted from that amount; and that is what I mean when I quote the net figure, which is the gross invest-
[fols. 80-83] ment less the accrued depreciation. That amount is shown to be $212,371.61. Also, in the Completed Construction account there was an item of $2,317.00 that covered the cost of automobiles which had been paid for but which had not been transferred to the permanent automobile investment account, making a total of $214,688,61; that amount includes $124,838.78 which was set up as a Revaluation, and that amount, when deducted from the Total Investment, leaves a depreciated value of automobiles of $89,849.83 at December 31, 1931. The next item of property is shown as the Dallas Machine Shop. That is a general shop that is owned and operated by the Company, and located in Dallas, and it performs work for the entire system; that amount being $182,326.48; there being no Completed Construction, that amount is carried forward to the Total column. However, included in that amount is $43,951.37 of Revaluation which has been placed on the books as the result of an appraisal that has been made.

* * * * * * *

A. The Revaluation when deducted from the Total Investment leaves $138,375.11 as being the actual cost to the Company and reflected by its books at December 31, 1931.

* * * * * * *

[fol. 84] A. The next item appearing under the section of other public service property is drill tools, net. The same explanation that I made with reference to the automotive equipment net—that is the cost less the accrued depreciation, applies to the drill tools. That amount is $43,-489.11. There being no drill tools in the completed con-

struction account, that amount is carried forward to the total column in the same amount. There being no revalua-
[fol. 85] tion set up on the books, the $43,489.11 is shown as being the actual cost to the company less the accrued depreciation at December 31, 1931.

The next item is gas connections, in the amount of $15,-050.78. Gas connections covers the property used by the company in making sales along its main lines, that is meters and connections and other equipment used for rendering service to main line consumers. That amount also carries forward across the entire page and is the actual cost as reflected by the company's books at December 31, 1931, of that class of investment.

The next item is general office building and equipment in the amount of $611,234.02. There being no completed construction at December 31, 1931, for that classification of investment, the total amount is carried forward to the total column in the same amount. However, that amount does include as revaluation $142,461.23 and when deducted from the total leaves $468,772.79 as being the cost to the company and reflected by its books at December 31, 1931.

The next item, being general office furniture and fixtures in the amount of $261,104.71; there being no completed construction at December 31, 1931, that amount is carried to the total column in the same amount. However, that total does include $62,696.70 of revaluation which was set up as a result of an appraisal, and that amount when deducted from the total leaves $198,408.01 as being the actual cash cost
[fol. 86] reflected by the company's books at December 31, 1931.

The next item, being real estate, in the amount of $161,-577.90; that amount is carried to the total column. However, included in that amount is $79,449.47 styled revaluation and that amount when deducted from the total leaves $82,128.43 as representing the actual cash cost to the company and reflected by its books at December 31, 1931.

The next item being telegraph and telephone system, in the amount of $987,570.72, that amount being shown in the third column, or the total column. Included in that amount is $626,729.49 of revaluation and that amount when deducted from the total leaves $360,841.23 as being the actual cash cost to the company and as reflected by its books at December 31, 1931.

The next item being tools and construction equipment in the amount of $12,607.40; there being no completed construction and no revaluation set up against that particular class of asset, that amount is shown in the last column which is the cost to the company at December 31, 1931, and as reflected by its books at that date.

The total of the Other Public Service Property, being the investment as per the books, of $2,487,332.73; the total for completed construction being $2,317.00; and the total of the first two columns being $2,489,649.73. The total revaluation for that particular classification of assets being $1,080,127.04, and that amount when deducted from the total leaves $1,409,522.69 as being the actual cash cost as re- [fols. 87-88] flected by the company's books at December 31, 1931. Then the grand total of the public service property at December 31, 1931, is shown, investment per books, of $72,125,693.37. The total of completed construction in the amount of $60,340.25. The total of the first two columns being $72,186,033.62, and included in that amount and carried as revaluation is $24,409,283.99 and that amount when deducted from the total leaves $47,776,749.63 as being the actual cash cost of the public service property of Lone Star Gas Company at December 31, 1931, reflected by its books as at that date.

Mr. Griffith: And which figure is carried forward to the summary on page 2 of Defendant's Exhibit 5?

A. Yes, that is correct. It is carried forward in the total amount.

* * * * * * *

[fol. 89] Q. Now, Mr. Hulcy, refer to the page of Defendant's Exhibit 5 where you show the revenues, expenses and amount available for depreciation and return for the twelve months ended December 31, 1931—and gentlemen of the jury—this is the third sheet of this exhibit, counting the title cover.

* * * * * * *

Q. Yes. Now do you on that page show the actual operating revenues of the Lone Star Gas Company for the twelve months ended December 31, 1931?

A. I do, sir.

Q. That is true, both in relation to gas sales and miscellaneous operating revenues?

A. Yes.

Q. And showing a total of operating revenues of $9,267,270.80?

A. That is correct.

Q. That is based upon the collection by Lone Star Gas Company of 40 cents for domestic gas wholesale at the city gate?

A. That is true.

Q. In other words, it is based upon what the company actually did?

A. That is right.

Q. And without reference to what the Railroad Commis-
[fol. 90] sion prescribed in respect of the 32 cent rate?

A. This statement has no reference at all to any findings by the Railroad Commission, either with reference to gas sales or to operating expenses. It is the actual revenues and the actual expenses, as reflected by the Company's books.

Q. Give a brief explanation of the figures appearing on that page relating to operating expenses, operating earnings, non-operating revenues, gross income, non-operating income deductions, federal income tax and amount available for depreciation and return.

A. Operating expenses are shown in the total amount of $4,394,710.63, and covers gas purchased, production system expense, gathering system expense, transmission system expense, compressor station expense, new business expense, general expense, uncollectible bills, taxes other than federal, and cancelled and surrendered leases, all of those items making a total in the amount I have just quoted. That amount when deducted from the total operating revenues leaves as operating earnings $4,872,560.17. Non-operating revenue for that accounting period, which is made up largely of rentals and other like items, amounting to $35,464.07, leaving as gross income $4,908,024.24, and shown under non-operating revenue deductions is an allowance for federal income tax, this amount being a calculation at the prevailing rate, which was 12 per cent of the net profit after depreciation, in the amount of $302,302.41. That amount when deducted from the gross income leaves an
[fol. 91] amount of $4,605,721.83, as being available for

both depreciation and return, and that amount is transferred to the second sheet in the exhibit, or summary sheet.

* * * * * * *

Mr. Griffith:

Q. Now Mr. Hulcy, in connection with your explanation of Defendant's Exhibit 4, you said that you computed income tax for the calendar year of 1932 and for the twelve months ended June 30, 1933, at the rate of 13¾ per cent?

A. Yes, I did.

Q. And you have now testified that in connection with your Exhibit 5 you calculated the federal income tax on the basis of 12 per cent?

[fols. 92-93] A. Yes, that is correct.

Q. I will ask you if Congress increased the federal income tax from 12 per cent to 13¾ per cent?

A. Yes, they did, and that was effective as of January 1, 1932.

Q. And is it still in effect?

A. Yes, it is.

* * * * * * *

[fol. 94] Q. Mr. Hulcy, referring to the second page of Exhibit 6, we find a Summary of the Exhibit showing the actual operations of the Lone Star Gas Company in relation to its public service business for the twelve months ended December 31, 1932?

A. Yes, sir; we do, in the amount of $4,658,506.48.

Q. Now, the actual cost of the public service property of the Company as reflected by its books as of December 31, 1932 was what figure?

A. $50,034,431.70.

Q. In the same manner that you set out the Investment per Books, Completed Construction, Revaluation, and Cost in your Exhibit No. 5, do you set out the public service property at the close of this Exhibit?

A. Yes, sir; I did.

Q. Now, it would appear from an examination of Defendant's Exhibit No. 5, and at the same time from an examination of Defendant's Exhibit No. 6, that the cost of the public service property had increased at December 31, 1932 over the cost of December 31, 1931?

A. Yes, sir; that is correct.

Q. To what is that increase in cost due?

A. The increase in cost is due to added property. The added property is made up largely of the property acquired [fol. 95] by the Lone Star Gas Company as of January 1, 1932 from the Meridian Gas Company, which included gas producing properties, gathering system properties, transmission system properties, and some telephone lines, in the amount of $1,338,406.21. Also, as of October 1, 1932, the Lone Star Gas Company acquired from the Southern Oil Production Company in the West Texas area certain production system properties, gathering system properties, and transmission system properties, all totaling $966,600.11; the total of those being $2,305,006.37. The actual net additions to the property for the year 1932 was $2,257,682.07. Thereby we see that approximately $50,000.00 of other property was written off during that period.

Q. In other words, property that had worn out, been retired, or junked?

A. And leases written off, or something of that kind and character.

Q. If you refer to page 2 of Defendant's Exhibit No. 6 what is the per cent relation of the amount available for depreciation and return to the actual cost of the public service property for the twelve months ended December 31, 1932?

A. 9.31 per cent.

Q. Now, Mr. Hulcy, all of the explanation which you have given in respect of Defendant's Exhibit No. 5 is equally applicable to Defendant's Exhibit No. 6, except that De- [fol. 96] fendant's Exhibit 6 covers operations for the year 1932, whereas Defendant's Exhibit 5 covers operations for the year 1931?

A. That is correct. In all other respects they are the same.

* * * * * * *

Q. Refer, please, to Defendant's Exhibit No. 7, Mr. Hulcy, and give a brief explanation thereof.

A. Exhibit 7 covers Public Service Operations of the Lone Star Gas Company, and sets out the amount Available for Depreciation and Return for the Twelve Months Ended June 30, 1933. The third and fourth pages of this exhibit have been prepared in exactly the same manner as

Exhibits Numbers 5 and 6, with the exception that Exhibit No. 7 covers the Twelve Months period ended June 30, 1933. The results of pages 3 and 4 have been brought forward to the Summary Sheet, which is page Number 2 of the Exhibit, and shows the following: That the actual cost of Public Service Property as reflected by the books at June 30, 1933 was $49,923,137.26; and the amount Available for Depreciation and Return, as shown on page 3 of the Exhibit, has likewise been transferred to the summary sheet, which is page 2, in the amount of $4,491,825.60; and the Amount Available for Depreciation and Return, when expressed as a Percentage of the Actual Cost of Public Service Prop-
[fol. 97] erty is 8.99 per cent.

Q. Mr. Hulcy, it would appear from looking at the last page of Defendant's Exhibit No. 7 that the Cost of the Public Service Property is $49,923,137.26 at June 30, 1933, whereas the Cost at December 31, 1932, as reflected by the last page of Defendant's Exhibit No. 6 was $50,034,431.70?

A. Yes, sir; that is true.

Q. Why that difference, Mr. Hulcy?

A. That difference is caused from the writing off of property that had become worn out, or no longer used or useful in the public service operations of the Company.

Q. As a matter of fact, will the books reflect a change in the actual cost of the Company's Public Service Property from day to day and from month to month, as property is purchased or retired from service?

A. That is quite true.

Q. Refer please, Mr. Hulcy, to Defendant's Exhibit Number 8——

A. Yes, sir.

Q. —which you identified on yesterday. Please give a brief explanation thereof.

A. Exhibit 8 is a statement of the Revenues, Expenses, and Amount Available for Depreciation and Return for the Twelve Months Ended December 31, 1933; and also shows the Actual Cost as Reflected by the Company Books as of December 31, 1933 of its Public Service Property. I might add that this Exhibit has been prepared in exactly the
[fol. 98] same manner as the Exhibits Numbers 6 and 7, with the exception that this Exhibit covers the Twelve Months Period Ended December 31, 1933.

* * * * * * * *

[fol. 99] Q. Mr. Hulcy, please refer to Defendant's Exhibit Number 9?

A. Yes, sir.

Q. Which was identified by you and introduced in evidence on yesterday, and give a brief explanation thereof.

A. Exhibit Number 9 has been prepared in the same manner as Exhibits Nos. 5, 6, 7, and 8, with the exception that this Exhibit covers a different accounting period from any of the other exhibits. The period covered by this exhibit is for the twelve months ended March 31, 1934. The third page in the exhibit sets out in detail the amount of Revenues, the Expenses, and finally shows the Amount Available for Depreciation and Return for this twelve [fol. 100] months period. Page 4 in the exhibit also shows in detail the Actual Cost of the Public Service Property of the Lone Star Gas Company at March 31, 1934. The amount shown on page 4 has been transferred and brought forward to the second page in the exhibit, which is the summary page, and shows the actual cost of the Public Service Property as reflected by the books of the Company at March 31, 1934, to be $49,872,761.09. The amount shown on the third page of the exhibit as being available for Depreciation and Return has been transferred and brought forward to the summary sheet in the amount of $4,120,-143.52. The summary sheet further shows that the amount available for both Depreciation and Return, when expressed as a percentage of the rate base is 8.26 per cent.

Q. And all the detail explanation that you have given in relation to Exhibits 5, 6, 7, and 8 is equally applicable to Defendant's Exhibit No. 9?

A. That is correct.

* * * * * * *

Q. Mr. Hulcy, please refer to Defendant's Exhibit Number 10, and give a brief explanation of that?

A. Exhibit Ten shows the actual cost of the Public Serv-[fols. 101-102] ice Property of the Lone Star Gas Company at April 30, 1934 as reflected by its books; also shows in some detail the Operating Revenues and Operating Expenses of the Company for the twelve months period ended April 30, 1934. This exhibit has been prepared in the same manner as Exhibits Numbers 5 to 9 inclusive, with the

exception that it covers a different accounting period. Page 4 in the Exhibit shows the cost in detail of the Public Service Property at April 30, 1934, in the amount of $49,858,751.23. This amount has been brought forward to the second page in the exhibit, which is the summary page. The third page in the exhibit shows the Operating Revenues, the Operating Expenses, and the Amount Available for Depreciation and Return in the amount of $4,114,322.81. This amount has likewise been brought forward to the summary sheet in the exhibit. The amount Available for Depreciation and Return when expressed as a percentage of the cost of the Public Service Property is shown to be 8.25 per cent.

* * * * * * *

[fol. 103] Q. Mr. Hulcy, please refer to Defendants' Exhibit 11 and give a brief explanation of the contents of that exhibit.

A. Exhibit 11 is a detailed statement of operating expenses for the periods shown, which are for the twelve months ended December 31, 1931, for the twelve months ended December 31, 1932, for the twelve months ended June 30, 1933, for the twelve months ended December 31, 1933, and for the twelve months ended March 31, 1934, or, in other words, it is the detail of the operating expenses shown on Exhibits Numbers 5, 6, 7, 8 and 9. The exhibit shows the several classifications of operating expenses by detailed account numbers, and they are divided as follows: The production system expense. Now, this classification of expense represents all of the expenses incurred by the company in connection with the production of its own gas.

Q. Mr. Hulcy, please explain what you mean by the account numbers, which appear to be, starting with the second page, of Defendants' Exhibit 11, Numbers 306, 312, 313, etc.

A. The uniform classification of accounts used by Lone Star Gas Company uses account numbers in addition to the description of the account, so that any time we are talking about Account No. 306 we know just exactly what it covers without having to go back to the description of the account. Distribution of charges by distribution clerks are made to account numbers rather than to description of accounts, and these numbers are set out in the uniform classification of accounts used by the company, and it is

for a matter of reference. After production system ex-
[fol. 104] pense is shown the gathering system expense, divided between operation and maintenance, the operations being broken down over some ten or twelve accounts, the maintenance accounts being broken down over some six or eight accounts, and the total for both the operations and maintenance, as well as the total for the gathering system expense, is shown for each of the twelve month periods covered by the exhibit. Next is shown transmission system expense, divided between operation and maintenance, the operation being further broken down over some ten or twelve accounts and the maintenance likewise being broken down by six or eight accounts. The second page of the exhibit——

Q. Do you count the title page?

A. Yes; this is the third page, the title page being page No. 1. The third page in the exhibit sets out in detail compressor station expense, divided between operation and maintenance, and each of these divisions being further broken down over several accounts. The next classification of expense shown is new business expense, which is divided over some five accounts. The next classification of expense shown is the general expense, which covers the administrative salaries, legal expenses, miscellaneous office expenses, operation and maintenance of the telephone system, all insurance expense, all regulatory commission expense, etc. Then the total of the operating expenses for each of these accounting periods is shown, which is the total of the production system expense, gathering system expense, transmission system expense, compressor station
[fol. 105] expense, new business expense, and general expense, and the amount shown for each classification of expense ties in and is a breakdown of the amount shown for the particular classification of expense in Exhibits Numbers 5 to 9, inclusive.

The Court: Mr. Witness, this Exhibit No. 11, as to the amounts you show there all the way through, is your testimony the same as to the other—you have taken the items from the books of the company?

A. Yes, sir; that is quite correct.

Q. In other words, the breakdown or detail of operating expenses as set forth in Defendant's Exhibit 11 is the actual cash expenses of the company for the several items therein enumerated?

A. Yes, sir. Now, that applies to everything with the exception of one account that I can think of right at this time; that is Account No. 461, Management Fees and Expenses. Management Fees are accrued on the books for the current month, based on revenues for the preceding month, but in order that it might tie in exactly with the contract an adjustment was made bringing it down to the particular twelve months covered by the exhibit, and with that exception it is as stated on the books.

Q. Mr. Hulcy, please refer to Defendant's Exhibit 12 and give a brief explanation of that exhibit.

A. Exhibit 12 is prepared in the same manner.

* * * * * * *

[fol. 106] A. Exhibit 12 is prepared in the same manner as Exhibit No. 11. Exhibit No. 11 was a detail of operating expenses as shown on Exhibits Numbers 5 to 9, inclusive. Exhibit No. 10 was a statement of operating revenues and expenses for the twelve months ended April 30, 1934, and Defendant's Exhibit No. 12 is a detail of the operating expenses shown in that exhibit and, as stated before, is prepared in the same manner as Exhibit No. 11.

Q. The only difference being that it covers a different accounting period of twelve months?

A. Yes, sir; that is correct.

Q. And it does reflect the actual operating expenses of the Lone Star Gas Company for the twelve month period ended April 30, 1934?

A. That is correct.

Q. Mr. Hulcy, in your several exhibits labeled here Defendant's Exhibits 5 to 10, inclusive, you have shown the cost of the public service property of the Lone Star Gas Company, exclusive of the Fort Worth division, to be in round figures fifty million dollars?

A. That is correct.

Q. Mr. Hulcy, what has been the general policy of the company in connection with the capitalization of general and undistributed costs?

A. The policy of the company up until 1928 or 1929 was not to capitalize any of the so-called overheads or undistributed general costs; they were all charged to operating expenses, with the exception of, I believe, in the year 1920 some ninety thousand dollars was capitalized as interest [fol. 107] during construction. With the one exception,

I believe about the first overhead setup was either in 1928 or in 1927.

Q. Now, to get at this matter, possibly you had better define what you mean by general or undistributed cost and general overhead cost.

A. I have particular reference to interest during construction, administrative and legal expenses during construction, taxes during construction, engineering expenses during construction. Included in the administrative and legal expenses is the clerical expense in connection with the ordering of materials, the handling of invoices through the records during the construction period, the handling of the accounts through the Accounting Department, through the Treasury Department, the preparation of the vouchers covering materials, the handling of the vouchers, the writing of the checks, the posting to the construction job orders numbers, the checking of job orders against the engineering records, the reconciliation of those two records, and the proper classification to the permanent investment accounts. Those are all of the general things to which I have specific and particular reference. In addition to that, of course, legal expenses which would be incurred in connection with the right of way, perhaps condemnations, and any other legal ends that might come about through a construction program. Prior to 1927 we did not—and when I say "we" I mean the Lone Star Gas Company, by whom I am employed —did not capitalize or set up as a part of the property account [fols. 108-110] those costs which were actually incurred. With the exception of the year 1920, the Lone Star Gas Company did not set up and capitalize as a part of the costs of any construction the amount of interest during the construction period and prior to the turning over ready for operation.

* * * * * * *

[fol. 111] Q. Now, Mr. Hulcy, in connection with the Lone Star Gas Company, you say that up until 1927 or '28 it was not the general policy of the Company to capitalize these general overhead and construction costs?

A. No, sir, it was not.

Q. They were all charged to operating expense.

A. That is correct.

Q. Was a very substantial part of the Lone Star Gas Company property constructed prior to 1927 and '28?

A. Yes, sir, it was.

Q. When did the Lone Star Gas Company commence business?

A. In 1909.

Q. So from 1909 to 1927 or '28, a period of eighteen or nineteen years, the Company did not capitalize the general overhead and construction costs?

A. No, with the exception of the $90,000.00 of interest during construction capitalized in 1920.

Q. In your opinion as an accountant, to the extent that the Company failed to capitalize general overhead and construction costs, do the books of the Company understate the actual cost of the Lone Star Gas Company's public service property?

[fol. 112] A. Yes, sir, the books do understate the actual cost of the public service property, for the reason that a part of the actual cost of the property was charged to operating expenses during the years prior to 1927.

Q. How much, in amount, of general and undistributed construction costs has been capitalized by Lone Star Gas Company and is reflected by its books?

A. On December 31, 1933, there has been capitalized as of the public service property of the Lone Star Gas Company the sum of $739,958.75, that being made up of interest during construction and other general overheads during construction.

Q. In your opinion, Mr. Hulcy, were all of the items of general and overhead construction costs which were capitalized, properly capitalized and set up as a part of the cost of the property?

A. Yes, sir, they certainly were; such amounts as were capitalized were a part of the actual cost to the Company, and properly so reflected.

Q. From you own experience in connection with the construction of large natural gas projects, do you believe that the amount of capitalized general and undistributed costs set up on the Lone Star Gas Company books at December 31, 1933, represented all of the costs which should properly have been capitalized in that connection?

A. No, sir, they do not.

[fol. 113] Q. What was the general policy of the Company in connection with the capitalization of the drilling cost of wells?

A. Prior to 1929, I believe it was the policy of the Com-

pany in the drilling of gas wells, regardless of whether they were producers or dry holes, to charge all of the development cost direct to operating expenses, and charging to the investment account only the cost of the leasehold, and the actual cost of the materials left in the hole to the permanent investment account, the remainder of the cost being charged to operating expenses.

Q. In other words, if the Company drilled a gas well producing ten million cubic feet of gas per day, the Company did not capitalize the direct cost or the actual drilling cost on that well?

A. No, sir, they did not; only the actual cost of the materials that were left in the hole.

Q. Now, prior to 1929 when the Company began the capitalization of those costs of drilling wells, had the Company drilled a great many wells, and which wells are in service as of this date?

A. Yes, sir, they had.

Q. To the extent that the Company failed to capitalize prior to 1929 the cost of drilling wells, do the books of the Company understate the actual cost of the Company's public service property?

A. Yes, sir, they do.

[fols. 114-116] Q. What was the general policy of the Company in respect of the capitalization of the cost of construction of field wells?

A. They had the same. Prior to 1929 the policies with reference to well lines were the same as their policy concerning the drilling of wells. I mean if we laid a well line to a certain well, the costs were calculated or kept covering the labor and materials and so forth that went into the cost of that particular well line; that all of the charges covering everything with the exception of materials that were actually left in the line were charged to operating expenses, and the materials only being carried to and placed in the investment account.

Q. Well, to the extent that the Company failed to capitalize the actual construction costs on field lines, do the books of the Company again understate the actual cost of the public service property as of this date, or as of any date covered by your exhibits 5 to 10, inclusive?

A. Yes, sir.

Q. Mr. Hulcy, will you please refer to Defendant's Exhibit 13?

A. Yes, sir.

* * * * * * *

[fol. 117] Q. Mr. Hulcy, Sections 1 and 2 of Defendant's Exhibit 13 are based upon the application of the 40 cent gate rate?

A. Yes, sir, they are.

Q. Which the Company actually has been charging?

A. That is correct.

Q. But using the Commission's rate base and the Commission's depreciation and depletion allowances and the Commission's adjustment of operating expenses, as set forth in its Opinion and Order of date September 13, 1933?

A. Yes, sir, that is correct; Section No. 2, of course, does that, but it takes the Commission's rate base as a starting point, and adds the actual cost of any additions.

Q. Now, in contrast to Sections 1 and 2, Sections 3 and 4 of the report are predicated upon giving effect to the 32 cent city gate rate as determined by the Commission in its Opinion and Order of date September 13, 1933, but using the Commission's adjusted operating expenses, the Commission's rate base, plus net additions, in the case of Section 4, and the Commission's determination of a proper depreciation and depletion allowance?

A. That is correct.

Q. And on Section 5, the last page—found on the last page of the index you give a summary of the adjustments determined by the Commission and a summary of all other [fol. 118] adjustments?

A. Yes, sir.

Q. And a summary of all adjustments in respect of gas purchased and other operating expenses?

A. Yes, sir, each of the adjustments applying to the several items listed or shown in detail on the pages.

Q. And when you got to those adjustments, Mr. Hulcy, in connection with your testimony relating to Exhibit 13, have you endeavored to set out the exact page of the Commission's Opinion and Order whereon the adjustments are shown?

A. Yes, sir, I have.

Q. Now, Mr. Hulcy, please refer to Section No. 1, on page 3, of Exhibit 13.

A. Yes, sir.

Q. As previously testified, all gas sales are upon the basis of the Company's actual collections at the 40 cent rate?

A. Yes, sir, that is true.

Q. The rate base, operating expenses, and depreciation and depletion are as determined by the Commission?

A. That is correct.

Q. And the Federal Income Tax is based on the amount available for return, less the interest charges paid by the Company?

A. That is correct.

Q. And at the rate applicable for the period in question?

A. That is correct.

[fol. 119] Q. Now, refer please, to page 4, Mr. Hulcy. Is that a summary of your determinations for the same five accounting periods of twelve months each?

A. Yes, sir, it is.

Q. On page 5 of the exhibit do we find a detail of your computations for the calendar year of 1931, and a summary of which computations is found in the first money column on page 4——

A. That is correct.

Q. —of the exhibit.

A. Yes, sir.

Q. Mr. Hulcy, will you refer, please, to page 5 of Exhibit 13, and give to the Court and to the Jury an explanation, in summary form, of what you have endeavored to do?

A. Page 5 of Exhibit 13 is a comparative statement of the revenues and expenses based on the actual gas sales—domestic gas sales by the Company—that is, the forty cent domestic gate rate for the twelve months ended December 31, 1931. The first money column appearing on this page is the same as shown on the Company's exhibits showing the gross revenues, the deductions from gross revenues, and the amount available for depreciation, depletion, Federal income tax, and return. The second column sets out the adjustments or differences found by the Commission, and which were given effect to in their Opinion and Order dated [fol. 120] September 13, 1933, but after giving effect to those adjustments, and either adding or deducting, whichever the case may be, to the amounts as shown on the Company's exhibits, then we arrive at amounts for operating revenues and operating expenses which would be in line and in keeping with the findings made by the Railroad Commission. Now, it will be noticed that the Company exhibits only go

down as far as the amount available for depreciation, depletion Federal income tax, and return. The Company exhibits did not show any amount for depreciation and depletion, but rather stated the amount that was available for both return and depreciation. However, the Commission did find amounts that should be charged as depreciation and depletion, and in this particular case they have been shown and carried down to the net amount available for return. In this case—that is, for the twelve months ended December 31, 1931, the gross revenues would be $9,303,881.76. Now, on gas purchased the Commission made no adjustments; production system expense they made no adjustments; the gathering system expense, the transmission system expense, the compressor station expense, the new business expense, the general expense, the uncollectible bills, the taxes—other than Federal, the Commission used exactly the same figures as used by the Company and shown in their exhibits. However, management fees and expenses which were shown in the Company's exhibits and so reflected on their books, in [fol. 121] the amount of $91,375.38 was eliminated by the Commission in arriving at the operating expenses for this particular period. This item was discussed at length on pages 9 to 11 of the Opinion and Order of the Commission, wherein it was eliminated as an operating expense which would be allowed to the Company. Regulatory commission expense was allowed by the Commission for the year 1931 in the same amount as shown on the books of the Company. [fol. 122] Dry hole expense was shown on the books of the company in the amount of $65,871.56. The Commission determined and set out in their opinion and order that dry hole expense should be based on an average for five years, and they discussed that at length on page 12 of the opinion and order.

Q. You make a reference to page 12 of the opinion and order in connection with dry hole expense on page 57 of this Exhibit 13?

A. Yes, I do. In this particular case the average for the five year period ended December 31, 1931, was $79,453.12. The actual expense incurred was only $65,871.56; therefore by handling in that method the Commission actually allows $13,581.56 as an added operating expense for that particular period. Now cancelled and surrendered leases was shown by the books for this accounting period to be $239,-230.96. The Commission finds that this expense should also

be based on an average for five years; they also discuss that at page 12 of the opinion and order, and reference to that page number is shown on page 59 of this exhibit. The average cancelled and surrendered lease expense for the twelve months ended December 31, 1931, which was determined by the Commission was $99,140.73. This amount when deducted from the actual amount charged for the year 1931 made an adjustment of $140,090.23 which was eliminated from the expense of the company for that particular accounting period. Now in addition to that, there was an addition made to the other non-operating revenues in the amount of $1,146.89.

[fol. 123] Q. That appears at the top of page 5?

A. Yes, it does. Now, this adjustment is not discussed in the opinion and order of the Commission for the reason that this amount was found by the auditors of the Commission and was eliminated by them, which makes the difference between the amount found by the company and the amount found by the Commission, in as much as they used the operating revenues and the non-operating revenues as determined by the auditors employed by the Commission. Now, that difference is brought about through the sale of some materials from warehouses wherein the company claimed that that loss on that material was a proper deduction from public service revenues. The auditors felt that should have been charged against depreciation reserve or something else of that kind, and so that accounts then for total adjustments or a deduction from expenses and addition to revenues—or in other words, adding to the amount available for depreciation, depletion, federal income tax and return of $4,908,024.24 as shown by the company, of adjustments in the amount of $219,030.94 as determined by the Commission which is added thereto and thereby making an amount available for depreciation and return of $5,127,055.18, and that is as found by the Commission for that particular period. Then as a deduction from that amount is shown depreciation and depletion. Now the detail of the depreciation and depletion allowances is set out for this period on page 14 of the Exhibit and is as follows:

[fol. 124] Depreciation amount allowed by the Commission and set out on page 69 of their opinion and order dated September 13, 1933, in the amount of $968,066.98. Depletion amount allowed by the Commission and set out

on page 76 of their opinion and order dated September 13, 1933, in the amount of $15,631.45, making a total for both depreciation and depletion of $983,698.43; that is the amount shown on page 5 as an allowance for both depreciation and depletion. That amount when deducted from the amount shown above leaves as available for federal income tax and return, $4,143,356.75.

Federal income tax is shown on page 5 of the Exhibit in the amount of $375,116.98, and the detail of that calculation is shown on page 16 of this exhibit. It shows that the amount available for federal income tax and return after depreciation, is an amount of $4,143,356.75, and then deducting the interest charges paid and accrued by the company for this accounting period in the amount of $1,017,381.94 leaves $3,125,974.81 that would be subject to federal income tax. The federal income tax rate for the year 1931 applying to corporations was 12 per cent. This 12 per cent of the amount just stated would result in a federal income tax in the amount of $375,116.98 and that is the amount that is shown on page 5 of this exhibit.

The federal income tax when deducted from the amount available for both tax and return, leaves as available for return $3,768,239.77. The exhibit further shows that the [fol. 125] rate base as set out in findings by the Commission and referred to on page 71 of the printed order and opinion, in the amount of $46,246,617.53 and the amount available for return when expressed as a percentage of the rate base would be 8.15 per cent.

Q. Now, Mr. Huley, on page 6 do you set out a similar determination for the twelve months ended December 31, 1932?

A. Yes, I do.

Q. And on page 7 do you set out a similar determination for the twelve months ended June 30, 1933?

A. Yes, I do.

Q. And on page 8 a similar determination for the twelve months ended December 31, 1933?

A. Yes, I do.

Q. On page 9 a similar determination for the twelve months ended March 31, 1934?

A. Yes, I do.

Q. And a summary of those calculations is carried over to page 4 of your Exhibit 13?

A. That is correct.

Q. What per cent of the rate base was available for return as shown by page 4 of Exhibit 13 for the several accounting periods mentioned?

A. For the twelve months ended December 31, 1931, the amount available for return was 8.15 per cent of the rate base as determined by the Commission. For the twelve months ended December 31, 1932, the amount available for [fol. 126] return when expressed as a percentage of the rate base was 8.23 per cent. For the twelve months period ended June 30, 1933, the amount available for return, when expressed as a percentage of the rate base, is 7.55 per cent. For the twelve months ended December 31, 1933, the amount available for return, when expressed as a percentage of the rate base, is 6.01 per cent. And for the twelve months ended March 31, 1934, the amount available for return, when expressed as a percentage of the rate base, is 6.42 per cent.

Q. Now, of course, when you used the phrase, "available for return", you referred to the net return?

A. Yes, that is after the allowance for depreciation and all other charges.

Q. Now all of the calculations summarized and set forth on page 4 of Exhibit 13 reflect gross revenues of the company, actually received under the 40 cent domestic gate rate?

A. That is correct.

Q. And for the calendar year 1933, under the 40 cent domestic gate rate charged by the company, the company only had available 6.01 per cent for net return as applied to the Commission's rate base?

A. That is correct, and with the operating expense as determined by the Commission.

Q. And also with the depreciation and depletion allowances as determined by the Commission?

A. That is correct.

[fol. 127] Q. Mr. Hulcy, please refer to page 17 of Exhibit 13; what is the essential difference between section 1 and section 2 of Exhibit 13?

A. The only difference between section 1 and section 2 is that the rate base is as determined by the Commission—that is set out in section 1. Section 2 contains the rate base as determined by the Commission at December 31, 1931, plus the actual cost of the net additions to property added to the rate base previously determined by the Commission.

353

Q. Now if we refer to page 18 of Exhibit 13, do we find a summary for some five 12-months accounting periods?

A. Yes, the same accounting periods set out in the summary to section 1 of the report.

Q. And giving effect to the net capital additions at cost covering the public service property of the Lone Star Gas Company and using the Commission's rate base as determined at December 31, 1931, the Commission's allowance of operating expense and the Commission's determination of a depreciation and depletion allowance, what is the per cent available for net return on the company's public service property for the five accounting periods set forth on that date?

A. Well, of course 1931 would be the same as under the other set-up, of 8.15 per cent. For the twelve months ended December 31, 1932, it would be 7.94 per cent. For the twelve months ended June 30, 1933, it would be 7.42 per cent. For the twelve months ended December 31, 1933, it [fol. 128] would be 5.98 per cent, and for the twelve months ended March 31, 1934, it would be 6.41 per cent.

Q. Mr. Hulcy, if we refer to page 19 of Exhibit 13, do we find a detail of the revenues and expenses of the company for the twelve months ended December 31, 1931, as determined by the Commission?

A. Yes, we do.

Q. And is a summary of that page carried over to the general summary sheet in the first money column on page 18?

A. That is correct.

Q. And similarly on pages 20, 21, 22 and 23 do we find the detailed calculations covering the other four accounting periods which are set forth in the money columns second, third, fourth and fifth on page 18?

A. Yes, that is correct.

Q. Is there any explanation which you needs give in respect of those several calculations?

A. I think perhaps we should explain that for the years 1932 and for all subsequent accounting exhibits included in this report based on the findings of the Commission, it was necessary to make an adjustment covering gas purchases from the property formerly owned by the Meridian Gas Company. Section 1 of the report does set that information out and follows the findings made by the Commission. Section 2 of this report being based on the rate base

found by the Railroad Commission at December 31, 1931, plus the net additions to the public service property at [fol. 129] cost, which would include the property acquired from the Meridian Gas Company; then the adjustment made for the gas purchased expense would necessarily be eliminated, and that has been done in Section 2 of this report.

Q. In other words, you eliminated the gas purchased expense, and included the property?

A. That is correct.

Q. Please refer to page 30 of Exhibit 13. Now as you have previously testified, Mr. Hulcy, sections 3 and 4 of Exhibit 13 are based upon the application of the 32 cent domestic gate rate prescribed by the Commission in its opinion and order of date September 13, 1933?

A. That is correct.

Q. And all of the calculations in respect of Section 3 of this report are upon the assumption that for the five accounting periods shown on page 31 the company only received for domestic gas at the city gate 32 cents per thousand cubic feet as fixed and prescribed in the Commission's order?

A. That is correct.

Q. Now Mr. Hulcy, will you please explain what is set forth on page 31 of Exhibit 13?

A. Page 31 as just stated is a summary brought forward from pages 32, 33, 34, 35 and 36, of the revenues based on a 32 cent domestic gate rate, with the operating expenses as determined by the Railroad Commission and as set out in their opinion and order, and with the depreciation and [fol. 130] depletion allowances as set out by the Commission in their opinion and order; with the federal income tax calculated on the amount available less a deduction for the total interest paid by the company; with a rate base as set out in the findings by the Commission and in line with their findings all the way through. Then the schedule shows last the amount available for return expressed as a percentage of the rate base, and those amounts are as follows, giving effect to these things I have mentioned. For the twelve months ended December 31, 1931, the amount available for return would be 5.56 per cent of the rate base as determined by the Commission. For the twelve months ended December 31, 1932, the amount available for return would be 5.76 per cent of the rate base as determined by the Commission. For the twelve months ended June 30, 1933,

the amount available for return would be 5.22 per cent of the rate base as determined by the Commission. For the twelve months ended December 31, 1933, the amount available for return would be 3.97 per cent of the rate base as determined by the Commission. For the twelve months period ended March 31, 1934, the amount available for return would be 4.31 per cent of the rate base as determined by the Commission.

Q. In other words, Mr. Hulcy, for the very calendar year of 1933 in which year the Commission entered its order fixing a 32 cent city gate rate to be charged by the Lone Star Gas Company, defendant here, if we give effect to the application of that 32 cent gate rate and using revenues [fol. 131] and expenses exactly as the Commission used them in its opinion and order, and using the same depreciation and depletion allowances and the value of the property as determined by the Commission, the company would have had available only 3.97 per cent of the rate base for net return?

A. That is correct.

Q. And similarly for the twelve months ended March 31, 1934, the company would have had available only 4.31 per cent of the rate base?

A. That is correct.

Q. On pages 37, 38, and 39 do you show various calculations and give various references having to do with section 3 of this exhibit?

A. Yes, I do.

* * * * * * *

[fol. 132] Q. Mr. Hulcy, please refer to page 40 of Defendant's Exhibit No. 13?

A. Yes, sir.

Q. That appears to be a summary of the bases upon which Section 4 of this exhibit is prepared?

A. That is correct.

Q. And what is the essential difference between Section 3 and Section 4 of this exhibit in so far as the determinations are made relative to the per cent of rate base available for return?

A. Section 3 is prepared giving effect to the rate base established by the Railroad Commission and set out in their opinion and order. The rate base as used in the prepara-

tion and also the calculations included in Exhibit—Section 4—are based on the rate base found by the Commission at [fol. 133] December 31, 1931, plus net additions to Property at Cost to Lone Star Gas Company at the respective dates.

Q. Now, a substantial portion of this net capital additions to the Public Service Property consist of the Meridian Gas Company property?

A. That is correct.

Q. As of December 31, 1931, the Lone Star Gas Company had been buying a considerable quantity of gas from the Meridian Gas Company, in the State of Oklahoma?

A. That is correct.

Q. And as of January 1, 1932, according to your testimony, the Lone Star Gas Company acquired the property of the Meridian Gas Company?

A. That is correct.

Q. So Section 4 and the schedules set forth in summary form on page 41 of Exhibit 13 give effect to the acquisition of the Meridian Gas Company property?

A. That is correct.

Q. As well as give effect to other net capital additions at cost?

A. That is correct.

Q. Refer, please, to page 41 of Exhibit 13. Expressed as a per cent of the rate base so determined, what is the per cent available for each of the five twelve-months accounting periods set forth on that page?

[fol. 134] A. For the twelve months ended December 31, 1931, the amount available for return is 5.56 per cent of the rate base. For the twelve months ended December 31, 1932, the amount available for return is 5.57 per cent of the rate base. For the twelve months ended June 30, 1933, the amount available for return is 5.17 per cent of the rate base. For the twelve months ended December 31, 1933, the amount available for return is 4.01 per cent of the rate base. For the twelve months ended March 31, 1934, the amount available for return is 4.36 per cent of the rate base.

Q. Mr. Hulcy, if we refer to page 42 of Exhibit 13 do we find there a detail of the amount available for return expressed as a per cent of the rate base for the twelve months ended December 31, 1931?

A. Yes, sir; we do.

Q. And a summary of that determination is carried forward to page 41 in the first money column under the heading "December 31, 1931"?

A. Yes, sir; that is correct.

Q. In a similar manner, Mr. Hulcy, have you calculated the per cent of rate base available for return for the twelve months ended December 31, 1932, June 30, 1933, December 31, 1933, and March 31, 1934, on pages 43, 44, 45, and 46, respectively, of Exhibit 13?

A. Yes, sir; I have.

Q. Now, Mr. Hulcy, is any explanation needed, in order [fol.135] that the Court and jury may understand the basis of the calculations which are summarized on page 41 of Exhibit 13?

A. No, sir; I don't believe that any further explanations are necessary. The same explanations as made in connection with Section 2 of the Report with reference to the rate base also apply to Section 4 of this Exhibit 13.

Q. On page 47 of Exhibit 13 do you state that the calculations for this section of the Report are the same as for Section Number Two, and that a detail will be shown on pages 24 and 25 of the exhibit?

A. Yes, sir; I do.

Q. Do you show the same thing on page 48 in connection with the Depreciation and Depletion Allowances?

A. I do.

Q. On page 49 do you show the Federal Income Tax Calculations applicable to these five accounting periods of twelve months each, which you have just testified about?

A. I do.

Q. Commencing at page 50 in Exhibit 13 do you show a detail of the several adjustments and eliminations as made by the Railroad Commission and set out in their opinion and order dated September 13, 1933?

A. I do.

Q. Those adjustments relate to gas purchased, management fees and expenses, Regulatory Commission expense, dry hole expense, cancelled and surrendered leases, and Miscellaneous Deductions?

[fol. 136] A. They do.

Q. In other words, the detail of the Adjustments will be found in Exhibit 13 at pages 51 to 62 inclusive?

A. That is correct.

Q. Mr. Hulcy, is there any further explanation which you think should be made in connection with your Exhibit 13?

A. No, sir.

Q. Please refer, Mr. Hulcy, to your Exhibit 14. On the second page do you show three bases of calculations?

A. Yes, sir; I do, styled "A", "B", and "C".

Q. And have you endeavored to set forth sufficient explanatory matter on page 2 of Exhibit 14 to make your determinations as set forth on page 3 understandable?

A. Yes, sir; I have.

Q. Give a rather brief description of what is set forth in your Exhibit 14.

A. Exhibit 14, Section "A", with the information given in connection with the schedule, and which is the first money column appearing on page 3 of the Exhibit, is based on the actual revenues with the 40-cent domestic Gate Rate; with the Operating Expenses actual as reflected by the Company's books, that is without any adjustments; with the Depreciation and Depletion Allowances as determined by the Railroad Commission; the Federal Income Tax the amount shown as available for return calculated at a rate of 13.75 per cent; and with a rate base as determined by [fol. 137] the Commission; and by referring to page 3 of the Exhibit, under "A", it will be noted that the Gross Revenues amount to $7,958,518.38; the Deductions from Gross Income, which are based on the actual expenses, amount to $3,585,713.87, and that amount when deducted from the Gross Revenues leaves as available for Depreciation, Depletion, Federal Income Tax, and Return an amount of $4,372,804.51.

The statement further shows an allowance for Depreciation and Depletion, which is calculated in the same manner as used by the Commission, and set out in their opinion and order in the amount of $1,001,440.56, which leaves as available for Federal Income Tax and Return an amount of $3,371,363.95.

The statement further shows an allowance for Federal Income Tax, which is calculated and based on the amount available for Federal Income Tax and Return at the rate of 13.75 per cent. This amounts to $463,562.54, and that amount when deducted from the amount shown above leaves as available for Return $2,907,801.41.

The statement further shows that the rate base, which is calculated and determined in the same manner as used by

the Commission, as set out in their opinion and order, in the amount of $47,192,765.79; and the amount available for Return, when expressed as a percentage of the rate base is shown to be 6.17 per cent.

The amounts shown in Column "B" are based on a [fol. 138] 32-cent Domestic Gate Rate, with Actual Operating Expenses as reflected by the Company's books, with a Depreciation and Depletion Allowance calculated in the same manner as determined by the Commission; with the Federal Income Tax calculated and based on the amount available for Return at the rate of 13.75 per cent; and the rate base is the same as determined by the Commission; and giving effect to all of those things, the amount available for Return when expressed as a per cent of the rate base is 4.07 per cent.

In the next Column "C", the calculations are based on a 32-cent Domestic Gate Rate, with Actual Operating Expenses as reflected by the Company's books; with the Depreciation and Depletion calculated at the same rates as found by the Commission; with the Federal Income Tax calculated at the rate of 13.75 per cent, based on the amount available for Return; and the rate base is the actual Cost as reflected by the Company's books at April 30, 1934; and by giving effect and basing the calculations on those several different items, the amount available for Return when expressed as a per cent of the rate base is 3.76 per cent.

Q. Now, Mr. Hulcy, it is noticed that none of your accounting exhibits from 4 to 14 inclusive come past the twelve months period which ended April 30, 1934?

A. No, sir; they do not.

Q. Wouldn't it have been possible for you to have [fol. 139] brought your accounting exhibits up to date—up to the date of this hearing?

A. No, sir; it would not. April 30th is the last information—that is, complete information, that is available at this time. In actual practice the accounts are closed along about the 25th of the following month, so the May accounts will not be out until about the 25th of June; so April 30th is the last information available.

Q. Mr. Hulcy, throughout your exhibits 4 to 14 inclusive, wherever you show the Actual Cash Cost to the Company of its Public Service Property, is there any inclusion in that amount for Working Capital or Materials and Supplies on

Hand Used and Useful in connection with the Company's Public Service Operations?

A. No, sir; there is not any amount included in the amounts I have given for Cash Working Capital or for Materials and Supplies.

Q. In your Exhibits 11 and 12, Mr. Hulcy, you have set forth in detail the Operating Expenses of the Company for various twelve months accounting periods?

A. Yes, sir; I have.

Q. You state that you are Assistant to the President of the Lone Star Gas Company?

A. Yes, sir; I am.

Q. And that you are familiar with the detail of the Company's operating expenses?

[fol. 140] A. Yes, sir; I am.

Q. You are familiar with the management of the Company, and with the general conduct of its business?

A. Yes, sir; I am.

Q. Are the Operating Expenses which are reflected by your exhibits here as actually having been incurred for the period commencing January 1, 1931 and ended April 30, 1934, the result of the exercise of the best judgment of the Management of the Company?

A. They certainly are.

Q. And were all of the Expenses incurred and paid in good faith?

A. Yes, sir.

Q. Mr. Hulcy, in connection with several of your exhibits relating to Operating Expenses you show the payment of certain Management Fees and Expenses?

A. Yes, sir.

Q. Running from approximately seventy-five thousand to one hundred thousand dollars per annum?

A. Yes; that is correct. I believe—just one minute now—I believe we have a low figure of seventy-five thousand dollars plus, and a high figure of ninety-one thousand dollars plus.

Q. Will you please explain to the Court and jury what that expense for Management Fees and Expenses represents?

A. That amount represents the actual amount paid to the Lone Star Gas Corporation by the Lone Star Gas Company. [fol. 141] Now, that is the amount that is applicable to the public service property of Lone Star Gas Company. Some

additional amounts are paid for the non-public service operations and property of the Lone Star Gas Company, such as oil operations and the gasoline plants; however, they are comparatively small.

Q. And not involved in this procedure?

A. No, sir; they are not involved in this procedure. Those charges are covered by a contract which was entered into by and between the Lone Star Gas Company and Lone Star Gas Corporation as of January 1, 1929, and to cover, among other things, Executive Aid and Assistance, Legal Aid and Assistance, Purchasing Aid and Assistance, General Engineering, General Accounting, and Financial Aid and Assistance. I believe that those are the principal things covered in that contract between Lone Star Gas Corporation and Lone Star Gas Company; and the rate set out in the contract is that the Lone Star Gas Company will pay, and the Lone Star Gas Corporation will receive, an amount equal to one per cent of the Gross Operating Revenues of the Lone Star Gas Company, for such services.

[fol. 142] Q. What are the major services rendered by the Lone Star Gas Corporation to the Lone Star Gas Company and in consideration of which these fees are paid?

A. Well, I would say that the major, or perhaps the most important thing in the way of service that has been rendered by the Lone Star Gas Corporation would be in the matter of financial aid and assistance. The Lone Star Gas Corporation has advanced to the Lone Star Gas Company sums of money—I believe the peak was something in excess of nineteen millions of dollars, and at the present time Lone Star Gas Company owes to the Lone Star Gas Corporation for moneys which the Corporation has advanced to the Company seventeen million six hundred thousand dollars, and I would say, particularly in times such as these, that that is perhaps the most important and the outstanding thing or service that has been rendered by the Corporation to the Company.

Q. At what rate of interest has the Lone Star Gas Corporation furnished money to the Lone Star Gas Company?

A. Six per cent.

Q. Per annum?

A. Yes, sir, six per cent per annum.

Q. You spoke a moment ago of certain purchasing services being rendered by the Lone Star Gas Corporation to

the Lone Star Gas Company. What is the general nature of those purchasing services?

A. Mr. J. M. Simpson, a Vice-President of Lone Star Gas Corporation, with offices in Pittsburgh, Pennsylvania, acts [fol. 143] as the General Purchasing Agent, particularly with reference to heavy materials, such as pipe, for all the underlying companies or subsidiary companies of Lone Star Gas Corporation, and Mr. Simpson has bought practically all of the pipe that has been used by Lone Star Gas Company for them.

Q. Have those purchases amounted to many millions of dollars' worth of pipe?

A. Yes, sir, they have, substantial sums.

Q. And as a result of the services of Mr. Simpson has the Lone Star Gas Company been able to secure pipe at extremely low prices?

A. Yes, sir, I would say that they have secured pipe at the best prices that were available to any one. I might add that, in addition to Mr. Simpson's duties as a Vice-President of Lone Star Gas Corporation, he is also the chief purchasing officer for the Columbia Gas and Electric Corporation, with headquarters in Pittsburgh, and I believe that perhaps the assets of that company are somewhere between six and seven hundred millions of dollars, so it is a good sized company; naturally, they have a lot of purchases, and the Lone Star Gas Corporation or the companies in the Lone Star Gas Corporation group receive and have received the same prices that the Columbia Gas and Electric Corporation would be able to receive or obtain.

Q. In other words, has there been a saving to Lone Star Gas Company in connection with the purchases of pipe and heavy material which have been made by Mr. Simpson for [fol. 144] the account of Lone Star Gas Company?

A. Yes, sir; there has.

Q. And has that been due in large part to the large purchasing power which Mr. Simpson has?

A. Yes, sir; I would say so.

Q. Mr. Hulcy, does Lone Star Gas Company have any pipe lines extending from or through the State of Oklahoma into the State of Texas?

A. Yes, sir; they do.

Q. Are those major pipe lines?

A. Yes, sir; they are.

Q. What are the sizes of those pipe lines?

A. Principally twelve, sixteen and eighteen inch.

Q. When was the sixteen inch pipe line of the Lone Star Gas Company extending from the State of Oklahoma into the State of Texas built?

A. The sixteen inch pipe line is what is known as our Line G, extending north from Gainesville, or rather south to Gainesville from the State of Oklahoma.

Q. South to Gainesville, Texas?

A. Yes, sir. That line was completed in December, 1918.

The Court: I didn't get that date.

A. December 1918; that is the sixteen inch line. Line H, a twelve inch line south from Walters to Petrolia, Texas, in Clay County.

The Court: To what?

A. To Petrolia, Texas, in Clay County. That was completed in February, 1918.

[fol. 145] Q. Now, you spoke of Walters. Is that a point in Cotton County, Oklahoma?

A. Yes, sir; it is. Line Second H, another twelve inch line, which parallels Line H, was completed in December, 1919. Line A, an eighteen inch line extending from Wheeler County in the Panhandle District of Texas down through the State of Oklahoma and back into Texas, was completed in 1926, or 1927, in part. We also have what we call Line E-5 that extends from Texas into Oklahoma.

The Court: I didn't get that, either.

A. Line E-5 that extends from Texas into Oklahoma. It was completed in 1925.

The Court: Between what points is that line?

A. That line is extended from Texas into Durant, Oklahoma.

The Court: From what point in Texas?

A. I will have to get the map.

The Court: State it if you know. If you don't remember, all right.

A. I don't remember just the county in Texas it goes through, now, but I think I have a map right here that will show. (Witness inspects map.) From Grayson County, Texas.

The Court: North from Denison?

A. Yes, sir, into Bryan County, Oklahoma.

Q. Mr. Hulcy, I hand you an instrument which I shall ask you to identify.

A. This is a gas sales contract between Lone Star Gas Company and the Municipal Gas Company covering domestic gas for distribution by the Municipal Gas Company [fol. 146] within the city or town of Iowa Park, Texas.

Q. Is it the original of that contract?

A. Yes, sir; it is.

Q. And does it govern the delivery by the Lone Star Gas Company and sale by the Lone Star Gas Company to the Municipal Gas Company of domestic gas at the city gate?

A. Yes, sir; it does—the contract being dated September 30, 1931.

Mr. Griffith: We offer the contract.

* * * * * * *

[fol. 147] (Thereupon the contract referred to was offered in evidence by defendant and marked Defendant's Exhibit No. 15.)

Q. Mr. Hulcy, I hand you herewith an instrument which I shall ask you to identify.

A. This is a contract between Lone Star Gas Company and Municipal Gas Company covering the sale of domestic gas for distribution within the cities of Corsicana, Hillsboro, Waxahachie, Ennis, Cleburne, Wichita Falls, Bowie, Byers, Petrolia, Bellevue, Sunset, Alvord, Bridgeport and Decatur, Texas.

Q. Does the contract bear date of December 3, 1930?

A. Yes, sir; it does, for a period of five years.

Mr. Griffith: We offer the contract so identified by the witness in evidence.

* * * * * * *

[fol. 148] (Thereupon the contract referred to was offered in evidence by defendant and marked Defendant's Exhibit No. 16.)

Q. Will you examine that document, Mr. Hulcy?

A. This is the original of a contract dated November 28, 1927, between Lone Star Gas Company and Municipal Gas Company covering the sale of domestic gas for a period of seven years to the cities of Sherman, Denison, Denton, Whitesboro, and McKinney, Texas.

Mr. Griffith: We offer the contract so identified by the witness in evidence.

(Thereupon the contract referred to was offered in evidence by defendant and marked Defendant's Exhibit No. 17.)

Q. Mr. Hulcy, I will ask you to identify this document which I hand you.

A. This is the original of a gas sales contract, dated July 1, 1927, and for a period of seven years, between Lone Star [fol. 149] Gas Company and Gainesville Gas and Electric Company covering the sale of domestic gas for distribution in the city of Gainesville.

Mr. Griffith: We offer the contract so identified by the witness in evidence.

(Thereupon the contract referred to was offered in evidence by defendant and marked Defendant's Exhibit No. 18.)

Q. Mr. Hulcy, I will ask you to identify the contract which I now hand you.

A. This is the original of a contract dated May 15, 1925, between the Lone Star Gas Company and the Dallas Gas Company covering the sale of gas for domestic purposes in the city of Dallas.

Mr. Griffith: We offer the contract so identified by the witness in evidence.

(Thereupon the contract referred to was offered in evidence by defendant and marked Defendant's Exhibit No. 19.)

Q. Mr. Hulcy, I will ask you to identify this document which I hand you.

A. This is a contract, being a supplemental contract to a contract dated May 15, 1925, between Lone Star Gas Company, and the Dallas Gas Company, this contract being dated August 14, 1925.

[fol. 150] Mr. Griffith: We offer the contract so identified by the witness in evidence.

(Thereupon the contract referred to was offered in evidence by defendant and marked Defendant's Exhibit No. 20.)

Q. Mr. Hulcy, I will ask you to identify that instrument.

A. This is an agreement dated June 7, 1930, between the Lone Star Gas Company and the Dallas Gas Company whereby a contract expiring on June 9, 1930, is extended for a period of five years, beginning on June 9, 1930.

Mr. Stout: Mr. Griffith, to save time, we will agree that you have the same contract with all affiliates, if that is of any interest to you in the interest of time.

Mr. Griffith: I prefer to follow my own method of procedure, Judge Stout.

Mr. Stout: All right.

Mr. Griffith: We offer the contract so identified by the witness in evidence.

(Thereupon the agreement referred to was offered in evidence by defendant and marked Defendant's Exhibit No. 21.)

[fol. 151] Q. Mr. Hulcy, I will ask you to identify that instrument.

A. This is a contract—a gas sales contract dated May 15, 1931, between the Lone Star Gas Company and the Community Natural Gas Company, covering the sale of gas for domestic purposes.

Mr. Griffith: We offer the contract so identified by the witness in evidence.

(Thereupon the contract referred to was offered in evidence by defendant, and marked Defendant's Exhibit No. 22.)

Q. Mr. Hulcy, will you examine that document?

A. This is the original of a domestic sales contract, dated October 6, 1933, between Lone Star Gas Company and Waxahachie Gas Company, covering the sale of gas for distribution in the city of Waxahachie.

Mr. Griffith: We offer in evidence the contract so identified by the witness.

(Thereupon the contract referred to was offered in evidence by defendant, and marked Defendant's Exhibit No. 23.)

Q. Mr. Hulcy, I will ask you to identify the document which I hand you.

A. This is the original of a domestic sales contract dated May 15, 1925, between Lone Star Gas Company and the [fol. 152] County Gas Company.

Mr. Griffith: We offer the contract so identified by the witness in evidence.

(Thereupon the contract referred to was offered in evidence by defendant, and marked Defendant's Exhibit No. 24.)

Q. I hand you herewith a document that I will ask you to identify Mr. Hulcy.

A. This is the original of a special agreement dated September 21, 1926, and applying to a contract dated May 15, 1925, between the same parties.

Mr. Griffith: We offer the agreement so identified by the witness in evidence.

(Thereupon the agreement referred to was offered in evidence by defendant and marked Defendant's Exhibit No. 25.)

Q. Mr. Hulcy, I will ask you to identify the document that I have just handed to you.

A. This is the original of an agreement dated June 7, 1930, between Lone Star Gas Company and County Gas Company, whereby a contract terminating on June 9, 1930, is extended for a period of five years.

Mr. Griffith: We offer the agreement so identified by the witness in evidence.

[fol. 153] (Thereupon the agreement referred to was offered in evidence by defendant, and marked Defendant's Exhibit No. 26.)

Mr. Griffith: As I understood your statement, Mr. Fitzhugh, you are raising no objection to the fact that copies are being put in evidence, in lieu of the originals.

Mr. Fitzhugh: Copies are all right.

Q. Mr. Hulcy, I will ask you to identify this document.

A. This is the original of a contract dated September 15, 1933, between Lone Star Gas Company and Texas Cities Gas Company, covering domestic gas for distribution in the cities of Waco and Paris, Texas.

Mr. Griffith: We offer the contract identified by the witness in evidence.

(Thereupon the contract referred to was offered in evidence by defendant, and marked Defendant's Exhibit No. 27.)

Q. Now, Mr. Hulcy, you have identified, and there have been introduced in evidence, contracts labeled Defendant's Exhibits 15 to 27, inclusive,—is that correct?

A. Yes, sir.

Q. Are those the contracts under which the Lone Star [fol. 154] Gas Company is now and has been selling gas to the several distributing companies who are parties signatory to such contracts?

A. That is correct.

Q. And the distributing companies have been buying gas from the Lone Star Gas Company in accordance with the provisions of those contracts?

A. That is correct.

Q. Mr. Hulcy, are the pipe lines and facilities of the Lone Star Gas Company in what might be called a fairly fixed location?

A. Yes, sir, I would say that the present pipe lines are fixed.

Q. By reason of that fact, is the Lone Star Gas Company in its sale of gas confined to the markets which it presently serves?

A. That is quite true—they are.

Q. In connection with the contracts which have been introduced in evidence in this case—that is, the contracts between Lone Star Gas Company and the several distributing companies, being Defendant's Exhibits 15 to 27, inclusive,—I will ask you if any of those distributing companies—that is, the Texas Cities Gas Company, Community Natural Gas Company, Municipal Gas Company, County Gas Company, Waxahachie Gas Company, or Gainesville Gas and Electric Company, were parties to the proceedings [fol. 155] in Gas Utilities Docket No. 75, before the Railroad Commission of Texas, and in which docket number of the Railroad Commission of Texas entered its Opinion and Order which is in evidence here, labeled Defendant's Exhibit 3?

A. Any of those companies were not a party.

Q. Can the Lone Star Gas Company profitably market its gas elsewhere? And by "elsewhere" I mean to markets other than the markets which it now serves.

A. No, sir, it can not.

Q. Mr. Hulcy, what is the situation of the Lone Star Gas Company in respect of the sale of industrial gas?

A. The Lone Star Gas Company furnishes gas for industrial purposes at some places along main lines, and in addition to that, to all these distributing companies to which they sell gas at prices set out in the contracts. I mean by that basic prices which are based upon the amount received by the distribution companies. Naturally, there has been quite a bit of competition with reference to gas sales.

Q. What is the basis of sale by Lone Star Gas Company to the several distributing companies of natural gas for industrial purposes?

A. On a basis of 12 cents per thousand cubic feet, plus one-half of the difference between 12 cents and the amount received by the distribution company.

Q. Assuming that the distributing company was able to [fol. 156] sell a certain quantity of gas to a retail consumer at 24 cents per thousand cubic feet, what price would the distributing company pay to the Lone Star Gas Company for that gas?

A. They would pay 18 cents.

Q. Determined in what manner?

A. Determined on the base rate of 12 cents; 12 cents deducted from the 24 cents, which was the price received by the distribution company, would leave another 12 cents; that amount would be divided equally between the Lone Star Gas Company, which is the pipe line company, and the distribution company. So the Lone Star Gas Company receiving half of that 12 cents, which would be 6 cents, plus their base rate of 12 cents, would give them 18 cents, and the distribution company would receive 6 cents.

Q. Is the industrial business, or the sale of industrial gas by the Lone Star Gas Company profitable to it?

A. Yes, sir, it certainly is.

Q. Do those sales produce substantial revenues over and above the cost of making such sales?

A. Yes, sir, they do.

Q. Is it possible for the Lone Star Gas Company, in your opinion, to increase its gross and net revenues by

increasing the price which it charges for industrial gas?

A. No, sir, the sale of industrial gas is strictly competitive. It must be sold, and the price must be one that would [fol. 157] meet competition from other forms of fuel.

Q. What are the other forms of fuel which subject fuel gas to competition?

A. Our chief competitor is fuel oil.

The Court: Is what?

A. Fuel oil. There are some—we have some competition from lignite and from coal. However, fuel oil is the chief competitor that we have.

Q. Mr. Hulcy, at times of extreme demand—at times of extreme cold weather are the entire facilities of the Lone Star Gas Company pipe line system necessary to be utilized in connection with the delivery of gas at the city gate for retail distribution to the domestic consumers in the several towns and cities on the pipe line system served at wholesale?

A. Yes, sir.

Q. Are all industrial sales of gas subject to this contingency, when, as and if there is a prior domestic demand?

A. Yes, sir, and every industrial contract made carries that stipulation right in the body of the contract.

The Court: Gentlemen, in order to avoid confusion, now, may we understand that this witness indicates, when you say domestic gas, he means residential gas?

Mr. Griffith: Yes, sir.

The Court: Domestic gas in that sense does not include industrial gas, but only residential gas.

[fol. 158] A. Residential and small commercials, like a down-town store where they have a few stoves around; that comes within the domestic classification.

The Court: All right.

Q. Mr. Hulcy, you have previously testified that the books and accounts of the Company in relation to its public service property are kept in accordance with standard classifications of accounts for natural gas companies?

A. Yes, sir, as prescribed by the American Gas Association.

Q. Has the Railroad Commission of Texas ever pre-

scribed any accounting system for the Lone Star Gas Company or similar natural gas utilities?

A. They have not.

Q. Are the books and accounts of the Lone Star Gas Company kept covering the entire system operations in both Oklahoma and Texas?

A. Yes, sir.

Q. Has there ever been any order or requirement of the Railroad Commission of Texas obligating the Lone Star Gas Company to keep separate accounts covering Texas and Oklahoma operations, or segregating its intrastate from its interstate operations?

A. No, sir, there has not.

Q. Did the Railroad Commission of Texas in Gas Utilities Docket No. 75 and in which case its order of September 13, 1933 was entered, treat the Company's property, expenses and revenues as a whole for the entire system?

[fols. 159-160] A. They did, both in the States of Texas and Oklahoma.

Q. Mr. Hulcy, in your opinion is it possible to segregate or allocate the property, expenses, and revenues of the Lone Star Gas Company so as to determine the reasonableness of the price for gas at the city gate of any particular town or city?

A. No, sir, I don't believe it would be practicable to do that. I don't believe it would hardly be possible to make a proper allocation—anything that would be reasonable or fair, for this reason, that the pipe line system owned and operated by the Lone Star Gas Company is an integrated system comprising approximately four thousand miles of gathering and transmission lines, taking gas from several fields; gas in some part of the system to-day may be moving north, to-morrow it may be moving south, and I just don't see that it would be possible for you to allocate charges and calculate the cost of gas delivered at any particular city gate.

* * * * * * *

[fol. 161] Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Hulcy, you introduced quite a number of contracts. What are the companies concerned in the contracts just introduced?

* * * * * * *

A. Of course the Lone Star Gas Company is concerned in each of the contracts. As I recall the others, there are the County Gas Company, Dallas Gas Company, Municipal Gas Company, Texas Cities Gas Company, Gainesville Gas & Electric Company, Waxahachie Gas Company—I believe those are the companies, as I remember right now.

Q. How about the Community Natural Gas Company?

A. I thought I called that; if I didn't, it should have been included, because the Community Natural Gas Company was involved in the contracts.

Q. You made some mention while ago of the Lone Star Gas Corporation, also?

A. Yes.

Q. What is that company?

A. The Lone Star Gas Corporation is the parent company, we might term it, of certain companies—that is, the [fols. 162-163] Lone Star Gas Company, the County Gas Company, Dallas Gas Company, and other companies.

Q. That is, the Lone Star Gas Corporation is a holding company for a number of other utilities; is that right?

A. That is a correct statement.

Q. Where does the Lone Star Gas Corporation have its principal office and place of business?

A. Pittsburgh, Pennsylvania, at 800 Union Trust Building.

Q. And it is a corporation of Delaware, is it not?

A. Yes, it is.

Q. Are you an officer of that corporation?

A. I am assistant to the president of the Lone Star Gas Corporation.

Q. Are you an officer yourself, or a director in that company?

A. I am not a director, no sir; and not an elective officer.

Q. What office do you hold in the Lone Star Gas Company?

A. I am assistant to the president of Lone Star Gas Company.

Q. Are you a director in that company?

A. No, sir; I am not.

Q. What office do you hold in the Texas Cities Gas Company?

A. I believe I am assistant to the president of Texas Cities Gas Company, and also a director.

Q. The president in each case is the same man, isn't he?
A. That is true.

* * * * * * *

[fol. 164] Q. Now, Mr. Hulcy, if I understand you, the Lone Star Gas Corporation through the ownership of common stock, controls the Lone Star Gas Company, the Community Natural Gas Company, the Municipal Gas Company, Texas Cities Gas Company, County Gas Company and the Dallas Gas Company?

A. They do own the majority of the common capital stock of each of those companies which you named.

Q. And the voting control in those companies?

A. That is correct.

Q. In the case of the Dallas Gas Company, I believe the ownership of stock is indirect, and goes through the Dallas Gas Corporation?

A. That is correct.

Q. And outside of that one exception, all the rest is directly owned by the Lone Star Gas Corporation?

A. That applies both to the Dallas Gas Company and the County Gas Company.

Q. So that all of these companies come under a common ownership?

A. Each of these companies are under the Lone Star Gas Corporation, yes.

Q. Were you present, Mr. Hulcy, at the time this contract, your Exhibit No. 15, made between the Lone Star Gas Company and the Municipal Gas Company, was executed?

A. No, sir; I was not.

Q. Were you present when the contract was being discussed?

[fol. 165] A. No, sir,

Q. Well, were you present or have you any personal knowledge of the conditions or the discussion concerning any of these contracts that have been introduced?

A. No sir, I have not. I identified the contracts from my familiarity with the signatures of the gentlemen signing and attesting the contracts and my general information that the contracts were in existence.

Q. Do you know what person or persons drew the contract in each case?

A. No, sir, I do not.

Q. Isn't it a fact that Mr. Griffith or his subordinates drew the contracts for all of those companies?

A. Very likely he did; I am not in position to say.

Q. And isn't it a fact, Mr. Hulcy, that those contracts simply represent contracts between companies that are all part of one common business?

A. I wouldn't say that. Each of these are separate corporations, Mr. Fitzhugh; they have contracts and operate under those contracts.

Q. They are all working together to supply gas from its source to the public where it is consumed?

A. There is a common service involved.

Q. And they are all commonly owned at this time?

A. Yes, that is the Lone Star Gas Corporation owns the majority of the common capital stock, either directly or indirectly, of the companies you mentioned.

[fol. 166] Q. And they come under common management and directorship?

A. No, I would not say it was.

Q. Well, lots of these companies have directors in common, have they not?

A. There may be some directors in some companies that are also directors in other of the companies, but I would not say it was a common directorship at all.

Q. And some officers serve more than one company?

A. Yes. That is quite true.

Q. Now, who are the directors of the Lone Star Gas Company?

A. Of the Lone Star Gas Company?

Q. Yes.

A. The directors of the Lone Star Gas Company are as follows: Mr. R. A. Crawford; Mr. D. L. Cobb; Mr. R. E. Harding; Mr. L. B. Denning; Mr. F. L. Chase; Mr. Ben E. Keith, and Mr. Karl F. Griffith, being seven in number.

Q. Now Mr. Frank L. Chase is also a director in the Lone Star Gas Corporation, is he not?

A. No sir, he is not.

Q. Does he hold any office at all in the Lone Star Gas Corporation?

A. He does not.

Q. He is a director, is he not, in the Community Natural Gas Company?

A Yes, he is.

Q. Now Mr. D. L. Cobb is an officer in the Lone Star Gas Corporation, is he not?

[fol. 167] A. Yes, he is an officer in the Lone Star Gas Corporation, holding the office of secretary and treasurer.

Q. He is an officer in the Lone Star Gas Company, is he not?

A. Yes, he is.

Q. He is a director in the Municipal Gas Company, is he not?

Mr. Shannon: Now your Honor, we make specific objection to any testimony with respect to the officers of any company other than the Lone Star Gas Corporation and the Lone Star Gas Company; we are not objecting to that question, because of the question of the management fee that the Lone Star Gas Company pays to the Lone Star Gas Corporation which is involved here, and therefore we have no objection to their going into that phase of it, but we do object to testimony with respect to the various officers and directors of the affiliated distributing companies shown to be affiliated through stock holdings or common stock ownership, because such testimony has no bearing on any issue in this case, the only issues being first the reasonableness of the gate rate fixed by the Railroad Commission, and second the question of whether or not the attempted enforcement of that gate rate operates to burden and interfere with interstate commerce, and the matter of the details of the officers and directors of the distributing companies can have no bearing on any issue in the case, and would simply serve to clutter up the record.

The Court: I overrule the objection.

Mr. Shannon: Note our exception.

[fol. 168] Mr. Griffith: Would it be understood that our objections without reiteration will run to similar interrogations?

The Court: Yes, just so that you confine it strictly to similar questions.

Mr. Shannon: It goes specifically to any questions going to who are the officers and directors of the distributing companies.

The Court: No, the question asked here is taking a man shown to be an officer and director of the Lone Star Gas Corporation and the Lone Star Gas Company, and then

undertaking to show that he is also an officer or director of one of the affiliated companies.

Mr. Shannon: Our objection goes to showing the officers and directors of the affiliated companies.

The Court: He has not asked that question yet.

Mr. Shannon: Yes, he asked whether or not Mr. Cobb was an officer of one of the affiliated companies.

The Court: Then I didn't get that—read the question, Mr. Reporter.

(Thereupon the following question was read to the court: "Q. He is a director in the Municipal Gas Company, is he not?")

Mr. Shannon: Then I objected to that question.

The Court: I overruled that objection. I understood you to say he asked the question as to who were the directors; that is, the names of the directors of the companies.

Mr. Shannon: No, sir, I simply had in mind that he might [fol. 169] ask the same question with respect to other men, and our objection would go to the same matter.

The Court: As long as it is confined to that, you have the same objection and the same ruling of the Court each time and you may have your exception.

Mr. Fitzhugh:

Q. Now, Mr. Hulcy, Mr. R. A. Crawford is a director in the Lone Star Gas Company, is he not?

A. Yes, he is a director of the Lone Star Gas Company.

Q. And likewise in the Lone Star Gas Corporation?

A. Yes, he is.

Q. The County Gas Company?

A. Yes, he is a director of the County Gas Company.

Q. And the Dallas Gas Company?

A. Yes, that is correct.

Q. How about the Texas Cities Gas Company? I don't believe he serves in that company, does he?

A. No sir, he is not a director of the Texas Cities Gas Company.

Q. I believe you say Mr. Denning is also a director of the Lone Star Gas Company?

A. Yes, he is a director of the Lone Star Gas Company.

Q. Is he a director of the Lone Star Gas Corporation?

A. Yes, he is.

Q. And likewise County Gas Company?

A. Yes, he is a director of the County Gas Company.

Q. And in the Dallas Gas Company?

A. That is correct.

[fol. 170] Q. And in the Municipal Gas Company?

A. Yes, he is a director of the Municipal Gas Company.

Q. And in the Texas Cities Gas Company?

A. Yes, he is a director of the Texas Cities Gas Company.

Q. Now, Mr. Karl F. Griffith, I believe you say, is a director of the Lone Star Gas Company?

A. Yes, he is a director of the Lone Star Gas Company?

Q. And he likewise serves in the Lone Star Gas Corporation as a director, does he not?

A. Yes, he does.

Q. And in the Texas Cities Gas Company?

A. He is a director of the Texas Cities Gas Company, yes.

Q. Does he serve in any of the other affiliated companies —on the board of directors, I mean.

Mr. Griffith: You refer, Mr. Fitzhugh, to the affiliated companies that are parties signatory to the purchase and sales contracts introduced here in evidence?

Q. Yes.

A. No, sir; I think that is all of the companies, covered and made a party to these sales contracts.

Q. Mr. Griffith, however, is general counsel for account of all of these companies?

A. Yes, he is, with the exception that he is not general counsel for County Gas Company or Dallas Gas Company.

Q. Now, in the case of Mr. R. E. Harding and Ben E. Keith, I believe they serve on no other company except the Lone Star Gas Company?

[fol. 171] A. That is correct; they are directors of the Lone Star Gas Company only.

Q. Now then, Mr. Hulcy, it is not your purpose, is it, to give the idea to the jury that all these contracts here were arrived at through arms length bargaining?

A. Yes, I would say exactly that. That those contracts were passed on by the respective boards of directors for each company involved, and to that extent they were arrived at——.

Q. Do you mean to say, Mr. Hulcy, that the same results would have been reached if the Lone Star Gas Company had been dealing with somebody in no way connected with it?

A. Yes, I do mean exactly that.

Q. You don't think Mr. Denning of the Lone Star Gas Company would be influenced by Mr. Denning also being a member of the Municipal Gas Company directorship?

A. I don't believe Mr. Denning signed either of the contracts I mentioned.

Q. He serves on the board of directors in each company?

A. Yes.

Q. And he votes as to the policies of each company?

A. Yes.

Q. Don't you think his interests in one company would influence his interests in the other company?

A. No sir, I don't think that at all.

Q. You don't think that?

A. No sir, I don't.

[fol. 172] Q. You think under those circumstances, Mr. Denning would have the same ideas regarding these contracts as he would if he were in no way connected with but one of the companies?

A. I think Mr. Denning would be extremely fair and have no partiality with respect to these contracts. Those rates have been in existence for some time and are regarded as fair by both companies.

Q. You don't think Mr. Karl F. Griffith, as general counsel for both companies, would give ideas to one company, or advice, which would be detrimental to the sister company, do you?

The Court: I can understand, Mr. Fitzhugh, that it might be embarrassing to Mr. Griffith, as opposing counsel here, to object to that question which would however call for a conclusion of the witness as to what Mr. Griffith might do, and also in addition to calling for a conclusion, would be simply an argument with the witness.

Q. All right.

Mr. Griffith: I appreciate the Court's observation, but I have no objection in the world to the witness testifying as to that matter.

Q. You have been present, have you not, Mr. Hulcy, at meetings of the boards of directors of the Lone Star Gas Corporation?

A. Yes, I have.

Q. Isn't it a fact that that corporation selects and con-

trols the selection of the boards of directors of companies affiliated with it?

[fol. 173] A. Naturally the Lone Star Gas Corporation would have that right, owning the majority of the common capital stock of the affiliated companies.

Q. And any time a director in one of the affiliated companies did not act so as to meet the wishes of the Lone Star Gas Corporation he would be immediately let go from that Board of directors of the affiliated company, wouldn't he?

A. I don't know that actually has ever happened. I could not answer that, because those changes have not been made. Evidently the directors have satisfied the board of directors of the Lone Star Gas Corporation, because no such changes have been made.

Q. But the power exists to make the change?

A. Oh, there is no question about that.

Q. Now, take your Exhibit No. 4, and turn to your first page under your first item, gross revenues, where you show gas sales in an amount exceeding Seven Million Dollars for each of the two years there shown.

Mr. Griffith: You mean on the second sheet?

Q. Yes, the first inside sheet. To whom were the gas sales, represented by these figures given in your exhibit; to whom were these sales made?

A. They were made to the several distribution companies that Lone Star Gas Company furnishes gas to, for both domestic and industrial purposes, and also includes main line sales made by the Lone Star Gas Company, and also includes [fol. 174] the revenues from sales made to compressor stations and gasoline plants—that is, for fuel purposes.

Q. Now, where you allude to sales made to distributing companies you are talking about the affiliated companies that we have just been talking about in every case except in the case of the Gainesville Gas & Electric Company at Gainesville, and the Waxahachie Gas Company at Waxahachie.

A. And the Southwestern Light & Power Company at Temple, Oklahoma, would also be another exception.

Q. Speaking only now of the Texas business, Mr. Hulcy, the Gainesville Gas & Electric Company and the Waxahachie Gas Company are the only two companies that the Lone Star Gas Company sells to, except the other affiliated companies already mentioned?

A. Yes, at this time and covered by this particular exhibit. That also would be true as to a part of the year 1931 for the reason that Abilene and Cisco, during a portion of the year 1931 were sold at the City Gate, but as of October 1, 1931, the properties at both Abilene and Cisco were acquired by the Community Natural Gas Company and so from that time on those sales were made to the Community Natural Gas Company.

Q. Now what portion of gas sales is attributable to domestic sales, and what part to industrial sales?

A. If you will give me just a minute; if I can get it for you.

The Court: Are you speaking of what's shown on this page?

Q. Yes, for each of the years; I meant 1932 and 1933.

[fol. 175] A. Well, this exhibit covers the twelve months ended June 30, 1933, and not the calendar year. For the year 1932, the Industrial Sales by the Lone Star Gas Company amounted to $2,176,552.45. Therefore, the difference between that amount and the total gas sales shown would be from domestic gas sales if sold at 32 cents per 1000 cubic feet. This schedule does give effect to a 32-cent Gate rate.

Q. Which rate incidentally has never been charged?

A. No, sir; it has not. It is merely giving effect to the rate ordered by the Railroad Commission and set out in their opinion and order.

* * * * * * *

Q. While you have your working papers, Mr. Hulcy, I wonder if you could give us the separation as to domestic and residential gas sales for the year 1931?

A. You mean industrial and domestic.

Q. Yes, sir. I mean by that, as actually sold.

A. As actually sold, and not giving effect to a 32-cent rate?

Q. Yes.

A. All right. For the year 1931 the industrial gas sales by Lone Star Gas Company amounted to $2,445,681.55. The domestic gas sales by Lone Star Gas Company amounted to $6,818,957.90; the two making a total of $9,265,639.45; that being the total gas sales for the year 1931.

[fol. 176] Q. Now, what were the actual domestic sales in 1932—for the year ended December 31, 1932?

A. The actual domestic sales for the year ended December 31, 1932 amounted to $6,653,160.92.

Q. And do you have the same figures for 1933?

A. Yes, sir. The domestic sales by the Lone Star Gas Company for the year 1933 amounted to $5,583,008.07; the industrial gas sales amounted to $2,105,716.03; making a total of $7,688,724.10.

Q. You have the same figures for the year ended March, 1934, and April, 1934?

A. I will have to make a calculation here, because I have the industrial gas broken down further for those periods than I do for the other. It will not take me but a minute, and I will give it to you. (Witness takes time to figure.) All right; for the twelve months ended March 31, 1934 the domestic gas sales by Lone Star Gas Company amounted to $5,755,413.54; the industrial gas sales by Lone Star Gas Company amounted to $2,170,861.34; making a total of $7,926,274.88. For the twelve months ended April 30, 1934, the domestic gas sales by Lone Star Gas Company amounted to $5,732,140.97; the industrial gas sales amounted to $2,189,305.82; making a total of gas sales of $7,921,446.79.

Q. Now, during those periods, Mr. Hulcy, the industrial revenue seemed to be fairly constant; isn't that true?

A. What particular periods are you talking about?

[fol. 177] Q. For all the periods you have given us these figures on—for the years 1931, 1932, 1933, and the periods ended March 31, 1934 and April 30, 1934?

A. Well, 1931, the industrial sales amounted to $2,445,000.00 plus; for 1932, $2,176,000.00 plus; for 1933, $2,105,000.00 plus; for the twelve months ended March 31, 1934, $2,170,000.00 plus; and for the period ended April 30, 1934, $2,189,000.00 plus. There is a spread of around $340,000.00 between the high and the low of those respective periods.

Q. Now, the domestic shows considerable more fluctuation, does it not?

A. Yes, sir.

Q. Dropping from 1932 to 1933 by over a million dollars?

A. Yes, sir; something in excess of a million dollars.

Q. Why would you say that happened?

A. Well, that very likely is caused from a number of reasons. One of the main reasons is economic reasons; loss of customers served, and that is one of the major reasons; and the weather, of course, had something to do with it also, I would say.

Q. How much did the weather have to do with it? Wasn't that the main thing?

A. No, sir; it certainly was not the main thing. There is quite a difference in the number of customers served—that is domestic customers served by the several distribution systems to which the Lone Star Gas Company served gas [fol.178] for domestic purposes between 1932 and 1933.

Q. Do you have the number of customers, or the average number of customers for these periods?

A. I think that I have those somewhere here. What periods do you want?

Q. 1931.

A. In the year 1931, the average number of domestic customers furnished by Lone Star Gas Company was 209,615; for the year 1932 was 207,888.

The Court: Just a minute, gentlemen; we don't want to go too far afield here, and I don't see the materiality of the number of customers served.

Mr. Fitzhugh: The materiality is this: they have submitted here operating statements over three years. We want to show whether there is any abnormality in those years as to the number of customers, the temperature for those years, or business conditions, that make those abnormal for any reasons.

Mr. Griffith: This witness has only testified as to matters of fact which have actually happened as reflected by the books. It becomes immaterial whether there is any abnormality in the situation; it becomes immaterial whether the number of customers was one figure, or some other figure; it becomes immaterial whether the winter was warmer or colder. What the witness has done in here is to set forth [fol. 179] what has actually happened, as contrasted with what might happen.

Mr. Fitzhugh: And the reason he has done that is that he wants this jury to decide what the proper operating revenues and expenses will be for the Company in the future. If for any reason they have introduced exhibits for these abnormal years that are not a fair criterion for future prediction we want to point that out. I have not asked the witness any questions but what he can answer.

The Court: You might sit here and ask questions from now to Christmas, but if they are not material, what is the use of it. What difference does it make in this case whether

he served one hundred thousand or two hundred thousand customers.

Mr. Fitzhugh: I would like to know what the number of customers are for these years.

The Court: What difference does it make?

Mr. Fitzhugh: We are leading up to show that the statements introduced here for the years 1931, 1932, and 1933, that those were depression years and abnormal.

The Court: Do you have to ask him how many customers they had for you and and this jury to understand that those were depression years?

Mr. Fitzhugh: Yes.

The Court: We all know what happened during 1931 and '32, and one of the higher courts said just the other day that [fol. 180] they would take judicial knowledge of it. I want to save time and cut out this stuff that does not belong in here.

Mr. Fitzhugh: If you will let him state these figures, I think I can show the materiality of it.

The Court: He stated it for two years. Show the materiality of that before you go further.

Mr. Fitzhugh: We just got up to the year where the sudden drop took place.

The Court: I will accom-odate you, and let you go ahead then with the next one.

Mr. Griffith: We object to the testimony on the ground that it is immaterial and irrelevant.

The Court: All right. Let it go one more year.

Mr. Griffith: Note our exception.

The Court: All right.

Q. I want to know, Mr. Hulcy, the average number of customers for the year 1933?

A. The average number of domestic customers served by the Lone Star Gas Company during 1933 was 202,472.

Q. And that is 202,472, as compared with 207,888 for the previous year?

A. That is correct.

Q. But in that period of time revenues dropped from $6,653,160.00 plus to $5,583,008.00?

A. You have reference to domestic revenues?

[fol. 181] Q. Yes.

A. That is correct.

Q. Would the decrease in the number of domestic consumers as between those years account for the difference?

A. No, sir; it would not account for all that difference.

Q. What other reasons——

A. Well, I think the general economic conditions, in addition to loss of customers, enters into it also.

Q. You mean besides the number of customers falling off, each customer used a little less gas?

A. Yes, sir; they did.

Q. Do you have any figures for these years for the degree days deficiency?

The Court: What is that?

Q. Degree days deficiency.

The Court: I don't understand you.

Q. Degree days deficiency. It is a term used by them. What do you mean by that?

A. I haven't used it, Mr. Fitzhugh.

Q. Do you know what it means?

A. Degree days deficiency?

Q. Yes.

A. Probably I can offer an explanation. "Degree days of deficiency", we might call it the yardstick of measurement of weather conditions as affecting heating requirements. We assume, and go on the assumption, that when [fol. 182] the temperature falls below 65 degrees, then it will be necessary to have some heat in order that the person or persons might be comfortable. For instance, on any particular or given day, say, that the average temperature for that day was 50 degrees; that is the average or mean of the high and low; then that mean temperature of 50 degrees deducted from 65 degrees would give a figure of 15 degrees, or what you would call 15 degrees day deficiency. Now, the accumulation of those daily degree days of deficiency into the totals for the year are the yardsticks of measurement that we use in the natural gas business, and in any other fuel business it would be used also to cover the heating requirements. Have I made that clear?

Q. Yes, sir; that is exactly what I wanted to find out. Now, can you give me your yardstick for the years 1931, 1932 and 1933?

Mr. Griffith: We object.

The Court: Yes, sir; the objection is sustained. That hasn't a thing to do with this case.

Mr. Fitzhugh: It certainly is material to show that the year 1933-34 was an unusual year from a temperature standpoint, and this is the way to show that.

The Court: The objection is sustained; you can have an exception.

Mr. Fitzhugh: Note our exception.

The Court: All right.

[fol. 183] Mr. Fitzhugh: We don't care why it happened; we simply want to show it did happen.

The Court: He has already told you that.

Mr. Fitzhugh: Does your Honor hold that we can't show the degree days of defi-iency by years?

The Court: I don't know what I will hold when you get to it.

Mr. Fitzhugh: If we can't show it now, we can't show it at all.

The Court: I can't see what it would have to do with it now. Maybe you will clear the clouds up later and can show it then, I don't know.

Q. Now, for the year 1931, Mr. Hulcy, how much of the $6,818,957.90 domestic sales for that year took place in the state of Oklahoma?

A. Well, I can't tell you.

Q. How much took place in the state of Texas?

A. I couldn't tell you. I don't have that sum divided.

Q. Your records do show that, don't they?

A. Oh, you would be able to dig it out of the records in the Dallas office.

Q. You would be able to dig it out, too?

A. Yes, sir; certainly it could be dug out.

Q. And it could for every other year down to the present time, could it not?

A. The amount, or proportion, of this gas for 1931, or for [fol. 184] 1932, or 1933, that was sold in the state of Oklahoma could be arrived at. You would have to go back to the detail records, and the records are not kept in that manner.

Q. But you could get that amount to the exact penny, in dollars and cents?

A. For sales in Oklahoma, yes. It might require going back into a lot of detail to get it, but it could be done.

Q. The same split could be made between this state and Oklahoma in the matter of industrial gas sales for that year?

A. You mean sold within each of the two states?

Q. Yes, sir.

A. That is right; that is basing on the sales at the point where the sales were made.

Q. The books of the Company also show data from which you could make a separation as to book value or book cost of the properties in the states, isn't that true?

A. I think, generally speaking, that is true, yes, sir.

Q. And similarly, you can make a division as between the two states for gas purchased and production expenses?

A. That is correct.

Q. And the same way you could make a division as to gathering and transmission expenses?

A. Transmission expenses?

Q. Yes, sir.

A. No, sir; you could not.

Q. Why not?

[fol. 185] A. Without making allocations, you could not.

Q. You could do that?

A. Oh, yes. You could make an allocation on anything.

Q. You could make a reasonable allocation?

A. That depends on how reasonable you think it would be; but it would be an allocation.

The Court: Let me ask a question. What do you mean by "allocation"? Is that an estimate?

A. An estimate is exactly what it would be.

Q. A division.

The Court: A division based on an estimate, as I understand it?

A. That is correct; it would be an estimate.

Q. Well, now, line "G", line "H", and line second "H" are three lines which you say originate in Oklahoma and run down into Texas?

A. That is correct.

Q. Those are transmission lines, are they not?

A. Yes, sir; they are.

Q. Now, wouldn't it be a fairly simple problem, Mr. Hulcy, from an accounting standpoint, to make a segregation of the transmission expenses that are properly to be

attributed to Texas business as distinguished from these that belong to Oklahoma business of the Company?

A. It would still be an allocation regardless, because the expenses are not kept on the Oklahoma part all the way [fol. 186] through, and on the Texas part all the way through. It happened that on those particular lines you could get nearer doing it than on some of the others; but it would still be an allocation.

Q. Just because you would have to use an allocation does not mean there could not be a division?

A. Oh, no; a division could be made.

Q. The main thing about the division would be to find some reasonable basis for your allocation?

A. Yes, sir; but it would still be an allocation.

Q. If you had a reasonable basis for allocation, your division might come out fairly accurate?

A. Well, things that are reasonable to one person are unreasonable to another.

Q. I understand that, Mr. Hulcy.

A. I might be able to work out something entirely satisfactory to me, but that would be unreasonable to you, and vice versa.

Q. But no where in any of these exhibits have you attempted by any method to make a separation as between the Oklahoma and Texas business of the Company?

A. No, sir; I have not.

Q. Do you claim that your Company does some interstate business?

A. Yes, sir; I think they do. As I understand interstate and intrastate business they do.

[fol. 187] Is there any sizeable amount of interstate business?

A. Yes, sir; I would say interstate business is in a sizable amount.

Q. Do all of your exhibits, 4 to 14, include the business of the Company which you term is interstate business?

A. Yes, sir; they do.

Q. Would it be possible, Mr. Hulcy, for you to make a segregation of the Operating Expenses and the Operating Revenues of the Company so as to separate the business which is interstate from the business which is intrastate?

A. Well, sir; it might be.

Q. But you made no attempt to do that?

A. Well, I have not completed anything like that yet,

Mr. Fitzhugh. It might interest you to know that I am presently working on something of that kind, but it has not been completed. I don't know what it will look like or how reasonable it will be.

Q. Will we be favored in the future with the results of your labors, Mr. Hulcy?

A. I couldn't tell you about that, Mr. Fitzhugh.

The Court: Have you any idea when you will be through with it?

A. Well, it depends on when I get through here, Your Honor, just how soon I can get to it.

Q. In this Exhibit No. 4 the deductions from Gross Revenues detailed on that sheet are actual expenses of the [fol. 188] Company for the period covered, are they not?

A. Yes, sir; they are, and as reflected by the Company's books.

Q. And you mean by that that they represent sums of cash money paid out by the Company?

A. Yes, sir; I do. Now, with particular reference to canceled and surrendered leases, I want to make it clear: They do represent cash sums of money expended by the Company perhaps in some period other than this accounting period, but they are now being written off, and is the equivalent of the expenditure of cash money. With that exception, all those items represent cash money.

Q. In the case of canceled and surrendered leases, some of the amounts appearing as deductions from Gross Revenues in this statement, you say may have been sums actually used up in prior periods—maybe years ago?

A. No, sir; I would not say sums actually used; but a cash expenditure was made for the asset or property, in this accounting period, it has been determined that they should be canceled,——

Q. Yes, sir.

A. —and surrendered; but they do represent cash money that has been expended.

Q. And an asset used up in part, some parts of which were used up years ago?

A. Well, any part of these leases was not used up at any time before they were actually surrendered.

[fol. 189] Q. I understand that; but just answer my question. This sum for Surrendered Leases for December 31, 1932, is in the amount of $255,000.00 plus?

A. Yes, sir.

Q. It represents the cancelling off on the books of assets which have been used up in part, and parts of which were used up some years back?

A. No; I can't agree that any parts of those assets were used up in other periods than this accounting period. The lease was there on the day before it was cancelled and surrendered in exactly the same shape it was the subsequent day the Company acquired it.

Q. These represent leases that have never had any production?

A. Yes; these are from undeveloped leaseholds.

Q. And the surrendered part does not mean leases that the owners had production on, but had ceased production?

A. No, sir; it does not cover that class of leases.

Q. In this particular year ended December 31, 1932, it was simply a matter of policy with the Company whether they should cancel and surrender leases in the amount of $255,000.00; they might have made it a half million or a million, if they had cared to?

A. If they wanted to write off all the property they had, it could be done.

Q. It is more or less a matter of operating policy with them, to regulate the amounts more or less constant by years?

[fol. 190] A. No, sir; it is not, Mr. Fitzhugh. That is determined by people that are expert in their knowledge about the probability of securing production from gas leases, and they are written off when the term of the lease expires, or at some delayed rental payment period when it is determined that the lease is not now worth the payment of additional rental on it.

[fol. 191] Q. So that this item might be very large in some years and very small in others?

A. Well, that may be true; yes, sir.

Q. Now, then, of the two hundred and fifty-five thousand for the year 1932, what part of that was for delayed rentals?

A. I can't tell you, Mr. Fitzhugh. I would take an examination of the detailed records in the Dallas office for me to tell you. I don't have that information with me.

Q. Do you have it approximately there?

A. No, sir; I could not tell you.

Q. Well, for that same year, 1932, passing on down that

same column to Federal income taxes, you show an amount of $208,202.84. That is the computed Federal income tax?

A. Yes, sir; that is the computed or calculated Federal income tax.

Q. That is not the amount, Mr. Hulcy, that was actually paid by the company for that period?

A. No, sir; it is not.

Q. What was the amount actually paid by the company?

A. Of course, the amount of income tax paid by the company is not divided between public service operations and non-public service operations. The Federal tax as shown on the report for the twelve months ended December, 1932, for the Lone Star Gas Company was $234,312.46.

The Court: That was actually paid?

A. That was the accrual actually paid to the Lone Star Gas Corporation. You understand that we filed consolidated tax returns, as was allowed by the law, for all years [fol. 192] up until and through 1933. That has now been changed. A consolidated return was made for all the companies, just the same as if they were one, and that was the part billed by the Lone Star Gas Corporation to the Lone Star Gas Company for their part of the tax.

Mr. Griffith: Under the new internal revenue Act consolidated returns are not permissible?

A. That is true. Each corporation must make an individual return.

Mr. Stout: That actually went into effect just a few days ago?

A. Yes, sir, as of January 1, 1934.

Q. If I understand you, Mr. Hulcy, the sum you just gave was paid by the Lone Star Gas Corporation for the year 1932 for the benefit of the Lone Star Gas Company?

A. That would be substantially correct, yes.

Q. And was that sum actually paid to the Lone Star Gas Corporation by the Lone Star Gas Company?

A. Yes, sir; it was, or else credited to their account.

Q. How much was the 1931 figure for the same thing?

A. For 1931 it was $296,954.64.

Mr. Griffith: That is the amount of tax actually paid?

A. That is correct; yes, sir—actually paid or credited to the Lone Star Gas Corporation as Federal income tax.

Q. Let's see if I understand you about that, Mr. Hulcy. Do you mean that this two hundred and ninety-six thousand dollars for the year 1931 was actually paid to the [fol. 193] Federal Government by somebody for the Lone Star Gas Company?

A. I didn't say for the Lone Star Gas Company. The Lone Star Gas Corporation made a consolidated income tax return for all of the companies included in the Lone Star group.

Q. Yes, sir.

A. For a certain sum of money. Now, then, they didn't divide that and say that "A certain proportion of this is for the Lone Star Gas Company" or "A certain proportion of this is for the Dallas Gas Company", but they said "This is the amount for the Lone Star Gas Corporation and its affiliated companies". Of course, that would apply to the companies in which the Lone Star Gas Corporation owned in excess of ninety-five per cent of the common capital stock. Then that is the amount in 1931 that was accrued on the books of the Lone Star Gas Company as a credit to the Lone Star Gas Corporation.

Q. Well, who fixed the amount that the Lone Star Gas Company should pay as a part of the consolidated tax to be paid for all these corporations—who fixed that amount for the Lone Star Gas Company?

A. Well, I think that division, Mr. Fitzhugh, was determined from an individual tax return that was made up by the employes of the Lone Star Gas Company.

Q. Didn't the management of the Lone Star Gas Corporation determine what amount the Lone Star Gas Company should pay?

A. No. I have forgotten now just how it was determined; I am not in position to say.

Q. Well, didn't the operating officials of these companies [fol. 194] just *to* get together and decide how much each company should pay?

A. No, sir; they didn't. I don't know that the executive management, so far as that is concerned, ever knew anything about it. That is a matter that is usually handled by the Secretary's or the Treasurer's office. The other executive officers are not particularly interested in just how an allocation or division of Federal income tax is made.

Q. Well, who decided for the Lone Star Gas Company how the thing should be handled on the books? Did you?

A. No, sir; I didn't.

Q. Who did?

A. I could not tell you, Mr. Fitzhugh. Perhaps Mr. Dyer or Mr. Cobb did.

Q. Do you know what caused them to decide upon this amount of two hundred and ninety-six thousand dollars in 1931—how they did determine that amount?

A. Well, very likely that was determined from the individual return made up by the Lone Star Gas Company, which was included in the consolidated group of the Lone Star Gas Corporation and its affiliated companies. Now, whether that was the exact amount of the allocation I don't know.

Q. The law don't bind you on the way you submit your individual return?

A. How is that?

Q. I say, you are not bound by the law on how you shall submit your individual return?

[fol. 195] A. I don't know just how you mean. Are you talking about me personally?

Q. No; I am talking about the return for the Lone Star Gas Company.

A. No, sir. It was purely a matter of record, and it never went to the office of the Collector of Internal Revenue.

Q. Then there is no amount that is computed on the individual return that is governed by the provisions of the law, is there?

A. Well, of course, any individual return that was made up for record purposes, Mr. Fitzhugh, would be calculated in a manner just the same as if it were filed later.

Q. Well, you know where there is a consolidated return made by a bunch of companies, such as yours and affiliated companies——

A. Yes, sir.

Q. —and where you make a consolidated return——

A. Yes, sir.

Q. —that the individual companies do not have to do anything to comply with the law in making a separate report?

A. No, sir, but they usually do that. I know they do in the Lone Star group; each and every company makes an individual tax return, just as if it were going to be filed.

Q. So long as you pay the Federal Government the amount that is required by it on a consolidated report, it does not make any difference to the Federal Government how you divide up the amount of the tax?

A. Well, the Federal Government—they are interested in [fol. 196] that to a certain extent. You couldn't go in and put it against some weak sister and leave them holding the sack if they didn't pay it; they are interested to that extent. But, generally speaking, so long as the tax is paid they don't care how it is divided, if it is paid.

Q. Now, what was the amount of the tax for 1933?

A. The total Federal tax as shown on the report for 1933 for the Lone Star Gas Company is $173,558.25.

Q. However, in your Exhibit 6, which covers the same period, what do you show for Federal income tax?

A. Exhibit 6 covers 1932, doesn't it?

Q. Yes; I meant 1932.

A. The calculated Federal income tax for 1933 is shown to be $343,835.27.

Q. That is in your exhibit, Mr. Hulcy, where you computed the Federal income tax, you show three hundred and forty-three thousand dollars for the tax for 1933, whereas the company actually paid, even on the basis that you say they figured their tax, $234,000.00?

A. Whatever that amount was I read to you there, Mr. Fitzhugh.

Q. A difference of over a hundred thousand dollars?

A. If it was two hundred and thirty-four thousand, it would be in excess of a hundred thousand dollars.

The Court: Wait a minute. I am interest- in that I wish you would see what they did pay in 1932.

A. $234,312.46.

The Court: All right.

Q. And it is the same way in all the other exhibits from [fol. 197] that date on through, isn't it, Mr. Hulcy?—in each case the computed amount appearing in your exhibit is materially above that actually paid by the company?

A. I would say that it would be; yes, sir. This amount is calculated on the finding set out in this report.

Q. What justification do you have, Mr. Hulcy, for using figures so highly in excess of what the company actually has paid?

A. A good portion of that, Mr. Fitzhugh, is due to losses sustained on non-public service property, gasoline plants, oil properties, operating at a loss, which is claimed by the company for tax purposes, but it is not included in any of these exhibits, and the amount of income tax that has been calculated in each of these exhibits is based upon the actual amount shown herein as available for depreciation and return, then a calculation made for depreciation at five per cent of the rate base, then after that deduction for depreciation, the remainder being calculated at the prevailing rate, nothing has been taken off for interest.

Q. What is the amount that the Government allowed you for depreciation?

A. The Government allows varying rates; I don't know just what amount they are allowing now, because we are not closed up on depreciation for a few years, so I could hardly say just what the depreciation rate is.

Mr. Griffith: You mean there is still Federal income tax liability outstanding and undetermined?

[fol. 198] A. That is quite true; yes, sir; and it has been for a period of time going back further than any exhibit I have sponsored in this case, so I can't tell you just what the income tax liability will be, because they are still open.

Q. You mean your company now has a case pending with the Government to determine the amount of income tax?

A. Yes, sir; we certainly do.

Q. And until that is closed up you won't know what the income tax is?

A. I can't know what the final liability will be.

Q. Well, as a general thing, in making out your return for Federal income taxes to the Federal Government you are allowed to figure depreciation on at least a five per cent rate, aren't you?

A. No, sir; you are not; no, sir. And I can tell you now, Mr. Fitzhugh, that things have changed and are changing with reference to depreciation allowances that the Government is allowing.

Q. Well, do you mean that they are allowing a higher rate?

A. No, sir; I don't. I mean that in newspaper stories it has come out—that is, in the regulations under the Federal income tax law. We are all familiar, I think, with the attitude of Congress at this general session with reference to Federal income taxes and depreciation allowances. The

Committee in hearing the matter wanted to just arbitrarily reduce depreciation allowances by anywhere from twenty-
[fol. 199] five to fifty per cent. The Treasury Department in effect told them not to do that, that they would take care of the matter through the issuing of the regulations. Now it has been changed entirely around. Under the old law you could claim depreciation, and unless the Treasury Department could prove that it was materially wrong they had to allow it; but it has been changed under this new law, and the burden of proof is on the taxpayer and he must satisfy the Treasury Department in all cases, and the regulations governing and covering it are pretty strict.

Q. Now, in accordance with what was the old law you were allowed to make a claim in 1931, weren't you?

A. Yes, sir; you could claim any amount you wanted to.

Q. Well, what did the company claim in 1931?

A. For depreciation?

Q. Yes.

A. The rates were varying, Mr. Fitzhugh. I could not tell you what they were now.

Q. Can you give us an average or an approximation?

A. No, sir; I would not attempt to do that at all.

Q. Well, how, in computing your Federal income tax, if you didn't know what your depreciation rate was, how could you compute it?

A. Well, sir, I used five per cent.

Q. That was wholly arbitrary on your part?

A. No, sir; I would not say it was wholly arbitrary. On our property depreciation has been claimed and recorded on the books at twelve per cent; compressor stations have [fol. 200] been at rates varying from four or four and a half to five per cent; well lines and gathering lines have been at certain rates; transmission lines at other rates. But I have used, not so much because of what was claimed on the books, a rate of five per cent for depreciation, but from my understanding from engineers supposedly competent and capable of knowing, that something about five per cent was a fair rate, and so that is the reason for my using the rate of five per cent.

* * * * * * *

[fol. 201] Mr. Fitzhugh:

Q. Turn to page 5—I mean Exhibit 5, Mr. Hulcy, your second page inside the cover.

A. Yes, sir.

Q. Where you show a statement of revenues, expenses, and amount available for depreciation and return, twelve months ended December 31, 1931.

A. Yes, sir.

Q. On that sheet you show Federal income tax in the amount of $302,302.41.

A. Yes, sir.

Q. How did you find that amount?

A. That amount was arrived at by taking the gross income in the amount of $4,908,024.24 and deducting therefrom depreciation calculated at a five per cent rate on the actual cost of the public service property as reflected by the exhibit, the remainder being calculated at a rate of twelve per cent.

Q. Now, what was the amount of the deduction for depreciation?

A. Well, I don't have it here. I will have to calculate it, Mr. Fitzhugh. (Witness makes calculation.) The amount used as a depreciation and depletion deduction was $2,388,837.48; that amount deducted from $4,908,024.24 leaves [fol. 202] $2,519,186.76 as being subject to Federal income tax. That amount at a 12 per cent rate amounts to $302,302.41.

Q. Now, turn to your Exhibit No. 13, page 16.

A. Page 16?

Q. Yes, sir; which page shows a Federal income tax calculation for twelve months ended December 31, 1931, being the same period covered by your Exhibit No. 5.

A. Yes, sir.

Q. In that exhibit you show an amount for interest?

A. Yes, sir.

Q. Does that amount represent an amount actually paid by the Company for that year as interest?

A. Yes, sir, paid and/or accrued.

Q. Now, why wouldn't that be properly deductible?

A. Well, I don't feel that it would, Mr. Fitzhugh. I don't think that interest has any place in a rate case hearing at all; and, in fact, the only orders that I have ever seen did not take interest into consideration.

Q. All right; but I mean when you are computing the amount that would be payable to the Government for Federal income tax you are entitled to make a deduction for interest, aren't you?

A. Yes, sir, you are.

Q. Just the same as you are for depreciation?

A. That is quite true.

Q. Now, in making your calculation you would make the [fol. 203] deduction for depreciation only, and leave out the deduction you were entitled to for interest. Why did you do that?

A. I didn't include the interest in this deduction.

Q. And I say why didn't you do it?

A. Well, the reason——

Q. The Government allows it, doesn't it?

A. Yes, sir, the Government allows interest all right, but interest at any rate would not be applicable to public service property.

Q. Certainly a very major portion of it would be.

A. Perhaps it would—perhaps it would; but I don't feel that a calculation for interest has any place in arriving at a Federal income tax. There isn't any question about it, but what we pay Federal income tax at the prevailing rate on this amount of net profit.

Q. All right. Now, Mr. Hulcy, you show for this year an amount for interest charges of $1,017,381.94. Tell me what part of that amount would be for non-public service property.

A. I couldn't tell you, sir.

Q. It would be a very unsubstantial amount, wouldn't it?

A. It would be what?

Q. It would be a small amount, wouldn't it?

A. For non-public service property?

Q. Yes, sir.

A. No, I wouldn't say that, Mr. Fitzhugh; I wouldn't say that. I would say a majority of it would be public service property.

[fol. 204] Q. Well, at least a million dollars of that is public service property, isn't it?

A. I wouldn't say that, no, sir.

Q. Does this amount for interest cover the payments made by the Lone Star Gas Company to the Lone Star Gas Corporation as interest on a note made by the Company to the Corporation?

A. Yes, sir, it does include the amount that was paid and/or accrued by the Lone Star Gas Company in favor of the Lone Star Gas Corporation.

Q. Wasn't all that money, Mr. Hulcy, borrowed from the Corporation to build public service property?

A. I wouldn't say it was all public service property. I think there were some gasoline plants built.

Q. Well, what portion of the Company's property is non-public service?

A. Well, I can't tell you right now, Mr. Fitzhugh. It would take calculations, I will state, to determine that, and I don't have the information here available right at this time.

Q. Is it as much as five per cent of the property value?

A. I would have to check into it before I could tell you, sir.

Q. It is approximately that, isn't it?

A. I wouldn't admit that. I would have to check into it before I could tell you.

Q. Well, wouldn't 95 per cent of the amount that you [fol. 205] show for interest charges on page 16 of Exhibit 13 approximate the interest charges for public service property?

A. Mr. Fitzhugh, I couldn't tell you, sir.

Q. And wouldn't if you could, would you?

A. Now, anything that I can tell you, I will be very happy to do it; but then I don't want to commit myself to something I am not sure about.

Q. Well, you know from your Company's books, don't you—you know what the property of the Company is, don't you?

A. Yes, sir, I do.

Q. And you can't tell what portion of the property is non-public service?

A. No, sir, I can't without going to the books and finding out or checking further—that is, in the reports.

Q. Now, on page 39 of Exhibit 13 you assume for the purpose of your calculations on that page the 32 cent rate proposed in the order of the Railroad Commission?

A. Yes, sir, I do.

Q. At what amount, for the purposes of making your calculations, did you consider depreciation to be calculated?

A. In the exact amount as found and allowed by the Railroad Commission—namely, $983,698.43.

Q. To state that as a percentage, it would be approximately 2.14, wouldn't it, of the rate base as found by the Commission?

A. Very likely it would be. The depreciation takes 2.09 plus the amount for depletion.

Q. In other words, in making these calculations——

[fol. 206] Mr. Griffith: Just a minute, Mr. Fitzhugh. He is making the calculation for you.

Q. Yes, sir, that would be 2 point about one three, I calculate here.

Q. In other words, for the purpose of making these calculations, you assume a depreciation rate of approximating 2 point one three or one four, as contrasted with the five that you assume in making the other calculations we have just referred to?

A. Yes, sir; yes, sir.

Q. Now, then, on page 39 for the twelve months ended December 31, 1931, what would your calculations have been, assuming that five per cent depreciation rate?

A. Well, I didn't base that, Mr. Fitzhugh, on anything other than the depreciation allowed and found by the Railroad Commission.

Q. Well, this tax amount is not based in any wise on any findings of the Railroad Commission, is it?

A. It certainly is based upon the amount of depreciation found and allowed by the Railroad Commission, and of which they said the Company would have as profit a tax has been calculated on that amount.

Q. Does the Federal government in requiring you to make out your returns for the purpose of calculating a Federal income tax require you to be bound by any findings of any State Commission?

A. I wouldn't be a bit surprised in this day and time but what they would.

[fol. 207] Q. Do they do it now?

A. Well, I don't know that they do. We haven't had any Commission——

Q. Don't you know as a matter of fact, Mr. Hulcy, that they have never done that?

A. I don't know whether they have or not.

* * * * * * *

Q. Mr. Hulcy, has the Federal government ever required your company to take a rate of less than five per cent—laying aside this case that you say is now pending—have

you ever in the past had to pay on a tax calculated on less than a five per cent depreciation rate?

A. Do you mean over all, or specific units of property?

Q. Over all.

A. Well, I don't know whether it has been less or more than that, Mr. Fitzhugh, but I know that in years past, particularly with reference to 1920, '21, and '22, the Government was liberal in some of their depreciation allowances, but even in the later years of 1925 and '26 you were not able to even claim—that is, as high rates as you had previously been.

Q. Have you settled with the United States Government for your Federal income tax for 1931?

A. No, sir, we haven't.

[fol. 208] Q. What is the Company claiming in its suit against the Government, for depreciation for that year?

A. Well, the Company doesn't have a suit against the Government, Mr. Fitzhugh. The Government hasn't accepted the Company's return, as you know.

Q. All right. In the controversy, whatever may be its status, what does the Company claim as its depreciation rate for that year?

A. I can't tell you, sir. I would have to get the Company's returns to tell you what they claim.

Q. Is it less than five per cent?

A. I don't know that it is; but I can't tell you now.

Q. At any rate, Mr. Hulcy, if you had calculated on page 39 for the year ended December 31, 1931, a depreciation rate—or depreciation at a rate of five per cent, you would have had no Federal income tax whatsoever, would you?

A. Well, sir, I don't know. I will have to make that calculation for you, and I will be glad to, if you wish me to. (Witness makes calculation.) Yes, Mr. Fitzhugh, there would have been some Federal income tax.

Q. In what amount?

A. Approximately fifty thousand dollars. I would say the amount shown, after giving effect to a 32 cent gate rate as being available for depreciation, depletion, and Federal income tax, and return, in the amount of $3,765,160.24. Now, the depreciation and depletion calculation at a five per cent rate would have been $2,212,330.87. That amount deducted from the total amount available would leave [fol. 208-A] $1,452,829.37. The interest paid and/or ac-

crued for that period was $1,017,381.94, and that amount at a 12 per cent rate would have been approximately $52,000.00 plus.

Q. Now, for the year December 31, 1931, Mr. Hulcy, if the Railroad Commission's order had been in effect at that time, the 32 cent rate in effect, and if depreciation had been figured at the rate of five per cent, the amount would have been $50,000.00 plus for Federal income tax due the Government—is that correct?

A. You mean here, if the 32 cent rate——

Q. Yes, sir.

A. Now, you have reference now just to the calculation of the Federal income tax, Mr. Fitzhugh?

Q. Yes, sir.

A. Yes, if the 32 cent rate had been in effect and the Company had been allowed to claim five per cent of the rate base allowed by the Railroad Commission as depreciation and depletion, or, in other words, $2,300,000.00 plus, and deducted the total interest paid by the Company, then the Federal income tax would have been, in round figures, $50,000.00.

[fol. 209] Q. Take any of these exhibits—well, say exhibit 5.

A. Yes, sir.

Q. What do you mean by the new business expense appearing as part of operating expense?

A. New business expense covers the cost of soliciting business; the advertisements that are paid for and carried in the newspapers and trade magazines and so forth in the name of the company, and is set out in detail on Exhibit No. 11, which was sponsored by me and explained this morning.

Q. Where is that—the second sheet?

A. Yes, it will be on the second sheet, in the amount of $126,125.98.

Q. Now are the amounts that you show in Exhibit 11 for the various periods amounts that the Lone Star Gas Company spends directly or are those amounts that the distributing companies pay and charge back to the Lone Star Gas Company and which it accepts and then pays?

A. Well this amount here, Mr. Fitzhugh, includes all of the charges paid by the Lone Star Gas Company during these several accounting periods for all of the items set out

in the classified operating expense statement; which if there was during that particular period any joint ventures or advertisements, I would say, by and between the Lone Star Gas Company and certain distribution companies, and the costs of those advertisements were paid by the distribution companies and in turn billed to the Lone Star Gas Company, then that amount would be included in the [fol. 210] amounts I have set out here.

Q. Well, now, the Lone Star Gas Company has no customers except distributing companies, does it, except for some minor main line sales?

A. That of course is the big part, and that is all of the domestic business.

Q. You do sell, do you not, Mr. Hulcy, some small amounts of gas at farm taps on the main line?

A. Yes, we do.

Q. But for the most part, all of the gas you sell is to distributing companies as customers?

A. Yes, that is true.

Q. And I believe you say in Texas the only two exceptions as to your customers being affiliated companies, are in the case of the Gainesville Gas & Electric Company, and the Waxahachie Gas Company?

A. That is correct.

Q. Well now, is the new business expense that you have listed here representative of sums you have paid out to attach new distributing customers, or to secure new distribution companies as customers, or is it to attach new customers for the distributing companies in the cities you serve?

A. I would say it is to attach new customers to the distribution lines, and of course I feel confident the company did not expect through those advertisements to gain new distributing companies.

[fol. 211] Q. As a matter of fact, you have all the distributing companies attached to your lines right now that are adjacent to the territory served by your company?

A. That is correct, yes.

Q. So this new business expense is for the purpose of attaching new domestic consumers for the most part, isn't it Mr. Hulcy?

A. Not altogether. A substantial part of this as will be noticed in the classified expense, is new business solicit-

ing and commissions; it happens there is no commissions in it and it is all soliciting, however, in the amount of $27,-969.98; that is representative of the salaries paid to the employes in our industrial gas department. All of their time is given to matters in connection with the industrial gas customers, and they do not solicit business from or work on any domestic gas customers; so that is a substantial amount included in the $126,000 that does not have anything to do with the domestic customers served by any distribution company securing its gas from the Lone Star Gas Company.

Q. What part of the amount of $126,125.98 for the year 1931 represents sums accepted by the Lone Star Gas Company for amounts paid out by distributing companies?

A. I can not tell you that, Mr. Fitzhugh.

Q. Can you for any of the other periods?

A. No, sir, I can not. I do not have any of that information with me; I have taken the operating expenses as they appear on the subsidiary expense ledgers.

[fol. 212] Q. Where does the salary of Mr. Grant, and the men that work with him as publicity men, appear?

A. They appear as new business advertising salaries; they are in the advertising department.

Q. What are their duties?

A. Their duties are generally, I would say, in connection with the advertising copy placed by the company, as well as keeping up with any other newspaper work in connection with the affairs of the company, but principally advertising.

Q. During the course of this trial, Mr. Hulcy, I have noticed Mr. Grant has been here in the court room a part of the time.

A. Yes, he was.

Q. What was the purpose of his being here—was he here on advertising work at the time?

A. I don't know that he was here on advertising work.

Q. As a matter of fact, you use Mr. Grant most of the time, don't you, Mr. Hulcy, to obtain favorable publicity and in connection with political matters?

A. No sir, I wouldn't say that, and when you say favorable publicity, I don't know what you mean, but I do think Mr. Grant would be interested in seeing that the facts are contained in the newspaper stories that are written.

Q. Do you recall, Mr. Hulcy, when the trial was in progress at Fort Worth an advertisement appeared in the Fort Worth papers?

A. You don't mean as to the sixty cent gas?

Q. I mean the one that said something about every gas [fol. 213] bill containing so much for taxes.

A. Yes.

Q. That was one of Mr Grant's efforts, wasn't it?

A. You mean the advertisement?

Q. Yes.

A. Yes, I am sure Mr. Grant had something to do with that.

Q. Wasn't the purpose of that piece of advertising, Mr. Hulcy, to impress upon the gas users of the state that their gas bills were largely made up of taxes?

A. I wouldn't say it was largely that, but it was to acquaint the customers of the company with the fact that $7.20 of each of the gas bills per annum paid by them was made up of taxes paid by the gas company, and that in other words, the gas company as to those amounts was in reality simply a collecting agency for the governing authorities which imposed the taxes and over which the company had no control.

Q. Wasn't the purpose of that to try to obtain and bring pressure to bear on the Legislature down here, in order to try and obtain the repeal of those tax laws that put a tax on your company and its operations?

A. You mean ad valorem taxes and things of that kind?

Q. No, I mean the gross receipts tax and other taxes which your company and its affiliated companies pay?

A. No, sir, I wouldn't say that, but it was to acquaint the customers of the company with what they were paying, and trying to get over to them that their gas company was noth- [fol. 214] ing more than a mere collection agency, and that if additional taxes were placed on the gas company that the cost of it would finally rest with the customers, and we felt the customer should know that.

Q. Can you tell me, Mr. Hulcy, how much of the advertising shown for the various years on the second sheet of your Exhibit No. 11 can be separated and identified as covering advertisements of the sort just mentioned?

A. No sir, I can not tell you that; I have never been interested in it, Mr. Fitzhugh.

Q. How much of the new business expense, as it relates to advertising, has been only for advertising of the sort that would tend to point out to customers more intensive uses of gas or new gas appliances or anything else actually connected with the customer use of your product?

A. I could not tell you, Mr. Fitzhugh. I have not attempted to make any breakdown of the specific kinds of ads run in the newspapers and represented by these amounts of money.

Q. There is no separation on the books of the company, is there, Mr. Hulcy, for advertising or the salaries of your advertising department or your new business department, which separation is made on the basis of the purposes of the advertisements or the work done by the men?

A. No, sir; however, understand there is a complete file of all advertisements carried in the advertising department at Dallas and anybody who has the right to go in there can [fol. 215] see a copy of every advertisement that has been run, and satisfy themselves as to the kind that is run.

Q. Yes, we have seen some of those. You don't happen to have any of them with you?

A. No sir, I don't happen to; I didn't bring a single one.

Q. Now, is it your testimony, Mr. Hulcy, that all the new business expense by years, as you have shown on the second page of Exhibit 11 is for new business, or rather where the same applies to advertising, is for advertising which tends to increase the customer use of gas or to explain to customers the use of gas or gas appliances?

A. Well, I wouldn't—I would say that it is all advertising in there—Mr. Fitzhugh, it is either advertising that would explain certain things to customers—Understand, I do not see every copy of every ad that goes into the newspaper; they do not come across my desk, but the vouchers covering the payment for the cost of these various advertisements are paid and so classified in the accounts, and the statement I have here is what is shown by the books of the company and its records, representing the cost to the company of such advertisements.

Q. Now on the same sheet, Mr. Hulcy, you show under general expense, Management Fees and Expense, ranging from $91,000 in the year 1931, to $78,000 plus for the year ending March 31, 1934?

A. Yes, that is correct.

[fol. 216] Q. Now what do you say those management fees are paid for?

A. Well, I believe I stated while ago, Mr. Fitzhugh, that I would consider the principal and outstanding service rendered by the corporation to the company for this amount paid to them by the company, would be in connection with the assistance in financing, and in fact the advancing by the corporation to the company of substantial sums of money, at the present time the balance being $17,600,000.00. In addition to that, the officers of the corporation do render to the Lone Star Gas Company certain legal services, aid them in the matter of general engineering services, general legal services and other executive aid and assistance; and general purchasing services is one of the main ones which I should have mentioned.

Q. Now who is it that does the work of furnishing to the Lone Star Gas Company on behalf of the Lone Star Gas Corporation the financial advice for the company?

A. The financial advice is usually given by three directors of the Lone Star Gas Corporation; the two principal ones, I would say is Mr. George W. Crawford, chairman of the board of the Lone Star Gas Corporation, and Mr. T. B. Gregory, a director and also a vice president of the Lone Star Gas Corporation.

Q. And who is the third one?

A. The third one is Mr. David E. Mitchell, a director of the Lone Star Gas Corporation, but I have particular reference to the first two, as being the principal ones in connection with the financial aid and assistance.

[fol. 217] Q. And the financing you refer to, I suppose, is this loan that has been made by the Lone Star Gas Corporation to the Lone Star Gas Company?

A. At different times money has been advanced by the corporation to the company, aggregating, I believe, at the peak something in excess of Nineteen Millions of Dollars; but it is at this time $17,600,000.00.

Q. When was that loan made?

A. The loans were made at various dates and in varying amounts.

Q. It has been extended from time to time, but the total amount or the peak was reached some years ago?

A. Yes.

Q. When were the principal sums borrowed?

A. It was for various periods ranging from 1926, I believe, Mr. Fitzhugh, up all along, and of course extended all along. The Company has been able to make some payments on the principal and to pay the interest, and then would make new loans.

Q. What was the high point of that loan?

A. Something over Nineteen Millions of Dollars.

Q. In what year?

A. I could not tell you that without going to the records in the Dallas office.

Q. Isn't it a fact that the Lone Star Gas Company has gradually been reducing its debt to the Lone Star Gas Corporation?

A. Yes, it is somewhat less than the high point.

Q. And the sum of it is somewhat less than it was three [fol. 218] or four years ago?

A. Yes, I believe that is correct

Q. You wouldn't say there was any substantial financing done in 1933, would you?

A. Yes, I would say it is substantial, on the renewing of these notes; I would say that $17,600,000.00 is a substantial sum.

Q. Do you mean that the company has a hard time in getting the corporation to renew its own notes?

A. Well sir, it would have a hard time, if it were anybody except the corporation.

Q. Do they pay interest?

A. Yes, six per cent.

Q. And they pay a bonus also, don't they?

A. No sir, they have never paid one single thing except the six per cent interest and the management fees set out in this section of the exhibit; there has never been a bonus paid.

Q. Would say, Mr. Hulcy, that this management fee is justified or rather, you don't mean to say, do you, Mr. Hulcy, that this management fee is being paid by the Lone Star Gas Company to the Lone Star Gas Corporation in lieu of a higher rate of interest on the loan from the corporation to the company?

A. No, sir, I do not. I feel, and I say, that that management fee paid to the corporation is paid for services rendered and does not take the place of any form of bonus or any other payments for other services.

Q. So you do not claim, as justification for the manage-
[fol. 219] ment fee, do you Mr. Hulcy, the fact that the corporation gives the company a low rate of interest?

A. No sir, I am not claiming it on that ground at all; however, I think it would be perfectly justified. That is, you could justify that amount in the interest rate if you so desired.

Q. Yes sir.

A. As a measure of value.

Q. Now, Mr. Hulcy, just how much time did Mr. George W. Crawford spend in 1933 in helping your company with its financial difficulties, if it had any?

A. Of the Lone Star Gas Company?

Q. Yes.

A. I am not in position to answer that, Mr. Fitzhugh. Mr. George W. Crawford's services of course have been general; there has been no particular day which he has set aside as being available for the Lone Star Gas Company, but he rather has been subject to their call for 365 days during the year 1933.

Q. Yes, but how much——

A. That has been the type of service Mr. George W. Crawford has rendered.

Q. How much of Mr. George W. Crawford's valuable time has been spent in behalf of the company, would you say, in that year?

A. I wouldn't say. I would not attempt to say.

Q. Could you say as for the time of Mr. T. B. Gregory?

A. The same statement would be true as to Mr. Gregory.

Q. Or Mr. David Mitchell?

[fol. 220] A. That is true also as to Mr. Mitchell.

Q. Do any of these gentlemen ever make trips to Texas to help your company with its financing?

A. Well, I don't know that they made trips particularly for the purpose of helping the company on the financing. Most of the assistance we have used from the company on finances would be from Pittsburgh; that is the corporation secured the money in Pittsburgh and in turn let the Lone Star Gas Company have it.

Q. Whereabouts in Pittsburgh did you obtain the money?

A. The principal place in Pittsburgh is the Union Trust Company.

Q. Is there any other place?

A. I think perhaps at some times the corporation has borrowed money in New York and perhaps some other Pittsburgh banks. I do not recall right now.

Q. Does Mr. Crawford, Mr. Gregory, or Mr. Mitchell have any connection with the Union Trust at Pittsburgh?

A. I believe Mr. George W. Crawford is a director of the Union Trust Company; he used to be, but I am not sure as to whether he is now or not.

Q. And isn't he also a director of the Mellon National Bank?

A. I am not sure about that, but I don't think so.

Q. And Mr. Mitchell is a director of the Mellon National Bank, is he not?

A. If he is I never heard about it; he may be.

Mr. Griffith: I think possibly he would like to be, Mr. Fitzhugh, but I don't think he is.

[fol. 221] Q. Well for the legal services you say were done in return for this management fee; what man or group of men are available to your company in connection with those services?

A. Mr. Mitchell principally on the part of the Lone Star Gas Corporation. You must understand that Mr. Griffith is also general counsel of the corporation as well as the Lone Star Gas Company. However, I know of my own personal knowledge that Mr. Griffith has conferred with Mr. Mitchell at several different times on legal matters affecting Lone Star Gas Company.

Q. Well, Mr. Griffith is paid a salary by your company isn't he?

A. Yes, he is.

Q. So it isn't unusual he should give his services, is it?

A. No sir; you must have misunderstood me, Mr. Fitzhugh; I didn't mean that just that way. I said I knew of my own personal knowledge several times that Mr. Griffith as general counsel for Lone Star Gas Company has conferred with Mr. David E. Mitchell of the Lone Star Gas Corporation with reference to legal matters concerning the Lone Star Gas Company, and the Lone Star Gas Company does not pay Mr. Mitchell one cent in salary, so to that extent that would be legal services rendered by the corporation to the Lone Star Gas Company.

Q. On such occasions when it is necessary for these two gentlemen to confer, does Mr. Mitchell come to Dallas or does Mr. Griffith go to Pittsburgh?

A. Well I would say generally Mr. Griffith is in Pittsburgh.

Q. And all his expenses of that trip are paid by the Lone Star Gas Company, aren't they?

A. I would say the majority of those expenses are paid [fol. 222] by the *the* Lone Star Gas Corporation.

Q. Well, do you know?

A. I don't know without looking at the individual charts.

Q. Who is the person or persons who perform these management services you speak of in helping the Lone Star Gas Company with accounting problems?

A. The Lone Star Gas Corporation, particularly in connection with the annual audits of the underlying companies, made arrangements with the firm of Haskins and Sells whereby they would make the audits for all of the companies, and then the costs of such audits would be prorated to the several affected companies; and I think it goes without saying that any firm doing an audit of that magnitude, that you would be able to secure more favorable prices than you would for any single individual company; and to that extent the Lone Star Gas Company has profited by that arrangement made by the Lone Star Gas Corporation.

Q. Well, Mr. Hulcy, the Lone Star Gas Company pays for every audit that Haskins and Sells ever makes of the Lone Star Gas Company, in addition to this management fee?

A. Yes, sir; they do; but that arrangement has been made by the Lone Star Gas Corporation, and on account of the other companies included in the Lone Star Gas Corporation group which are being audited, then I feel that the charge to the Lone Star Gas Company is less than it would have been if they had had an independent audit made only for their own account; so that is a benefit coming from the affiliation [fol. 223] with the Lone Star Gas Corporation.

Q. A benefit of that sort, that is not a cash benefit, is it—not one you could measure in dollars and cents?

A. I would say it would be a cash benefit.

Q. How much, in 1933, would that be worth?

A. Any figure I would give would be an approximation. I would say in the case of the Lone Star Gas Company, the difference in the audit being handled as a part of a group, rather than in a single audit, would be a difference of twenty-

415

five hundred or three thousand dollars,—perhaps more. That is my idea about it.

Q. I understand it is that. How much do you pay Haskins and Sells for your audit?

A. I couldn't tell you; I would have to go to the records to find out.

Q. You pay them a substantial sum, don't you?

A. It runs into substantial figures. I couldn't tell you how much now.

Q. You pay them a sum of money commensurate with their accounting reputation?

A. I would say commensurate with the services rendered.

Q. And they are supposed to be pretty good?

A. I think Haskins and Sells stand at the top of the list.

Q. Now, who helps you with the engineering?

A. An arrangement was made by the Lone Star Gas Corporation with P. McDonald Biddison, an engineer of [fol. 224] quite an experience, I would say—that is, in natural gas management—and through that arrangement Mr. Biddison's services have been made available for all the underlying companies of the Corporation, of which the Lone Star Gas Company is one. That constitutes the engineering services made available to the underlying companies.

Q. I suppose that Mr. Biddison has worked considerably for your Company during 1933?

A. Yes, sir; Mr. Biddison has.

Q. I believe he is to appear as a witness for your Company later on?

A. I understand that he is, yes, sir.

Q. Is he paid his salary by your Company or by the Corporation?

A. His salary is paid by the Lone Star Gas Corporation.

Q. When he is loaned to your Company, who pays his salary?

A. The Lone Star Gas Company would pay its proportional part, which would be billed by the Lone Star Gas Corporation.

Q. Together with all his expenses?

A. That is quite true. However, I might add this, Mr. Fitzhugh, that if there is any time when Mr. Biddison was not aiding in actual work for any of the underlying companies, then the Lone Star Gas Corporation would stand those charges. He is paid a regular salary in the form of a retainer by the Corporation.

Q. How much is that retainer?

[fol. 225] A. Well, sir, if I remember correctly, I believe it is twelve thousand dollars a year.

Q. And what is the basis of the Lone Star Gas Company's payment for Mr. Biddison's services?

A. I couldn't tell you now, other than it is an allocation or prorata of the time on a monthly basis—on a per day basis.

Q. It is part of that twelve thousand dollars that he gets, is it not?

A. Oh, yes.

Q. Now, on pipe purchases I believe you said you have the services of Mr. Simpson at your disposal?

A. Yes, sir; we do.

Q. What are his initials?

A. J. M.

Q. Mr. Simpson, I believe you stated is a Director of the Lone Star Gas Corporation?

A. Yes, sir; he is, and a vice-president.

Q. Now, besides buying pipe for the Lone Star Gas Company and the other affiliated companies owned by the Lone Star Gas Corporation, I believe you say Mr. Simpson makes purchases for some other companies?

A. He is Chief Purchasing Officer of the Columbia Gas and Electric Corporation.

Q. Does he hold an office with that Company?

A. I am not positive just what—I am sure he does; but I [fol. 226] am not positive just what it is. I do know that his principal responsibilities are in connection with the purchases.

Q. Does he buy for anybody else besides the Columbia Gas and Electric group of companies and the Lone Star Gas Corporation?

A. Yes; I think he handles the larger purchases for the Western Public Service Corporation.

Q. How large a corporation is that?

A. I believe the capital stock account and the property account of the Western Public Service Corporation amount to some thirty million dollars. It is a company that operates in Colorado and Utah, their principal markets being Salt Lake City.

Q. So all told, Mr. Simpson buys for quite a large group of companies?

A. Well, I would say that they represent quite a number.

Q. Aggregating about how much capital, would you say?

A. I don't know; but I would say offhand that the property account of the combined properties for which he handles the purchases, in round figures would be at least $750,000,000, I would say.

Q. How long has Mr. Simpson been handling the pipe purchases for the Lone Star Gas Company?

A. Well, sir, I don't know. I believe that Mr. Simpson was handling pipe purchases in 1920 when I came here. For several years I don't know anything about how the orders [fol. 227] were handled. That is my general impression at this time.

Q. You didn't start up this management fee to the Lone Star Gas Corporation until about 1927, did you?

A. 1929, I believe, was the first year.

Q. 1929?

A. Yes, sir.

Q. Mr. Simpson was making purchases for your company prior to that time?

A. Yes, sir; I would say he was.

Q. How was Mr. Simpson or the Lone Star Gas Corporation compensated for pipe purchases they made for the Lone Star Gas Company prior to 1929, the time when you started paying this management fee?

A. They were not compensated.

Q. You could still buy pipe then?

A. We could buy pipe?

Q. Yes.

A. Yes; all we had to do was to get the money together and we could buy it.

Q. And you still have to get money to buy your pipe?

A. Yes, sir; and it is a problem.

Q. And the payment of this management fee did not particularly simplify your problem in the matter of purchases since you were buying through some person all along?

A. Well, the actual mechanics of it were all the same.

Q. It just cost you more than it used to?

A. We paid something for that now, and prior to that we did not.

[fol. 228] Q. Have you been able to get discounts that you did not have available before payment of this management fee on pipe purchases?

A. No; I don't think so, Mr. Fitzhugh. I am sure that we got all the discounts it was possible for us to get with

Mr. Simpson handling it in 1927 or '28. I believe he made the best job it was possible for him to make. I think he put forth as much effort on that then as in 1929.

Q. What are the benefits you get from Simpson making the pipe purchases?

A. I don't think there is any question but Mr. Simpson was able to buy pipe at prices better perhaps, particularly for smaller amounts of pipe, as he was in position to shop around. The Purchasing Agent of the Lone Star Gas Company in Dallas was not in position to shop around, while Mr. Simpson was, and I think Mr. Simpson did secure very favorable prices on small lots of pipe.

Q. Did Mr. Simpson secure better prices on pipe purchases than you would have been able to get had the purchases been made through your Purchasing Department in Dallas?

A. Yes, sir; I think so. The record shows that, I think.

Q. Can you refer to some instances that show that?

A. Well, sir; I think that, particularly in the summer of 1931, Mr. Simpson did secure prices on pipe that just did not have any connection with the market or anything else. It was on small lots,—job lots—; he was familiar with the [fol. 229] conditions at that time, and he bought it at very reasonable prices.

Q. There were lots of job lots floating around at that time and available to anybody that happened to be in the market at that time?

A. I don't know whether they were or not; I am not so sure about that.

Q. Do you have a record of any pipe purchases proving the point you are trying to make?

A. I have a record of pipe purchases that were bought at less than the quoted prices.

Q. You always buy less than the quoted prices, don't you?

A. No, sir; we don't always buy less than the quoted prices.

Q. You can't say that Mr. Simpson always buys pipe at the quoted prices, and has always bought pipe at the quoted prices, and is now buying pipe at the quoted prices, with the exception of 1931?

A. No, sir; I did not say that. You made the statement to me that we always bought at less than the quoted price, and I said we do not.

Q. Occasionally you do buy at the quoted price?

A. I would say that happened very often.

Q. Are you paying the quoted price for pipe now?

A. I have not seen a pipe voucher for some time. I don't know whether we have bought any pipe the last six months or not. That would require an investigation of the records.

[fol. 230] Q. You did make some purchases of pipe in 1933, did you not?

A. In 1933?

Q. Yes.

A. I am sure we did make some purchases, but I do not have a record of those purchases in 1933.

Q. Are you able to say, Mr. Hulcy, whether Mr. Simpson was able to get for your Company any better prices on pipe purchased during that year than the Company would have been able to get in the open market?

A. Well, I would imagine so, particularly for the first half of the year. Now, for the last half of the year, my impression is he would not. That is, nobody could get any preferred treatment; under the Code all buyers looked just alike; there was no preferred treatment for any purchaser regardless of how much pipe he might be in the market for.

Q. Outside of the Code—outside of the time the Code went into effect, was Mr. Simpson able to get your Company any preference at all in the matter of purchases?

A. I believe so. Of course, that is just my opinion, because I have not examined the vouchers for the first part of 1933.

Q. You don't know now the number of any voucher you could refer us to that would show a cheaper price obtained for you by Mr. Simpson than you could get in the open market?

A. For 1933?

Q. Yes.

A. No, sir; I could not.

[fol. 231] Q. How about 1932?

A. No, sir; I do not have a complete record for 1932.

Mr. Griffith: He does have a complete record for 1931, Mr. Fitzhugh?

Mr. Fitzhugh: What is that?

Mr. Griffith: He does have a complete record for 1931.

Mr. Fitzhugh: You mean he can show some purchases in 1931 where advantages were obtained. We would like to have the numbers of those vouchers, every one of them.

A. I think they were all furnished to you previously.

Q. Were they introduced at the previous hearing?

A. Yes, sir; voucher numbers were furnished, and you and Mr. Freese examined those in detail.

Q. If we have all those, don't bother then.

* * * * * * * *

[fol. 232] Q. Mr. Hulcy, yesterday we were talking about the Federal Income Tax computations contained in your exhibits, as well as the actual payments of Federal Income Tax as made by your Company in the past. I would like to ask you, Mr. Hulcy, can you refer to any voucher appearing as a part of the permanent records of the Company that reflects a payment of Income Tax by the Lone Star Gas Company for the years 1931, 1932, 1933, or any part of 1934?

A. No; I don't believe that I could, Mr. Fitzhugh, for the reason that, as I stated before, the entire amount of the Income Tax which is paid for the Lone Star group is paid by the Lone Star Gas Corporation; then bills are made by the Lone Star Gas Corporation against the several un-[fol. 233] derlying companies. In most cases, I would say, that rather than a straight cash payment being made for that identical amount, the amount involved would be credited on the books of the Lone Star Gas Company as a liability due to the Lone Star Gas Corporation, and more than likely that amount would be paid along with other amounts for other services and for other charges.

Q. Then, I will ask you, Mr. Hulcy, if you can refer us to any voucher showing any payment of the Lone Star Gas Company for Federal Income Tax to its parent company, the Lone Star Gas Corporation?

A. No, sir; I thought I had just explained that; I tried to.

Q. If an actual cash payment were made by the Lone Star Gas Company on account of Federal Income Tax it would be evidenced by a voucher, would it not?

A. That is quite true, if it were made for that specific purpose.

Q. I believe you testified yesterday that the Lone Star Gas Company now owes a substantial amount of money to the parent company, the Lone Star Gas Corporation?

A. Yes, sir; they do.

Q. Did I understand you to say that that had been scaled

down to somewhere in the neighborhood of seventeen million?

A. $17,600,000 is the amount presently outstanding, I think, as of December 31, 1933.

Q. How is that evidenced?

A. By notes—a series of notes.

[fol. 234] Q. Are the notes which are evidence of this indebtedness simply promissory notes unsecured by any property or collateral?

A. They are.

Q. They represent, do they not, Mr. Hulcy, simply a promise, unsecured in any way on the part of the Lone Star Gas Company, to pay to the Lone Star Gas Corporation the amount involved?

A. That is true. They are not secured, that is by any mortgage on any property; they are agreements to pay certain debts.

Q. Has there ever been a loan from the Lone Star Gas Corporation to the Lone Star Gas Company executed where a mortgage was executed, or deed of trust, or some other arrangement made to secure the payment of the sums involved?

A. No, sir.

Q. I believe you say your Company was organized in 1909?

A. Yes, sir; June 4th, I believe, was the organization date or date of the charter.

Q. What was the original amount of capital stock at the time your Company was organized?

* * * * * * * *

[fol. 235] A. Either two and a half or three and a half million—I forget which.

Q. Two and a half million, you say?

A. Either two and a half or three and a half million; that is my recollection at this time. I have not had occasion to go into that.

Q. You don't have any papers you can refer to to make certain of the amount?

A. No, sir; I have not. The only thing I would have would be perhaps a copy of the report made by the independent auditors for the Railroad Commission, and that is not a report of mine.

Q. At the time the Company was organized how was that capital stock paid in?

A. I believe that a portion of the capital stock was exchanged for certain assets that were turned into the Company; whether that was for the entire amount or not, I am not sure at this time.

Q. That is, certain leases and property were turned over to the Company when organized for certain amounts of stock?

A. For certain amounts of stock, yes, sir.

Q. In the original transaction wasn't the Petrolia Field—the gas reserve leases and wells in and around the Petrolia area—turned into the Company as a substantial portion of the amount which you say was actually paid in?

A. Well, some parts of the Petrolia Field—not all of it.

[fol. 236] Q. Well, practically all of it?

A. No; I would not say "practically all of it." I recall very well some transactions that would run from fifty to a hundred thousand dollars for other acquisitions, and they are substantial sums.

Q. Wasn't practically all of that two and a half million that was subscribed in property situated in the Petrolia area?

A. I couldn't answer you definitely now; I would have to check into the records and get some information on that; I have not had any occasion recently to go into that.

Q. So you are unable to give us that?

A. That is correct; I am unable to give you that.

Mr. Griffith: That is from memory?

A. That is correct. I could go to the records and get any of that information you might desire.

Q. Now, then, the property that your Company claims at the present time has a greatly enhanced value over that which the Company originally started out with?

A. You mean the total amount of the property?

Q. Yes, sir.

A. The investment has increased greatly.

Q. And the capital of the Company?

A. That is correct.

Q. Now, how is—how much is the capital stock of the Company at the present time?

[fol. 237] A. The Capital Stock account of the Lone Star Gas Company at December 31, 1933 amounted to $28,113,-

220.00—that is, the common capital stock account as of that date.

Q. That is evidenced by—that is the securities that evidence the amount of capital stock are no-par common stock, aren't they?

A. That is correct.

Q. In what amount—what number of shares?

A. 540,00 shares.

Q. Are there any bonds outstanding?

A. At the present time?

Q. Yes, sir.

A. No, sir.

Q. And there have never been, has there?

A. Yes, sir; there were original bonds outstanding of the Lone Star Gas Company.

Q. But they have been recalled in the past?

A. They matured and were paid.

Q. Are there any shares of preferred stock outstanding?

A. No, sir; there is not.

Q. The capital structure of the Company, then, Mr. Hulcy, appears to be a rather simple one?

A. Yes, sir; I would say it is simple.

Q. The only financing required should the Company be reorganized or be organized at the present time, would be nothing but the issuance of 540,000 shares of no-par common [fol. 238] stock and the securing of the loan which the Lone Star Gas Corporation has made your Company?

A. Yes; the $17,600,000—that is about all that would have to be attended to, I imagine.

Q. What was the amount you gave a moment ago, Mr. Hulcy, as to the value—as to the amount of capital stock now—twenty-eight million and something?

A. $28,113,220.00.

Q. To make that clear, Mr. Hulcy, your Company started with properties worth two and a half million in 1909?

A. I said two and a half or three million; I don't know just what the exact amount was now. That would require checking on my part to give you the exact figures on it, but that can be done, and I would be very glad to do it if you desire and give you the information at some later date.

Q. We would like very much to have that information.

A. Well, I will be glad to do that.

Q. Do you have anything to do, Mr. Hulcy, with making out the statements of your Company to the Secretary of State's Office?

A. No, sir; I do not.

Q. Have you ever seen the franchise tax reports made by your Company?

A. No, sir; I don't recall, Mr. Fitzhugh, that I have ever seen them.

[fol. 239] Q. Who does have charge of the making out of those reports?

A. I would say that is a duty of the Secretary's office, Mr. D. L. Cobb being the secretary.

Q. Mr. Cobb, the Secretary, is the person who knows all about that thing?

A. Either he or his assistant, Mr. Uhl, would in my judgment.

Q. What portion of the $28,113,220 present value of the present amount of capital stock has actually been paid in, Mr. Hulcy?

A. I believe the records show twelve and a half or thirteen and a half million dollars that actually came in in cash into the Lone Star Gas Company. That is my recollection at this time.

Q. Where does the rest of it come from?

A. The remainder of it was the value placed on the common capital stock, I believe in 1926, giving effect to an appraisal that had been made setting forth the real worth of the Company's properties at that time; and inasmuch as the common stock was of no-par variety the worth of that common stock was stated in the capital account.

Q. Does this loan of approximately seventeen million, that you say the Lone Star Gas Corporation has given your Company, play any part in the paid-in portion of your capital stock?

A. No, sir; it does not. That entire amount is reflected in the Notes Payable of the Lone Star Gas Company.

[fol. 240] Q. Only twelve and a half million, or approximately that, has actually been paid in?

A. Actually paid into the capital stock account, and so reflected on the books as capital stock.

Q. As either money or property?

A. I would say that is correct.

Q. Mr. Hulcy, yesterday you told us you were engaged at the present time, or had your men working under you, making a segregation of Oklahoma and Texas business?

A. No, sir; I don't believe I said that, Mr. Fitzhugh.

Q. What did you say?

A. I said interstate and intra-state business.

Q. Now, just how far has that work progressed?

A. Well, sir; it has not progressed very far up to the time I left Dallas.

Q. Have you any data at all that you can give us at this time?

A. No, sir; I have not.

Q. How long will it be before you can give us some?

A. Mr. Fitzhugh, I wish I could tell you, but I don't know. It depends on the amount of time, and how soon I can get to it.

Q. Well, suppose that you could start work on that right now, how big a job is it—how long will it take?

A. Well, sir, it would be hard for me to tell you, because it happens to be one of those kinds of jobs that is hard for [fol. 241] you to tell anyone else about how to do. In fact, you don't know how to do it yourself until you get into it. My guess would be that we ought to be able to get something on it in a couple of weeks; but that is just my guess at the present time. It may be less than that, and there are several problems involved in it, that it may be more than that.

[fol. 242] Q. Well, when you do get any of that data assembled, Mr. Hulcy, will you be prepared to present that here at this time?

A. Mr. Fitzhugh, if I work any on it I will be prepared.

Q. All right.

A. I mean by that any kind of report that I work on, naturally I want it to be reasonable enough that I would be prepared to submit it and to stand examination on it.

Q. Where are the general offices of your company?

A. Dallas, Texas.

Q. Is it 1215 Wood Street, Dallas?

A. There is 1915 Wood Street, Dallas.

Q. Where are the general offices of the Community Natural Gas Company?

A. The general offices are at 1915 Wood Street.

Q. Where are the general offices of the Municipal Gas Company?

A. I believe it is 221 South Harwood, Dallas.

Q. Well, that is just around the corner?

A. It is in another building, on another street.

Q. Is it in the same building?

A. No, sir; it is in another building.

Q. The buildings are connected?

A. There is a connection between the two buildings, but they are two separate buildings.

Q. You can walk from one building into the other?

A. Yes; there is a cross-over.

Q. The only thing that keeps them from being the same building is just the wall?

[fol. 243] A. Well, that might be equally true of any two buildings you might pick down town here.

Q. They are on the same floor?

A. No, sir. The two buildings do not adjoin. It happens that one of the buildings belongs to the Dallas Gas Company and the other belongs to the Lone Star Gas Company.

Q. But they are connected, those two companies?

A. They are affiliated; that is true.

Q. Where are the general offices of the Texas City Gas Company?

A. The general offices of the Texas City Gas Company are located at 1915 Wood Street, Dallas.

Q. Where are the general offices of the Dallas Gas Company?

A. 221 South Harwood, Dallas.

Mr. Griffith: I believe that number is 301 South Harwood, isn't it?

A. That may be correct; it probably is.

Mr. Griffith: I didn't want Mr. Fitzhugh to get the wrong address.

A. No, that would be bad.

Q. Well, you might as well say 301 for all of them?

A. No, I would not say that. You couldn't get into that building from Wood Street.

Q. Where are the general offices of the County Gas Company?

A. 301 South Harwood Street—we'll correct that number.

Q. All right. Have I omitted any of the affiliated companies? If I have, they are all at the same place?

A. I would say that the affiliated companies operating in Texas and Oklahoma, the general offices are located either

[fol. 244] at 1915 Wood Street or 301 South Harwood Street.

Q. Yesterday, I believe, Mr. Hulcy, when we quit we were talking about page 2 of Exhibit 11—of your Exhibit 11?

A. Page 2?

Q. Yes, sir.

A. Yes, sir.

Q. We were talking about the general expense items, particularly about the management fees.

A. Yes, sir.

Q. By way of concluding examination of that item, Mr. Hulcy, I will ask you if there are any records of your company which would show the actual cost to the Lone Star Gas Corporation of the services which you say they perform for your company, in return for which you pay those management fees?

A. No sir; there isn't any record of the Lone Star Gas Company that would reflect the actual cost to the Lone Star Gas Corporation of rendering service.

Q. In addition to keeping your own books in Dallas, Mr. Hulcy, isn't it a fact that you keep a dummy set of books for the Lone Star Gas Corporation?

A. There is a memorandum set of books kept for the Lone Star Gas Corporation, a memorandum only. In fact, at the present time, I think that dummy set of books is about twelve months behind, Mr. Fitzhugh; they have not been posted up.

Q. You'll probably keep them behind until this case is over, won't you?

A. I wouldn't say that, Mr. Fitzhugh.

[fol. 245] Q. Are those books available to us for inspection?

A. No, sir; they are not.

Q. You are familiar with those books?

A. I haven't looked at them in a period of two or three years, Mr. Fitzhugh.

Q. Well, aren't you partly responsible for the way those books are kept?

A. I may have been for the way they were originally set up, but I haven't done any work on them in two and a half or three years.

Q. Does the Lone Star Gas Corporation have a permit to do business in Texas?

A. They do not.

Q. Not having a permit and not being a Texas corporation, Mr. Hulcy, is that the reason you say those books are not accessible to us?

A. Well, Mr. Fitzhugh, as I see it the books and accounts of the Lone Star Gas Corporation are not in issue in this case at all and have nothing to do with it.

Q. Well, that is your conclusion.

A. They are not actually books of account; they are memoranda only. If you were entitled to look at any books at all it would be the books kept in Pittsburgh and not memoranda kept in Dallas. They are not a set of books; they are a memorandum only.

Q. Well, they show all the transactions of the company?

A. Well, not in detail, not with supporting data.

Q. What would be the purpose of keeping memorandum [fol. 246] books if they didn't show transactions material to your company?

A. We carry some detail in there that the financial reports do not cover. They are not an original set of books at all.

Q. You are familiar enough with those books, aren't you, Mr. Hulcy, to know whether or not those books show the actual cost of service performed, if there are any performed, on the part of Lone Star Gas Corporation for the Lone Star Gas Company, in return for which the Corporation is paid this management fee?

A. No, Mr. Fitzhugh; there would not be anything reflected in the original set of books or any other set of books that would show the actual cost of service performed for any one particular company.

Q. All right, sir. Now, let's go to the next item in this general expense section.

A. Yes, sir.

Q. Administrative salaries in the amount as shown for the year ended March 31, 1934, $120,761.00 plus.

A. Yes, sir.

Q. What does that item include?

A. That includes salaries of all executive officers—that is, officers occupying administrative positions with the Lone Star Gas Company.

Q. Does it include the salaries of the President, Vice-President and so on?

A. Yes, sir, and Chief Engineer, General Purchasing Agent, and charges of that kind and character.

Q. Do you have a schedule of those salaries?

[fol. 247] A. No, sir; I do not.

Q. Well, it is on the books, isn't it?

A. Yes, it is on the books, in the payroll account.

Q. You are not able to give a breakdown on this item?

A. No, sir; from memory I am not.

Q. Well, from anything—from the books?

A. Well, Mr. Fitzhugh, I didn't bring all the general books down here with me.

Q. Well, could you give us, if allowed some time, a breakdown on this item?

A. You mean by individuals and so forth?

Q. Yes.

A. Mr. Fitzhugh, it is possible to make an account and detailed analysis of every item appearing in any of these classified accounts; the books and records are so kept.

Q. Well, will you find out and give us a detail of the administrative salaries for the year ended March 31, 1934, as shown on your books, sheet 2 of Exhibit 11?

A. Yes, if that is desired; it can be done.

Mr. Griffith: Mr. Fitzhugh, may I ask the witness a question?

Mr. Fitzhugh: All right.

Mr. Griffith: Mr. Huley, I will ask you if within the last two or three years the Railroad Commission of Texas has almost continuously had a number of its auditors on the books, records and accounts of the Lone Star Gas Company and that every book, record and account has been thrown open to the Railroad Commission's auditors for their examination?

[fol. 248] A. That is correct.

Mr. Griffith: And they are now examining the books, records and accounts of the company?

A. They are.

Mr. Fitzhugh: We will stipulate, if you want, Mr. Griffith, that we have been examining your books for some time and are still trying to find out what they are all about.

A. I don't think anybody will have any trouble to find out what they are about.

Q. We have not been allowed to examine the books of the Lone Star Gas Corporation?

A. Well, you examined the books and accounts of the Lone Star Gas Company.

Q. Well, we wanted to examine the books of the Lone Star Gas Corporation.

* * * * * * *

Q. You have in your general expenses, among other items listed, an allowance for regulatory commission expenses?

A. Yes, sir; that is one of the expenditures so classified in this section of the exhibit.

[fol. 249] Q. Before I go into that, Mr. Hulcy, I will ask you if it is not a fact that the Lone Star Gas Corporation owns approximately ninety-nine per cent of the voting common stock of the Lone Star Gas Company?

A. Yes, I would say in excess of ninety per cent.

Q. Ninety-nine per cent?

A. In excess of ninety-nine per cent.

Q. Now, then, referring to these regulatory commission expenses, it shows for the various periods an amount approximating ten thousand dollars per annum. I will ask you just what that item covers in detail.

A. You mentioned ten thousand dollars. I don't find that item in there. The smallest amount I see is seventeen thousand dollars plus.

Q. Yes.

A. With a maximum of one hundred and sixty-three thousand dollars plus.

Q. That is right. I had the wrong column. Seventeen thousand is the least, I believe, isn't it?

A. Yes, for the year 1931.

Q. And one hundred and sixty-three thousand, for the year 1932, is the most?

A. That is correct. That classification of expense or charge is the actual expense incurred and paid by the company in connection with regulatory matters—that is, making appearances before regulatory commissions and/or in courts in connection with rate matters.

Q. Did you have this type of expense occurring prior to [fol. 250] the time that this attempt on the part of the State to regulate your company started?

A. You mean the State of Texas?

Q. Yes.

A. Yes, sir; we did.

Q. Did you have it back, say, in 1925?

A. I don't recall any charges in 1925, Mr. Fitzhugh.

Q. If you had any back that far it would have been due to your case with the Fort Worth section, would it not?

A. Well, at that time it was the Fort Worth Gas Company; it was not a part of the Lone Star Gas Company.

Q. Yes, sir.

A. So, naturally, any charges incurred by what is now the Fort Worth division would not have been reflected on the books of the Lone Star Gas Company.

Q. That attempt on the part of the City of Fort Worth to regulate rates and this case are the only two attempts that have been made in this State to regulate your company?

A. Yes, of the Lone Star Gas Company in the State of Texas.

Q. Well, now, would you expect to have any expense of this sort recurring in the future, Mr. Hulcy, once this case is concluded?

A. Well, sir, that is hard for me to say. Those were the same questions that were asked two years ago in Oklahoma, that were asked a year ago in Fort Worth, and in fact I have heard it for the last three years. Now, it is hard for me to say whether there would be any more expense incurred on that. Personally, I think there would.

[fol. 251] Q. Well, now, you are referring to questions asked you in Oklahoma where Oklahoma was investigating your rates?

A. That is correct.

Q. There might be three cases involved, then, where your company has had rate trouble; this one, the same sort of case that your company had in Oklahoma, and the Fort Worth Gas Company case; is that right?

A. I would say in the present Lone Star system, those are the three cases.

Q. The Fort Worth case has been disposed of?

A. Yes, sir.

Q. And the Oklahoma case has been finally concluded?

A. Yes, I think so, so far as the Commission is concerned.

Q. And this is the final case in which that expense is involved?

A. I don't know that it is, Mr. Fitzhugh. I am not prepared to say just what may happen. I don't know of any-

thing to keep it from starting all over again within thirty days after it is disposed of.

Q. Well, you wouldn't say, Mr. Hulcy, that this item is to be expected as a recurring expense in future years?

A. Yes, I think it will; there will always be certain amounts of that work.

Q. Wait a minute. In the amounts shown in this exhibit?

A. Conditions may change again in one year or two years where expenditures would be made in substantial amounts comparable to these. Now, that is projecting into the future.

Q. Well, in all fairness, you would not be expecting to see them amount to one hundred and sixty-three thousand dollars a year?

[fol. 252] A. Well, no, I haven't set that maximum figure. That happens in only one year, and that is the amount charged for that particular accounting period.

Q. Would you even expect in the future, Mr. Hulcy, to see the smallest amount, which you show for 1931, actually incurred for regulatory expenses?

A. Well, it seems to me that that would certainly be a reasonable amount, an item of seventeen thousand a year.

Q. You think that would be incurred?

A. Well, I think there would be a minimum of that figure.

Q. That would be a guess?

A. Yes; I said a while ago that is projecting into the future.

Q. The last item appearing under your General Expenses is miscellaneous administration expenses. What does that include, Mr. Hulcy?

A. Perhaps I could answer your question best by reading from the classification of accounts the kind of charges made to that particular account. I am now reading from the uniform classification of accounts used by the Lone Star Gas Company for the distribution of charges incurred. This is Account No. 481, Miscellaneous General Expenses: "This account shall include the cost of publishing and distributing annual reports to stockholders, advertising notices of stockholders' meetings, dividend notices and other corporate and financial notices of a general character, chamber of commerce dues and donations, association dues, contributions for conventions and meetings of the industry, cost of experimental work conducted for the [fol. 253] benefit of the industry or the improvement of

service, fees of transfer agents, registrars of stock, and fiscal agents, directors' fees, costs of conducting safety campaigns, and other miscellaneous expenses connected with the general management not otherwise provided for. Also, cost of auditing the books by outside accountants." So the principal amounts included in Account No. 481, so far as the Lone Star Gas Company is concerned, are the cost of the annual audit made by the firm of Haskins & Sells, and dues to the American Gas Association and the several Chambers of Commerce in the territory served by the Lone Star Gas Company.

Q. Now, in your column for the year ended December 31, 1931, for this item, you show an amount of $49,012.06?

A. That is correct.

Q. That is the same item mentioned about the middle of page 8 of the printed copy of the opinion of the Railroad Commission already introduced in this case and on which page are detailed a number of donations appearing as a part of this item; isn't that correct?

A. Well, if you mean, now, donations like the Dallas Community Chest and those here shown, they are not included in that item.

[fol. 254] Q. Well, these donations include money that your Company paid to the American Gas Association, the Greater Dallas Fund, Fort Worth Chamber of Commerce, Uropian Club, Mid Continent Oil and Gas Association, Texas Legislative Service, and Texas Bureau of Economic——

A. That is correct.

Q. —isn't that true?

A. Yes, sir.

Q. And those are—the donations to those organizations are the largest items which go to make up your final total as appearing on this page, isn't that true?

A. Well, I wouldn't say that they are the—that they would account for all of it. Now, the auditing cost of Haskins & Sells is a substantial sum; and I wouldn't say that they are donations, they are subscriptions, Mr. Fitzhugh.

Q. All right; but those amounts are substantially in excess of the amount you paid to Haskins & Sells; those are the largest items, are they not?

A. Well, we have here, as set out in round numbers, about ten thousand dollars, and this total charge amounts

to forty-nine thousand dollars; so there is thirty-nine thousand dollars somewhere that would have to be accounted for that is not set out on page 8 of the printed Order and Opinion of the Commission. So it would take a detailed analysis to tell what are the largest items included in there.

Q. In 1931 your subscription to the American Gas Asso-
[fol. 255] ciation cost your Company $2,727.00?

A. That is correct.

Q. And your subscription to the Greater Dallas Fund was $2,625.00—that is correct, isn't it?

A. That is correct.

Q. Your subscription to the Fort Worth Chamber of Commerce was $1,550.00?

A. That is correct.

Q. And to the Utopian Club $1,491.45?

A. Yes, sir.

Q. To the Mid Continent Oil and Gas Association, $1,350.00?

A. That is correct.

Q. The Texas Legislative Service $1,260.00?

A. That is correct.

Q. And to the Texas Bureau of Economica $1,200.00?

A. That is correct.

Q. Exactly as it appears on page 8 of the Commission's printed Opinion?

A. That is the way it appears there.

Q. Were your subscriptions to those same organizations continued in 1932, 1933, and through 1934?

A. I am sure that they were to the American Gas Association and to the Mid Continent Oil and Gas Association and to the Chamber of Commerce. Now, I doubt very much—in fact, I am sure that you won't find anything to the Utopian Club in those periods.

Q. What is the Utopian Club?

[fol. 256] A. The Utopian Club is an employes' club, and that was a subscription made to the club for their benefit, but on account of lack of space the club was done away with, because we didn't have the space for them to have their rooms in which to meet; but it was purely an employes' club.

Q. You mean employes of the Lone Star Gas Company?

A. Yes, sir, employes of the Lone Star Gas Company.

Q. And affiliated companies?

A. Well, some employes of affiliated companies, in the

later years, particularly 1931, I imagine that is true, were included; but for several years there it was limited to Lone Star Gas Company employes.

Q. What kind of a club was this, Mr. Hulcy—a bridge club, or what?

A. No, sir, it was not a bridge club. They had club rooms and some recreation facilities were furnished by the Company—a radio, and perhaps a few card tables. It was more of a recreation club for them—a place for them to go. The main thought that the Company had in mind was that they would try to furnish some place of amusement for the younger employes to go at night, rather than staying on the streets. Now, that was the main thought behind it.

Q. Now, you say that has been discontinued?

A. On account of space, yes, sir.

Q. Yes, sir.

A. We didn't have the space for the rooms.

[fol. 257] Q. So that that item of expense will no longer be incurred by the Company?

A. I am sure that it will not, and was not incurred in 1932 or 1933.

Q. Well, you don't make any donations to any other society to do the same service, do you?

A. Not that I recall at this time.

Q. Do you still continue to the Greater Dallas Fund?

A. Well, sir, I would have to look—I would have to check the records to find out about that.

Q. You are sure, are you not, that you still contribute to the American Gas Association?

A. Yes, I am reasonably sure of that.

Q. And to the Mid Continent Oil and Gas Association.

A. Yes, sir.

Q. And to the Texas Legislative Service and the Texas Bureau of Economics?

A. I would have to check the records to tell you about that.

Q. Now, the total which you have labeled Grand Total Operating Expense, shown on the last page of Exhibit 11, in the column December 31, 1931, is carried forward by you into your Exhibit No. 5, and appears on the second printed sheet inside of the cover page, does it not?

A. No, not the grand total as shown here. Well, it is shown—that is, the grand total. However, there is the same

detail by classification of expense—that is, by Production [fol. 258] System, Gathering System, Transmission, Compressor Station, New Business, and General Expense. They appear on the second sheet of Exhibit 5; then into the total as reported on the second page of Exhibit 11.

Q. Now, to that amount you add Gas Purchased in the amount of $1,456,830.00 plus, to get the total you show of Gas Expense?

A. That is correct.

Q. Then to that total you add Uncollectible Bills, Taxes other than Federal Income, Canceled and Surrendered Leases, to get your final total for Operating Expense?

A. That is correct.

Q. Who owed your Company these uncollectible bills?

A. Well, sir, I don't recall now just who they were, Mr. Fitzhugh. Of course, that is a matter of record—that is in the office, and we could get those out by individual customers.

Q. Well, whoever it was, it was one of your affiliated companies, wasn't it?

A. No, sir, it was not.

Q. Well, who was it?

A. It was some of the individual users along the main lines. It was not the affiliated companies.

Q. You are sure of that?

A. Well, I am almost positive of it. I can't think of any reason why we would charge off an account against an affiliated company.

[fol. 259] Q. I don't either, and that is the reason I wanted to get a breakdown on it?

A. Do you want me to get you a breakdown on who they are?

Q. I would be pleased to have it, yes. What are the taxes——

Mr. Griffith: Just a moment, until he makes a memorandum on this series of requests.

Q. What are the taxes other than Federal Income?

A. Well, they are made up principally of ad valorem taxes—that is, to the County and to the State, and to the several independent school districts and water districts, and gross receipts tax and franchise tax, and that kind and character of taxes.

Q. The largest single item which goes to make up this total are the City of Dallas city taxes, are they not?

A. No, sir; no sir; in fact, there is very little other than on the general office building that would be city taxes in Dallas—other than that and the shop, I don't think that the Lone Star Gas Company has such a great amount of taxes in the city. I wouldn't say that they are the larger amount at all.

Q. Can you give approximately the amount your Company has to pay to the City of Dallas?

A. Now, you are talking about 1931?

Q. Yes, sir, still talking about Exhibit No. 5.

* * * * * * *

[fol. 260] A. For the year 1931 the Lone Star Gas Company paid to the City of Dallas as taxes $6,823.73.

Q. Now, is that the amount for City of Dallas Taxes that you have included in your total of $399,000.00 as shown in this exhibit?

A. Yes, I would say that is included therein, Mr. Fitzhugh.

[fol. 261] Q. Are you willing to say, Mr. Hulcy, that $399,008.95 that you show for taxes Other than Federal Income in your Exhibit No. 5 is the actual tax—is the actual amount of tax paid by your Company for that year for those items?

A. Well, you understand, Mr. Fitzhugh, that the non-public service properties are involved also; for instance, on automobiles; five and one-half per cent of the total of the automobile tax we have determined that that is applicable to non-public service property. So from the total taxes paid the automobiles' five and one-half per cent has been eliminated. The taxes on the gasoline plants and on the oil farms has also been eliminated, thereby leaving the sum which is applicable to public service property, and that is the amount that has been included in each of the exhibits which I have sponsored.

Q. And for both of those very reasons, Mr. Hulcy, your amount shown on this exhibit represents a computed amount, does it not?

A. No, I wouldn't say a computed amount, Mr. Fitzhugh. It is true that an allocation of taxes on automobiles has been made.

Q. All right.

A. But I wouldn't say that it is a computed amount at all, because almost all of these taxes are direct.

Q. Now, Mr. Hulcy, the last item appearing as your additions to Gas Expense is Canceled and Surrendered Leases.

A. Yes, sir, it is.

[fol. 262] Q. You show that in an amount for this year—that is, the one ended December 31, 1931, of $239,230.96.

A. That is correct.

Q. Just what composes that item?

A. That is the value or actual cash cost to the Company of leases that have been purchased in prior periods or delayed rentals that have been paid thereon, which during this accounting period have been determined to be worthless and/or else terminating or expiring by their own terms, and have been charged off from the assets of the Company.

Q. What do you mean by "delayed rentals"?

A. The standard lease, or almost all leases that are taken are usually for a period of years—say, five years, and the lease itself expires within a period of one year unless a stipulated sum is paid at the end of the year, which automatically puts the lease forward for another year. Delayed rentals are paid on almost all leaseholds.

Q. Delayed rentals are paid, are they not, Mr. Hulcy, for the privilege of keeping in force the lease or the right covered by the contract, where no drilling has occurred?

A. That is about a correct statement, I think, Mr. Fitzhugh.

Q. So on no one of the leases covered in your item for Canceled and Surrendered Leases would there have been any—and where delayed rentals have been paid, would there have been any drilling?

A. Well, as I understand the leases now, it doesn't make any difference about the drilling; it is governed by the [fol. 263] production and not the drilling. You can drill as many wells as you want, but it is still an undeveloped leasehold until you get production in that, and that extends the lease.

Q. I see. Now, had there been any drilling on the Canceled and Surrendered Leases covered by that item as it appears in Exhibit 5?

A. Now, there might have been some drilling—that is a dry hole drilled on some of them. I am not in a position to say about that.

Q. You wouldn't be able to say Yes or No on that?

A. No, not now; naturally, I wouldn't because there are numbers and numbers of leases. I have the amount stated in the books, but not a detail by leases.

Q. I suppose the same would be true of the other exhibits too, wouldn't it?

A. I think that is correct.

Q. You wouldn't be able to say on the amount shown in the other exhibits, either?

A. No, sir, I wouldn't.

Q. Now, refer to your final page in Exhibit 5. This sheet is a typical sheet, is it not—that is, it appears in your exhibits, in the same form, from No. 5 to No. 10, I believe. Is that correct?

A. That is correct—5 to 10, inclusive.

Q. Now, in your first money column I believe you show the amounts actually shown on the books as investment in [fol. 264] the capital accounts for the items listed?

A. Yes, that is correct, with the exception of the automotive equipment and the drilling tools; and they are shown net.

Q. Yes, sir. Now, in order to get your third money column, you add to the totals as shown in your first money column the amount shown in the second column, and which, I believe you say, show the Construction Completed since the entries made in the first money column were made on the books?

[fol. 265] A. Now, that wouldn't be exactly correct. This statement is at December 31, 1931.

Q. Yes, sir.

A. The first column is taken from the permanent investment records; in the construction account there was a certain amount or in other words $60,000 worth of construction that had already been completed and put in operation but which had not been finally checked and transferred to the permanent investment account.

Q. I see.

A. So the totals of column 1 and column 2 is carried forward into column 3.

Q. In other words, this second column just represents whatever construction had occurred since the books had been brought up to date the last time; isn't that right?

A. No—do you mean the investment books?

Q. Yes sir.

A. Of course they have been brought up to date all along but it takes some time to properly check against the engineering records and against material charged to a certain job; for instance if a job is completed in November or December, it will be 60 to 90 days before it can be classified properly—cleared from the construction account and classified into the proper investment account.

Q. Do the amounts shown in your completed construction column represent the actual sums of money paid by your [fol. 266] company for new construction, or the appraised value of such construction after the job is completed?

A. No sir, that is the actual amounts paid by the company; there is no appraisal or anything like that in connection with it at all.

Q. All right, then.

A. It is actual expenditures.

Q. Now then, by adding the first column and the second column, you obtain the totals which are shown in your third money column?

A. That is correct, yes.

Q. And I believe you stated on direct examination, Mr. Hulcy, if I correctly understood you, that the totals shown in your third money column do not represent the actual sums of cash paid out for the property as shown and as are itemized on this sheet, but rather the results of an appraisal that somebody made?

A. That is correct; that the third money column on this sheet does give effect to the appraisal which was made, setting the value and worth of the properties at that time.

Q. Now then, in the fourth column, the next column to the right, headed Revaluation, you show the totals by items, by which you marked up the value of your property on the books of the company as the result of the appraisals made?

A. Those were the amounts placed on the books in excess of the cost as shown by the books; that is correct.

[fol. 267] Q. Now two items, I believe you say, the automotive equipment and drill tools, are shown as net or depreciated items?

A. That is correct.

Q. How did you find, for the automotive equipment, the figure of $124,838.78 shown in your revaluation column?

A. How did I find that?

Q. Yes sir.

A. That amount was set up on the books as revaluation.

Q. Well now, how was that calculated?

A. That was calculated from the appraisal that was made at the time the entries were set up.

Q. What was the date at which that calculation was made? Do you know?

A. The appraisal was made as of December 31, 1928.

Q. Now this exhibit covers or is of the date December 31, 1931?

A. That is correct.

Q. And the automotive equipment as of this date would probably be entirely different from that which existed in 1928, would it not?

A. Very likely it would; I am sure there would have been some material changes.

Q. Now, do you make any sort of provision on the books to take care of the turnover in automobiles, and show the difference in value that might be occurring as of different dates?

A. I believe in the year of 1931 or 1932 certain reserves were set up on the books of the Lone Star Gas Company to [fol. 268] apply against revaluation. Now in 1933 those reserves were written off; for instance, the appreciation on automobiles was removed entirely and limited to certain classes of property.

Q. Well now, handling the automotive equipment by a reserve set up on the books of the company, as you have just testified, would eliminate the necessity of finding as of different dates whether or not the same cars were involved, wouldn't it?

A. I don't know that I just understand you, Mr. Fitzhugh.

Q. Well, I mean if the property of the company was appraised back in 1928, when you had certain automobiles, and then you went to make this sheet, as of December 31, 1931, when you probably had other and different automobiles, that you would not really have to go out and find out whether or not there had been a turn-over in automobiles, because of the reserve you have set up on the books for the purpose of handling your accounts?

A. Well sir, we removed the entire amount; the total appreciation or revaluation shown on the books, I took it off. The only reason I start off with the investment per books is that it would tie in with the detailed schedules taken off by any independent auditors, for the Commission or anyone

else, and I arrived at a cost as reflected by the books at the end of each accounting period. I merely set this out in this detail so that anyone could follow it and tie in with the schedules they would take off.

Q. Now, this $124,000 item appearing in your revaluation item has not been taken out on the books of the company [fol. 269] from the account showing the investment per the books, has it?

A. Do you mean up to this time, Mr. Fitzhugh?

Q. Yes.

A. Yes; if you will look at Exhibit No. 10, this same page —that is, the third page, you will find there that the entire revaluation has been removed from automobiles and written off out of the total carried on the books, and the amount shown there is net, of $83,000 as reflected by the books, as compared with the $212,000 as of December 31, 1931.

Q. All right; now you have not only eliminated the item for automotive equipment in your Exhibit 10 but you have also eliminated the amount for the Dallas Machine Shop?

A. Yes.

Q. Of $43,000 plus?

A. Yes, that is correct.

Q. General office building and equipment, $142,000 plus?

A. Yes.

Q. And $62,000 plus for general office furniture and fixtures?

A. That is correct.

Q. And real estate, $79,000 plus?

A. That is correct. All of those amounts have been removed from the revaluation and the total investments as stated by the books have been reduced to that extent.

Q. Why didn't you also, in your books, eliminate the $13,800,000 plus, shown for compressor station property, due to the write-up as shown by the appraisal?

[fol. 270] A. How much was that?

Mr. Griffith: Read that question.

(Question is read.)

Q. I mean instead of compressor station property, the $13,800,000 plus shown for gathering system and transmission system property.

A. That was a matter determined, so far as the matter of writing off of these items, by the directors of the com-

pany; I had nothing to do with it, but I am merely taking off the statement as shown by the books, as of this particular period.

Q. And your answer would be the same as to the amount shown for compressor station property?

A. In the amount of $1,509,000 plus?

Q. Yes.

A. That is correct.

Q. And also the amount as shown for undistributed intangible properties?

A. That is correct.

Q. In the amount of Six Million Dollars, plus?

A. That is correct.

Q. So, in order to get the true figures, even as shown by your books, for the actual cash outlay of the company, you have to deduct the figures shown in your column for revaluation from the figures shown in your total investment per the books column, which is column 3, do you not?

A. That is, on this particular statement I do, Mr. Fitzhugh.

Q. Yes sir.

[fol. 271] A. However, understand that so far as the books of account are concerned, that the revaluation is set out quite clearly, and it would not be necessary for me, should I so desire, for me to ever make any reference to revaluation at all, because the records are quite clear and I could give you the actual cash cost without mentioning revaluation at all; but I did mention it, as I said while ago, for the purpose of tie-in to the total investment shown per the books.

Q. Are you able to say positively that the figure shown in the last column to the right, labeled cost at December 31, 1931, as shown in your Exhibit 5, is the actual out of pocket cost to the company for the company's properties as of that date?

A. As stated by its books, yes.

Q. Well, are you qualifying that by that final statement of yours? Does it represent the actual out of pocket, or not?

A. Well, it does not represent all of the cost of the property, Mr. Fitzhugh. Costs were incurred in connection with the drilling of wells and with the laying of well lines, that were charged off to operating expenses, and which are not included in this amount of $47,776,749.63 at December 31,

1931, but this is the cost as reflected by the books at that date.

Q. Mr. Hulcy, are you trying to tell the jury that the company's books are not kept to accurately reflect the actual cost of the company's properties?

A. No sir, they do not reflect the entire actual cost of the company's properties.

[fol. 272] Q. What is the purpose of keeping books, Mr. Hulcy?

A. That is a matter of policy entirely, the matter of whether those certain expenses will be charged off to expense, or charged up to capital investment.

Q. What is the purpose of accounting, in your opinion?

A. To record historically the facts that have happened.

Q. And so as to give to the owners of the business, Mr. Hulcy, the information as of any date as to what the property of the owners is, and what the cost of operating the business is and what the profits are; isn't that true?

A. That is quite correct.

Q. I believe you said yesterday that the general overheads up to 1927 actually incurred by the company in construction work had been charged on the books of the company in the past as operating expenses, and not as charges to capital?

A. That is correct.

Q. Now you recognize, do you not Mr. Hulcy, that it is not the purpose of the books, if a correct accounting method is used, to include in operating expense what really represents an addition to capital?

A. Mr. Fitzhugh, as I stated while ago, all matters of that kind is a matter of policy determined by the executive officers, and the accounting forces merely follow the policies dictated by the management.

[fol. 273] Q. I know, but just answer my question now.

A. Well, I don't know whether I can just answer that or not. I would say that the books, properly kept and in conformity with the best of accounting principles, would properly divide between operating expenses and the capital account.

Q. Yes, and where an expense is incurred to add to the property of the company, that expense should be reflected in the capital accounts, properly?

A. Yes, that is quite true, Mr. Fitzhugh. I will agree with you there.

Q. And where that is reflected instead as an operating expense, it results on the books of the company in an understatement of the capital account and an overstatement of operating expense, doesn't it?

A. That is exactly right, yes.

Q. And then to carry the reasoning a little further, where operating expenses are overstated, a financial statement taken off the books as of any particular date must inevitably show an understatement of the profits made by the company for that period; isn't that true?

A. That is correct. Any operating expenses charged as [fol. 274] such when they should have been charged to capital account does understate the net profits to that extent.

Q. So for the period prior to 1927 you will agree, will you not Mr. Hulcy, that the books of the company were kept so that as of any particular date the owners of the business, in taking a financial statement from the books, would show an understatement of the capital account, an overstatement of operating expenses, and an understatement of net profits?

A. That is correct, Mr. Fitzhugh, to the extent that any of the capital charges were included in operating expenses.

Q. Wouldn't that sort of thing result in considerable confusion to the owners of the business, Mr. Hulcy?

A No sir, it would not. The owners of the business would be familiar with what the policies of the company were as to such matters.

Q. And you do not think they would be misinformed from the data taken from their books, on account of knowing just what was being done?

A. No sir, I do not think they would be misinformed.

Q. Of the $47,776,749.63 total shown in your last column to the right, cost at December 31, 1931, in Exhibit 5, isn't it a fact Mr. Hulcy, that part of that amount was paid for, not in cash, but in stock?

A. Yes, there is some of the assets listed, and particularly I have reference to the Petrolia field, that is included herein, that was paid for in stock of the company.

[fol. 275] Q. Can you tell me, Mr. Hulcy, the exact amount as of this date that had actually been paid in cash?

A. No, I could not do that, Mr. Fitzhugh.

Q. Can you tell the amount that was included in that total for property located in the Petrolia field area?

A. I think there was approximately $687,000 at December 31, 1931.

Q. Don't you show a breakdown on that in some of these exhibits here, Mr. Hulcy?

A. On the Petrolia field?

Q. Yes.

A. No sir, I do not. I think I read into the record yesterday——

Q. Yes, you are right, Mr. Hulcy; I see a detail in the record for yesterday. The amount you gave for gas rights was $347,922.91, I believe.

A. It should be 99 cents.

Q. All right; now are you able to say, Mr. Hulcy, the exact amount paid for any particular gas right, contract or lease in the Petrolia area?

A. No, I could not say that, Mr. Fitzhugh.

Q. Well, how did you find this amount then?

A. That is the amount carried on the books.

Q. Well, is there no breakdown whatsoever on the books?

A. Yes, there is a kind of a breakdown. The Petrolia field was handled in its entirety; all of the leases were thrown together. Certain leases have been cancelled and surrendered and I don't think that I could break down by [fol. 276] individual leases and show the actual cash cost by particular leases. It was handled by the field as a whole, rather than in particular leases.

Q. Well, could you tell us this, Mr. Hulcy; how was the amount of $347,922.99 found for purposes of setting up on the company's books; what sort of computations were gone through to get that figure?

A. Originally an account larger than that was on the books as the value of the leaseholds, but since that date certain amounts have been written off, and I believe at one time the investment was net; I mean by that, that the reserves that had been set up for depletion was netted back against the gross investment, this amount being the net difference between the asset and the reserves set up. Do I make that clear?

Q. Yes, I think I understand. Then this figure, as given by you, for the gas rights, is a depreciated figure?

A. Yes, it was. It has the depreciation applied up to some specific date, but I do not recall the exact date now.

Q. Well, do you remember, Mr. Hulcy, the original value given to gas rights in the Petrolia district?

A. No sir, I do not.

Q. So you would be able to say or calculate from that the amount of depreciation that appears in this figure, or depletion?

A. No, I don't know what the original figure was, Mr. Fitzhugh.

Q. The amount given for gas wells as an item of the Petrolia cost is $137,689.06?

[fol. 277] A. That is correct.

Q. How was that amount found?

A. That is the amount shown on the investment records of the company covering the materials only of the gas wells located in the Petrolia field, and does not include any development cost.

Q. Is that figure the result of an appraisal?

A. No, sir, it is not.

Q. Does it represent a depreciated value?

A. No, sir, it does not.

Q. Well now, in order to set up some amount on the books for gas wells, their value had to be found in some way, Mr. Hulcy. How was it done, if it was not done by an appraisal?

A. It was stated on the books; it was stated under a heading on the books, gas wells, investment account, and charged to that account.

Q. How was the original figure found—that is, the original entry?

A. Most all of these gas wells were drilled by the Lone Star Gas Company in the Petrolia field; they didn't take over the field in its entirety with all the wells drilled.

Q. I understand that, but does this figure represent the cost of drilling, the actual cost, or how did you get that cost?

A. Mr. Fitzhugh, the wells drilled in the Petrolia field were drilled on job order numbers; all of the charges were accumulated for the drilling of one particular wells, which included the cost of drilling, the cost of line pipe, the cost [fol. 278] of casing, the cost of the rig and everything used in connection with the drilling of that well, both labor and materials. Upon completion it was found, taking round figures for easy calculation, that the well cost a total of $15,000.00 to drill and complete. Of that amount, $8,000.00 represented labor, and $7,000.00 represented materials. All right, then—the job order was checked and ready for closing and was closed. The $8,000.00 for labor was charged to operating expenses, and the $7,000.00 for materials was charged to investment, and by going back to the investment

records it is shown where the materials are charged in for the specific wells drilled.

Q. Then at the time these properties were originally acquired there were quite a number of wells already producing?

A. It is not my recollection that there were quite a number; there were some, I am sure.

Q. That is, there were some wells in existence at the time the properties were acquired, and some wells were drilled after the properties were acquired?

A. That's right.

Q. Could you give the number of each?

A. No, sir, I could not. That was back in 1909.

[fol. 279] Q. How in the world did you find the book cost, Mr. Hulcy, of the gas wells that were acquired as already producing wells at the time the property was originally acquired?

A. The book cost then would reflect the allocation of the charges as based on the inventories of the materials and leases.

Q. That would be somebody's estimate?

A. No, sir; the prices applied to that inventory would be set up as costs, and the remainder then charged against leaseholds.

Q. When you say you make an allocation, you mean that somebody has just made an estimate of the division?

A. I don't know—just how did I use the word allocation? It would not be a matter of estimate, the matter of inventory. The materials in wells, that would not be a matter of allocation; that would be actually based on the well logs.

Q. The pricing of the materials would be a matter of appraisal?

A. That is correct; it would be an application of prices, whether current or not, to the inventory, and arriving at a value of the materials.

Q. The Petrolia Field is quite generally known to be fairly well depleted, is it not?

A. Well, there has been a lot of gas taken out of there. It does not deliver as much gas as it used to.

Q. Would you say the field is 95 per cent depleted?

[fol. 280] A. You are talking to me about something I am not qualified to talk about.

Q. Don't you set that up on your books that way?

A. I don't recall that it is. I don't recall how it is set up.

Q. At any rate, this figure for gas rights is a depreciated figure, but the figure for gas wells is a hundred per cent figure?

A. Of the cost of materials, yes.

* * * * * * *

Q. Mr. Hulcy, in the total amount for the Petrolia Field you also have included Regulating and Measuring Stations, and Buildings, have you not?

A. Yes, sir.

Q. Are the totals for those items a depreciated value or a hundred per cent value?

A. They are hundred per cent values. The items are one hundred per cent values, other than the leaseholds.

Q. And the leaseholds represent, do they not, Mr. Hulcy, more than all the rest of the items in value?

A. Yes, sir; the leaseholds amount to $347,000.00, and the total investment including leaseholds amounts to $687,000.00 plus.

[fol. 281] Q. You were asked yesterday, Mr. Hulcy, the question: Did the Railroad Commission of Texas in its findings and conclusions eliminate from the rate base and property value of the Lone Star Gas Company, in relation to its public service property, certain gas wells of the Company, gas leaseholds and other property, in what is known as the Petrolia Field, and then you proceeded to go ahead and give the cost of the property referred to.

A. Yes, sir.

Q. In the amount of $687,781.13?

A. That is correct.

Q. Now, you don't mean to give the idea, Mr. Hulcy, that that is the present value of the property covered by the Petrolia Field accounts?

A. My meaning, Mr. Fitzhugh, was—it was my understanding in going over the opinion and order, that the value of the Petrolia Field had been eliminated,—that is by the Commission——

Q. Yes, sir.

A. —and that the cost as reflected by the Company's books of that property at December 31, 1931 was $687,000.00 plus,——

Q. Yes, sir.

A. —and I did not mean that as being—that is the worth

as being either less or more than that as of that date. I was testifying from what the books and records show.

Q. I wanted to make that clear. So you did not mean to [fol. 282] give the idea that if the Railroad Commission left out the Petrolia Field, it left out of the Company's property that should be included a six hundred thousand dollar item?

A. No, sir; I did not place any value on that at all, other than the cost as reflected by the books.

Q. You failed to mention, did you not, Mr. Hulcy, that the Railroad Commission did include in its calculations on operating expenses an allowance for gas produced and purchased in the Petrolia area?

A. Did they allow it?

Q. Well, didn't they?

A. No; I don't recall any expenses being allowed—that is, in connection with it. Certainly, Mr. Fitzhugh, I did not see where any additions were made to the operating expenses of the Company by the Commission for either of the accounting periods. If I remember correctly I tied exactly with the Commission, and I did not find anything set out as an added or additional operating expense to cover the Petrolia field.

Q. You testified yesterday, Mr. Hulcy, as if you had made a very extended study of this Railroad Commission order?

A. I believe I have.

Q. You do know as a fact that no deductions were made from Operating Expenses of the Company as actually incurred during those periods on account of Petrolia operations?

[fol. 283] A. No, sir; there were no deductions.

Q. So they fully cover everything——

A. In the way of operations, yes, that is quite true.

Q. I was under the impression that something over and above what was stated on the books had been allowed. Now, the Commission order on page 27—have you that convenient?

A. All right, sir.

Q. This shows that in addition to the Operating Expenses allowed—this is about the ninth or tenth line from the bottom, I believe, on page 27—that the Railroad Commission allowed for the full amount of gas produced from the Petrolia Field in 1931 at the rate of 4.26 cents per thousand cubic feet?

A. Allowed in the Operating Expenses?

Q. As an addition to the Operating Expenses.

A. No; I did not find that, Mr. Fitzhugh. I didn't so analyze the opinion; but it is my understanding that the Commission did allow the total Operating Expenses incurred by the Company in the Petrolia Field for the year 1931.

Q. And they considered, did they not, as shown on this page, that the 379,984 M. cubic feet produced in the Petrolia Field in 1931 would be paid for at the rate of 4.26 cents to the Company?

A. That is not my interpretation, as I read this Section, and I will state that I have read under "Petrolia Field" no [fol. 284] less than half a dozen times, and my understanding of this section of the opinion, Mr. Fitzhugh——

The Court: What page is that?

A. Page 27. —is where the Commission points out that at the field price of six cents per thousand cubic feet, which has been determined by them, less a compression cost of 1.74 cents per 1000 cubic feet, would leave a net market value of 4.26 cents per 1000 cubic feet, and that the value of that gas would amount to $16,187.32, that being based on the total delivery of 379,984,000 cubic feet at the above quoted price of 4.26 cents per 1000 cubic feet; and that inasmuch as the Commission had allowed Operating Expenses amounting to $30,100 for the Petrolia District, that they were being liberal in connection with it. Now, that is my interpretation of it; perhaps, I am wrong.

Q. How much gas did the Petrolia Field produce in 1932?

A. Mr. Fitzhugh, I don't know just how much.

Q. You don't have a record of that with you?

[fol. 285] A. No, sir; not with me.

Q. It was in an amount less than that produced in 1931, wasn't it?

A. I don't know whether it was or not; I would have to verify that.

Q. It is generally known that that field is gradually playing out?

A. Yes; But I did see figures the other day on 1933, and if I remember correctly the production of the Petrolia Field was about 400,000,000 cubic feet of gas—that is the figure that sticks in my mind,—for 1933.

Q. Now, yesterday, Mr. Fitzhugh, you testified that your Company uses a uniform classification of accounts as ap-

proved, I believe you said, by the American Gas Association?

A. Yes, sir; that is true.

Q. What is the American Gas Association?

A. The American Gas Association is an association composed—that is, its membership being composed of, I will say, practically all of the operating gas companies in the United States.

Q. It is just an organization of gas companies?

A. Yes, sir; it is.

Q. And these gas companies, if I understand you, all got together and got them an accounting manual made up, and that represents a uniform system which you speak of, and [fol. 286] which your Company uses?

A. That is the composite judgment, I would say, as to accounting classifications, of all the operating gas utilities companies in the United States.

Q. Yes, sir. Now, then, the fact that you use a uniform system of accounts does not mean, does it, Mr. Hulcy, that you have adopted any new theory from what you formerly had in the matter of accounting before the adoption of your uniform system?

A. No, Mr. Fitzhugh; this present classification of accounts is more elaborate than the old classification used.

Q. To make myself clear, Mr. Hulcy, what I am trying to get at is this—the classification has nothing to do with accounting theory at all, does it?

A. No, sir.

Q. It is simply a manual for accountants?

A. That is correct.

Q. To guide them?

A. Yes, sir; and in order that there will be a uniformity of charges as between all companies.

Q. And the fact that your Company uses the uniform system does not mean that your accountants cannot make the same amount of human error as before?

A. Yes, sir; that is absolutely true; as long as the human element enters into it, there will be some errors.

Q. And it does not mean that your operating officials are not still given the same latitude in adopting what [fol. 287] method of handling the accounting problems of the Company that they had theretofore?

A. They still have the same right with reference to matters of policy, that they always used; that is quite true.

Q. Yes, sir. There is nothing particularly significant, is there, about the fact that your Company uses a uniform system, except probably to show you are trying to keep the books as best you can?

A. I think that is a very reasonable statement of it, Mr. Fitzhugh.

Q. And I believe you said——

A. We are trying to keep up with the latest practices used by almost all the gas companies.

Q. And I believe you say there are no regulations in Texas upon your Company as to how you shall keep your books?

A. That is correct.

Q. I believe you said yesterday, Mr. Hulcy, that you not only worked for the Lone Star Gas Company, but for a number of other companies?

A. Yes, sir; I do.

Q. Would you mind stating all the positions you hold in the companies with which you work?

A. I am Assistant to the President of the Lone Star Gas Corporation, and also Assistant to the President of the Lone Star Gas Company; I am Assistant to the President of the Lone Star Gasoline Company, and of the Galveston [fol. 288] Shares, Incorporated; also of the Galveston Gas Service Company. It happens I am also a Director in each of those two companies. I am a Director and Assistant to the President of Texas Cities Gas Company; I am a Director and Assistant to the President of the Council Bluffs Gas Company, operating in Council Bluffs, Iowa; I am a Director and Assistant to the President of the Northwest Cities Gas Company——

Mr. Griffith: Operating where?

A. Operating in Washington, Oregon, and Idaho. I am also a Director and Assistant to the President of Coos Bay Gas Company, operating at Marshfield, Oregon. I am also Assistant to the President of the Guthrie Gas Service Company, operating in Guthrie, Oklahoma. I am Secretary and Comptroller of the Northern Natural Gas Company, with headquarters in Omaha, Nebraska. I am also Secretary and Comptroller of the Northern Gas Pipe Line Company, operating a natural gas pipe line, 24-inches in size, from the Panhandle District in Texas on through into South Dakota and Minnesota. I am also Secretary and Comp-

troller of the Minnesota Northern Natural Gas Company; and of the Missouri Valley Pipe Line Company of Nebraska; also the Interstate Production Company; of the Northern Fuel and Supply Company. I am a Director and Secretary and Comptroller of the Argus Pipe Line Company. I am secretary and comptroller of the Garden City [fol. 289] Gas Company and also of the Peoples' Natural Gas Company. Now, I believe that is all the positions I hold.

Q. Your duties toward these various companies include the supervision of the accounting systems of quite a number of them, do they not?

A. I have general supervision of all accounting for the affiliated group of the Lone Star Gas Corporation, and also of the Northern group, that is, holding the office of Secretary and Comptroller of that group of companies.

Q. How do you divide your time—about what proportion of your time do you give to the Lone Star Gas Company?

A. I would say, generally speaking, Mr. Fitzhugh, about fifty per cent of my time is devoted to the Lone Star Gas Company; the remainder of the time being split between the other companies.

Q. Which of these companies pay you a salary?

A. Well, sir; I receive salary from three companies—the Lone Star Gas Company, the Lone Star Gas Corporation, and the Northern Natural Gas Company.

Q. What are the total salaries paid you by each?

A. I will have to make my calculations before I can tell you. The Lone Star Gas Company pays me $5,460 a year; the Northern Natural Gas Company pays me $3,000 a year; the Lone Star Gas Corporation pays me $1,600 a year; making a total of $10,060 a year.

Q. What is it, Mr. Hulcy, that you have been figuring out there?

[fol. 290] A. What you wanted was my salary by companies, didn't you?

Q. Yes, sir.

A. Well, I was trying to give it to you that way.

Q. Well, what is it you had to figure out—some allocation?

A. No, sir; but I wanted to give you the right figures on a per annum basis, Mr. Fitzhugh.

Q. Are you compensated in any way besides the payment of salary?

A. No, sir; I am not.

Q. You don't get a bonus, or stock, or any other remuneration?

A. No, sir; this is the total amount of remuneration I receive from any of the companies I am connected with.

Q. Are you paid extra for special work?

A. No, sir; I am not; this includes everything.

Q. You are a stockholder in all these organizations, are you not?

A. In all these?

Q. Yes.

A. No, sir; I am not.

Q. In a good many of them, you are?

A. No, sir; I am not.

Q. You are in some of them, aren't you?

A. I may have a few shares of Lone Star Gas Corporation; but there is not any of the stock of the Northern Natural group that is held by other than three companies that own the entire issue of common capital stock—I mean [fol. 291] other than the qualifying shares held by directors.

Q. Mr. Fitzhugh, Line "H", Line second-"H", and Line "G", I believe, are three of the lines referred to yesterday which run through the states of Oklahoma and Texas; am I correct?

A. That was Lines "G", "H", and second-"H"?

Q. Yes.

A. Yes; those lines are located both in Oklahoma and Texas.

Q. Now, about how many towns are served by your company in Oklahoma?

A. I believe about twenty-six or twenty-seven, something like that.

Q. The accounting records of the Company show exactly the amounts of gas sold by days to each of the towns in Oklahoma; isn't that correct?

A. Perhaps it could be calculated by days. So far as the accounting records, it has the totals here by months, Mr. Fitzhugh.

Q. Yes, sir; and the amounts for months will be accurately reflected by the books of the Company?

A. That is correct.

Q. And that is true of every town to which your Company delivers gas in the State of Oklahoma?

A. Yes, sir; and that also applies to the State of Texas, too.

[fol. 292] Q. Approximately how many gas fields do you have in the State of Oklahoma?

A. Well, of the major fields—that is, the areas which perhaps might include two or three fields as they are known,—that is, to the operating departments of the Company—but there is the Chickasha District, the Duncan District, the Fox District, and the Loco District. Those are the general fields that I think of right now; there may be other fields.

Q. Now, the books and records of the Company are kept, are they not, Mr. Hulcy, to accurately show all the gas produced in each field?

A. Yes, sir; that can be determined.

Q. And to show the production expenses and the cost of producing such gas?

A. That is true.

Q. The books also show, do they not, Mr. Hulcy, the exact amounts of gas purchased under the amounts paid for all gas purchased?

A. That is correct. That can be determined by individual wells. You understand when I say it can be determined that it would take calculations to determine that; it is not kept in that manner, but the deliveries could be accumulated for individual wells and the field price applied to that particular delivery.

[fol. 293] Q. I believe you say, Mr. Hulcy, that it would take you about two weeks to make the separation?

A. That was my guess, Mr. Fitzhugh.

Q. Could we have some sort of an understanding with you that we would be furnished with the results of that investigation of yours as soon as completed?

Mr. Griffith: This is a trial of a law suit, if Your Honor please.

The Court: I think the witness stated that he would be glad to give it to him.

Mr. Griffith: When and if made.

Q. Well, it is going to be finished, isn't it?

A. Well, sir, I hope to finish it. I have already had some work done on it, Mr. Fitzhugh, and expect to get through just as soon as I can. Now, personally, there may be some problems that I have not thought about at this time that

may slow it up a good deal. I don't know just what can be done upon it.

Q. Mr. Hulcy, did the Lone Star Gas Company make a report to the Congressional Committee to make an investigation of public utilities?

A. Now, was that what was known as the Rayburn Committee?

Q. Yes.

A. Yes, I think they did.

Q. Is a copy of the report made by your company to that committee a part of the records of the company?

A. Well, now, I am not in a position to say, Mr. Fitzhugh, [fol. 294] I have not ever seen the report. I understood it was made, and a report was made by the Rayburn Committee, of which the company had a copy, but I have not ever seen it.

Q. You have seen the report, have you?

A. No, sir; I have not seen it. I have just heard about the report by word of mouth.

Q. So you don't know its contents?

A. No, sir; I don't.

Mr. Griffith: If you would like to have a copy I will be glad to furnish it, Mr. Fitzhugh.

Mr. Fitzhugh: All right. I will ask you, does the report have any statement in there about the split of Texas and Oklahoma gas?

The Court: Are you asking the witness or the lawyer?

Mr. Fitzhugh: I was asking Mr. Griffith, because he is the only one that knows.

The Witness: Well, I didn't know about it.

Q. You are familiar with the fact that the reports submitted for the basis of the computation of gross receipts taxes—State taxes collected by the State of Texas, show a split as between the Texas Business and the Oklahoma business of about 95 per cent for Texas and five per cent for Oklahoma; isn't that true?

A. I don't know just what those proportions are. I don't know just what those proportions are. As I understand it, the gross receipts taxes are based upon the gross receipts received in Texas. Now, those reports are handled altogether by the Secretary's office; they don't come through [fol. 295] my office, and I have not had any occasion to look at it.

Q. Now, as a matter of fact from your own knowledge, Mr. Hulcy, about ninety-five per cent of the business of the company is Texas business?

A. You mean markets—gas sales?

Q. Yes, sir, markets, as to the total volumes of gas delivered, or receipts, either.

A. Well, I would say that somewhere between—maybe ninety to ninety-five per cent of the sales made by the company are in the State of Texas. All of the large markets are in Texas; there is no question about that.

Q. Yes, sir. And of the approximately four thousand miles of pipe line, about fifteen per cent would be the correct mileage to be found in Oklahoma; isn't that correct?

A. At December 31, 1933, the Lone Star Gas Company owned and operated 3,823.97 miles of pipe line in both States, Texas and Oklahoma. Of that amount, 527.16 miles were located in Oklahoma. The remainder, or 3,305.81 miles, were located in Texas.

Q. That, stated in percentage, would be about fifteen per cent?

A. Well, sir, it is 13.8 per cent.

Q. What is the value, as shown on the books, of their gas reserve located in Oklahoma?

A. I could not tell you, Mr. Fitzhugh. I don't have that information with me.

Q. Do you have the information for Texas?

A. No, sir; I don't.

Q. You do know as a matter of fact, Mr. Hulcy, that the [fol. 296] value of gas reserves in Oklahoma, those I am talking about owned by the company, as compared with those owned by the company in Texas, is very insignificant—less than one per cent?

A. You mean the cost as reflected by the books of gas reserves?

Q. Yes.

A. I don't know that it would be less than one per cent. The company does own quite a bit of gas reserves, particularly in the Chickasha field of Oklahoma and some in the Loco field. I don't know that they are less than one per cent—it would take an examination of the records to tell you.

Q. Well, you know that that figure would be true as to the appraised value at the present time?

A. Well, I don't know whether that would be one per cent or not. I know that they are small when compared with the Texas reserves.

Q. When was the Meridian Gas Company purchased by the Lone Star Gas Company?

A. January first, 1932.

Q. At what cost?

A. I have forgotten just what the actual cost was.

Q. Well, it was something over a million dollars, wasn't it?

A. Yes, sir. The actual cost of the property taken over by the Lone Star Gas Company was $1,338,406.21.

Q. Now, the Meridian Gas Company was owned by the Lone Star Gas Corporation, wasn't it, before it was acquired by Lone Star Gas Company?

[fol. 297] A. The Lone Star Gas Corporation owned substantially all of the common capital stock.

Q. So it and the Lone Star Gas Company were affiliated companies before it was acquired?

A. That is true; yes, sir.

Q. The transaction represents, then, simply a book transaction, does it not?

A. No.

Q. So far as the Lone Star Gas Corporation is concerned?

A. You mean so far as the entire group is concerned?

Q. Yes.

A. From a consolidated standpoint, yes; it was a receipt by one company and a disbursement by the other.

Q. Now, then, the figure you gave, I believe you said, represented book cost?

A. That represented actual cash cost to the Meridian Gas Company, the cost to them paid to outsiders.

Q. The cost appearing on the books of the Meridian Gas Company?

A. Yes, sir, their cost.

Q. It was not a depreciated value, then?

A. No, sir; it was not.

Q. What did the Lone Star Gas Company pay for that property?

A. I have forgotten now, Mr. Fitzhugh, but it was in excess of a million three hundred thousand dollars.

Q. They paid, then, the full amount of the book cost undepreciated?

A. Yes, but in excess of that, I would say. I have forgot-

ten just what the amount was, but the figure that I have [fol. 298] quoted was actual cash cost to the Meridian Gas Company of those properties.

Q. What were the considerations that prompted Lone Star Gas Company to acquire the Meridian, or why was this transfer made?

A. Well, I think they felt that it could be operated as a single unit as well as two units, and the fact that it was a pipe line system beginning in the Chickasha field and coming on south and tying in with the Lone Star property, and I think it was a logical transfer and consolidation of property.

Mr. Fitzhugh: I believe that is all.

Redirect examination.

Questions by Mr. Griffith:

Q. Mr. Hulcy, you testified on your Direct Examination and also on Cross Examination that your Exhibits 5 to 10, inclusive, wherein you state the cost to the Lone Star Gas Company of its public service property was an understatement rather than an overstatement of the cost?

A. Yes, sir; I did.

Q. And, summarizing your testimony, do you make that statement by reason of the reasons heretofore assigned?

A. Yes, sir; I do.

Q. That is, that the company failed to capitalize in the earlier years the general and undistributed costs, costs of drilling wells, and the cost of construction of field lines?

A. That is correct.

Q. Now, Lone Star Gas Company started in business in 1909, and, with one exception, I believe you testified, the [fol. 299] costs were not capitalized until 1927 or 1928?

A. 1927, with the exception of 1920.

Q. What was the general practice of other oil and gas companies relative to the capitalization of these charges during the period from 1909 to 1927?

A. Most of the gas companies operating during that period were headed by an executive personnel which had formerly been connected with oil companies, and it was generally the practice of the oil companies, particularly with reference to oil wells, not only to charge off development cost, but I know in some particular cases where the entire

cost of the wells was charged off, including equipment also, and it was the general practice, I would say, with the natural gas companies to charge development expenses to operations. It was looked upon as a hazardous business, and if they capitalized these charges and wells were dry in a year or two years they would be left with a big property account that had no value, and it was a common practice in the industry to charge development cost to operating expenses rather than to capitalize them. It was looked upon as a conservative measure.

Q. Was it also the practice to fail to capitalize undistributed costs from 1909 to 1927?

A. Yes, sir; it was.

Q. And for all those reasons you state that the cost of the Lone Star Gas Company's public service property which is reflected by the books is an understatement rather than an overstatement of the historical cost?

[fol. 300] A. Yes, sir. The figures we used do not include the actual cost incurred for those properties during the earlier years.

Q. Now, Mr. Hulcy, with reference to the amount of taxes other than Federal income taxes which have been put in evidence in Exhibits 4 to 14, inclusive, where you show taxes other than Federal income taxes as paid by the company, is the amount of the tax set forth in each of those respective exhibits all of the taxes paid by Lone Star Gas Company?

A. No, sir; that is not all of the taxes paid by Lone Star Gas Company. Additional amounts were paid—that is, covering non-public service property, oil farms and gasoline plants; they are not included in this statement.

Q. In other words, the amounts included in your statement—that is, in the statements set forth in Exhibits 4 to 14, inclusive—were not only paid in relation to the public service property, but the company had considerable additional taxes covering non-public service property?

A. Yes, sir, and they were paid.

Q. The taxes other than Federal income taxes paid, set forth in your Exhibits 4 to 14, were less than the total of the taxes paid by the company?

A. That is correct.

Q. You have set forth only the tax which is applicable to the public service property?

A. That is correct.

Q. And in your calculations of Federal income tax you have applied only the Federal income tax calculation which is applicable to the gas business of the company?

[fol. 301] A. That is correct, based on the amount available from public service operations.

Q. Now, Mr. Hulcy, on yesterday there were introduced in evidence here contracts between the Lone Star Gas Company and the Dallas Gas Company and contracts between County Gas Company and Lone Star Gas Company governing the sale by Lone Star Gas Company to the County Gas Company and Dallas Gas Company of domestic gas at the city gate?

A. That is correct.

Q. The original contract was executed in 1925?

A. That is correct.

Q. And subsequently extended and amended?

A. That is correct.

Q. The contracts of 1925 provided for the payment of forty cents at the city gate?

A. That is correct.

Q. In the year 1925 was there any affiliation between Lone Star Gas Company and the Dallas Gas Company or the County Gas Company?

A. There was not.

Q. In other words, were those contracts made at arms'-Length?

A. They certainly were.

Q. There was no intercorporate relationship or joint security ownership as between the Lone Star Gas Company on the one hand and the County Gas Company and the Dallas Gas Company on the other hand?

A. There was not.

Q. Prior to the time that Texas Cities Gas Company became an affiliated company of the Lone Star Gas Company [fol. 302] was the Lone Star Gas Company engaged in the supplying of gas to that company for retail distribution in the cities of Waco and Paris, Texas?

A. They were.

Q. And what price was being paid by the Texas Cities Gas Company to the Lone Star Gas Company for domestic gas at the city gate?

A. Forty cents per thousand cubic feet.

Q. In other words, this price of forty cents per thousand

cubic feet was established long prior to the time of the affiliation?

A. That is correct.

Q. Mr. Hulcy, refer, please, to your Exhibit 13. Where in that exhibit do you find your calculation with respect to Federal income taxes?

A. The calculation for Federal income taxes appears in each section of the report. For section No. 1, found on page 16; for section No. 2, found on page 29; for section 3, found on page 39, and for section No. 4, on page 49.

Q. Now, Mr. Hulcy, in all of your Federal income tax applications and calculations as set forth in Exhibit 13 did you give effect to the interest deduction—that is, did you deduct from the net revenue of the company before applying the Federal income tax rate the amount of interest paid by Lone Star Gas Company?

A. Yes, sir; I did.

Q. Why did you do that, Mr. Hulcy?

A. The reason I did that in this exhibit is that all of the [fol. 303] calculations included in Exhibit 13 are based on findings by the Railroad Commission and as set out in their opinion and order, and it was set out in their opinion and order that the interest charges should be deducted before making calculations for Federal income taxes, and for that reason the interest has been deducted all the way through this schedule or this exhibit.

Q. In other words, Exhibit 13 is a correct application of the actual experience of the company and the findings of the Commission?

A. That is correct. The title cover of Exhibit 13 shows as follows: "Accounting Schedules Based on Findings by Railroad Commission of Texas and set out in their Opinion and Order dated September 13, 1933."

Q. Now, Mr. Hulcy, when you came to prepare your Exhibits 4 to 10, inclusive, you did not give effect to the deduction of interest in your calculation of income taxes?

A. No, sir; I did not.

Q. Why did you not do so?

A. I feel, Mr. Griffith, that any profits as found by a regulatory body or as available for return are subject to Federal income taxes at the current rate and that it makes no particular difference how that net profit is used, whether it is used in paying interest or other charges, and further, the different bases of calculation of Federal in-

come taxes will cause you to arrive at different answers for like properties and like businesses.

[fol. 304] Q. Can you give an example of that, Mr. Hulcy?

A. Yes, I can. I have worked out a simple illustration that I thought perhaps would set that out and show what I had particular reference to. I have assumed that there were two companies—we will call them Company A and Company B—that were exactly the same, their properties cost them the same—twenty million dollars in each case, they enjoyed the same revenues, they had the same operating expenses; everything being the same, with this exception, that the capital structure of Company B was made up entirely of common capital stock, and of Company A the twenty million dollars was furnished by fifteen million dollars of bonds and the remainder in capital stock. Now, with those assumptions, Company A sold five billion cubic feet of domestic gas at a price of 40 cents, or for two million dollars; Company B sold the same amount of domestic gas, and five billion feet of industrial gas at an average price of twenty cents, or gross revenues of one million dollars; the total sales for each of the companies being ten billion feet of gas for gross revenues of three million dollars. The gas purchased, operating expenses, and taxes, in both cases, were $1,400,000.00, which would leave each of the companies $1,600,000.00 for depreciation, Federal taxes, and return. The depreciation and depletion was calculated—that is at a rate of 2.09 per cent of the rate base; or, in other words, $418,000.00. Each of the [fol. 305] companies then had $1,182,000.00 that was available for Federal income tax and return. In the calculation of the Federal income tax as actually paid, Company A computed interest charges at six per cent on the $15,000,000.00, or $900,000.00. In calculating their profit for income tax purposes they had $282,000.00 subject to taxes. The current rate was 13¾ per cent. Their Federal income taxes would amount to $38,775.00, which would leave them available for Return $1,143,000.00. On Company B, of which the entire capital structure was capital stock, there was no interest deduction; so they had no interest to deduct for tax purposes. They had $1,182,000.00 subject to Federal income tax, and that, calculated at the prevailing rate or at the same rate for Company A, their income tax was $162,525.00, which left them as available for Return $1,019,475.00. Now, the amount appears as the percentage

of the rate base in each case, of Company A 5.73 per cent; Company B, where their capital structure was all capital stock, only earned 5.10 per cent. In fixing a rate or a calculation of a necessary domestic gate rate in each of the two cases—that is, with property, expenses and sales being exactly the same, it would be necessary for Company A to earn all of their operating expenses and gas purchased, which was $1,400,000.00, and depreciation and depletion in the amount of $418,000.00, and for Federal income tax the amount calculated, $38,774.00, and the six per cent return [fol. 306] on the rate base of $20,000,000.00, which would be $1,200,000.00, or their total earning requirements would be $3,056,775.00. The industrial revenues contribute $1,000,000.00 of those earnings, which would leave $2,056,775.00 that would have to come from the domestic gas sales. The domestic gas sales amount to five billion cubic feet. This volume of gas divided into the amount necessary to be furnished by the domestic gas consumers would leave or would show that it would be necessary for this Company to have a rate of 41.1 cents per thousand cubic feet for their domestic gas. By the same calculations, Company B, that had to pay more income tax, it would be necessary for them to have a 43.6 cent domestic gate rate, or the calculation of the Federal income tax alone would make it necessary for the Company which had all capital stock, to have a domestic gate rate of 2½ cents per thousand cubic feet higher than the other company. On the application of a yardstick of that kind, you would get different results, where the properties are the same, and it just seems to me on the face of that, it is wrong to make calculations other than the way I have done.

Q. Mr. Hulcy, the credit for interest paid by Lone Star Gas Company on actual payments of income tax would amount to about $1,100,000.00, as reflected by your Exhibit 13?

A. That is correct—about $1,017,000.00, I believe, in the [fol. 307] year 1931.

Q. Lone Star Gas Corporation has owing to it from Lone Star Gas Company $17,600,000.00?

A. That is correct.

Q. Suppose to-morrow that that $17,600,000.00 indebtedness were converted into stock of Lone Star Gas Company, what would be the effect upon the Federal income tax situation of the Company?

A. Well, there wouldn't be any interest deductions to deduct before calculating income tax; that would automatically add to the amount paid by the Company of a minimum of $135,000.00 to $140,000.00.

Q. Merely by that change of capital structure?

A. That is right; and would be purely within the control of the company to do it; and that is one other reason that I don't think that calculations should be based on anything that would be subject to control by an operating company to that extent.

Q. Mr. Hulcy, Mr. Fitzhugh has examined you in connection with the fees paid by the Lone Star Gas Company to the Lone Star Gas Corporation.

A. Yes, sir.

Q. You have stated that the Lone Star Gas Corporation has continued to furnish money to the Lone Star Gas Company at an interest rate of six per cent per annum.

A. Yes, sir, they have.

[fol. 308] Q. Have they done that over the last several years?

A. Yes, sir, they have.

Q. And has the Lone Star Gas Corporation at all times been able to procure money for the purpose of furnishing money to the Lone Star Gas Company at an interest rate as low as six per cent?

A. No, sir, they have not.

Q. Will you please tell the jury how much at various times the Lone Star Gas Corporation has been compelled to pay for money while at the same time lending money to the Lone Star Gas Company at a six per cent interest rate?

A. Well, at all times when the Lone Star Gas Corporation borrows money, even at a six per cent rate, it is necessary for them to pay interest in advance. The Lone Star Gas Company does not pay interest to the Corporation in advance. So even though the rates were exactly the same, there would be an excess cost to the Corporation over and above what they received from the Lone Star Gas Company; but I have in mind at this particular time one instance with which I am entirely familiar; I sat through the transactions [fol. 309] in Pittsburgh, both in the bankers' offices and in the corporations' offices, and participated in the discussions. It was in November of 1931. It was necessary for the Lone Star Gas Corporation to borrow three millions of dollars. They had bond and interest requirements, and other things,

coming due as of November 1st, amounting to, in round figures, a million dollars. They had other obligations that were coming due between that period and January 1st. So the officers—that is the President and one of the Lone Star Gas Corporation called on the President of the Union Trust Company with reference to securing this loan. Our balances, or rather the Corporation's balances were rather low at that time. Well, they started off perhaps by giving us a lecture that the balances should be built up and should be maintained. The result was that it was necessary for the Lone Star Gas Corporation, even though they didn't need part of that money until sixty days later, to borrow the entire three millions of dollars at that time, discounting the total amount for a period of eight months; the notes were made as of November 1st, and they matured on July 1st of the following year, and they were discounted at a six per cent rate. We obligated ourselves as to how that money would be drawn. It was approximately a million dollars that was to be withdrawn at December 1st, and one million, two hundred thousand dollars at January 1st. And in ad- [fol. 310] dition to that the Corporation agreed that they would begin building up balances, whereby certain funds would be on hand to meet this note at maturity. But forgetting that, of any interest rate and these balances to be built up, there was a minimum of eight or eight and one-half per cent interest rate paid on this money that was actually borrowed. Forgetting about paying any interest in advance, because this money was left there and was not subject to check until the specific dates when we had agreed that we would withdraw it. So money has cost the Lone Star Gas Corporation in excess of the amount they have received from Lone Star Gas Company at different times.

Q. And what was the giving effect to the credit balance that had to be maintained in connection with that loan from the Union Trust Company—did the Lone Star Gas Corporation have to pay substantially in excess of eight per cent for that money?

A. Oh, yes; yes; giving effect to the credit balance, it would have been substantially in excess of eight per cent.

Q. Mr. Hulcy, one more question about this income tax matter before I forget it. On yesterday you testified that the actual income tax payments of the Company for the year 1932 was $234,000.00 plus.

A. Yes, sir, $234,000.00 plus.

Q. Now, if you will refer to your Exhibit 6. You show a [fol. 311] Federal income tax calculation of $343,000.00 plus.

A. Yes, sir, I do.

Q. Now, Mr. Hulcy, will you please explain to the Jury the difference between the actual taxes paid by the Company for the calendar year 1932 covering Federal income tax, and your income tax calculation as reflected in Exhibit 6?

A. The actual income tax paid, of course, covers the operations of the Company, the non-public service property as well as the public service property, and includes losses from the operations of some of those properties, particularly the oil wells and oil farms; it does include as a deduction the actual amount of interest paid. The Federal income tax as used and set out in Exhibit No. 6 is a calculation based upon the amount of net revenues from public service operations only, and does not give any effect to either interest or any losses that may have been sustained on the non-public service property operations.

Q. And would it have been proper for you to have included in your Exhibit 6 in your calculation of Federal income tax anything which had to do with the oil or gasoline business of the Company?

A. No, sir, it would not. That is not an issue in this case, as I understand it.

Q. Mr. Hulcy, Mr. Fitzhugh asked you some questions about the New Business expense of the Company?

A. Yes, sir.

[fol. 312] Q. He seemed to be surprised that the Company advertised in newspapers. Why does the Lone Star Gas Company do newspaper advertising?

A. To build up business, to increase their gas sales, and to acquaint the customers using Lone Star Gas Company gas with the advantages of gas as a fuel, and with the problems that have to be met by the Lone Star Gas Company.

[fol. 313] Q. Now Mr. Fitzhugh asked you if the Lone Star Gas Company sold any gas direct to customers and your answer was that it was a wholesale gas company?

A. That is correct.

Q. Did you ever hear of the Ford Motor Car Company?

A. Yes, I have.

Q. That is a rather large company?

A. Yes, I say that it is.

Q. Did you ever hear of the General Motors Corporation?

A. Yes.

Q. Do you understand that either one of those companies is engaged in the retail sale of automobiles to the public?

A. No sir, it is not; it is my understanding that they are wholesale only.

Q. At the same time do you understand that they conduct intensive advertising campaigns for the purpose of selling their cars?

A. Yes, national advertising.

Q. And is that true of the products of all national manufacturers?

A. Yes.

Q. Or all manufacturers operating on a larger scale?

A. Yes, that is quite true. I think of one product in particular, and that is Old Dutch Cleanser, which is manufactured by the Cudahay Manufacturing Company, and I don't suppose they sell a package of it at retail, but they do conduct an intensive advertising campaign in national advertising.

Q. That is all.

[fol. 314] Recross-examination.

Questions by Mr. Fitzhugh:

Q. In the case of the Ford Motor Company, Mr. Hulcy, Mr. Ford doesn't own all his dealers either, does he?

A. No sir, and neither does the Lone Star Gas Company; they do not own any of the dealers.

Q. They are all one pack, aren't they—the pipe line company and the distributing companies that distribute to the customers?

A. They are affiliated companies, but the Lone Star Gas Company does not own any of the common stock of a single one of the distribution companies.

Q. And likewise the business of a gas company is a monopoly in its very inherent nature, is it not?

A. Well, I wouldn't say it is a monopoly, and it is not in Dallas and at several other points on the system that I could point out.

Q. Who sells to any distributing companies in the territory served by the Lone Star Gas Company, except the Lone Star Gas Company?

A. Do you mean to the distributing companies served by the Lone Star Gas Company?

Q. Yes.

A. Well, I don't know right now of any other sales that are made to the distributing companies served by the Lone Star Gas Company. However, in certain places there are more than one distributing company operating.

Q. But that is very much the exception, rather than the rule, is it not?

[fol. 315] A. Well, I would say it is not the rule, for which we are very thankful, of course.

Q. You are not trying to say, are you Mr. Hulcy, that the advertising problems of a gas company are in any wise related or comparable to the advertising problems of the motor car manufacturers?

A. I would say they are just as important, Mr. Fitzhugh, just as important. There are wholesalers in each case, and retailers in each case.

Q. Well, who could sell gas in towns where you serve without competition, except yourself?

A. Well, under the present set up in a large number of these towns, unless some additional pipe lines were built in, the Lone Star Gas Company is the only one which could sell gas in those particular places——

Q. Yes sir.

A. But there are also a lot of people that sell oil and a lot of people that sell coal.

Q. Well, what of it?

A. Well I would say that that would be comparable in a competitive way to another make or automobile or anything else; it is competition. I would say it is comparable.

Q. Do you mean to give the impression, Mr. Hulcy, that you actively compete with coal as a fuel in Texas towns?

A. Yes, I do. We compete with wood and we compete with oil.

Mr. Griffith: And shavings and sawdust in some places?

[fol. 316] A. We have been competing with everything, and for the past two or three years, particularly.

Q. In spite of the fact that Texas has no extensive coal fields and it is a long haul to get coal, you maintain you are competing with coal as a fuel?

A. Yes, we are.

Q. Mr. Hulcy, where you have in your exhibits costs as shown by the books, and particularly in the extreme right hand column of the final sheet in Exhibits 5 to 10, inclusive——

A. Yes sir.

Q. To make clear how the items going into those totals are carried—if, for instance, you built a house or bought a house in the year 1909, when the company first started out in business——

A. Yes sir.

Q. And that was at a cost of $10,000, and if the house were in being at the present time, the cost of that house, regardless of its present condition, would appear at the full figure of $10,000 in your final column, wouldn't it?

A. That is correct, yes. That is correct, if it were still in service at the date of the exhibit.

Q. Now, Mr. Hulcy, what is the piece of financing you referred to — while ago, in talking about the negotiations of the Lone Star Gas Corporation with the Union Trust Company at Pittsburgh?

A. Well, I don't know that I understand.

Q. Was that the money obtained for the Lone Star Gas [fol. 317] Company, or was that some other money?

A. Well, I don't know it was particularly for the Lone Star Gas Company. It was for use by the Corporation for furnishing money to certain of the underlying companies, but I could not tell you right now, Mr. Fitzhugh, whether part of that was furnished to the Lone Star Gas Company or not.

Q. Well, wasn't that particular money obtained for the purpose of financing the Northern Natural Gas Company?

A. No sir; a good part of it was used to pay bond interest maturing on November 1, 1931.

Q. The Union Trust Company of Pittsburgh is affiliated with the Lone Star Gas Company——

A. No sir.

Q. —in its banking activities, in about the same way that it is affiliated with these companies operating in Texas which are connected with the company, isn't it?

A. No sir, I would certainly say that there was no affiliation whatever between the Lone Star Gas Corporation and the Union Trust Company.

Q. Nevertheless, the Union Trust Company and the Lone Star Gas Corporation do have some directors in common?

A. Well, I think perhaps Mr. George W. Crawford might have been a director of the Union Trust Company, and he is also a director of the Lone Star Gas Corporation.

Q. He is chairman of the board, isn't he?

A. Yes, he is chairman of the board.

[fol. 318] Q. And there are some other directors in common between the two companies, aren't there?

A. Well, if there is I do not recall them; that is the only one I know anything about.

Q. There are some directors in common between the Lone Star Gas Corporation and the Mellon National Bank of Pittsburgh, are there not?

The Court: Mr. Fitzhugh, didn't you ask every one of these questions yesterday?

Mr. Fitzhugh: No sir.

The Court: I am quite sure you did, and that he answered them just as he is answering them now.

Mr. Fitzhugh: I asked as to persons in particular on yesterday, and now as to the directors as a whole.

The Court: I think you are asking the same questions now but if you want to ask them over and over again, go ahead.

Q. All right, Mr. Hulcy.

A. The only one I know about, Mr. Fitzhugh, is Mr. George W. Crawford, and I am not positive that he is not a director of the Mellon National Bank. He may be, but it is my understanding that he is a director of the Union Trust Company, and I do know that he is a director of the Lone Star Gas Corporation also, and the chairman of the board of directors.

Q. Suppose, Mr. Hulcy, that the Lone Star Gas Company were to pay off the full amount of its indebtedness to the Lone Star Gas Corporation. The effect of that transaction, [fol. 319] so far as the Corporation is concerned, would simply be taking money out of one pocket and putting it into the other?

A. It would be transferring money from the Lone Star Gas Company to the Lone Star Gas Corporation.

Q. Interest on the loan being deductible from the income for the purposes of computing the federal income tax, makes the tax payable by the company, if it should be paid separately, less. Isn't that true?

* * * * * * *

A. Mr. Fitzhugh, I don't understand the question; I don't know just what you have reference to.

473

Q. Well, I will ask it over. You have in your exhibits figured that the Lone Star Gas Company pays its federal income tax separately from the other companies?

A. I have calculated it on that basis, Mr. Fitzhugh, yes.

Q. All right now, if the company were actually to make its income tax payments separately, instead of a consolidated proposition.

A. And they will, in 1934.

Q. Yes, I understand—but when it does make a separate report and payment, this interest will be deductible?

A. If they pay interest, yes.

Q. From its taxable income?

A. That's right.

Q. And for that reason, the Federal income tax which the [fol. 320] company would have to pay will be less than it otherwise would, if this loan were not in existence?

A. That is true.

Q. And along that same line, Mr. Hulcy, the real purpose of your company charging the general overheads, and the other few items that you mentioned to operating expenses instead of capital accounts in the years prior to 1927 was for the real purpose of cutting down the amount of profits shown by the company and of reducing the federal income tax; isn't that true?

A. No sir, the same policy was in effect for the years of 1910, 1911 and 1912, along in there, prior to the income tax, Mr. Fitzhugh.

Q. Well, there is no doubt but what such a policy did and would reduce the amount of taxable income which the company would have to declare on in making its federal income tax return as a separate company?

A. There is no question about it, that if some of the items charged to operating expense had been charged to property rather than operating expenses, the profits would have been higher and the income tax would have been greater. There is no question about that.

Q. One other question that I forgot to ask you on cross examination, Mr. Hulcy: Prior to the year 1929, or about that date, wasn't it the policy of your company to charge as operating expenses all of the costs of attaching new business, obtaining new customers, training personnel, obtaining [fol. 321] the records of the company and in general all of the costs considered as in part making up going value? They

were charged as operating expenses and not capitalized on the books of the company?

A. Yes, I would say that is generally true in so far as the costs of records and the costs of securing new business; they were charged as operating expense.

Q. And they are at the present time being charged to operating expense, aren't they?

A. I would say generally that is correct.

Q. And none of those expenses are being capitalized at this time?

A. Some of the engineering costs are capitalized on each particular job as it is completed now. But of course, there has not been much construction in the past two or three years, since that policy has been put into effect; but there is a certain percentage included in all construction costs to include administrative and legal expense, and purchasing and engineering and so on.

Q. I am simply talking about the items that go in ordinarily to make up going value.

A. I understood you to say records, Mr. Fitzhugh, and that does mean records right there, some parts of it.

Q. That is all.

Mr. Griffith: That is all, Mr. Hulcy.

[fol. 322] E. A. STEINBERGER, a witness for defendant, having been duly sworn, testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. State your name, please.

A. E. A. Steinberger.

Q. Where do you live?

A. Dallas, Texas.

Q. What is your business?

A. Valuation engineering in connection with the natural gas industry.

Q. Do you have any connection with the Lone Star Gas Company, the defendant in this case?

A. I do. I am the Chief Valuation Engineer of the Lone Star Gas Company.

Q. Where were you born, Mr. Steinberger?

A. I was born in Bavaria, Germany.

Q. At what age did you come to the United States?

A. I came to the United States at the age of sixteen.

Q. Did you enter school upon coming to the United States?

A. Well, about a year after I came to the United States [fol. 323] I went to Subiaco College, in Arkansas——

The Court: Where is that?

A. About fifty miles east of Fort Smith—between Fort Smith and Little Rock, where I learned the English language, and took an academic course, and in return for my tuition I washed dishes and worked in the kitchen. After I left that school I worked at manual labor in the peach orchards of Arkansas and the wheat-fields of Kansas, and as a laborer in Western Oklahoma, and spent some time as a station helper and night telegraph operator. I then secured a position in the Accounting Department of the Gulf, Colorado & Santa Fe Railroad, at Galveston, Texas. I was promoted from one desk to another until I was made head of the R. E. Department—or Road and Equipment Section; and in 1919 the United States Railroad Administration borrowed me from the Santa Fe, and moved me to Dallas, Texas, where I was made Chief Statistician of the Southwestern Regional District. While in that position I supervised a department of approximately one hundred and twenty-five employees, accountants, and clerks. I was in direct charge of the final checking of all operating, maintenance and financial reports that were prepared by the various railroads of the so-called Southwestern group. After I got through checking those reports they were forwarded to Washington for final summary of all operating [fol. 324] statistics of the United States Railroad Administration. At the termination of the Federal Control of the Railroads, I secured a position with Hammon and Kell, at Ranger, Texas. These gentlemen were at that time engaged in the construction of what is now known as the Wichita Falls, Ranger & Fort Worth Railroad. After being employed by these people as Clerk for a few months I was appointed Auditor for that railroad, and it was my duty to install the accounting records for that railroad, as well as to supervise the accounting of all expenditures during construction of that railroad. All of the records installed by me had to be in conformity with the requirements of the Interstate Commerce Commission's classification of ac-

count. In 1921, at the death of Mr. Hammon, I left the Wichita Falls, Ranger & Fort Worth Railroad and secured a position with the Union Terminal Company, at Dallas. My principal work was to assist engineers in a computation of what was called Deferred Maintenance or Proportionate Depreciation. After that work was completed I was made Assistant Auditor of the Union Terminal Company.

In 1926 I entered the employ of the Lone Star Gas Company,—on June 15, 1926. I was also an employee of the Community Natural Gas Company, in what was known as the Plant and Equipment Section, at that time. Three months after I entered the employ of the Lone Star Gas [fol. 325] Company I was made Chief Clerk of the Plant and Equipment Section.

Q. What did your duties consist of while you were in charge of the Plant and Equipment Section?

A. While I was in charge of the Plant and Equipment Section it was my duty to supervise the accounting of all investment—account of all money expended for new pipe line construction, as well as construction of new natural gas distribution plants. During the period that I was Chief Clerk of the Plant and Equipment Section, the Lone Star Gas Company expended approximately thirty million dollars on new natural gas construction work; and the Community Natural Gas Company expended approximately ten million dollars on similar work. I was responsible for the accounting, segregation, and classification of these expenditures. In addition thereto it was my duty and I did make studies to be used by the Construction Department in making estimates for new work. Since 1928 I have been engaged exclusively in valuation work for natural gas properties. The major portion of the year 1928 I assisted Mr. Ed O. Connor, and Mr. P. McDonald Biddison, both consulting engineers, in the compilation and preparation of the reproduction cost new appraisal of the then Fort Worth Gas Company, which is now known as the Lone Star Gas [fol. 326] Company, Fort Worth Division. I also assisted the engineering staff of Sanderson and Porter, which engineering firm was retained by the Fort Worth Gas Company, in also preparing a reproduction cost new appraisal, which was in connection with litigation at that time pending in the United States District Court for the Northern District of Texas. While engaged in this work I made extensive studies, both with respect to labor performances, and

the ultimate cost involved in the construction of various units of natural gas properties. For the major portion of the year 1929 I was engaged as the Company's representative in assisting Sanderson and Porter, Engineers, in all matters relative to an inventory and appraisal of the public service property and plant, as well as the non-public service properties of the Lone Star Gas Company, and the Meridian Gas Company. Upon completion of this inventory and appraisal, which was the latter part of 1929, I was appointed Chief Valuation Engineer of the Lone Star Gas Company, and it became my duty to organize the Valuation Department, install the various necessary valuation records and make analyses and studies of construction costs of the various classifications of properties of the natural gas industry. These analyses and studies include construction costs of gas properties of both the Lone Star Gas Company and the Community Natural Gas Company, and having a value of more than forty million dollars. For the purpose [fol. 327] of making these analyses both comprehensive and intelligent I spent approximately an entire year in actual construction work, to familiarize myself with all of the phases and all of the component units of the natural gas industry, beginning with the drilling of the gas well, through the gathering, transmitting, and final distribution of the natural gas to the consumer. While engaged in this field of study I personally prepared and installed daily progress reports of construction. These progress reports had to be prepared each day by the construction crew, namely, by the timekeeper, who was responsible for the time of each man engaged in a specific class of work; by the engineer, who was responsible for the daily performances, and stated the number of cubic yards of excavation, or number of welds made per day, or the number of lineal feet of pipe laid per day; by the construction foreman, who was responsible for the correctness of the reports. These construction reports form the basis of my studies of men-hour performance and unit costs of doing work. In order to familiarize myself with the conditions under which this construction work was carried on, I made it a practice to spend a substantial part of my time on the ground where construction work was in progress. In the organization of the Valuation Department I was fortunate in securing men who had [fol. 328] several years of actual construction experience, being graduate engineers of accredited schools of learning

and had a thorough knowledge of the various phases and ramifications of the natural gas industry. In my studies and analyses of unit costs of construction I used both the information secured through the daily progress reports, as well as the daily progress reports beginning with the first part of the year 1930, and work done prior to that time or prior to the installation of the daily progress reports. I also availed myself of various data accumulated by the Company in making the studies of the work done prior to the installation of the daily progress reports. The purpose was to get as complete and as much data as it was possible to secure.

Since January 1, 1930 I have also been appointed and have acted as Chief Valuation Engineer of the Community Natural Gas Company, the Texas Cities Gas Company, the Stamford and Western Gas Company, the Dallas Gas Company, and the County Gas Company, all of which companies are operating companies owning a substantial amount of property and doing a substantial amount of business in the State of Texas. During the years of 1929 and 1930 I assisted Mr. Ed C. Connor, consulting engineering of the Lone Star Gas Company, in the preparation of an inventory and appraisal of the Galveston and Waco distribution systems [fol. 329] of the Texas Cities Gas Company; as well as the Coleman Gas and Oil Company, of Coleman County, Texas. I also assisted Mr. P. McDonald Biddison, consulting engineer, in the preparation of an inventory and appraisal of the Dallas and County Gas Companies, Dallas, Texas. In addition to assisting Messrs. Connor and Biddison in valuation work of natural gas properties, I have personally made complete inventories and reproduction cost new appraisals of the Galveston, El Paso, Waco, and Brenham distribution systems of the Texas Cities Gas Company; the Wichita Falls, Sherman, Denton, Ennis, Corsicana, and Hillsboro distribution systems of the Municipal Gas Company; the Abilene, Cisco, Greenville, Eastland, Pilot Point, and Henrietta, and eighty-nine small distribution plants in the State of Texas, and all of the distribution plants, twenty-six of them, of the Community Natural Gas Company of Oklahoma. I have also made an inventory and appraisal of the entire property, both transmission and distribution systems, of the Stamford and Western Gas Company. Appraisals made either personally or jointly with Messrs. Connor and Biddison have an aggregate value of $169,000,000.00.

[fol. 330] Q. Based upon the studies which you have made, Mr. Steinberger, have you been able to develop the unit cost of construction covering the several classifications of natural gas properties?

A. I have. As I testified before, data and progress reports were made, and they furnished me the most detailed and complete information that it is possible to get to arrive at what is called unit cost of construction or unit cost of doing the work.

Q. As the result of your experience, would you say that you are familiar with all phases of natural gas plant construction work and with the present costs and methods of construction?

A. I am thoroughly familiar.

Q. Mr. Steinberger, in connection with the presentation of the company's case in this law suit have you had occasion to prepare an inventory of the public service property of the company, exclusive of the Fort Worth division?

A. I have prepared an inventory of all physical properties of the public service plant properties of the Lone Star Gas Company.

Q. Was that inventory made and determined by a personal check and count of the several units of property in all the property classifications?

A. It was. It was determined—that is, all visible items of material were determined by an actual count on the ground; by that I mean by checking every item, every component unit of material over four thousand miles of pipe line.

[fols. 331-333] Q. Mr. Steinberger, of course it has been impossible for you personally to do all of this work?

A. That is correct.

Q. Did you have the assistance of a large corps of men and the various field superintendents of the company?

A. In the preparation of the so-called field inventory I had approximately forty-seven engineers, as well as the entire personnel of the Engineering Department, and in connection with the inventory of compressor stations I had available to me the Assistant Superintendent of Compressors, as well as the Chief Engineers and their assistants in each of the twenty-six respective compressor stations of the system.

Q. How many complete investigations have you made of the properties of the Lone Star Gas Company?

A. To date I have made four complete investigations of the properties.

Q. Over a period of how many years?

A. Over a period of five years.

* * * * * * *

[fol. 334] Q. Mr. Steinberger, when the inventory of January 1, 1933, was prepared, did you, acting together with Mr. P. McDonald Biddison and Mr. Ed. C. Connor, make an appraisal on the basis of reproduction new cost as of January 1, 1933?

A. We did.

Q. And the inventory of which you speak is embraced in that appraisal?

A. That is correct.

Q. You have copies of that inventory set forth in the appraisal for presentation in evidence here?

A. I have.

Q. Will you produce them, please?

(Thereupon the witness produced the instruments referred to.)

Q. Mr. Steinberger, was this inventory and appraisal as of January 1, 1933, prepared, in so far as the inventory is concerned, by yourself, and the appraisal being prepared [fol. 335] in co-operation with P. McDonald Biddison and Ed C. Connor?

A. It is.

Q. It is styled on the title page "Lone Star Gas Company —Appraisal—Cost Reproduction New, January 1, 1933", consisting of Volumes 1 to 6, inclusive?

A. Yes, sir.

Mr. Griffith: We offer in evidence the exhibit so identified by the witness.

Mr. Stout: Your Honor, may I ask the witness a few questions.

The Court: Yes, sir.

Mr. Stout: As a basis for an objection.

The Court: Yes, sir.

Questions by Mr. Stout:

Q. Does the exhibit, Mr. Steinberger, that you have before you have any separation or segregation as to property located in Texas and property located in Oklahoma?

A. It does not.

Q. Does it have any separation, division or segregation as to property that might be used in intrastate commerce within the State of Texas and property that might be used in Oklahoma or in interstate commerce, if there be any?

A. It does not.

. . . . . .

[fol. 336] Q. And it would be a simple and easy calculation and matter for you, with your great and detailed knowledge and your study, to separate the Texas property from the Oklahoma property, would it not?

A. It would probably be an easy matter, but it would be some job.

Q. Well, I mean you have all the data with which you could do it?

A. Yes; the data is here.

Q. Well, do you have that separation made?

A. No, sir.

Q. Have you done any work on it?

A. No, sir.

Q. But as you have it there it is all together?

A. Yes, sir.

Mr. Stout: Now, if Your Honor please, we make this objection: Our theory and our position is that they are attacking the order of the Commission. The burden of proof is, of course, upon them to do that; that to get at it, fairly and properly do it they have got to segregate the property; that they can not take property in Oklahoma, where it may cost more to operate it—that they can not take property in Oklahoma, where conditions are different and where Texas has no control over it, and put it in the whole thing and make Texas taxpayers liable for it. Our objection specifically is that it is not segregated, and they have found their defense [fols. 337-348] upon the doctrine that it is all mixed up between the two States, and it is our contention that they should separate it, and we object to the introduction of this for those reasons.

. . . . . .

[fol. 349] (Thereupon the appraisal above referred to, comprising six volumes, was marked as Defendant's Exhibit No. 28.)

By Mr. Griffith:

Q. Now, Mr. Steinberger, as I understand it, you are standing primarily responsible for the correctness of the inventory of property units as set out in Volumes I to VI of Exhibit 28?

A. That is correct, Mr. Griffith. I am responsible for the inventory, the application of material prices to the respective units after they were furnished me by the pricing department of the Lone Star Gas Company, and in general am responsible for this report—that is, as to the set up and the manner in which it is compiled.

Q. Mr. Steinberger, referring to the first classification of [fol. 350] property appearing in connection with your inventory of the physical property, what do we find that first class of property to be?

A. The first class of property would be in the Production System property.

Q. And the Production System consists of what, Mr. Steinberger?

A. The Production System Property consists of Leaseholds Developed and Leaseholds Undeveloped, Gas Wells, Other Production System Structures, Other Production System Equipment.

* * * * * * *

Q. Now, Mr. Steinberger, in connection with the developed leaseholds, how was the determination of the developed leaseholds and their value made?

A. In connection with this appraisal, the developed leaseholds covers the estimates calculated reserves or the volume of gas under tested and proved acreage or parcels thereof, as of the date of this appraisal, namely, January 1st, 1933. Now, this reserve volume of gas was determined by Mr. Frank E. Kendrick, Chief Geologist for the Lone Star Gas Company, and Mr. J. H. Dunn, Chief Production Engineer of the Lone Star Gas Company. As to the value of this reserve volume of gas, it was determined by Mr. D. A. Hulcy. All of those three gentlemen will testify in [fol. 351] respect to their findings.

Q. In connection with the next item, of leaseholds undeveloped, included in the physical properties, how was that inventory determined?

A. Leaseholds undeveloped represents the cost of all leaseholds acquired for the purpose of ultimately developing the same into proven natural gas acreages, and in connection with this appraisal it covers the original cost of the lease, plus all rentals paid to date—that is, the date of this appraisal, namely, January 1st, 1933; plus all incidental expenses incurred in the acquisition of this lease, as well as all minor expenses. It covers the lease and leases for which no reserve has been calculated; it covers the leases or parcels of such leases for which no reserve has been calculated. Now, the value applied to such leases——

Q. That is, the undeveloped leases?

A. On the undeveloped leases, was taken from the records of the Company, and represents the out-of-pocket expense to the Company for such leases.

Q. Now, in cases where undeveloped leases adjoined developed leases, what was done to distinguish as between the two?

A. In cases where undeveloped lease was included in a developed lease, only the proportionate part of the undeveloped lease cost was included in the account or classification styled Leaseholds Undeveloped; in other words, if an undeveloped lease adjoined a developed lease, and [fol. 352] Messrs. Kendrick and Dunn found that—or calculated fifty per cent of the undeveloped lease in—as a gas reserve; in that case I only took the remaining fifty per cent, or, say, a lease was worth a thousand dollars, I merely took $500.00 and included that under Undeveloped Leaseholds; the remainder of the fifty per cent was computed under acquired gas reserves or developed leaseholds.

Q. You will later testify relative to the cost of undeveloped leaseholds, and present an exhibit in that connection?

A. Yes, sir; I have prepared an exhibit on that.

Q. And that exhibit is based upon the actual cash cost of the leaseholds to the defendant company?

A. Yes, it represents out-of-pocket expense only.

Q. Mr. Steinberger, the next item of physical property under Production System Property appears to be Gas Wells. How is that account divided?

A. That account is usually divided between gas well equipment and gas well construction. Gas well equipment covers all casings, liners, tubing and fittings neces-

sary for the proper operation of a well in the production of natural gas. Now, in connection with this appraisal the footage of casing and tubing in all wells was taken from the Company's records, or what is styled the well log, which record shows the actual footage, as well as kind and size of casing installed on original construction or drilling of the well. The information thus secured from the log was [fol. 353] checked against the Company's investment record, to note and correct all change that may have been made between the date of the original drilling of the well and the installation of that casing and the date of this appraisal, namely, January 1st, 1933. Now, all miscellaneous fillings, such as gate valves, L's and T's, fittings, what is called on the Christmas tree, as well as all quantities of lumber on the platforms, as well as well cellar, dimensions and yards of excavation for salt water pits, as well as all quantities of material in the cattle-guards and in the fences, the number of fence posts, and the lineal feet of wire for fences enclosing were secured on the ground by an actual inventory and check of every foot of lumber in the cattle-guards or every fence post or other item, with a full description of the fittings, size, kind, and make of fittings, as gate valves, and so forth. All of the information, of course, was secured from a so-called field inventory.

[fol. 354] Q. Now, did you make a field inventory of gas well construction?

A. No; gas well construction, representing the cost of drilling the hole, naturally that information was secured again from the company's record, namely the well log, which record as I previously explained, is a record that is kept at the time the well is drilled to show the kind of soil encountered at every change of the soil, at the exact footage, and that record shows the total depth of the well on the original construction.

Q. Now, is the phrase "gas well construction" taken to mean the actual labor cost in connection with the drilling of the well?

A. That is correct; it covers all expenses in connection with the drilling of the well.

Q. How many gas wells does the company own which are included in the inventory and appraisal introduced in evidence here as Defendant's Exhibit 28?

A. There are a total of 388 gas wells included in this appraisal which is styled Exhibit 28.

Q. Mr. Steinberger, the next item of physical property listed under the general classification of Production System Property appears to be other production system structures; what do those structures consist of?

A. Those structures merely consist of cottages and cabins for well attendants and pressure men, as well as structures housing pumping equipment and syphoning equipment and other equipment necessary for the operation of the gas well. [fol. 355] Q. How did you secure your inventory of other production system structures?

A. The inventory of all other production system structures was secured on the ground by an actual inventory; that is, by securing the actual measurements of the size of the structures and a complete inventory of all the lumber going to make up such a structure. For instance, we made a complete count of the quantity of lumber, that was the number of feet of two by fours for rafters and six by sixes for sills, the square feet of corrugated iron and square feet of roof to determine the amount of shingles necessary, and counted all the hasps and hinges in the doors and so forth, and there was a complete count of every single unit or component part of a structure to determine the unit cost of a structure and thereby determine the cost of the structure as a whole.

Q. How many units were there in other production system structures?

A. There is a total of ten miscellaneous structures under this classification.

Q. Under the heading of other production system equipment appearing under production system property, how was the inventory made?

A. Other production system equipment, including and covering all miscellaneous equipment necessary for the operation of gas wells, such as drill repair and clean-out tools and all minor tools necessary for the production of natural gas and the operation of the well, an inventory was made on the ground of every item of such equipment, from such small items as pliers on up to a derrick or whatever [fol. 356] was necessary for the drilling of a gas well; not only the original drilling of the gas well, but the cleaning out of the gas wells and the lowering of gas wells, if the gas should give out at a depth theretofore produced from, and it was necessary to drill to a deeper formation.

Q. Under the heading of gathering system property, the

first general classification of property appears to be rights of way. Now, what do you mean, intend and understand by the term, "rights of way"?

A. By the term rights of way, I mean all interest in land owned by the company, which does not terminate until more than one year after the effective date of acquisition, and which is acquired by the company to locate all its so-called well lines or lines in the so-called gathering system.

Q. How did you secure the quantities of the rights of way which were inventoried in your Exhibit 28?

A. The quantities were secured from the records of the company and covered only rights of way of which there was an actual purchase made by the company. It does not cover rights of way for all well lines listed under the account field line equipment, which is the third classification of accounts; and in other words, if there is a well line located on a company-owned lease, it will not be necessary for the company to pay for any right of way or any rights to locate its pipe line, as the lease is owned by the company, and it covers only rights of way for pipe lines which cross [fol. 357] leases or fields on which the company has no lease or does not own the lease or has no right in the land. There are only 72 such rights of way included in this appraisal.

Q. What was the source of your determination of the inventory covering field measuring station structures; and what are field measuring station structures?

A. Field measuring station structures are structures owned by the company to house meters and all appurtenant equipment, such as the meter piping, meter stand and all such other equipment, in other words, as may be necessary to measure natural gas as it is delivered from the well and before it is delivered into the transmission system. Now, the number of structures were again determined by an actual field inventory made by my engineers, and in order to determine the cost of each structure, it was again necessary to make a complete count of the lineal feet of the two by four lumber, as well as the squares of corrugated iron, and those buildings more or less all have a two by four wood frame with corrugated iron sidings and roof. It was also necessary to determine the amount of excavation for the pit, and whether it was covered with one or two coats of paint. Now in some of the fields, and particularly in the latter developed fields, such as the Panhandle field

located in Wheeler County, Texas, most of the structures are of uniform size. In that case we only took a certain number, generally ten or fifteen per cent of the total structures, and broke them down as to units and quantities of [fol. 358] material, and the cost arrived at, or rather the quantities arrived at in that manner was applied to the remainder of the buildings, as long as they were of the same size and kind of construction.

Q. How many measuring station structures are there, inventoried and set forth in your Exhibit 28?

A. There are a total of 603 measuring station structures inventoried in Exhibit 28.

Q. What is the classification of property known as field measuring station equipment, and how was your inventory of that classification of property determined?

A. Field measuring station equipment covers such items as meters, meter stands, meter piping and all appurtenant fittings owned by the company and used by it to measure gas as it is delivered from the well and before it is transmitted into its main lines. In other words, it measures all gas that is purchased by the company, as well as produced by the company from its own wells. The inventory of course was secured in the field, and by that I mean a trip was made to every one of those stations and a full description was made of the orifice meter, giving the exact description of the meter as to the type, the range, differential, kind of clock, chart numeral and so on, as well as the kind of meter piping, the size of meter stand and the size and kind of orifice flange; and there was a complete inventory of every unit and item entering into this classification of accounts.

[fol. 359] Q. How many units are there in the field measuring station equipment which is set forth in your inventory?

A. There is a total of 613 measuring stations included in this Exhibit 28.

Q. Now, the next classification of property appears to be field line equipment. What is field line equipment, Mr. Steinberger?

A. Field line equipment represents the cost of pipe and equipment owned by the company and used by it to transport gas from the mouth of the well or rather from the outlet side of the so-called Christmas tree, to the point where it is delivered into the gathering or transmission system of the

company. In other words, it covers all pipe, couplings, fittings, gate valves and gate boxes and so forth.

Q. How was the inventory taken in connection with the field line equipment?

A. With reference to pipe—that is, to the size and kind of pipe in respect to field lines, that information was secured from the records in the engineering department of the company and spot checked on the ground in the field. That is, after we have secured the size and length of the pipe, we made spot checks—and by that, I mean we drove out and checked approximately forty to fifty per cent of all well lines to determine the correctness of the records found in the engineering department. All above-ground structures, such as gate boxes and gate valves, blow-offs, and drips, were inventoried on the ground, to determine the exact description [fol. 360] of all the fittings and all gate valves, and to determine the size of the gate boxes in order to compute the amount of concrete or lumber necessary and to compute the reproduction cost of that item. In order to ascertain the correct trench depth and the soil classification and to determine the probable cost of excavation, 1412 bar tests were made on all well lines laid prior to June 1, 1930. Now, as previously testified to in connection with my qualifications, in the early part of 1930 I installed so-called daily progress reports and so all well lines laid from that date on down, it was not necessary to make any tests for information as to the yards of excavation or the kind of soil, which was secured from the daily progress reports.

Q. Please explain to the jury what you mean by bar tests; you say you made more than 100 of them in connection with the work of ascertaining the depth of the trench and the character of soil on this excavation—that is, what is a bar test?

A. A bar was driven to the top of the pipe and measurement was taken to determine the amount of cover—or rather, the lineal inches of cover over the pipe. Say that cover was twenty inch and then to that cover we added the outside diameter of the pipe. On four inch pipe, the outside diameter being four and one-half inches, we would have arrived at a trench depth of twenty-four and a half inches. In connection with where solid rock was encountered, we added on two inches additional, to allow for bedding beneath the pipe.

Q. What do you mean by bedding beneath the pipe, in solid rock?

A. Steel pipe, either painted or wrapped, can not be laid [fol. 361] on top of the solid rock, as it would damage the protection on the pipe, and consequently additional excavation has to be made and loose earth or soil placed on top of the solid rock before the pipe can be placed in that ditch.

Q. How many individual field lines are there in your inventory as set forth in Exhibit 28, and of what general size are those field lines?

A. There are a total of 653 individual field lines, ranging in length from ten feet on to as much as 5,000 feet, and in size from two inch to six inch, inclusive.

Q. When you speak of the size of the pipe as being from two inch to six inch, do you refer to the diameter of the pipe?

A. That is correct.

Q. Now, the next classification of property, Mr. Steinberger, appears to be transmission system measuring station land, including improvements. How did you obtain the inventory of the transmission system measuring station land?

A. The inventory of the transmission system measuring station land was secured from the records of the company, and which records are kept in the land department of the company. That is, as to the description of the land proper. As to the improvements, however, an actual field inventory was made on the ground to determine the exact description as well as quantities of all materials for each class of improvements, such as the number of fence posts, lineal feet of wiring in the fences, amount of lumber or lineal feet and [fol. 362] size of pipe for bridges, size and kind of culverts and the description of various improvements such as the grading of yards, the number of yards of concrete and all that information was secured on the ground. Now, transmission system measuring station land covers land owned by the company and on which are located measuring stations, or rather, where gas is measured before it is delivered to either an industrial consumer or to a distribution system.

Q. Now, included in the improvements on this transmission system measuring station land, are there such items as shrubs and bushes which are planted around these stations?

A. Yes. The improvements also include hedges, shrubbery, trees and various plants for the beautification of the sites.

Q. The actual inventory of the measuring station land was obtained from the land department records of the company, was it not, Mr. Steinberger?

A. It was, yes.

Q. Now in connection with the transmission system measuring station leaseholds, including improvements, did you get your inventory in substantially the same way as you secured it for the transmission system measuring station land?

A. I did. I secured the information with reference to the inventory as well as the inventory of the improvements and description of the land and leaseholds, in the same manner as I testified to previously in connection with the transmission system measuring station land.

Q. By the way, how many units of measuring station land are there?

[fol. 363] A. There are a total of 224 units of measuring station land.

Q. And how many units of leaseholds are there, or how many different leaseholds?

A. There are 62 different parcels of leaseholds.

Q. Under the heading of other transmission system land, including improvements, which next appears in your summary of the inventory, will you please explain what land is included under that classification?

A. That classification of accounts covers land owned by the company in the transmission system, on which are located miscellaneous structures. That is, all structures other than transmission system measuring station structures—that is, such structures as cottages for line walkers, cottages for pipe line foremen, and garages, warehouses and all miscellaneous transmission system structures.

Q. What is included in the classification of property styled "Other transmission system leaseholds, including improvements?"

A. This account covers again all land leased by the company on which are located miscellaneous structures, which as I testified to before, line-walkers' shacks, pipe line foremen's cottages, garages, warehouses and so forth; in other words, all structures necessary in the transportation of natural gas.

Q. From what source did you obtain your inventory of the transmission system rights of way?

A. Transmission system rights of way was determined by taking the total length of the pipe line; in other words,

[fol. 364] transmission system rights of way covers the land on which is located the so-called company's transmission lines and the quantities or lineal feet or rods, which is the generally adopted unit, is generally secured by taking the total length of the pipe line, deducting therefrom all highways and public road crossings for which no right of way had to be secured. The generally accepted width of the right of way is twenty feet.

Q. How many units of individual pipe line rights of way are included in your inventory?

A. There is an inventory of 408 individual units of rights of way included in Exhibit 28.

Q. Now from what source did you obtain your inventory covering transmission system measuring station structures?

A. Transmission system measuring station structure inventory was secured on the ground by physical inventory of all component units comprising the structure, such as I previously testified, we determined the lineal feet of 2 by 4's for rafters and lineal feet of four by four or six by sixes for sills; the number of squares of corrugated iron for sides; the size and kind of doors; size and kind of windows and number of coats of paint, both inside and outside; kind of foundation and if concrete the number of cubic yards of concrete necessary, or the number of cubic yards of gravel, if it was gravel, and if it was of concrete, the number of square feet and thickness of the floor. In other words, every individual unit or component part of the property was checked separately in order to apply a unit cost to each item that comprises and finally makes up a structure.

[fol. 365] Q. How many individual structures are included under the classification of Transmission System Measuring Station Structures?

A. There are a total of 519 individual transmission measuring station structures.

Q. How did you take your inventory covering Other Transmission System Structures?

A. The inventory of Other Transmission System Structures was taken in the same manner as I testified to in connection with the Transmission System Measuring Station Structures; namely, by an actual count of all quantities, and a description of every individual unit of material constituting a complete structure, except on standar- size cottages. The last approximately five or six years the Lone Star Gas Company has standardized on either four- or five-

room cottages, and in that case we did not make a complete inventory of each individual cottage, but took a certain per cent of the various standard size cottages and applied the number of quantities to the remainder of the standard size structures. Now, as to depth of water wells, which are generally located on so-called pipe-line camps, that was taken from the Company's records. In other words, I checked back and secured the information from the original invoices or drilling records of that particular well, and all records, of course, are kept in the Accounting Department of the Company.

[fol. 366] Q. How many structures are included in the heading under "Other Transmission System Structures"?

A. There are a total of 284 individual units included in this classification of property.

Q. How did you take your inventory covering Transmission System Measuring Station Equipment?

A. The inventory on the Transmission System Measuring Station Equipment was made on the ground by a physical count of all units, as well as a complete description of all meters, regulators, gate valves, gauges, and all other pertinent equipment necessary in the measuring of natural gas before its delivery either to a distribution company or an industrial consumer.

Q. How many industrial—or how many transmission system measuring station installations are included in your Exhibit 28?

A. There are a total of 535 such units of property included in this classification of accounts.

Q. Now, Mr. Steinberger; what is the largest item of property, as far as value is concerned, among the several classifications of property going to make up the property involved in this case?

A. Transmission line equipment.

Q. Mr. Steinberger, have you brought with you a map showing the transmission line equipment of the Company?

A. I have.

[fol. 367] Q. Mr. Steinberger, is this a map showing the Lone Star Gas Company's pipe line system in the states of Texas and Oklahoma?

A. It is.

Mr. Griffith: We offer the map so identified by the witness in evidence.

(Thereupon the map referred to above was marked for identification as Defendant's Exhibit No. 29.)

Q. Mr. Steinberger, I will ask you to refer to the Lone Star Gas Company's pipe line system map, which has just been introduced in evidence and labeled "Defendant's Exhibit 29. Will you please point out to the jury the location of the major units of the pipe line system?

A. The pipe line system of the Lone Star Gas Company is divided into various sub-systems, each system being prefixed with a letter such as "A" System, "B" System, "C" System, and so on down. In each case where a main transmission line has a letter "A", "B", or "C", the tap-lines leading from that main line have a sub-prefix or letter as "A-1", "A-2", "A-3", and so on. If a main transmission [fol. 368] line enters a so-called gas field, then from that main line leads gathering lines into the field, they have prefixed a letter such as "AA", "AB", "AE", and so on.

We have here the "A" system beginning in Wheeler County, or the Shamrock Field. It gathers its gas into that line "A" from the various gathering lines "AA", "ABA", "ACA", "AFA", "AK", and so on, which gathering lines receive their gas from various field lines; so the field lines get their gas from the well, and transport the gas into the so-called gathering lines, and the gathering lines carry the gas into the main transmission line.

The Line "A" beginning in Wheeler County, enters Oklahoma northeast of Wellington, goes through Oklahoma, and re-enters Texas northeast of Childress, and goes on down through Chillicothe, Tolbert and Vernon, and then a line goes back into Oklahoma at Oklaunion, Texas, crossing the Red River, delivering gas to Davidson, Frederick, Tipton, Manitou, and Mountain Park, Oklahoma. The line going from Frederick north into Mountain Park is designated Line A1-4. The main transmission line from Oklaunion south continues on down to Harrold, Electra, Iowa Park, and North Wichita, and delivers its gas into the Petrolia Compressor Station, from where it is delivered in either direction south to Fort Worth or north—it can go [fol. 369] either direction from that compressor station. Line B going from Petrolia, consisting of two lines, the original line built in 1909 being a 16-inch Dresser coupled line, and also 2nd-B, being a 20-inch welded line. They lead from Petrolia south through Henrietta, Bellevue, Bowie,

and so on, and the Line B, 16-inch, going to Fort Worth, and terminating there at the North Fort Worth Measuring Station. Line 2nd-B, 20-inch, branches off north of Rhome, and joins what is known as Line C at the so-called B-C-J Junction at Birdville, Texas. Line C, constructed originally to take gas from Line B at the North Fort Worth Measuring Station and carry gas east into Dallas, goes through Irving. Line E begins at Gainesville, going east through Whitesboro and Denison, furnishing gas also south to Sherman, and going east on through Bonham, and Paris, Texas, as far east as Clarksville, Texas. The line leading into Oklahoma approximately 5.7 miles east of Denison and going up to Durant and Caddo, Oklahoma, is known as line E5. Line E16 branches off at Paris, cross the Red River, and furnishes gas to Hugo, Oklahoma. Line F receives its gas from Line G at Gainesville, and carries the same south and furnishes the towns of Sanger and Denton, and has a terminus with Line C at Irving, Texas. Line G takes up gas in the so-called Fox and Loco fields of Oklahoma, and carries gas north as far as Purcell, Oklahoma, and Sulphur, [fol. 370] Oklahoma, as well as having a 16-inch line going south and entering Texas approximately 16 miles north of Gainesville.

Q. How many miles?

A. Approximately 16 miles north of Gainesville. From Gainesville a line marked G-3 carries gas to the towns of Muenster and Saint Joe; and Line G carries its gas into Lines E and F at Gainesville. The "H" system consists of two lines—Line H and 2nd-H, both 12-inch lines. Line H receives its gas in the so-called Duncan Field, in Stephens County, Oklahoma; Line 2nd-H receives its gas in the so-called Chickasha Field of Oklahoma, in Grady County. Both lines carry the gas south to Walters, Oklahoma, and the Southwest Gas & Electric Company carries gas to Temple, Oklahoma, and Byars and Petrolia, Texas. Both of these lines enter Texas over the Red River what *what* is called a suspension bridge north of Byars—approximately four miles north of Byars—and deliver their gas into the Petrolia Compressor Station.

The "J" System begins and receives its gas at Joshua, Texas, Located in Johnson County, and furnishes such towns as Burleson, Everman, and delivers gas to South Fort Worth to what is called the Brambleton Station, with a line branching off at Forest Hill furnishing gas to the

towns of Arlington, and Grand Prairie, and connecting with Line C at Irving, Texas.

The "K" System principal transmission line, being an [fol. 371] 18-inch Dresser coupled line, secures its gas in the West Texas area, such as Stephens, Palo Pinto, Eastland, Erath, and Callahan Counties. The principal line, Line K, goes east and terminates at Joshua Compressor Station. Line K-C going west from the so-called West Texas area furnishes gas to the towns of Baird, Clyde, and Abilene, and on west to Sweetwater, with a terminus at Colorado; and a branch line being Line K-C going into Scurry County, Texas.

Line "L", or the "L" System, begins at the Joshua Compressor Station, and going south as far as Round Rock, Texas, this being a 12-inch line as far as Waco, with a 16-inch line to Temple, and from there it reduces to as low as a 4-inch line to Round Rock. It has branches going west to Gatesville, as well as lines branching off at Waco going south through Bremond, Hearne, and Marlin, and on into College Station.

Line "M" receives its gas at what is known as the "L-M" Junction, approximately 7 miles south of Joshua, and carries gas to the towns of Maypearl, Nash, and Emhouse, into Corsicana, and east as far as Kerens, and south as far as Groesbeck and Teague.

Line "O", or rather the "O" system, consists of a considerable number of gathering lines in the West Texas area, in Erath, Palo Pinto and Stephens Counties, delivering by scattered lines into the main line, Line "O" being an [fol. 372] 18-inch Dresser couple line running parallel with Line K from Gordon, Texas, to Joshua. Line "O" then continues from Joshua on east to Dallas, furnishing gas to Dallas at the so-called Lisbon Measuring Station, then going east from there into Greenville, and as far as Sulphur Springs, in Hopkins County, with numerous small tap lines furnishing gas to numerous towns south of Dallas, as far as Athens and Malakoff, and to numerous towns in East Texas as far as Cooper, Texas.

Next is the "R" System located in Runnels, Coleman and Brown Counties. It receives its gas in the so-called Coleman Field, and furnishes gas to the towns of Winters, Ballinger, and also to the Community Gas Company's line west of Brownwood.

We then have what is called a numbered system. Those

were systems of pipe lines that were secured in 1927 from the Texas Company. Most of these are major gathering lines in the West Texas fields. Due to the fact that the West Texas Field is so densely covered with pipe lines we are unable to locate them all on the map.

Finally, there is the T. P. U. System, which again constitutes a number of connected lines in West Texas, and were secured from the Texas Public Utilities Company in 1930 or 31.

That constitutes the major pipe line or transmission line equipment of the Lone Star Gas Company.

* * * * * * *

[fol. 373] Q. Mr. Steinberger, how were quantities of excavation determined when excavation would be necessary in connection with the digging of the ditches in which to place these pipe lines?

A. The yardage of trench excavation, as well as the segregation between hand and machine excavation in the various classes of soil in which the transmission lines are located, was secured from so-called bar test—that is, that information was secured on all the lines constructed prior to December 31, 1929, by bar test. As I previously explained in connection with the field line equipment, a bar test was driven over the pipe line and a measurement made of the depth, the bar sunk to the top of the pipe, and the depth of it added [fol. 374] to the outside diameter of the pipe, plus, as I have previously testified, a small percentage for clearance where such pipe lines were laid in solid rock. In that manner we arrived at the trench depth. These tests were made every five hundred feet. In order to determine the amount of rock, as well as the depth at which rock would be encountered, it was necessary to make a similar bar test on the side of the trench; in other words, we went to the side of the trench approximately two feet and again drove the bar to the depth where it encountered rock. In that manner we were able to calculate, of course, the exact yardage of earth and rock excavated. In order to make this clear, let's assume that it was a total trench depth of sixty inches, which is generally the trench depth of eighteen and twenty inch lines. If we found by the tests made at the side of the ditch that rock was being encountered at the depth of thirty inches, we could tell by the kind of backfill whether it was thin ledges of rock or solid rock. We thereby knew if we

found rock at thirty inches, from thirty inches on down it would be solid rock. Thereby we were able to determine the exact yardage of hand excavation as well as the machine excavation. At that time we also made tests as to the exact amount of clearing that was necessary to be done—that is, the removal of trees, shrubs, bushes, boulders and large rocks and so on—and took a general note of the contour or topography of the territory through which the pipe lines were laid, to determine whether the ditches could be dug [fols. 375-383] with the use of a ditching machine or whether it was necessary to be performed by hand excavation. We made a total of 30,444 bar tests on all the lines that were constructed prior to December 31, 1929. Now, on all the lines constructed since January 1, 1930, or December 31, 1929, the yardage of excavation, as well as the classes of soils encountered, whether hand or machine excavation was necessary, as well as the lineal feet, and yards of right of way necessary to be cleared by cutting down timber and removing large boulders and so on, all that information was secured from daily progress reports of construction which I testified to with reference to my qualification.

Q. How many individual transmission lines are there in the Lone Star Gas Company pipe line system and which are set forth in detail in Exhibit 28?

A. There are a total of 496 individual transmission lines in this group of property.

* * * * * * *

[fol. 384] Q. I believe you testified early this afternoon that the original field inventory was made as of December 31, 1931?

[fol. 385] A. That is correct.

Q. But in connection with Exhibit 28 you have brought that inventory down to date?

A. I have.

Q. That is, down to January 1, 1933?

A. Yes, sir.

* * * * * * *

Q. Now, how did you add to your December 31, 1931 inventory the net additions which were made to the Company's property between that date and January 1, 1933?

A. An analysis was made of the Company's investment

record; that is a record on which are recorded all items of property, particularly as to the cost of those properties, but sometimes lacked the description; well, we merely made an analysis of the investment record, and then checked that in the field to determine the exact description as well as the number of quantities and kinds and classes of quantities added to the property since January 1, 1932. We also made a record of the various property retirements, eliminating them from the inventory that was made as of December 31, 1931. We, therefore, took the inventory made December 31, 1933, and added to it all net additions—that is, all quantities of net additions, and deducted from it all retirements of [fols. 386-389] property—that is, quantities of retirements of property; and then went into the field and rechecked the entire inventory in order to get a complete or as complete a description and inventory as it was possible to get.

Q. And when was that final check made in the field of that whole inventory?

A. That final check was made in March, April and May of 1933.

Q. So then the inventory as of January 1, 1933 was not completed in the field until approximately the end of May, 1933?

A. If my memory serves me correctly, Mr. Griffith, we completed it on the 20th day of May, 1933.

Q. The 20th day of May, 1933?

A. Yes, sir.

* * * * * * *

[fol. 390] Cross-examination.

Questions by Mr. Fitzhugh:

Q. At the hearing had before the Railroad Commission, Mr. Steinberger, the exhibit introduced by the Company showing the same sort of data as is covered by the exhibit just introduced—Defendant's Exhibit No. 28—was compiled by yourself and Mr. Connor, wasn't it?

A. The inventory, Mr. Fitzhugh, both the field and office inventory, was compiled under *by* direct supervision. Mr. Connor and myself worked jointly in connection with unit costs.

Q. And Mr. Biddison was not connected with you in the preparation of that exhibit, was he?

A. He was not.

Q. Now, this appraisal which you have just introduced is an entirely new one, isn't it, and different from the old one introduced before the Commission?

A. It is different to the extent, Mr. Fitzhugh, that it has certain property added as well as certain property eliminated which has been retired since the original inventory was introduced before the Commission.

Q. And has different unit costs, does it not?

[fol. 391] A. Yes; it has different unit costs, because——

Q. And different prices for materials?

A. Prices of materials have changed, labor rates have changed, insurance has changed.

Q. Yes, sir. Now, as I understand it, you are vouching only for the quantities of units appearing in the inventory?

A. That is correct, and the proper application of the unit costs to such quantities.

Q. And I believe you say that those unit prices were given to you by Mr. Connor and Mr. Biddison; is that correct?

A. No, by Mr. Biddison.

Q. By Mr. Biddison only?

A. Yes, he is responsible for the unit prices.

Q. I see. Now, what is it that Mr. Connor has had to do with the preparation of the exhibit?

A. Well, Mr. Connor—we consulted with Mr. Connor at certain times in connection with certain unit costs, but Mr. Connor is primarily responsible for the so-called construction overheads, as well as non-physical values.

Q. Yes, sir; now, I believe you stated that the barring tests made on pipe were made under your direction?

A. Yes, they were made under my direction and under the direction of Mr. Harrison Smith, of Sanderson and Porter.

Q. And those barring tests were made on pipe constructed before what date?

A. Before December, 1929.

[fol. 392] Q. December, 1929. Now, since December, 1929, where there has been new construction, your Company has kept track of the actual quantities, hasn't it?

A. Yes; there's about three or four months where we—between December—the date of the daily progress reports—were not installed until either April or May, 1930, and there were a few small lines built, like Line G-3, going westwardly from Gainesville to St. Jo, and another line—a few small tap lines on which we subsequently made these barring tests;

we didn't have the daily progress reports, and subsequently made these barring tests.

Q. Now, in the appraisal submitted there are quantities of three different kinds of excavation, are there not—hand, rock, and machine excavation?

A. Yes, sir.

Q. Are you responsible for the different quantities and for the different kinds of excavation as shown in the exhibit?

A. I am jointly responsible with Mr. Biddison; Mr. Biddison made certain corrections to the quantities which were introduced in connection with the inventory and appraisal that was presented before the Railroad Commission.

Q. What corrections did Mr. Biddison make?

A. I do not recall at this time. Mr. Biddison can recall and give you them.

Q. Now, if I understand, he made corrections to the quantities you found, using as a basis the results of your [fol. 393] barring tests up to December, 1929, and the studies which you made of actual quantities on the lines constructed since December, 1929?

A. Yes; the only change Mr. Biddison made was that I had certain tap lines——

Q. Certain what?

A. Tap lines—short lines—in other words, a pipe line leading from a transmission mainline into a distribution system, for which I figured machine excavation, which Mr. Biddison, in collaboraton with Mr. Elmer Smith and Mr. Vandercoop, who is the General Construction Superintendent of the Company, decided on a reproduction it would not be feasible and economical to transport a ditching machine for this kind of work and for that particular line.

Q. I suppose Mr. Biddison will be ready to testify when he takes the stand, as to those changes?

A. Yes.

Q. And why he made those changes?

A. That is correct.

Q. Now, do you have the results of the studies that you made by the barring tests with you now?

A. Yes, they are somewhere in the work papers.

Q. Do those studies show the per cent of excavation of each kind as found by the barring tests?

A. Yes.

[fol. 394] Q. What was the per cent found for hand excavation by the barring method?

A. Give me some time now. (Witness makes calculation.)

A. You mean the entire system, Mr. Fitzhugh?

Q. Yes, sir.

A. Hand excavation—to bottom of ditch 5.94 per cent; to top of rock 1.77 per cent—that is all earth excavation. Hand rock excavation 11.11 per cent.

Q. What are the percentages for machine excavation?

A. The percentages for machine excavation were—to bottom of ditch 79.59 per cent; and to top of rock 1.59 per cent.

Q. Do those percentages, now, add up to 100 per cent?

A. Yes, sir.

Q. Now, in the studies you made of construction since December, 1929, and where an actual measurement was made, what are the percentages you found?

A. I do not have the percentage over all, Mr. Fitzhugh, because I didn't—I applied the percentages to each individual line, and I didn't compute them as a total.

Q. You did study them by lines, you say?

A. Yes, sir.

Q. Now, on Line Second B, that was one of the lines studied, was it not?

A. Yes, sir.

Q. What are the actual percentages found on that line?

A. Machine excavation 90.10 per cent, and earth excavation 83/100 of one per cent, and rock excavation 9.07 per cent.

Q. That was by actual measurement?

[fol. 395] A. That was by the actual experience of the Company.

Q. Yes, sir. Now, Line B—so the quantities for Line B were found by the barring method, were they not?

A. Yes, sir.

Q. What were the quantities of Line B?

A. Machine 76.92 per cent, hand earth 11.97 per cent, hand rock 11.11 per cent.

Q. Now Line B and Line Second B originate at Petrolia and run along side by side along down until they split at some point just a little bit north of Fort Worth, do they not?

A. No, sir, they run—they split approximately four miles north of Rhome, Texas, which is about thirty miles north of Fort Worth.

Q. Yes, sir; but they do run side by side for quite a ways, do they not?

A. Yes, sir.

Q. For about how long—what distance, approximately. You needn't go to the trouble of looking it up, if you can give it anywhere near the approximate distance.

A. Well, approximately 70 per cent of the distance.

Q. For how many miles, about. (Witness makes calculation.) Well, let that question go. Mr. Steinberger, there is no use killing so much time; in looking at the map, why, in just a moment maybe we can get the same thing.

A. I will have it in just a second. There is a total of 98.06 miles in the Line; Second B and Line B, 16-inch, run parallel for a distance of 62.12 miles.

[fol. 396] Q. Looking at the map here, Mr. Steinberger, these lines start at Petrolia, do they not?

A. Yes.

Q. And run together until they get to this point, which I believe you say is near Rhome—North of Rhome?

A. Yes, half way between Rhome and Decatur.

Q. And that distance is some sixty miles, you say?

A. It is 62.12 miles, which is 63½ per cent of the total distance.

Q. How far apart are those two lines, over the distance where they are together?

A. Approximately fifteen to twenty feet.

Mr. Griffith: That is, you mean down to this point between Rhome and Decatur, where they separate?

A. Yes, where they run parallel they are 15 to 20 feet apart.

Q. After they separate at Rhome, what is the furthest distance they get apart, just approximately?

A. Approximately twenty miles.

Q. Now on these two lines, where you made the calculation by actual measurement, you found less than one per cent for hand excavation, I believe .83 per cent, to be exact?

A. Yes.

Q. And where you made it by the barring method, you found 11.97 per cent—almost 12 per cent, didn't you?

A. Yes.

Q. Doesn't that tend to show, Mr. Steinberger, that the barring method is rather an inaccurate method, as compared with the actual measurement?

[fol. 397] A. It does not, Mr. Fitzhugh. Knowing the country as I do, and particularly along there, those figures are as nearly correct as possible, and I think they are cor-

rect because where Line Second B branches off from Line B, it goes into open farming country, whereas Line B continues in rolling, hilly, rocky country, particularly around Rhome; but Line Second B leaves all that rock whereas Line B 16 inch continues in that rocky territory down from Rhome through Saginaw, and does not get to the same kind of country Second B has until South of Saginaw.

Q. On Second B, practically all of your hand excavation was found on the portion after it splits off at Rhome?

A. No doubt it was, yes. I haven't got the map before me at this time but in fact it does not hit rough country until it gets south of Saginaw—or I mean, south of Decatur.

Q. Do you have the figures for stations where you made the barring tests on Line Second B?

A. Here?

Q. Yes.

A. No, I have not, Mr. Fitzhugh.

Q. Could you find for us and bring here, Mr. Steinberger, the results of your barring tests on that portion of the line, particularly of Second B, after it splits off from Line B at Rhome, and Line B?

A. Do you mean the original prints?

Q. The original records you had from those barring tests.

[fol. 398] A. I may be able to locate them at this time; blue prints have been stacking up in our office so heavy lately that a number of them have been destroyed; I don't know whether these particular prints were destroyed or not, but I will be glad to make a search for them when I return to Dallas.

Q. If you can find them, will you furnish those?

A. I will be glad to, yes.

Q. What was the total number of cubic yards of excavation determined by the use of the barring method?

A. The total number of cubic yards determined by the barring method was 2,691,767.

Q. And what is the total number of cubic yards of excavation on the whole system?

A. I do not have that figure.

Q. Do you know the yardage then for the amount that you found by actual measurement?

A. I may have the total yards in the system, Mr. Fitzhugh —no, I don't have that with me. I have it in Dallas.

Q. Will you furnish that record for me?

A. Yes.

Q. Mr. Steinberger, will those two figures, added together, give you the total yardage in the whole system?

A. Which two figures, Mr. Fitzhugh?

Q. The amount you found by the barring tests and the amount you found by the actual measurement?

A. I don't have the total yardage found by actual mea-
[fol. 399] surement, but I do have the total yardage found necessary and included in the reproduction cost appraisal for the whole Lone Star Gas Company system.

Q. If you have the total for the system and subtract the total found by the barring method, wouldn't you have left the amount you found by actual measurement?

A. Yes.

Q. Then if you will give us the total for the whole system, we will probably have the figure we want, won't we?

A. Yes. I could get that figure, but it will take considerable calculation. I have the money value, but not the total cubic yards. I could have it in the morning.

Q. All right; that's all right. Now, Mr. Steinberger, do you have the detail of the findings you found by the barring method on Lines H, Second H and G?

A. Yes.

Q. Do you have that with you now?

A. Yes. Line G, cubic yards of excavation, machine earth to bottom of ditch, 65,061.3, or 83.15 per cent.

Mr. Griffith: That is cubic yards you are talking about?

A. Yes, 65,061.3 cubic yards, or 83.15 per cent of the total excavation. Machine earth to top of rock, 5,506.33 yards, or 7.04 per cent of the total. Hand excavation, earth to bottom of ditch, 235.49 yards, or .3 per cent. Earth above rock, 171.31 cubic yards, or .22 per cent. Rock excavation 7,271.4 yards or 9.29 per cent, giving a total of 78,245.83 yards of excavation.

[fol. 400] Q. Are those figures for Line G alone, Mr. Steinberger, or for the whole G system?

A. It is for Line G, the 16 inch line running south from Dixie to Gainesville. Line H: Machine excavation to bottom of ditch, 44,721.87 yards, which is 94.98 per cent. Machine excavation to top of rock, 478.06 cubic yards, which is 1.02 per cent. Hand earth excavation to bottom of ditch, 1000.42

cubic yards which is 2.12 per cent of the total. Hand earth excavation to top of rock, 75.48 cubic yards which is .16 per cent, and rock excavation, 810.73 cubic yards, which is 1.72 per cent, or a total cubic yards of excavation of 47,086.56.

Line Second H: Machine excavation to bottom of ditch, 40,254.18 cubic yards, which is 95.67 per cent of the total, and machine excavation to top of rock, 454.63 cubic yards which is 1.08 per cent of the total. Hand earth excavation to bottom of ditch, 774.36 cubic yards which is 1.85 per cent of the total, and rock excavation, 592.35 cubic yards, which is 1.4 per cent of the total; or a total of 42,075.52 cubic yards.

* * * * * * *

[fol. 401] FRANK E. KENDRICK, a witness for defendant, being by the Court first duly sworn, testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. State your name, please?
A. Frank E. Kendrick.
Q. Where do you live, Mr. Kendrick?
A. Dallas, Texas.
Q. What is your business or profession?
A. Chief geologist, Lone Star Gas Company.
Q. Are you a graduate of any accredited school of higher learning?
A. I am a graduate of the University of North Carolina.
Q. What degree did you receive at that institution?
A. A. B. degree.
Q. Did you specialize in geological work?
A. I did; I specialized in geological work and petroleum engineering.
[fol. 402] Q. When did you graduate from the University of North Carolina?
A. 1917.
Q. Since that time, in what work have you been engaged?
A. I have been engaged entirely in geological work for oil and gas companies.
Q. Following your graduation from the University of North Carolina, will you please tell in detail the general work which you did?

A. The first work I did was a year's work as Assistant Geologist at the University of North Carolina. After leaving that institution, I was employed by the Empire Gas & Fuel Company of Bartlesville, Oklahoma, as field geologist. I was with this company about a year and a half, at which time I left their employ and went with Marlin Refining Company of Ponca City, Oklahoma. I remained with this company approximately six months, at which time I left the employ of that company and became employed by Lone Star Gas Company.

Q. In what year was that, Mr. Kendrick, that you commenced your employment with Lone Star Gas Company?

A. In 1920.

[fol. 403] Q. And since the year 1920 have you been continuously identified with the operations of the Lone Star Gas Company?

A. I have.

Q. What has been the general work which you have done for the Lone Star Gas Company in the last fourteen years?

A. I have been engaged almost entirely in geological work. I have done some engineering work, along the lines of making appraisals.

Q. Did that complete your answer?

A. Yes, sir.

Q. When you first went with the Lone Star Gas Company I believe you were Assistant to the Chief Geologist, Mr. William Kennedy?

A. That is correct.

Q. Mr. Kennedy died at what time?

A. 1926.

Q. Following his death did you become Chief Geologist of the Lone Star Gas Company?

A. I did.

Q. In that capacity what has been the general nature of your work?

A. The general nature of my work with the Lone Star Gas Company has been practically the same as that of any geologist connected with an oil company. In other words, it is my duty to prospect for gas—a gas supply for the Lone Star Gas Company. We are not only involved in finding [fol. 404] supplies of gas but in locating gas wells, and keeping track of all operations concerned with the Company

and with all outside operators in the territory in which the Lone Star Gas Company operates.

Q. Are you familiar with the drilling of wells in the several fields where the Lone Star Gas Company operates?

A. I am.

Q. And with the extent of the development of oil and gas in those several fields?

A. That is correct.

Q. In connection with Mr. J. H. Dunn have you prepared an exhibit for presentation in this case showing your estimate in volume of the natural gas reserves of the Lone Star Gas Company?

A. I have.

Q. When I refer to the natural gas reserves of the Lone Star Gas Company do you understand that I refer solely to the reserves which are owned by the Company?

A. That is correct.

Q. Do you have with you the exhibit which you and Mr. Dunn have prepared?

A. I do.

Mr. Stout: We make the same objection to this as we did to the others. It shows on its face no segregation as between Oklahoma and Texas. You have all of it together, do you not?

[fol. 405] A. Ours is segregated.

Mr. Stout: Between the two states?

A. Yes, sir.

Mr. Stout: Then we might not have an objection to it.

The Court: You got what you wanted this time.

Mr. Stout: I think so, yes, sir.

The Court: Do you care to withdraw the objection?

Mr. Stout: I would like to look at it, first; but I think so, probably.

The Court: If it does not show the segregation between the states you may have your exception; if it does show it, then you can withdraw it.

Mr. Stout: All right.

Mr. Griffith: It is not separated as to states; that would be a mathematical calculation; but it is separated as to fields in the respective states, and you just have to make a mathematical calculation to get the separation by states.

Q. Mr. Kendrick, is this the report to which you refer, it being styled on the title cover, "Lone Star Gas Company—Report and Findings of Gas Reserves, January 1, 1933. J. H. Dunn, Production Engineer, F. E. Kendrick, Geologist, Dallas, Texas"?

A. That is correct.

[fols. 406-408] Mr. Griffith: We offer this Report in evidence, and ask that it be marked Defendant's Exhibit Number 30.

(Thereupon the Report referred to above was marked for identification as Defendant's Exhibit No. 30.)

Q. Mr. Kendrick, what has been the extent of your participation in the preparation of the Report and Findings of Gas Reserves of the Lone Star Gas Company, as of January 1, 1933, which has just been introduced in evidence as Defendant's Exhibit No. 30?

A. For this exhibit I furnished all geological information, all geological maps, well information, logs of wells, sand porosities, sand thicknesses, and various other data that is necessary in the computation of natural gas reserves.

Q. If we refer to page 3 of Exhibit 30, Mr. Kendrick, does that show the pipe line system of the Lone Star Gas Company together with the several fields wherein the gas company owns gas reserves?

A. That is correct.

Q. The gas reserves are marked in yellow; is that correct?

A. Yes, sir; that is correct.

* * * * * * *

[fol. 409] Q. What is set forth on page 6 of Exhibit 30?

A. On page 6 we have a lease map of the Wheeler County reserves of the Lone Star Gas Company, together with the line showing the proven area of the Wheeler County end of the Panhandle gas field.

Q. Is that black line which meanders around the producing and undeveloped leaseholds indicated by the diagonal marks the line to which you refer?

A. That is correct.

Q. What do the diagonal marks on that map indicate?

A. The diagonal marks indicate the leases held and owned [fols. 410-417] by the Lone Star Gas Company.

Q. As of January 1, 1933?

A. That is correct.

* * * * * * *

[fol. 418] Q. In general, may it be said, Mr. Kendrick, that you were responsible for all of the geological data which is set forth and contained in Defendant's Exhibit 30?

A. That is correct.

Q. And you worked in co-operation with Mr. J. H. Dunn in the preparation of this exhibit and the findings therein contained, for the purpose of making a determination of the volume of gas reserves owned and controlled by the Lone Star Gas Company?

A. That is correct. I furnished all of the geological [fol. 419] information, and also other information that would come under the jurisdiction of the geological department in assisting the Production Engineer in calculating the reserves under the leaseholds which are owned by the Lone Star Gas Company.

Q. And was it your work in connection with the preparation of this report and the findings contained in Exhibit 30 to carefully outline the proven and developed gas areas where the Company owns and operates gas leaseholds and reserves?

A. That is correct. The information shown in this exhibit is based on my experience in that particular field over a period of about fourteen years, and I have been directly concerned with all of the operations carried on by the Lone Star Gas Company in all of these fields since 1920.

Q. To the best of your knowledge and belief is all of the geological data contained in Exhibit 30 correct?

A. That is correct; that is, within the bounds of human error—the human element that enters into any calculation of this nature.

* * * * * * *

[fol. 420] Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Kendrick, on page 7 you show a curve entitled, "Petrolia Field Proper, Daily Delivery Rate Decline Curve." Did you prepare that?

A. No, sir; I did not prepare that, Mr. Fitzhugh. That was prepared by Mr. Dunn.

Q. That is Mr. Dunn's work?

A. Yes, sir.

Q. You would not be able to tell the amount of production by years from the Petrolia Field, would you?

A. No, sir; I would not. That does not come under my work at all.

Q. What percentage of the Company's gas reserves, as shown in your exhibit, are actually developed?

A. You mean what percentage of all the leaseholds we own?

Q. What percentage of the gas reserves you show in this exhibit are actual developed leaseholds?

A. I could not answer that right offhand. That would have to be calculated, I never have figured that out.

[fol. 421] Q. Well, you do include in this exhibit, Mr. Kendrick, both undeveloped and developed leaseholds?

A. That is correct, yes, sir.

Q. What percentage of the gas reserves shown in this exhibit are located within Texas?

A. Well, that can be determined by referring to the reserves as shown in the State of Texas, and also in Oklahoma. It would have to be worked out by taking these figures we have worked up for the two different states.

Q. Well, could you give the amount of production for any one year that came from the State of Texas?

A. No, sir; I could not give you that. Mr. Dunn, I imagine, would be in position to give you that. I don't have anything to do with that part of the operations.

[fol. 422] Q. Somewhere in the exhibit, Mr. Kendrick, you do show a summary sheet of the marketable gas reserves, don't you?

A. That is correct; yes, sir.

Q. Where does that appear?

Mr. Griffith: On page 26, Mr. Fitzhugh.

A. On page 26; yes, sir.

Q. Now, on page 26 you show the total reserves, do you not?

A. That is correct; yes, sir.

Q. That is not a summary of the marketable reserves themselves, is it?

A. You will have to ask Mr. Dunn that question. I didn't do that work at all. He will be able to answer all your questions along that line.

Q. Are you responsible for page 26?

A. No, sir, I am not.

Q. And you are not responsible for page 144, either?

A. No, sir; those are the results of his calculations, after I gave him the basic data with which to work.

Q. Yes, sir.

A. And I am not responsible for any figures showing reserves in this volume at all.

Q. Did you give him the basic data for the Petrolia Field?

A. No, sir; he worked that on the "Pressure Decline Method", and it was based entirely on the past performance of wells in that particular field.

Mr. Fitzhugh: That is all.

[fol. 423] J. H. DUNN, a witness for the defendant, having been duly sworn, testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. Now, just face the jury direct and talk as loud as you can, Mr. Dunn.

A. All right, sir.

Q. State your name, please.

A. My name is J. H. Dunn.

Q. Where do you live, Mr. Dunn?

A. I live in Dallas, Texas.

Q. What is your business?

A. I am Chief Production Engineer for the Lone Star Gas Company.

Q. Are you a graduate of any accredited Engineering School?

A. I am a graduate of the Texas A. & M. College.

* * * * * * *

[fol. 424] A. All right. I am a graduate of the Texas A. & M. College.

Q. When did you graduate from A. & M. College?

A. I graduated in 1925.

Q. Following your graduation from A. & M. College, in what work did you engage?

A. Soon thereafter I engaged in work for the Lone Star Gas Company.

Q. And have been continuously identified with the operations of the Lone Star Gas Company since that time?

A. I have.

Q. Please tell the jury, in a general way, what has been the nature of the duties which you have performed for the Lone Star Gas Company.

A. When I first became identified with the Lone Star Gas Company I was engaged in work in the Gas Measurement Department; I started in that work as meter inspector on office meters, and I advanced in that Department over a period of some two and one-half years until I was Assistant Superintendent of Measurements for the Lone Star Gas Company. After that period of time I became engaged in production engineering work, and for a period of approximately six years I have been Production Engineer for the Lone Star Gas Company.

Q. Now, will you please explain to the jury, Mr. Dunn, [fol. 425] just what you do as Production Engineer for the Lone Star Gas Company?

A. As Production Engineer for the Lone Star Gas Company it is my duty to supervise the operations of all gas wells connected to the System, and to keep production records, gas well operation records, and histories, and any work in general in connection with the production of gas into the gathering lines of the Company.

Q. You have nothing to do with the actual drilling of the wells themselves?

A. No, sir, only in—after the wells are completed, my work really begins. The wells—the drilling of the wells is handled by the Production Department of the Lone Star Gas Company.

Q. Do you keep well production records covering the operations of the Company over a period of years?

A. Yes, sir, we keep all of the well production records continuously.

Q. And those well production records disclose what data, Mr. Dunn?

A. The well production records disclose data with reference to rock pressures of the wells; when the wells are shut in the pressure is gauged and the record recorded. Those records also include the production of gas, the well condi-

tion—and by "well condition" I mean whether or not the well—just how it acts and performs, and its condition to [fol. 426] produce gas, the gas that is available under certain conditions, and, in general, anything that a Gas Company might need to know about where and how they can get the gas, and anything the operator should know about how the well acts, in order that he can properly care for that well and keep it producing gas over the maximum period of time and recover the greatest possible amount of gas during its life.

Q. Now, Mr. Dunn, you have heard the testimony of Mr. Kendrick to the effect that he is responsible for all of the geological data and information set forth in Defendant's Exhibit 30?

A. Yes, sir, I have.

Q. And that statement is correct, that he worked in cooperation with you in the preparation of this exhibit?

A. Yes, sir, that statement is correct.

Q. All matters set forth in this exhibit—that is, Defendant's Exhibit 30—except the geological data, represents your own work and your own calculations and your own determinations?

A. Yes, sir, it does.

Q. And do you adopt the findings herein as representing your testimony and judgment.

A. Yes, sir, I do.

Q. Mr. Dunn, will you please tell the jury in a general way what you mean by a volumetric determination of gas reserves, and how that volumetric determination of gas [fol. 427] reserves is made?

* * * * * * *

A. I might best explain that to the jury by a reference to a simple problem which I think is illustrative of the problem of determination of gas reserves by volume. There is really nothing very mysterious about the calculation of natural gas reserves, but there are factors which must be taken into consideration which are not always definitely known. Therefore, we usual- refer to a report of this kind as an estimation [fol. 428] of gas reserves. Now, in order to figure the number of cubic feet of air in this room which exists at the atmospheric pressure it is only necessary to multiply the length by the breadth by the height in feet, and we have the number of cubic feet of air in this room at atmospheric pressure.

Boyle's law tells us that if we force enough additional air into this room to increase the pressure to two atmospheres, or twice the atmospheric pressure that exists here, which is approximately 14.4 pounds per square inch—if we force enough additional air in this room to get a pressure which would result in 28.8 pounds per square inch absolute, then we have twice the volume of air, or would have twice the volume of air which now exists. Now, if we had a pressure gauge connected to this room at the present time it would show zero pounds pressure, because the atmospheric pressure does not register on a pressure gauge, but in the gauge the pressure would be zero. The reason atmospheric pressure does not register on a gauge is because the pressure is the same inside and out, and the difference would be zero; therefore, the gauge pressure is zero, and the absolute pressure is gauge pressure plue absolute pressure, or 14.4 pounds per square inch.

Q. Well, if you put a pressure gauge on a flat automobile tire would you likewise get zero pressure?

A. You would likewise get zero pressure. In the case of the automobile tire the air is forced into the tire under [fol. 429] pressure; and if it is desired to carry 35 pounds pressure on the tire, that means 35 pounds gauge pressure. The absolute pressure would be 35 plus 14.4 or 49.4 pounds per square inch absolute. Now, then, as long as the automobile tire is air-tight the air will remain in there under that pressure, confined to the volume on the inside of the automobile tire. As soon as a puncture or some other leak occurs the tendency is for the air to flow out and equalize; in the case of a puncture the tire becomes flat and the pressure is equalized, and there is atmospheric inside and outside, and therefore we have no inflation. Now, the calculation of natural gas reserves may be compared, in a general way, to those simple examples. I want to make the point here, however, that when we speak of volumes of air or gas, we must know also the pressure at which that air or that gas exists, in order that we might determine the volume or the amount—the quantity of air or gas that exists in any definite reservoir or any definite container. A gallon of water is always a gallon of water, but a cubic foot of air at 144 pounds absolute pressure is equal to ten cubic feet of air at atmospheric pressure, or 14.4 pounds pressure.

Q. By the way, what is atmospheric pressure, anyhow; how is it determined?

A. Atmospheric pressure is the pressure that exists on every square inch of surface in this room. It is the weight of a column of air one square inch in cross section which [fol. 430] is on all surfaces exposed. It is determined by measurement in a manner like this: If we had a gauge here, and on one side of the gauge we had atmospheric pressure and on the other side we had vacuum, or no air, or no pressure, then the gauge would record your atmospheric pressure, and that is usually measured by a barometer and determined in that manner.

Q. Where is atmospheric pressure the greatest?

A. Atmospheric pressure is the greatest at sea-level, because——

Q. And, correspondingly, Austin being higher than sea-level, is atmospheric pressure less at Austin than at sea-level?

A. Yes, sir, it is less; I imagine the atmospheric pressure here is in the neighborhood of 14.4 pounds per square inch, while at sea-level it is 14 and 7.

Q. Well, now, just proceed with a general explanation of how you went about the method of the calculation of the volume of gas reserves after you had certain information relative to thicknesses of sand and porosities of sand and pressures in the sand.

A. The volumetric determination of gas reserves was made by me by applying Boyle's law, which I might state here Boyle's law states that for any definite weight of gas the volume increases proportionately as the absolute pressure decreases, and the volume decreases proportionately as the absolute pressure increases, the temperature remaining [fol. 431] constant. Now, in a volumetric determination of gas reserves there must be of necessity an application of Boyle's law. If natural gas pressure, according to Boyle's law, if it were found in containers that could be measured as accurately as this room can be measured, the calculation of gas reserves would be, relatively, just as simple a problem. However, natural gas is more compressible than is air, and the quantities which would exist according to Boyle's law. Therefore, it is considered necessary to make corrections—we term it so—that the Boyle's law may be applied. In other words, we determine the volume of gas in a reservoir by making a correction that would permit us to use Boyle's law, and take into consideration the fact that the gas is more compressible than is air, or than is a perfect gas. Air is not

entirely a perfect gas, but it is more nearly a perfect gas. Now, there are other things, too, that must be taken into consideration. For instance, the reservoir which contains the gas is located from a few hundred feet to four thousand feet below the surface of the ground, and, as I stated a while ago, you must know the pressure that exists on that reservoir before you can determine the quantity of gas that is there. Now, then, we are able to take the pressure at the surface, but we must interpret that in terms of the pressure at the reservoir, which necessitates taking into consideration [fol. 432] the weight of the column of gas from the top to the bottom of the well. In other words, as an illustration,—a column of gas which has a specific gravity of decimal seventy, which means that it is seven-tenths as heavy as air, for a column of gas 4,000 feet high at 1,000 pounds absolute pressure the weight in pounds per square inch at the bottom would be equal to approximately 100 pounds. Therefore, if in gauging the pressure on a well at the surface, and it was desired to have the reservoir pressure at that point, the well being 4,000 feet deep and the specific gravity or the weight of the gas with respect to the weight of the air was decimal 70, then it would be necessary to add approximately 100 pounds to the pressure which was shown at the top of the well, in order to get the true or actual reservoir pressure. On the other hand, if your pressure at the top of the well, and under the same conditions and the same depth, and the same specific gravity of gas were shown to be only 100 pounds, the weight of the column of gas would be one-tenth, or approximately ten pounds, which would need to be added to the surface pressure in order to get the true reservoir pressure. That illustration I have given in order to show that under different conditions of pressure that the weight of the gas in the well-bore varies materially; and therefore, where the—in this illustration, where it would be necessary to add approximately 100 pounds under one condition, to an- [fol. 433] other well 4000 feet deep it may only be necessary to add ten pounds in order to get the true reservoir pressure. Now, there are two applications generally used—applications of Boyle's law—in the determination of volumetric determination of gas reserves. These methods are commonly referred to as the "Porosity Area Method" and the "Pressure Volume Decline Method." In the case of the Porosity Area Method the determination is made, based on the actual voidage space in the reservoir, or the cubic feet of space

there available to contain the gas; and the basic data in the application of this method requires that we know the area extent of the reservoir, the thickness of the reservoir, and the porosity of the sand, or the per cent of that reservoir space which is available to hold the gas. It is also necessary to know the pressure of the reservoir, and then the determination of the gas in place under those conditions may be determined. Now, in the application of the Pressure Volume Decline Method it is necessary to know the amount of gas which has been withdrawn and which has caused a certain drop in reservoir pressure; in other words, as you take gas out of any reservoir or any container the pressure drops. Now, then, the actual pressure drop recorded when applied to the volume of gas which has been removed enables you to calculate the amount of gas which remains in the reser- [fol. 434] voir after the withdrawal. I believe that, in general, explains the application of the Pressure Volume Decline Method. Now, then, you may readily see that under certain conditions, for instance, where we have had no withdrawal of gas, it is not possible to apply the Pressure Volume Decline Method; and in that case the Porosity Area Method may be best used. I would say that the basic data available determines the application to be best applied in the volumetric determination of gas reserves.

[fol. 435] Q. Mr. Dunn, are both methods—that is, the porosity area method of determining the volume of gas reserves and the pressure decline method—generally recognized and accredited by the oil and gas industry as being correct?

A. Yes, sir; they are.

Q. Are they recognized and accredited by the United States States Bureau of Mines and the United States Bureau of Standards as being proper methods to use in a determination of the volume of gas reserves?

A. Yes, sir; they are.

Q. Now, then, Mr. Dunn, if we refer to page 26 of Exhibit 30 do we find a summary of the natural gas reserves as of January 1, 1933, by the several fields?

A. Yes, sir; we do.

Q. Showing a grand total of three hundred and eighty-six billion six hundred and ninety-six million nine hundred and thirty-two thousand?

A. Yes, sir; we find that.

Q. Actually, should not the letter "M" appear at the end of the figure 386,696,932?

A. It should appear there. However, Mr. Griffith, it is in the heading over the figures shown on that page, M cubic feet of gas.

Q. Now, Mr. Dunn, in order to explain to the jury just what you did in the calculation of the gas reserves of the several fields, what field do you first desire to take up?

A. Well, that would be immaterial, Mr. Griffith. The [fol. 436] Panhandle district appears first in the report. I might explain that.

Q. Very well.

A. On page 44 is shown a calculation of the reserves in the Shamrock field, which is a portion of the Panhandle field, and Wheeler county, Texas. In this determination the pressure volume decline method was used. It was necessary to have the withdrawal of gas, which has caused a decline in pressure, which was shown to be in this case a drop in reservoir pressure from 430 pounds gauge initially to 387.6 pounds gauge as of March 1, 1933, which represents a weighted average pressure for the reservoir. Now, the volume of gas which has been withdrawn, or had been withdrawn in the intervening time between the beginning of the field and March 1, 1933, was found to be two hundred and fourteen billion one hundred and seventy-six million five hundred and sixty-six thousand cubic feet. From this basic data it was then determined that the amount of gas in place in this reservoir as of March 1, 1933, was one trillion seven hundred and fourteen billion six hundred and eighty-nine million nine hundred and twenty thousand cubic feet. Now, it will be noticed that this reserve was determined as of March 1, 1933. I might explain that that date was used because our basic data for the whole field, which includes the wells of others as well as the wells of the Lone Star Gas Company, was available as of that date, whereas as of Janu- [fol. 437] ary first it was not entirely complete, and so I determined the reserve as of March first, and added to that figure the amount of gas which was withdrawn between the date of January first and March first. That is merely adding to the reserve as of a later date the actual withdrawal of gas to get it back to January first. Now, then, the reserve so determined represents the total amount of gas in the reservoir between the existing pressure and the estimated aban-

donment pressure. I have estimated that the abandonment pressure of the Shamrock field would be twenty-five pounds.

Q. What do you mean by "abandonment pressure"?

A. By "abandonment pressure" we mean just this: We know that in any reservoir it is not possible to withdraw all of the gas which is there, and that gas which is not withdrawn or remains there after the abandonment of the field is gas which can not be recovered, and consequently should not be given any consideration in the volumetric determination of the reserve. Then the volume of gas, as I say, that existed in the reservoir between the pressure of the reservoir as of this date and the abandonment pressure represents the volume of gas which will be withdrawn or which will be produced from the field. Then the number of acres in the field in the proven area having been determined to be 124,467 acres was divided into this total volume of gas in order to get the quantity of gas per acre in place as of this date. This was necessary in order to determine that por- [fol. 438] tion of the reserve which was owned by the Lone Star Gas Company, since the Lone Star Gas Company does not own all of the reserves of this field. The Lone Star Gas Company as of this date owned 16,094 acres. Therefore, 16,094.2 acres when multiplied by the volume of gas in place per acre gives the volume of reserves owned by the Lone Star Gas Company as of that date.

Q. And which amount you determined to be what?

A. Two hundred and twenty-two billion four hundred and eighty-five million three hundred and three thousand cubic feet.

Q. And that amount is set forth in the summary sheet on page 40 of your Exhibit 30?

A. Yes, sir; it is.

Q. Now, on page 45, do you show the total withdrawals of gas from the Shamrock field?

A. On page 45 I show the total withdrawals of gas by the companies which have made that withdrawal, which when totaled will give the quantity of gas used in the determination on page 44, and the total of two hundred and fourteen billion one hundred and seventy-six million plus, which appears on 44, is that which is shown on 45.

Q. Mr. Dunn, at page 46 of Exhibit 30 appears a determination of the reserves in the Petrolia field in Clay County, Texas?

A. Yes, sir.

Q. Shown to be one billion nine hundred and seventy-five million eight hundred and fifty-one thousand?

A. That is correct.

[fol. 439] Q. Please tell the jury how you arrived at that calculation of the volume of gas reserves in the Petrolia field.

A. The determination of the volume of reserves in the Petrolia field is in effect an application of the pressure volume decline method. However, it is somewhat individual because of the nature and amount of data available to make that determination. I might explain that the wells in the Petrolia field producing gas continuously do not offer the possibility of making shut-in pressures or reservoir pressure determinations, and the delivery of gas over a period of time under the same operating conditions shows a decline, which decline in delivery rate furnishes the basis for a pressure volume decline determination of reserves. Now, on page 7, of Exhibit 30, is shown a curve which I have prepared, on which the daily delivery rates from the Petrolia field have been plotted, and these daily delivery rates furnish a basis for the determination of the actual decline which has taken place in the delivery rate from January 1, 1929, to December 31, 1932.

* * * * * * *

[fol. 440] Mr. Griffith:

Q. Mr. Dunn, when we recessed a few moments ago, you just started to explain the graph on page 7 of Exhibit 30.

A. Yes, the graph on page 7, as I explained, is plotted from the daily delivery rates from Petrolia field wells, which I have classified as the Petrolia field proper. It was necessary to make that sort of a classification because in the Petrolia field there are wells which are producing gas continuously and then there are wells on the Miller Farm, we call it, which have been used for storing gas back in the reservoir, more as an experiment, and the storage operations, I believe, were started in 1929.

The wells on the Miller farm were used for this purpose and were producing some gas at the time they were adapted for storage; they therefore had a gas reserve as at the date they were first used for gas storage, and they still have that

gas reserve, even though they are not producing gas other than returning the storage gas continuously. Therefore, in the handling of the Petrolia field problem, it was necessary for me to make that separation, and the graph on page 7 shows the delivery decline rate for the wells located in the Petrolia field proper, and then on page 53 of Exhibit 30 is shown the calculation of the reserve for the Miller farm.

Referring back, however, to page 51 which shows the calculation of the reserves for Petrolia field proper, it may be seen that the daily delivery rate decline curve on page 7 [fol. 441] gives a decline of 8.596 M. cubic feet per month, which is equal to 103.15 M. cubic feet decline in a period of a year in the daily delivery rate. Now then, in a field which has depleted to the extent which the Petrolia field has depleted, which extent is such that the wells now have rock pressures as low as five and six pounds and are still producing gas, it then becomes a matter of judgment as to when their operation will be discontinued. It is my judgment that those wells, being located as they are with respect to each other, may be operating until the daily delivery rate has declined to 100,000 cubic feet of gas per day. On the basis then, of the rate of decline as determined from the graph on page 7, we would then have a period of operation of a little more than eight years after January 1, 1933, or 3,000 days. Then for this period of time I have taken the average in the daily delivery rate as of January 1, 1933, and the estimated future delivery rate when the field will be abandoned and multiplied the average by the number of days and get the total reserve which will be produced in the future, and find in this manner that the reserves are 1,446,930,000 cubic feet.

On page 53, in the determination of the reserves on the Miller farm, I have shown the average daily delivery rate for six months prior to July 6, 1929, which data was available, to be an amount of 360.70 M. cubic feet, and an average daily delivery rate for two weeks prior to July 6th as 343.1 M. cubic feet, and an average daily delivery rate for Petrolia field proper of six months prior to July 6th of 1,310.9 [fol. 442] M. cubic feet, and by applying the same rate of decline to the delivery rate on the Miller Farm as was determined for the Petrolia field proper, in the absence of data strictly applicable to the Miller Farm, we find by an estimation that we will resume normal operations on the Miller farm on January 1, 1935, which is allowing for additional experimentation in the storage of gas in the reservoir, it was

determined that the Miller farm would have a future operation period of a little more than six years, and would therefore have a reserve equal to 528,921,000 cubic feet. This reserve and the reserve determined as shown on page 51 together represent the total reserve for the Petrolia field as shown in the summary, which reserve on page 46 is shown to be 1,975,851,000 cubic feet.

Q. Now, at page 54 of Exhibit 30, do you show a summary of the reserves for the Lee Ray district of Eastland and Stephens Counties, Texas?

A. Yes, I do.

Q. Had you finished all the explanation you care to give in connection with the Petrolia field?

A. Yes.

Q. What general comment do you have to make, Mr. Dunn, upon your volumetric determination of the gas reserves in the Leeray District?

A. I might say, Mr. Griffith, that throughout this entire report in the volumetric determination of gas reserves, that I have considered each individual pool or field separately in [fols. 443-447] order to determine the gas reserves. That is necessary because they are individual reservoirs and they must be handled separately.

* * * * * * *

[fol. 448] Q. By the way, Mr. Dunn, throughout your determination of gas reserves it is noticed that to arrive at the Lone Star Gas Company's interest you take 87½ per cent of the total of the reserves determined; why is that?

A. I have, in effect, Mr. Griffith, taken 87½ per cent, or any other percentage which might have been determined as that portion which the Lone Star Gas Company owned. Now, in order to explain that, I might make this explanation. The operator who owns a lease actually will receive seven-eighths of the production, and the royalty-owner will receive one-eighth under the standard form of lease.

[fol. 449] Q. By royalty-owner, you mean land-owner?

A. Land-owner, yes, sir. Therefore, the operator or well owner only has an actual interest of seven-eighths of the total production. Therefore, I have throughout this report shown the reserves as owned by the Lone Star Gas Company after the deduction has been made for that portion which will be the land-owner's portion. Now, in some few

cases where there is a partnership in the working interest in the wells, where the Lone Star Gas Company owns less than seven-eighths, the actual percentage that is owned by the Lone Star Gas Company is used as the final figure shown in this report.

Q. And, of course, there are cases where the Lone Star Gas Company owns one hundred per cent?

A. There are, yes, sir.

Q. And in that case you have taken one hundred per cent of your total included amount of the volume of gas reserves?

A. Yes, sir.

* * * * * * *

[fol. 450] A. I believe that I have, yes, sir.

Q. Refer, please, to page 142. What do you disclose at page 142 of Exhibit 30?

A. On page 142 is shown a schedule that represents the additional wells which, in my opinion, will be necessary [fol. 451] to be drilled in order to produce the reserves set out in this report. In other words, while the reserves have been calculated for those areas which are actually producing gas, those areas are not all completely developed. In other words, it will be necessary to drill some additional wells, and I have set out on this page the additional wells which I believe will take care of the complete development of those areas which are not yet completely developed. That takes into consideration as best it can be taken into consideration in advance the offset obligations, as well as the wells necessary to recover the gas from the reservoir; and I have shown on page 142 that, in my opinion, 135 additional wells will accomplish that purpose.

Q. Refer, please, to page 144 of Exhibit 30. It will appear that on that page you set forth a summary of the Marketable Gas Reserves (Net), as of January 1, 1933, belonging to the Lone Star Gas Company; whereas at page 26 of Exhibit 30, you set forth the total of natural gas reserves belonging to the Lone Star Gas Company as of January 1, 1933. What is the difference between the net figure set forth on page 144 by fields and districts and the gross figures set forth on page 26?

[fol. 452] A. As previously stated the reserves as calculated throughout the Report and shown in summary form on page 26 were found as the reserves which exist between the

present reservoir pressure and the pressure which is estimated at which the reservoir or field will be abandoned. But we know that it is not possible to recover all this gas, even between those pressures, that there will be some additional loss which will not be recovered, and therefore has no marketable value, and the difference between the total reserves as shown in this report and the marketable reserves is the result of a five per cent allowance for gas which will not be marketed, and which gas, in my opinion, will be wasted in the operation of these fields throughout their lives. The total reserves were found to be 386,696,932,000 cubic feet, while the marketable reserves were set out, by making a five per cent reduction for this allowance, at 367,362,084,000 cubic feet.

Q. And in your judgment, Mr. Dunn, does that represent the reasonable determination, and upon a rational basis, of the volume of marketable gas reserves of the Lone Star Gas Company, as of January 1, 1933?

A. In my judgment, that is a reasonable allowance for that purposes.

Q. Would there be any substantial difference between the marketable gas reserves of the Lone Star Gas Company as of January 1, 1933 and now—that is, I mean by "now," [fol. 453] the date of this hearing?

A. There would not be any substantial difference. If you mean there, Mr. Griffith, taking into consideration acquisitions which have been made—deduction of actual production in between—why, I believe that the acquisitions probably would offset the production. That determination, however, has not been made, but I believe there would be no substantial difference at this time.

Q. Refer to page 145 of Exhibit 30; what do you set forth on that page?

A. On that page is set forth the ownership and distribution of present development. By that, I mean the number of wells which exists as of the date of this report in the separate fields for which the reserves have been determined, and which I refer to as the distribution; and the ownership set out shows the interest of the Lone Star Gas Company in these wells; or, in other words, their interest in the working interest of these wells, irrespective of royalty-owner, as the royalty-owner owns no interest in the well, but merely retains an interest in the reserve. Now, on this page I have shown that the total number of wells, as of January 1, 1933,

was 272; but the Lone Star Gas Company owned the equivalent of 267.4 wells, when effect is given to those wells in which others have an interest in the wells themselves.

[fol. 454] Q. Mr. Dunn, commencing at page 147 of the Report, are you responsible for the preparation of all data set forth up to the close of the Report?

A. With the exception, Mr. Griffith, of the well data that Mr. Kendrick referred to with reference to the wells in the Leeray fields and the Sipe Springs field, and so forth.

Q. Of course, Mr. Kendrick furnished anything of a geological nature that appears in that tabulated information?

A. Yes, sir; and there are, I believe, two tables which show details of information furnished by Mr. Kendrick; the remainder in the balance of the Report I am responsible for the preparation of.

Q. Refer, please, to page 149 of the Report.

A. Yes, sir.

Q. That is Exhibit 30. What have you set forth on that page and on succeeding pages?

A. On page 149 is the beginning of Table No. 1, which we have designated in the Index or Table of Contents on page 147, as the Master Lease Table. Now, this table extending from page 149 through 189, inclusive, sets out the detail of all of the leases owned by the Lone Star Gas Company, as of January 1, 1933, in which is shown, first, the total number of acres in the lease; second, the Lone Star interest; and in the case of the seven-eighths interest, or the regular lease in which the royalty-owner or land-owner has a one-eighth interest, the Lone Star Gas Company's interest is shown as [fol. 455] .875; and then a determination is made and shown as the Lone Star Acre Interest in this lease, which information is used in the application of the Lone Star Gas Company's interest in the reserve. For example, if we take the first lease, which is shown as Lease No. 246 in Clay County, having 10 acres, the Lone Star interest .875, the Lone Star Acre Interest 8.8—and I might say that the nearest tenth of an acre is considered accurate for this purpose; therefore, the acre interest for which reserve has been calculated is 8.8. In other words, this table shows that all of this reserve is proven for gas, but a reserve has been calculated; and then under the last heading in this table is shown acre-interest for which no reserve has been calculated. Now, all of the leases as of the date of this report are shown in the Master Lease Table.

Q. When you speak of leases in this connection you refer, of course to gas leases owned by the Company?

A. Only the gas leases, yes, sir.

Q. And the lease numbers which appear in the first column are the lease numbers as carried on the records of the Company?

A. That is correct.

Q. In other words, every lease that the company owns is identified by an accounting number?

A. That is correct.

[fol. 456] Q. Refer, please, to pages 199 to 204, inclusive of Exhibit 30.

A. On page 199 is set forth Table 4, showing sand thicknesses and rock pressures by pools for wells in the Lake Sand proven acreage in the Leeray district. On pages 199 to 204, inclusive, are shown the details with respect to the rock pressure or gauge pressure of the wells as of the dates shown. I am responsible for the information with respect to these pressures.

Q. At pages 209 to 220, inclusive, of the exhibit do you set forth a classification of the leases owned by the company in the Leeray district, both proven and unproven or developed and undeveloped?

A. Yes, sir. On page 209 is shown the acreage in the Brooks pool, which is classified by leases which fall in the proven or semi-proven area as determined by Mr. Kendrick for the Lake Sand and the sands below the Lake, and likewise the acreage is classified with respect to these areas furnished by Mr. Kendrick and in connection with the determination of the reserves in each separate pool.

Q. At page 227 of the report do you set forth the rock pressure for the Sipe Springs field?

A. Yes, sir; I do. The explanation is the same as the explanation for the rock pressures of the Leeray district.

Q. At pages 230 and 231 do you set forth the Sipe Springs leases owned by the company, the Lone Star acreage interest, and the classification, whether proven or semi-proven?

A. Yes, sir; I do.

[fol. 457] Q. And what do you mean by "proven" and what do you mean by the term "semi-proven"?

A. Those terms mean that according to the geological information furnished me by Mr. Kendrick, he has made that classification of the acreage as between proven and semi-proven, and the application of this information as applied in

this report by me was done in this manner: The proven area reserves were determined at one hundred per cent and for the semi-proven areas in areas immediately adjacent in which there is some possibility of fluctuation, as I understand it, in the actual size of the reservoir, we applied only a fifty per cent factor; in other words, if Mr. Kendrick told me that this area is semi-proven adjacent to proven area, I assumed then that fifty per cent of the acreage would produce gas the same as the one hundred per cent of the proven area, and that classification is here made.

Q. At pages 232 and 233 do you show the leases of the Lone Star Gas Company in the Cheaney field district, together with the Lone Star acre interest?

A. Yes, sir; I do.

Q. And what appears at page 234 of Exhibit 30?

A. On page 234 of Exhibit 30 there is set out the leases of the Lone Star Gas Company upon which are located the miscellaneous wells in Texas for which the reserves have been calculated, and on this page I have also designated the well in addition to the lease number, the county in which it is located, and the total number of acres and acre interest of the [fol. 458] Lone Star Gas Company.

Q. What appears at pages 235 and 236 of Exhibit 30?

A. At pages 235 and 236 is set out the lease table for the Chickasha field, in which is shown the lease number and the location of the lease, either in the north field or in the south field, total number of acres and Lone Star acre interest—that is, the total number of acres and the acre interest and the number of acres for which the reserve has been calculated.

Q. What appears at pages 237, 238 and 239 of Exhibit 30?

A. On pages 237, 238 and 239 are set out in order leases which existed as of January 1, 1933, in the Duncan field and in the Loco field, and on page 239 the leases showing where miscellaneous wells in Oklahoma are located.

Q. Now, Mr. Dunn, does the Lone Star Gas Company own any leases which are undrilled or undeveloped as far as having a well actually located thereon and producing is concerned but which are adjoining well defined and well developed gas-producing structures?

A. Yes, sir; they do.

Q. Have you included in your determination of the volume of gas reserves any of the territory which is embraced in leases which have been as yet undrilled by the company?

A. Only to this extent, Mr. Griffith: The reserves were determined for the developed areas. Now, the developed areas as set out in the report may not be completely developed. Therefore, the necessity for the schedule is here for the estimation of additional wells to recover the calculated [fol. 459] reserves. We have not included in this report any calculation of reserves for areas which are not partially developed or actually proven, and as an example of that I would refer you to the leases which are owned by the Lone Star Gas Company in Carson County, and in Gray County, in the Panhandle; and I might state that the leases in these counties are actually proven by the production of others, but the Lone Star Gas Company has no pipe line outlet from these counties at the present time and has drilled no wells on the leases owned by the company in those countries, and consequently I have not calculated the reserves which are owned by the Lone Star Gas Company in those countries, because the leases are undeveloped and have no market outlet at this time, but I would say that they are proven.

Q. Right there, you have included nothing in your estimate of the volume of gas reserves for leases in Gray and Carson counties which you have testified about?

A. No, sir; I have not, and I have not included any calculation or estimation of reserves for any leases located outside of the areas which are actually producing or designated as proven for production by Mr. Kendrick having been partially completed or developed at this date.

Q. Did you determine, either for yourself or Mr. E. A. Steinberger, the proportion of the undeveloped leaseholds which are found in the proven or developed areas for which you made a calculation of gas reserves?

[fol. 460] A. Yes, sir; I did.

Q. In what manner did you make that determination?

A. In the Master Lease Table, starting on page 149 and going through, I believe, 189, is set out that proportion of each individual lease for which the reserve has been calculated and/or that portion for which no reserve has been calculated. Now, we find in this table some of the leases for portions of which calculations have been made and portions which are outside of the proven areas referred to and for which no reserve has been calculated; we have leases which are wholly without and away from the proven areas. On page 189 is shown the total number of acres under lease by the Lone Star Gas Company as of January 1, 1933, which

was 184,331.8 acres. Now, the acre interest of the Lone Star Gas Company was 154,327.1 acres, which represents the deduction for the interest of others, including the interest of the royalty owner in the reserve. Then of the total one hundred and fifty-four thousand plus acres, 104,808.7 acres are shown as the total number of acres, expressed in acre interest, of the Lone Star Gas Company for which no reserve has been calculated; in other words, roughly speaking, the reserves as set out in this report have been calculated and are represented as approximately one-third of the total acreage held by the company as of that date—total gas acres. Then this information which classified the leases was furnished to Mr. Steinberger.

[fol. 461] Q. With what instrumentality did you determine the acre interest for which no reserve had been calculated?

A. The areas for the separate leases or the total proven areas were determined by me by the use of a planimeter.

Q. How do you spell that?

A. P-l-a-n-i-m-e-t-e-r. Now, then, a planimeter is an instrument generally used, I would say more often for the determination of the area of the indicator card from a steam engine or a gas engine. It is recognized as an accurate instrument for the determination of areas represented on maps of any area according to a certain scale. Now, the planimeter was used in the determination of these areas, first to determine one portion and the other portion and check back against the known area of the leases. I believe that explains the method that was used by me in the determination of these areas.

Q. And you furnished to Mr. E. S. Steinberger a calculation by the planimeter for the undeveloped leasehold acreage?

A. For the portions of them that were divided with respect to the proven areas.

. . . . . .

[fol. 462] Q. Mr. Dunn, as you previously testified, you made no calculation of the volume of gas reserves on the undrilled leases of the Company in Gray and Carson Counties?

A. Yes, sir.

Q. In your opinion and from your knowledge of the territory wherein those leases are located, do you believe that

those leases have a volume of gas reserves underlying them, substantially equivalent to the gas reserves included in the leases of the Company in the Shamrock District of Wheeler County, Texas?

A. I believe that they have, Mr. Griffith. If you put that on the basis of a drilled acre comparison, I think—although I actually made no calculation of reserves in either of those counties, I know from my own knowledge that the development to date has been such, and it is general information that the entire Panhandle Field, of which the Gray and Carson leases are a part, is what might be expressed as prolific gas producing territory.

Q. Mr. Dunn, as Production Engineer, are you primarily responsible for the proration of production in the field and proration of purchases in the field, and, in the last analysis, for the amount of gas taken from the several fields which supply the Lone Star Gas Company's pipe line system?

A. Yes, sir, that is part of my duties. I am responsible [fol. 463] for the amount of gas which is produced, when applied to the requirements. In other words, I have no control over the demand, but I am responsible for the production of the gas to meet that demand, as obtained from the separate fields and the separate wells, and so forth, which includes the proration of that gas in the individual fields and from the separate sources of supply.

Q. Your Exhibit 30 determines that the net marketable gas reserves of the Lone Star Gas Company are, in round figures, three hundred and sixty-seven billion cubic feet?

A. Yes, sir.

Q. Over what period of time, Mr. Dunn, do you believe it is reasonable to assume that those gas reserves will have been produced and the gas leases depleted?

A. I believe that those reserves will have been produced in a period of time of approximately twenty years.

Q. Will you please tell the jury why you believe that to be true?

A. Well, I believe that to be true based on my knowledge of the conditions under which the gas is now being produced, and my analysis of the conditions, as best they can be analyzed, under which the gas will be produced in the future. Now, as an example of the factors that I would attempt to take into consideration in respect to the estimation of the twenty-year period for the total withdrawal of this [fol. 464] gas, I would specifically call your attention to the

535

fact that the Lone Star Gas Company now receives a good portion of its supply of gas from casinghead gasoline plants. The casinghead plants, as we know them, are engaged in the manufacture of natural gasoline which is extracted from casinghead gas of gas from oil wells produced with oil. The casinghead plant gathers this gas from the—either from the separators or from the tank in which the oil is produced, collects it, and extracts the gasoline, and then has a residue gas available for sale, and the Lone Star Gas Company has for a number of years received a great portion of its supply from the residue available from a large number of casinghead plants located in the West-Central Texas area. Now, up until a certain period of time in the life of those fields out there there was additional casinghead gas in sizable amounts that were connected up to gasoline plants, but I might say that, generally speaking, the oil fields in that area—and there are no other areas which are adjacent to the Lone Star Gas Company's system that have this type of gas available—the oil fields there are considered to be about exhausted or completely developed, and the amount of casinghead gas is declining. We know that some day in the not far distant future that this total amount of gas must be replaced, we must be ready to replace this part of our demand with production [fol. 465] from wells. The natural thing is, then, that the production will be increased from the wells, to replace this amount of gas. Then there is another factor that I believe I have given consideration to, and that is the fact that in the past we have been supplied with gas in very large proportion of our demand from independent operators, who, in the search for oil, got wells that produced gas instead of oil, and being adjacent or near to our pipe line system they sold gas to the Lone Star Gas Company on gas purchase contracts. I know of my own knowledge that there is comparatively very little of a prospect for this gas to be made available to the Lone Star Gas Company in the future, by reason of the fact that most of the oil areas adjacent to and near the pipe lines of the Lone Star Gas Company have been developed, and a good many of them exhausted completely, and there is not the same possibility for the independent operator to drill in search for oil and get a gas well, which has been made available to the Lone Star Gas Company in the past; in other words, they have just about used up that method of furnishing gas to the Lone Star Gas Company. I make that point to show that in the future it must necessarily be the result

that the Lone Star Gas Company will have to drill and develop a much greater proportion of its demand than it is at the present time furnishing, or has for some time in the past.

Q. In years past the Lone Star Gas Company has pur-
[fol. 466] chased independent producers a very sizable volume of gas in the field?

A. Yes, sir, they have.

Q. And there are certain fields wherein the Lone Star Gas Company secures gas where it has no great amount of gas reserves which it owns?

A. Well, there are certain fields where the Lone Star Gas Company receives gas and owns none of the reserves.

Q. Take the Fox Field in Oklahoma, for example—is that a large gas field?

A. Yes, sir, that is a large gas field, and one that is at the present time very necessary to supply a sizable portion of the total requirements of the system of the Lone Star Gas Company when those requirements are approaching peak demand or amount to considerable gas. In other words, when we have heating weather over our system the Fox Field gas which is available must be counted on and depended upon for a large percentage of our requirements.
[fol. 467] Q. And is the same thing true in respect of gas purchased by the Company in the Chickasha district?

A. Well, the Lone Star Gas Company both purchases and produces gas in the Chickasha district, and naturally the amount of gas available is needed there, but the availability is not as sizable as it is in the Fox field.

Q. Is the Fox field one of the major gas fields of the Mid-Continent area?

A. It is, I would say, and has been for a number of years.

Q. Have you ever made any calculation or estimate of the volume of gas reserves in the Fox field?

A. No, sir, I have not.

Q. Would you care to hazard a guess as to what you think it is, based upon your best judgment and the information which you have?

A. Mr. Griffith, I don't know—I don't believe I would like to hazard a guess, because there are so many factors to take into consideration, but I will say that the Lone Star Gas Company purchases quite a sizable amount of gas from this field; and you asked me about the information I have at hand, and I do know that as an example, one well there has pro-

duced more than four billion cubic feet itself and it still has a rock pressure of 700 to 1,000 pounds, or in that neighborhood, and that example shows that the field as a whole has quite a large amount of gas to be produced. Now, there are two sands in that field that have been developed [fol. 468] to date; we call them the low pressure sands or low pressure wells and the high pressure wells. There are certain low pressure wells that have produced gas down to a rock pressure probably of 200 to 250 pounds. Now, I know of my general information that the prospects are considered good for deeper production than the deep sand now, but I would not care to attempt to show that there actually is that possibility because I don't have the geological information necessary.

Q. That is all.

Cross examination.

Questions by Mr. Fitzhugh:

Q. How much gas did your company produce last year, Mr. Dunn?

A. From its own wells you mean, Mr. Fitzhugh?

Q. Yes.

A. I do not have a summary of that gas production; because it was not necessary in the compilation of this report. However, those figures are available.

Q. Do you have the approximate figure?

A. Well, if you would care to have me hazard a guess, I would say that the Lone Star Gas Company wells, in the year 1933, produced from seven to nine billion cubic feet. That is as close as I would care to approximate it.

Q. And how much, approximately, did your company buy from casing-head plants?

A. In excess of ten billion cubic feet, I believe.

Q. And how much, approximately, did you buy from other owners?

[fol. 469] A. We bought the balance of our requirements from other owners, I would say approximately eleven billion cubic feet.

Q. So that from all sources you got for that year about 29 billion cubic feet?

A. That would be my approximation of it, Mr. Fitzhugh.

Q. What are the total estimated reserves as shown in your exhibit?

A. Shown in my exhibit, the total estimated reserves—you want the marketable reserves, I suppose?

Q. Yes.

A. The marketable reserves as shown in the exhibit are 367 billion, plus.

The Court: That is cubic feet of gas, I take it?

A. Yes, that is cubic feet of gas.

Q. And your company is getting new reserves, isn't it, Mr. Dunn, just about as fast as the old reserves are used up? That is, they have been doing that all long?

A. Well, it is the policy of the company to acquire additional gas reserves and I assume it will be their policy to continue to do that; it seems to me it is necessary to do that.

Q. Now, using the figures that you gave for last year's production, divided into your total reserves, Mr. Dunn, it would show that instead of their being about twenty years gas reserves it would be in the neighborhood of forty; isn't that true?

A. If you were going to assume that the production for each and every one of those forty years in the future would be the same as last year, but I would not make that assumption.

[fol. 470] Q. Exactly. In order for you to assume a twenty year life, you have to assume there will be an increased amount of gas consumed in the future?

A. Yes, that is what I have assumed.

Q. And further, that you will acquire no additional reserves?

A. Well, no—we will acquire additional reserves.

Q. But for the purpose of your assumption, you have to assume that you will not require any more in the future?

A. It seems to me there, Mr. Fitzhugh, that you assume that our sales would remain the same and all those things would remain constant, and I have not made that assumption.

Q. No, we are trying to find out, Mr. Dunn, if you had the same production in the future years as you have right now, how long your present reserves would last, without acquiring any additional reserves.

A. I will say in that connection if we had the same production from the company wells in each of the years for the forty consecutive years as we had in 1933, it would take about forty years to produce it, but I will say that has not

been our experience in the past and we do not expect it to be our experience in the future, based on the reasons I gave you a minute ago.

Q. So as to any predictions as to the life of your gas reserves, it is more or less uncertain because at this time you could not predict what the consumption will be, by years?

A. As to the predictions of gas use in the future, Mr. [fol. 471] Fitzhugh, I believe that is reasonable.

Q. What percentage of the Texas gas reserves shown in your exhibit are developed leaseholds?

A. The Texas gas reserves as shown in my exhibit, and as I stated a few minutes ago, are all located in developed, partially developed or proven areas, and the reserves were calculated for the area as a whole. Now then, there may be and there is some leases within this area that have no well on them, but there are no reserves calculated for any leases without proven or developed areas—if I make myself clear.

Q. Have you included in your exhibit, Mr. Dunn, any leases on which there is no production at the present time?

A. Only in so far as those leases on which there is no production are located within proven areas.

Q. Well now, what percentage of the total reserves as shown in your exhibit, Mr. Dunn, are leases of those class just mentioned—that is, leases on which there is no production at the present time, although those leases are in known and proven areas?

A. Well, Mr. Fitzhugh, it would not be possible for me to give you that sort of figure, because the reserves were not figures for separate leases. You could not correctly figures reserves with respect to separate leases but must necessarily figure the reserves for the reservoir as a whole. Now then, the reservoir as a whole includes quite a lot of acreage, and one lease constitutes only a part of that acreage and there- [fol. 472] fore I have made no determination for the reserves for the separate leases, and I could not answer that.

Q. Could you give me an approximate figure?

A. No, sir, the reserve is figured for the area as a whole, and therefore that proportion belonging to the Lone Star Gas Company was determined according to its interest in the acreage of the pool as a whole.

Q. Would you say, Mr. Dunn, that one-half of the leases the company has, cover areas on which there is no production at this time?

A. No, sir, the reserves that I have calculated and shown in this report represent only approximately one-third of the total number of acres owned by the Lone Star Gas Company.

Q. You did, however, estimate the number of wells?

A. The number of additional wells that would be necessary to completely withdraw this gas from these reserves?

Q. Yes.

A. Yes, I did.

Q. Refer to page 10, please sir; you show, about the middle of the page, a lease No. 1436, which covers 640 acres. Do you locate that?

A. I have not located that yet.

Q. It is just to the left of the Storm pool area.

A. Yes, I have it.

Q. Now, right in the middle of that 640 acres your map shows a dry hole?

A. Yes.

[fol. 473] Q. Now, Mr. Dunn, what classification did you give to that particular lease?

A. The classification that was given to that lease was that the portion there that is colored in red, which is the Northeastern portion, was considered as proven, which information was furnished by Mr. Kendrick; and that portion adjacent to this red portion on the West was considered as semi-proven, which information was also furnished by Mr. Kendrick, and the balance of the lease was shown as acreage for which no reserve was calculated.

Q. And the areas on this lease covered by the red portion and the green portion, I suppose, were calculated by the use of a planimeter, were they?

A. On a larger scale map, yes. I don't know of my own knowledge the data with respect to this dry hole that you referred to. It may be that was carried to a certain depth above—but that geological information is information which Mr. Kendrick has.

Q. Where in the back of your exhibit do you show that lease?

A. In the master lease table, you will find that lease in its regular numerical order of leases, and the table starts on page 149. That lease is shown on page 156, at the bottom of the page.

Q. Referring now to that page 156, Mr. Dunn, the next to the last column to the right, headed "Acre interest for which

reserve has been calculated", shows the number of acres [fol. 474] calculated by you, where a division is necessary to figure off the part of the lease which has shown itself not to be capable of production?

A. Yes.

[fol. 475] Q. And talking about this same lease now, 1436, at the bottom of the page, in the same column just referred to, you show 397 acres for the acre interest for which reserve has been calculated?

A. Yes, sir.

Q. And 163 acres in the portion for which no reserve has been calculated?

A. Yes, sir. I should have qualified my answer a minute ago, Mr. Fitzhugh, to that portion for which reserve has been calculated and referred to on page 10 as that portion of the lease for which reserve was calculated in the Lake Sand.

Q. The 163-acre figure shown in the last column on page 156 does include the acres in the shaded part as shown on page 10 does it not, and on which there is a dry hole?

A. It is a portion of that lease. Now, on page 11 is shown the portion of this same 640 acres for which reserve has been calculated on sands below the Lake sand, and the 163 acres remaining, as shown on page 11, is acreage for which no reserve has been calculated in either sand.

Q. Well, if you refer to both pages 10 and 11, there is still a shaded portion of this same lease that will not be covered as a producing area on either?

A. Yes, sir, as represented by the 163 acres.

Q. Nevertheless, that amount is included in your 163 acres as shown on your page 156?

[fol. 476] A. The 163 acres as shown on page 156 is that portion of this lease which contains 640 acres, for which no reserve has been calculated on either the Lake or the sands below the Lake.

Q. But that calculation does still cover, Mr. Dunn, doesn't it, a portion of the lease that is not shown to be producing or proven on either page 10 or page 11?

A. Yes, sir; that is what it represents, yes, sir.

Q. On Lease 1667 the same sort of condition obtains, does it not?

A. There is a portion of lease 1667 for which no reserve has been calculated.

Q. Lease 2005, Mr. Dunn, does not appear on either page 10 or 11 to be a proven or producing area?

A. I have not located Lease 2005 yet?

Q. It is a little bit to the left of that first one.

A. That is correct.

Q. On page 189 you give the totals for Oklahoma and for Oklahoma and Texas?

A. Yes, sir.

Q. As to the acre interest for which no reserve has been calculated, the totals shown on that page include a number of portions of leases just like these three we have been talking about; isn't that true, Mr. Dunn?

A. Yes, sir; it contains a number of those, yes, sir.

Q. Can you give the portion of these total figures represented by leases similar to the ones we have just been talking about?

[fol. 477] A. No, sir; I can't this time give you the proportion; but it would be obtained by addition of those acreages as shown, where a lease has part in one, and part in the other of the last two columns in this table; you would have to pick them out separately.

Q. Now, you would have included for each lease in the second column from the right any acreage that had been proven, would you not?

A. In the second column from the right——

Q. Yes, sir.

A. All of the acreage for which reserves have been calculated or have been proven.

Q. Have you anywhere in your calculations at all, Mr. Dunn, cut out any leases or portions of leases where it is definitely known that that portion of the lease is dry or nonproductive of gas?

A. Well, Mr. Fitzhugh, I might answer that question this way: That I have calculated the reserves for those leases which we know are not dry or which are proven not to be dry; and then I have shown in this table all of the acreage for which no reserve has been calculated. Now, I can't say that any of these leases which are shown in this table for which no reserve has been calculated are known to be dry—I don't know; they are acreage for which I have not made any reserve calculations.

The Court: For the purpose of the exhibits, you are just [fol. 478] considering them dry.

A. I am just considering them unproductive or unproven.

The Court: You are considering them as unproductive or unproven?

A. Yes, sir.

Q. But you do have, do you not, some acres, that appear in the column on the right-hand side of these sheets, which have quite definitely been proved to be dry and unproductive of gas?

A. I would not say that. I would say that they have not been proven as of the date of this report.

Q. Frequently you run into an instance, Mr. Dunn, where you drill a dry hole on one lease, and on the same lease may get a good well?

A. I don't know how frequently that would be.

Q. That occasionally happens, doesn't it?

A. I don't recall any instances of that kind. Understand, my information is more in line with the producing wells, and if they never produce I don't know much about them.

Q. What is the abandonment pressure, or the pressure at which you usually abandon wells in the Texas gas fields?

A. Well, Mr. Fitzhugh, I would say that that would vary according to the conditions under which the separate fields are producing gas. Now, I can imagine instances where the [fol. 479] abandonment pressure of an individual well might be rather high, and I can cite you also instances, such as the Petrolia Field, where wells are operated as low as five or six pounds pressure.

Q. What abandonment pressure did you assume for the various fields in Texas in preparing your report?

A. Would you like for me to go through and enumerate them?

Q. Yes.

* * * * * * *

[fol. 480] Q. Mr. Dunn, just before the noon recess I had asked you for the pressures at which you had abandoned the wells in the different Texas fields. Do you now have that?

A. I have the pressures at which I assumed the Texas fields would be abandoned. For the Panhandle field, or Shamrock field, in the determination of the reserves as shown in the Report, Exhibit 30, an abandonment pressure was assumed of 25 pounds gauge pressure at the surface. In the Leeray shallow production, I likewise assumed an abandon-

ment pressure of 25 pounds, and in the Leeray deep production I assumed an abandonment pressure of 50 pounds. In the Sipe Springs I assumed an abandonment pressure of 25 pounds; in the Cheaney Field, I assumed an abandonment pressure of 50 pounds. Are the Texas fields the only ones you care to have, Mr. Fitzhugh?

Q. Yes, sir.

[fol. 481] A. That is all.

Q. As a matter of actual practice you very rarely keep a well in operation after the pressure drops to below 25 pounds; isn't that true?

A. Well, Mr. Fitzhugh, we keep the wells in operation just as long as they will continue to produce oil and their operation is justified. It varies under conditions from field to field. This is merely in my judgment a reasonable assumption in connection with these fields.

Q. With the possible exception of the Petrolia Field, there is probably no field in Texas where you ever operate the wells after they reach less than 25 pounds pressure; isn't that true?

A. Well, no; I would not say that is true, Mr. Fitzhugh. I will say that the Petrolia Field is an exception in that it has been operated down to a much lower pressure than any of these assumed abandonment pressures; and in connection with the majority of the other fields for which reserves have been calculated they have not had an opportunity to produce gas down to those points. In other words, we do not have a great number of examples. Now, in the Duncan Field, in Oklahoma, a good many wells have been produced down to pressures lower than the abandonment pressures I have assumed; in the Loco field, that is true; and in the older fields. I will make this statement in connection with the [fol. 482] abandonment of wells: When you have a number of wells adjacent and near each other, they naturally can be operated down to a lower point than if you had individual wells out by themselves; that has something to do with it, as well as the characteristics of the sands, and the conditions under which the gas must necessarily be produced.

Q. Now, what is the rock pressure in the Petrolia Field?

A. Well, sir, in the Petrolia Field, Mr. Fitzhugh, it is not possible for us to take the rock pressures, because of the fact that the wells are produced continuously. We have at times got shut-in pressures, which, in effect, are working

pressures on the sand at that point, due to the fact the gas is flowing out through the reservoir. I would say, though, that the present rock pressure, or rock pressure, as of this date, would be found to be, in my opinion, from 5 pounds, possibly up to 40 pounds—the present rock pressures of those wells.

Q. What would you say is the pressure at the gauge—the gauge pressure in the Petrolia Field?

A. I had reference to the gauge pressure at the top of the well, because that is the way the pressures are taken.

Q. Is there a well in the Petrolia Field, Mr. Dunn, where the gauge pressure is in excess of five or six pounds at the surface?

A. Yes, sir. There are some wells on the Miller Lease which had rock pressures considerably higher than that at [fol. 483] the time the storage operations were started. Now, they have rock pressures higher than that due to the fact that gas has been put in; and, of course, the majority of the other wells, I would say, have very low rock pressures, maybe from five to ten pounds.

Q. If I understand this Miller Lease proposition there is a sort of underground reservoir there on the Miller lease?

A. The reservoir is there from which gas has been produced in the past.

Q. You pump gas into that reservoir and store it there?

A. Yes, sir; we have been conducting that sort of experiment.

Q. And after you have pumped in gas and stored it in the underground reservoir on the Miller Lease, of course those wells have an artificial pressure then?

A. Yes, sir; their pressure is increased in proportion to the amount of gas put into the reservoir.

Q. I don't want to talk about any of those wells. I want to talk simply about those wells in the Petrolia Field proper which are not being used for storage purposes or that are connected with a storage reservoir; I am speaking about now the wells that are running on their own pressure, so to speak?

A. Yes, sir.

Q. And of those wells do you have any wells with a gauge pressure at the surface of over five or six pounds?

A. As I say, I don't know what the pressure actually is; [fol. 484] but I believe the average would probably be not more than 10 pounds, or less than 10 pounds.

Q. As a matter of fact, a lot of the gas that comes from those wells is obtained by suction, isn't it?

A. No; we refer to the pressure against which this gas is produced as a suction line; but as a matter of fact, the reason we call it a suction line is because it is on the suction end of the compressor station. In other words, the compressor station picks that up and compresses it up to a pressure necessary to get it into the main line. There is approximately one pound pressure carried on each of the lines for these wells you refer to, and for the Petrolia field proper, the gas, then, is produced from the well against a pressure of approximately one pound, and the gas flows to the compressor station and is picked up and compressed and discharged at the pressure necessary to get it into the main transmission system.

Q. Why is it that you can't make a shut-in pressure determination?

A. It is possible to make that—entirely possible by closing in your wells for a period of time that is necessary to get a settled rock pressure, but it is the policy of the Company to produce the wells continuously.

Q. Those are the only wells that you do not have shut-in pressures on at this time?

A. No; there are some two or three of the Miscellaneous [fol. 485] Wells that are operated that way; but, generally speaking, they are about all of the wells that we do not have the shut-in pressures on.

Q. What was the Petrolia Field production for the year 1932?

A. I believe that I have that here. (Witness looks for data.)

* * * * * * *

A. I have here, Mr. Fitzhugh, figures representing the calculated production from the Petrolia Field; and I say "calculated", because the wells in the Petrolia Field do not have individual orifice meters to measure the gas that is produced; and therefore, it is not possible the same as it is in connection with the other wells delivering gas into our system, to get the individual well measurement. Consequently, we have periodic gauges made of the flow of gas from the individual wells—and the flow is constant, or fairly constant—and from these periodic gauges we determine the production by weeks, and then the sum of that determination

is the figure that I have here, which is 420,391,000 cubic feet for the year 1932.

Q. Is that 1932 or 1933?

A. 1932. I thought you asked me for that.

Q. Yes, sir; I did. Do you have the figure for 1933? [fol. 486] A. I have only here the figure through May, 1933, Mr. Fitzhugh, as used in the curve that I have shown here. Through May those wells delivered 103,026,000 cubic feet—or for five months in 1933.

Q. Those figures do not include the gas that came from the Miller lease?

A. No; they do not.

Q. They include only the production from the wells in the Petrolia Field proper?

A. Yes, sir.

Q. Don't you have a master meter, Mr. Dunn, for the whole field?

A. Yes; the gas is measured from the field as a whole, and I think that master meter measures the gas from the Petrolia Field proper, from the Miller Return, from the Holloway and Taylor leases, from some wells from which gas is purchased—the Ray Dawson, Kelly and heirs, Robertson Wiley wells—in other words, that master meter measurement includes all the gas coming into the station at that point.

Q. Do you have figures on the amount of oil produced in the Petrolia Field?

A. No, sir; I have not.

Q. Who has that?

A. I have that in my office. I keep those records, but I don't have them with me.

[fol. 487] Q. Could you find out from those records, Mr. Dunn, the amount of oil produced in 1932 and 1933?

A. Absolutely, yes, sir.

Q. Will you give us that?

A. I will be glad to. I can tell you, however, now, from which leases it is produced and so forth.

Q. Would it be possible to get the gas production in 1933. You just gave it through May?

A. Yes.

Q. Would it be possible to get the completed figure for the year?

A. By this same method, yes, sir.

Q. Now, give, Mr. Dunn, the gas production for 1933 from the other fields in Texas.

A. I don't have that information with me, Mr. Fitzhugh. I believe you asked me that this morning. I don't have it. I had only the information used in the calculations of these reserves, of which production in the Petrolia Field was a part.

Q. Do you have those figures for the year 1932? I suppose you don't have those either?

A. No, sir; I don't.

Mr. Griffith: That is, you do not have them with you?

A. No, sir; not with me. The figures are available.

Q. Will you get those figures also?

[fol. 488] A. I will be glad to. Mr. Fitzhugh, you want only the production from the Lone Star Gas Company's wells?

Q. Yes, sir; from all Texas fields in 1933 and 1932; and I guess we had better get them for the Oklahoma wells, too.

A. And Oklahoma; all right.

Q. Yes. I believe your testimony was that the Petrolia Field would be abandoned when the production drops down to approximately——

A. One hundred thousand cubic feet of gas per day is my estimate.

Q. What is the basis of that?

A. The basis for that, Mr. Fitzhugh, is based on my judgment of the point at which it would not be profitable to continue the operation. I believe that they will be continued down to that point.

Q. Have you calculated the cost of producing gas from the Petrolia Field?

A. No, sir; I have not.

Q. How would you go about finding out when those operations become unprofitable?

A. Well, in a general way, it would probably be determined in a manner similar to this: If the operation of those wells, located as they are adjacent to a permanent compressor station, such as the Petrolia compressor station, [fol. 489] whereby certain employees must remain there for the purpose of continuing other operations of the Company, and if those employees can look after these wells—or, in

other words, if the Company can continue to operate these without additional costs, or extra costs over and above other costs, why then it pays to operate them. I will say that the Petrolia Field is somewhat of an exception. There are other places, however, which might be comparable when we get down to that point.

[fol. 490] Q. Well, you have never figured out, have you, Mr. Dunn, what it costs to produce gas there?

A. No, sir; I have not.

Q. So you could not tell exactly whether the company was making or losing money on those operations on which you made a calculation, could you?

A. Well, I don't know, Mr. Fitzhugh. The policy of the company would be somewhat involved there, whether or not in the judgment of the company we should continue the operation of those wells in order to get the gas that remains there and might be produced. It is my opinion, based on our policy in general and based on the conditions surrounding this Petrolia field situation, that those wells could be produced until production has dropped to approximately one hundred thousand cubic feet per day. That must necessarily have to be an estimation.

Q. At the point where you say the field would be abandoned—that is, if you are only making one hundred thousand cubic feet per day, at six cents how much would that gas be worth?

A. Six dollars a day.

Q. That is practically no production at all when it gets to that point?

A. Well, I will say it is very small.

Q. Yes, sir. How many producing wells are there in the Petrolia field?

A. You mean again the Petrolia field proper?

Q. Yes.

A. Mr. Fitzhugh, would it be sufficient for your purpose [fol. 491] if I say that there are approximately thirty? It would not miss it more than one or two wells either way.

Q. All right.

A. I don't put my hand on it here.

Q. Now, how many of those wells, or approximately how many of those wells were cleaned out—first, how many of those wells are oil wells?

A. Not any of those are oil wells.

Q. There are some wells in the Petrolia field that do produce both oil and gas; is that correct?

A. No. There are some wells in the Petrolia field that produce oil, but not any gas. Now, I would like to qualify that statement to this extent: On the Holloway lease, which is an oil lease, we have carried on some repressuring operations similar to the storage operation on the Miller farm. We have put gas down there for the purpose of recovering more oil. Now, that gas is returned from the Holloway lease, but it has been given no consideration by me in the determination of the reserve. Then we have oil production on the Stein lease, but no gas production. We have oil production on the Taylor lease, which is adjacent to the Holloway lease, and such gas as is returned from the Taylor well is also returned from repressuring operation. Now, then, with the exception of those three leases, there are no leases owned by the Lone Star Gas Company in the Petrolia field that produce oil, and no gas production whatsoever. Likewise these thirty wells to which I have referred for [fol. 492] which the gas reserve has been calculated produce no oil and never have produced any oil.

Q. How many of the wells which do produce oil were cleaned out in 1933?

A. Wells that do produce oil?

Q. Yes.

A. I don't know, sir.

Q. Can you tell approximately?

A. I would not know at all.

Q. How many of the gas wells were cleaned out in 1933?

A. I don't know. Occasionally they bail the wells that need to bailed to remove any liquid. The gas wells are bailed at intervals. The oil wells, I don't know how often it is necessary to clean them out. Probably they have not been cleaned out in quite a while. It may be necessary to bail rods out of wells to keep them pumping, those pumping oil, but I have no information of that sort prepared.

Q. You do maintain cleaning equipment in that field?

A. Yes, sir.

Q. Can you give any idea at all, Mr. Dunn, of the approximate cost of operating that field for the year 1933?

A. No, sir.

Q. Or the cleaning out of wells for 1933?

A. No, sir.

Q. How many men work at the compressor plant at Petrolia?

A. I don't know, sir.

Q. Quite a number?

[fol. 493] A. Quite a number; yes, sir.

Q. How many of those men work in the operation of the gas wells in the Petrolia field—do all of them work on it?

A. You mean on the operation of the wells?

Q. Yes.

A. Well, Mr. Fitzhugh, the Pipe Line Department furnishes the men—that is, the men in the Pipe Line Department look after the turning in and turning out of wells in every field, and the Pipe Line Department has division headquarters at Petrolia, as does the Compressor Department. There is not a great deal of attention that is necessary in the operation of these wells to get the gas out, because there is no pressure regulation, you see; they remain on the line.

Q. Turn to page 53 of your exhibit. This page shows the Miller farm computations?

A. Yes, sir.

Q. How long has this Miller farm experiment been progressing?

A. It was started, I believed, either June or July first, 1929.

Q. Has that storage experiment conducted by your company on the Miller farm been a profitable one?

A. I would not say that it has, other than it has given information that was desired in an experimental manner to the company. So far as the revenue produced is concerned, I can't say that it would be.

Q. Does the company expect to continue storing gas on the Miller farm lease in the future?

A. I could not answer that, Mr. Fitzhugh, other than I believe they will have had all the data that they care to have in the near future and probably will put it back on the [fol. 494] same basis that it was formerly operated, and in this report I have estimated that that would be done, I believe, January first, 1935. Now, I think that is a reasonable assumption.

Q. Why, on page 53, where you state the decline in daily delivery rate for the Petrolia field proper, do you figure the daily delivery rate for the Miller farm at the same rate?

A. In the absence of any more specific data, I assumed,

because of the similarity of the production in the Petrolia field and because of the fact that the Miller farm wells, being there, will be operated probably over the same period of time, that the others will be. That is merely the best assumption that I could make under the circumstances.

Q. How near accurate do you suppose that to be, Mr. Dunn? Is it within fifty per cent accurate, would you say?

A. As far as the rate of decline is concerned?

Q. Yes.

A. Oh, I think so.

Q. Turn to page 135, please, sir. Where are the Arnold & Mercer No. 1 and the Ben Richardson No. 1 wells—where are those wells located?

A. They are located in Oklahoma. Just a minute and I'll tell you the county. I believe they are in Grady County.

* * * * * * *

[fol. 495] Q. Those two wells feed into the line that takes gas from the Chickasha district, I believe you said?

A. Yes, sir.

Q. Mr. Dunn, there are no regulations put on your company by the State or any governmental authority as to the production of gas, are there—that is, there is no proration of gas in the same sense that there is of oil production in this State?

A. No, sir. The proration as adopted by the Lone Star Gas Company was, I would say, strictly a voluntary application of proration.

Q. You spoke about Boyle's law. A simple statement of Boyle's Law would be to say that the volume of gas varies in inverse proportion to the pressure; is that right?

A. Yes, at constant temperature.

Q. At constant temperature?

A. Yes.

Q. There is also a natural law, isn't there, Mr. Dunn, that the volume of gas will vary in direct proportion to change in temperature?

A. That is Charles's Law.

Q. Yes, sir. That is, if you heat a volume of gas to a higher temperature it will expand and the volume will be greater?

A. That is correct.

Q. Consequently, if you cool it, it will shrink and the volume will be smaller?

A. Yes, sir.

[fol. 496] Therefore, in order for your illustration where you used the volume of air in a room and the illustration where you used the volume of air in an automobile tire to be true you have to assume that any changes in pressure would be conducted with a constant temperature being maintained?

A. Yes, sir. I thought I made that plain.

Q. Maybe you did, but I didn't get it. You spoke about the two methods used for finding the volume of gas in gas reserves?

A. Yes.

Q. One, I believe you said, was the pressure decline method?

A. Yes, sir.

Q. The other, I believe, was the porosity area method?

A. Yes, sir.

Q. Now, in each case where you had production and where you had available actual records of the company that show the changes in rock pressure, in all those cases in your exhibit you used the pressure decline method, did you not?

A. In all the cases where the data, in my judgment, was applicable to that method; yes, sir.

Q. Well, isn't it true in every case where you had production of several years, say, where you had a quite extensive history of the reserve, in all those cases you used the pressure decline method, did you not?

A. Yes, sir, over a period of time, with this reservation, and it may be necessary for me to give an explanation along this line to qualify that statement. We have, for example, [fol. 497] here a well that, when it is closed in, will in twenty-four hours, we will say, register one thousand pounds; the second day, one thousand and ten pounds, and so forth, until the well has rocked up, as we term it, to a maximum pressure. Now, then, it may take, and does in some cases, a considerable time for the maximum rock pressure to build up on certain wells. It may be that the well does not remain closed in long enough for the actual reservoir pressure to be determined, and we have changes in rock pressure on wells of that type, or shut-in pressures, which can not be interpreted in terms of reser-

voir pressure, because the reservoir pressure must be the maximum pressure, and in cases of that kind, and also where the withdrawal has been appreciable, and likewise any error that would come into it would result in a greater percentage of error of result, I have used the porosity area method.

[fol. 498] Q. Well, isn't it generally considered among geologists, Mr. Dunn, that the pressure decline method in cases where you have the basic data available, is much more certain than the porosity area method?

A. I *don't know that it is, Mr.* Fitzhugh. I would say this, however, that I would prefer to use it, provided I was satisfied that the data is better adapted to that application; and I might make this illustration of a case where it would not be applicable at all, in my opinion, and it would be much better to use the porosity area method: Let us assume that we have a reservoir producing gas that has a water-drive in connection with it. Now, this illustration is not applicable to these reserves of the Lone Star Gas Company; this condition does not exist, but I am merely citing it to show where it would be much more preferable to use the porosity area method. You take with reference to the East Texas Oil Field—we understand that is a water-drive; in other words, the water furnishes the motivating force and causes the oil to move—in other words, the water drives it. Now, if you do have a gas field with a water drive, which has been the case, the size of your reservoir would be constantly changing, due to—that is the effective size of it—an erroneous pressure decline to apply against any certain volume of withdrawal, but if you were able to determine the area of the reservoir and the reservoir pressure at any [fol. 499] certain date, then you may apply the porosity area method with a reasonable degree of accuracy.

Q. Now, while it might be true where you had some hydrostatic pressure in the wells that the Lone Star Gas Company has, and where there is no water-drive——

A. Yes.

Q. Your pressure decline method would probably be the best one where you could use it, wouldn't it?

A. I have used in every case the method that I feel is the best, based on the data that is available.

Q. I understand that, but I am just asking you——

A. Well, as a general statement, why, it may be the best

to use. I don't know that there is any distinction there between the two. I will say this, if you have accurate data in either case, your reserves are—by one method are just as accurate as the reserves by another method, in my opinion.

Q. Mr. Dunn, did your Company buy some wells from the Southern Oil and Production—or some Southern Company?

A. Yes, sir, they bought some wells from the Southern Oil and Production Company.

Q. *The Southern Oil and Production Company. How* many wells were they?

A. I don't recall, Mr. Fitzhugh. I believe I could name them all. They bought in some of them the whole interest, in some of them a part interest. There were a number of them; not a great many.

[fol. 500] Q. Where were they located—do you know?

A. In the general area of the Leeray District and the Eastland-Cisco area.

Q. Can you point out those wells on any maps appearing in your exhibit?

A. I don't know that I can point out the wells. I can name them, I think.

Q. All right, sir, do that; maybe we can trace them that way.

A. We acquired an interest in the Chesley No. 1 Well, in the Chesley No. 2 Well, in the Ward No. 2 Well, in the Winchell No. 1 Well, in the Brashears No. 2 Well—that is all I recall at the present time, Mr. Fitzhugh. There may have been some others.

Q. Did you acquire some undeveloped leaseholds from the same company?

A. I am sure that we did. I don't know directly of my own knowledge.

Mr. Fitzhugh: That is all.

Redirect examination.

Questions by Mr. Griffith:

Q. Mr. Dunn, it has just occurred to me that you have been talking about rock pressures throughout your examination, and you never have defined what you mean by rock

pressures. Just explain to the jury how the term rock pressure is used.

A. Well, Mr. Griffith, I have used rock pressure in this [fol. 501] exhibit because it is commonly used. I prefer to use shut-in pressure or reservoir pressure. The term reservoir pressure means the closed-in pressure as taken at the well-head on a producing well, which indicates the exact pressure as shown by your gauge at the time you take the pressure. Now, then, as I say, it takes time for that rock pressure to build up to the maximum, and I prefer to use shut-in pressure, because it is a pressure indicated with the well shut in, and then to qualify it further by saying maximum shut-in pressure—that means the maximum pressure to which the well will build up by gas flowing to the point where the gas has been withdrawn; in other words, gas that is withdrawn through a well has a tendency to lower the pressure at the point where the well taps the reservoir to a, what we term, a working pressure; then with the well shut in gas flows toward that point where the working pressure has been lowered due to withdrawal of the gas, until the pressure equalizes or until gas is again withdrawn and the pressure is lowered. I don't know, Mr. Griffith; that has been rather rambling. I don't know whether that gives the explanation you want or not.

The Court: What is the difference between rock pressure and what is called bottomhole pressure?

A. Well, Judge, rock pressure, as we ordinarily use the term, is the pressure taken with a pressure gauge at the wellhead, at the surface; and that is usually in terms of [fol. 502] gauge pressure, because it is taken with a pressure gauge. Now, then, bottomhole pressure is the pressure at the bottom of the hole, and it is either—may be calculated or it may be taken with a bottomhole bomb, which is quite an instrument; that is not in general use anywhere, I believe, except in large oil fields like in East Texas, etc.; it has not been adopted and would not be practicable or necessary in gas fields, particularly; but the bottomhole pressure is the pressure that takes into account, whether calculated or actually measured, the weight of the column of gas from the bottom of the hole to the top of the well per square inch.

Q. Mr. Dunn, Mr. Fitzhugh inquired as to the Company's being regulated in the matter of the proration of gas.

A. Yes, sir.

Q. Of course, the Legislature of Texas has passed several laws designed to bring about a proration of gas purchases in the several gas fields.

A. I understand that they have.

Q. And which Acts, I believe, have been declared invalid; but I will ask you whether it has been the policy of the Lone Star Gas Company over a period of many years to buy as much gas from the independent producers in the field as it does from its own wells?

A. That has been their policy, yes, sir.

Q. In other words, assuming a situation where the Lone [fol. 503] Star Gas Company had a ten million foot well on one lease, and on an adjoining lease an independent producer had a similar well of ten million feet open flow, is it the practice of the Company, and has it been the consistent practice of the Company, to purchase as much gas from the independent producer as it does from its own well?

A. That has been their practice and is now their practice.

Mr. Griffith: That is all.

Recross-examination.

Questions by Mr. Fitzhugh:

Q. Where you make purchases you pay the magnificent price of about two cents a thousand cubic feet, too, don't you?

A. I don't pay anything, Mr. Fitzhugh. I just keep up with the production.

Q. Well, that is what most of the independent producers get for gas when you purchase it from them isn't it?

A. No, sir, the price in the Panhandle Field is two cents per thousand cubic feet, but that is the only field in which the two cent price is paid.

Mr. Fitzhugh: That is all.

Redirect examination.

Questions by Mr. Griffith:

Q. Does the Company pay the prevailing price in every field where it operates?

A. In every field, yes, sir.

[fol. 504] Recross-examination.

Questions by Mr. Fitzhugh:

Q. And it sets the price, doesn't it, in every case?
A. I wouldn't say that, no, sir; not in every case at all.

* * * * * * *

[fol. 505] D. A. HULCY, a witness for defendant, having been recalled, testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. You are the same D. A. Hulcy who has heretofore appeared and testified in this case?
A. Yes, sir, I am.
Q. In stating your qualifications, Mr. Hulcy, did I understand you to say that you had been called upon at various times to make appraisals in respect of developed oil and gas properties?
A. Yes, sir, I have done that—performed those duties.
Q. I don't believe you gave your experience in detail in stating your qualifications, and I will ask you to do that at this time.
A. Since my connection with the Lone Star Gas Company, which goes back to 1920, upon several different occasions I have made an appraisal of certain oil and gas properties, some of which were purchased by the Company, others of [fol. 506] which were contemplated purchases and which were not actually purchased. At December 31, 1931, I made an evaluation of all of the oil and gas properties owned and operated by the Lone Star Gas Company at that date. In addition to these specific things which I have mentioned, dating from 1922 up through and including 1925, I made appraisals of the individual oil and gas properties, such appraisals being necessary in connection with the preparation and filing of depletion schedules with the Federal income tax returns. Since that time, when the Depletion Law was changed, I have continued to handle those same matters in connection with the Federal tax returns, until about two or three years ago. Since that time they have been prepared

under my general supervision—I mean by that, I have examined them and have checked them after they have been prepared by other employes of the Company. I believe that is about all, Mr. Griffith.

Q. Would you say, as a result of your experience, that you are familiar with the methods generally accredited and recognized in connection with the evaluation of gas reserves?

A. Yes, sir, I think that I am.

Q. Are you in a general way familiar with the Report and Findings of Gas Reserves of Lone Star Gas Company, as set forth in an exhibit which has been introduced in evidence here, by Messrs. Dunn and Kendrick, and styled "Defendant's Exhibit 30"?

[fol. 507] A. Yes, sir, I have seen and have gone over parts of that report. I haven't gone over it in detail.

Q. Do you know the volumetric determination of the natural gas reserves of Lone Star Gas Company as of January 1, 1933, as set out in that report to be some three hundred and sixty-seven billion cubic feet of gas, plus?

A. Yes, sir, I do.

Q. Taking that figure as a predicate, have you prepared an evaluation of the gas reserves owned by the Lone Star Gas Company as of January 1, 1933?

A. Yes, sir, I have.

Q. Has that evaluation been prepared in the form of an exhibit?

A. Yes, sir.

Q. To be introduced in this case?

A. Yes, sir, it has.

Q. Will you produce it, please? (Witness produces exhibit). Is this the appraisal to which you refer, Mr. Hulcy, being styled on the title cover "Lone Star Gas Company, Appraisal of Gas Reserves, January 1st, 1933"?

A. It is.

Mr. Griffith: We offer the exhibit so identified by the witness, in evidence.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 31.)

* * * * * * *

[fol. 508] Mr. Fitzhugh: May I ask a question or two of the witness?

Mr. Griffith: Certainly.

Examination by Mr. Fitzhugh.

Q. Mr. Hulcy, in this exhibit do you make a segregation of the gas reserves as between Oklahoma and Texas?

A. Of the gas reserves, yes. They are a duplication of the exact amount as shown in Exhibit 30, that is the exhibit prepared by Mr. Dunn and Mr. Kendrick.

Q. Is the separation made on Sheet 3 a complete separation as between Texas and Oklahoma?

A. Yes, sir, it is.

Q. Is there a segregation on Sheet 2?

A. No, sir, there is not.

Q. That sheet applies to both Texas and Oklahoma properties?

A. It does.

Q. Mr. Hulcy, have you ever purchased any leases for the Company?

A. No, sir, I have not.

Q. Are you familiar with the market value of leases in the various fields from which the Company takes gas?

A. No, sir, I can't say that I am.

[fol. 509] Q. You don't know the prevailing price per acre being paid for leases in the various fields?

A. No, sir, I do not.

Q. Does this appraisal of yours and this method of finding value of gas reserves follow the same method used in the report you say you prepared for Federal income tax purposes?

A. Yes, sir, it does.

Q. The same method?

A. Yes, sir.

Q. The method allowed by the Government for the computation of taxes isn't necessarily a method that would give the proper appraisal value from a market standpoint, isn't that true?

A. No, sir, that is not true, Mr. Fitzhugh. I think that an appraisal prepared in that manner would give somewhere near the market value of such reserves. If I may make this explanation at this time in connection with the values developed for Federal tax purposes, I would like to.

Q. All right.

A. Under the Discovery Section or Clause of the 1918-1919 Revenue Act the values placed on producing proper-

ties—that is, where they came under the Discovery Clause of the Act, there was set out first that the values to be used or to be given preference would be the same as sales prices and purchases of comparable properties under comparable conditions. That was supposed to be the preferred method of determining prices. In the absence of being [fol. 510] able to do that or to arrive at values in that manner, then this manner in which I have prepared this report was next preferred, and I might say that, to my certain knowledge, was actually used in excess of ninety or ninety-five per cent of the total cases, because we can understand that in each and every case it is hard to find a purchase and a sale of comparable properties under comparable conditions.

Q. On Sheet 4 in your exhibit, where you show a Summary of Future Developing Costs Necessary to Recover Gas Reserves——

A. Yes, sir.

Q. —three fields are scheduled.

A. Yes, sir.

Q. Shamrock, Leeray, and Sipe Springs.

A. That is correct.

Q. Some of those are in Texas and some in Oklahoma, are they not?

A. No, sir, they are all in Texas.

Q. They are all in Texas?

A. Yes, sir.

[fol. 511] Q. Is there anything on page 5 that has any Oklahoma aspects?

A. Yes; the total wells now owned and operated do include, as shown on page 5, of this Exhibit, does include certain Oklahoma wells.

Q. How about on page 6?

A. Yes, Oklahoma wells are also involved on page 6 of the Exhibit.

Mr. Stout: Your Honor, we would like to renew our objection as heretofore made on yesterday and the day bofore, that we made previously on this same question.

The Court: You mean, that there is no segregation?

Mr. Stout: Yes.

The Court: Overrule the objection.

Mr. Stout: Note our exception.

Questions by Mr. Griffith:

Q. Mr. Hulcy, please give an explanation of the work that you have attempted to do in the computations set forth in this appraisal, covering the gas reserves of the company as of January 1, 1933.

A. First I might say that this exhibit is a mathematical calculation of the worth of an asset, namely gas reserves, which were owned by Lone Star Gas Company as at January 1, 1933. This exhibit is based principally upon certain information furnished by Mr. Kendrick and Mr. Dunn and set out in their report which is styled Exhibit No. 30 in this case. The particular information that I have refer- [fol. 512] ence to that was furnished by Mr. Kendrick and Mr. Dunn is the marketable gas reserves belonging to the Lone Star Gas Company, and as shown on page 144 of their report, in the amount of 367,362,084,000 cubic feet. Also this exhibit refers to the number of additional wells that will be necessarily drilled in order that the net marketable reserves may be recovered, and that information is set out in detail on page 142 of the Kendrick-Dunn report. Taking that information as basic, I will offer the following explanation in connection with this exhibit:

Page 3 of Exhibit 31 sets out in detail the net gas reserves in thousand cubic feet as shown for each particular field. This is the same information taken from the Kendrick-Dunn report. Unit values—that is, the sales price or unit value per thousand cubic feet has been applied to the marketable or net gas reserves as shown in the first column. The gas reserves multiplied by the unit value gives an amount which is styled gross value. The first field shown on this page is the Panhandle field, where a unit value of 4.7 cents per thousand cubic feet is shown. I would like to make this explanation in connection with that price.

The present field price in the Shamrock or Panhandle field is two cents per thousand cubic feet. It has been estimated and assumed by me that that price will increase over a period of time, and this price of 4.7 cents per thousand cubic feet is the weighted price, as determined, which was in this manner: It was estimated for the years of 1933 and [fol. 513] 1934 that the price of two cents would remain in effect; that the next three years, the price would be three cents per thousand cubic feet; and that the next three years the price would be four cents per thousand cubic feet; and

that for the next three years the price would be five cents per thousand cubic feet, and that thereafter a price of six cents per thousand cubic feet would prevail, and six cents is the maximum price I have used, and based on time alone and giving no particular reference to volume, the unit price of 4.7 cents is the weighted price.

Q. Now, Mr. Hulcy, why do you assume that the field price of gas in the Panhandle, or in the Shamrock district of the Panhandle would increase over a period of years? In other words, is there any logical basis for that assumption?

A. Yes, Mr. Griffith, I believe that there is. I have talked at length with the operating executives of the Lone Star Gas Company, and I have particular reference to Mr. Frank L. Chase who is a vice president and the chief operating officer of the company; to Mr. Percy Hall, chief of the land and lease section of the Lone Star Gas Company, and it is their belief, based on their experience, that it would be impossible to continue the price of two cents in this Panhandle district throughout the life of the field; and in addition to that, I have made certain investigations as to the prevailing prices in the same field—the same general field, I should say, but in the adjoining counties, and those prices, [fol. 514] and I have reference to the present prices, range from three and one-half cents per thousand cubic feet to a price of eight cents per thousand cubic feet. Therefore, in view of that, it seemed to me that it was very reasonable to assume that the average field price of gas in the Panhandle district, beginning January 1, 1933, and continuing through the entire life of the field, as I have estimated it, would be very reasonable.

Q. Now, with the exception of that assumption as to an increase in the price for gas purchased in the Shamrock district over a period of years, have you in applying your unit value on page 3 to the gas reserves for the several fields, used the price per thousand cubic feet which presently prevails as the field price, and which price has prevailed over a period of years?

A. Yes, I have, with this exception: I have used a price of ten cents per thousand cubic feet in the Petrolia field. There is no gas being purchased in the Petrolia field direct or in the Petrolia field proper, but ten cents is the agreed price for this gas which was determined in connection with

federal income tax returns as of 1917 or 1918 or thereabouts, and for that reason I have used a price of ten cents per thousand for the gas in the Petrolia field; but in all other cases the prices set out and shown on page 3 of Exhibit 31 are the same as the actual prices being paid presently and which have been paid for some time in each respective field.

The total shown on page 3 is $19,451,614.00, that being [fol. 515] the gross value of net gas reserved owned by Lone Star Gas Company at January 1, 1933. Page 4 shows the number of wells; that is, those estimated as being necessary to be drilled in the future to recover such gas reserves by fields—namely, the Shamrock field, the Leeray field, and the Sipe Springs field, or requiring a total of 135 wells. The next column shows the average cost per well, and I might add that this average cost is based on the cost as shown and as developed in the Steinberger-Biddison-Connor appraisal, which was introduced in evidence yesterday. These unit costs per well cover the direct costs—that is, the gas well construction and gas well equipment, plus an amount to cover the undistributed costs or in other words, the overheads. The number of wells, times the unit cost, gives the total cost that is estimated will be expended in the future, and that amount is shown to be $2,658,619.00.

Page 5 of the Exhibit sets out in detail the direct recovery costs in connection with the recovery of gas reserves. The total gas wells now owned and operated by the company is shown to be 262, and it is also shown that additional wells necessary to be drilled to recover gas reserves as shown on schedule 2, which is page 4, in the amount of 135 wells, or making a total of 397 wells. That represents the total number of wells that will be operated from the beginning of the period to the end of the period. Naturally, some of those wells will be abandoned before some of the [fol. 516] other wells are drilled, so the average would be one-half, or 200 wells, that would be operated over the entire period. Based on operating costs of the company, it is estimated that it will require $200.00 per well per annum to operate such wells and recover the gas reserves. Therefore, an average of 200 wells at $200.00 per well per annum would be an estimated annual recovery cost of $40,000.00; and that the wells will be operated for a total of twenty years or that the estimated total recovery cost for the entire period of twenty years would be $800,000.00.

In addition to that recovery cost, an allowance has been made to cover gross production tax. The gross value of the net gas reserves as shown on schedule 1, which is on page 3 of the exhibit, are shown in the amount of $19,451,614.00 and the gross production tax rate that has been used by me is 2¼ per cent, or making a total of $437,661.00. Page 5 further shows a summary or recapitulation of the recovery costs, and that total is shown to be $1,237,661.00.

Page 6 of Exhibit 31 sets out the salvable value of materials which will be recovered from wells upon abandonment. The total value of materials in wells now owned and operated, and this figure is shown in the Steinberger, Biddison, Connor appraisal, is $1,285,234.00, and of the materials that will be placed in the additional wells which it is estimated will be drilled in the Shamrock district, amounts to $3,432.00 per well, or a total of $295,152.00 or additional materials that will be placed in the wells in the Shamrock district. The material costs for the wells in the [fol. 517] Leeray district amount to $9,851.00 or a total of $305,381.00 of additional materials that will be placed in wells drilled in the Leeray district. Wells drilled in the Sipe Springs district will have an average cost for materials of $6,337.00 per well or a total of $114,066.00 for the materials placed in all of the wells in the Sipe Springs district. The total of the materials in all of the wells—that is, the future wells—amounts to $714,599.00, so the total materials in the wells now owned and operated, plus the materials to be placed in future wells amounts to $1,999,833.00.

Q. Now those well costs are based upon the appraisal cost as set forth in the Steinberger-Biddison-Connor appraisal which is in evidence here, and styled Exhibit 28?

A. That is correct. Through studies which have been made, and the experiences of the company, it has been developed that average wells upon abandonment, that 75 per cent of the original materials therein will be recovered, and that such materials that are recovered will have a value of 75 per cent of new value. Therefore, the materials recovered—that is, 75 per cent of 75 per cent, would be approximately 52 per cent of the new value. It has been further determined that the cost of abandoning—that is, pulling the casing and tubing out of the well, will amount to about 50 per cent of the salvage value of the materials;

in that case, the salvable value would amount to about 26 per cent of new value. I have used a round figure of 25 per cent of the new value of the materials, and the 25 per [fol. 518] cent, when applied to the total materials now in wells and to be placed in wells, shows an amount of $499,958.00.

Q. Now Mr. Hulcy, when you say it has been determined that a certain per cent of the value of the material will be recovered, do you mean that it has been determined, based upon the company's own experience?

A. Yes, that is quite correct; as taken from the records of the company. Now, the information shown on pages 3, 4, 5 and 6 is brought forward to page 2 of the Exhibit, and particular reference is made to each schedule on page 2. The first item appearing on page 2 is the estimated gross withdrawal value; the complete detail of that amount is shown on page 3. Appearing immediately thereunder is shown the cost of recovery and first is the future developing cost which will be incurred by the company, as set out on schedule 2, in the amount of $2,658,619.00. Next appears recovery operating costs, as shown in detail on schedule 3, in the amount of $1,237,661.00, making a total of $3,896,280.00 for recovery costs.

Q. By the way, Mr. Hulcy; is that annual cost of operating a well, of $200.00 per year, taken from the actual experience of the company, or is it in excess of the company's experience?

A. It is in excess of the company's experience, Mr. Griffith; the average for the year 1932, including ad valorem taxes, was about $160.00 per well, but I have used $200.00 per well.

Q. To the extent that you have used an excess cost over the actual experience of the company, would that tend to [fol. 519] reduce the present fair value of the net gas reserves, as determined by you?

A. That is correct. I felt that the $200.00 would be a fair figure. Appearing immediately under the total recovery cost, I show the estimated salvable value of gas well equipment, and the detail of that amount is shown on schedule 4, in the amount of $499,958.00 and that amount, when deducted from the total recovery costs, shown above, leaves as a net cost of recovery, $3,396,322.00. The recovery cost, when deducted from the estimated gross with-

drawal value, leaves as estimated net recovery value of gas reserves, an amount of $16,055,292.00.

Q. Now, if all of that gas were to be marketed today, would that be its worth?

A. That is true.

Q. But of course, Mr. Hulcy, it can only be reasonably expected that that gas will be marketed over a period of years?

A. That is correct.

Q. And over what period of years have you estimated that the gas reserves which are evaluated by you will be marketed?

A. Over a period of twenty years, and I might add in that connection, Mr. Griffith, that the twenty year period was based upon information received from Mr. Dunn, or as a result of conferences with him, and based largely upon his judgment that it would require approximately a twenty years period to produce and/or withdraw the total reserves set out in this exhibit.

Next, we show what we term the present worth factor. [fol. 520] Now it might be well if I made an explanation of what I mean by present worth factor. As Mr. Griffith just said, if all of the gas reserves shown by me were going to be marketed within the first year, the $16,000,000.00 plus would be the value of those gas reserves, but it is estimated that these reserves will be recovered over a twenty years period, and I have assumed that the average would be ten years. The reserves here shown were actually being recovered by the company during the year 1933, and they are being actually recovered in the year 1934, and that will continue throughout the entire period, and so I have taken ten years as being a fair average for the entire amount of gas reserves. The present worth factor which I have used and which is shown on page 2 is .46319. The basis of that factor is that that amount of money deposited at the first of January, 1933, and left at an eight per cent compound interest rate, would be the equivalent of $1.00 at the end of a ten year period. This is what is known as a compound discount factor. It reduces the value of a dollar which will be received in a period of ten years to its present worth, as at today, which in this particular case would be, in round figures, 46 cents on the dollar. Now, that is what I have particular reference to, and the way I

have used this compound discount factor in arriving at present worth.

Q. Well, in other words Mr. Hulcy, if you figure the worth of money at eight per cent per annum, 46 cents paid to you today is as much money as one dollar paid to you ten years from today?

A. That is correct, and so upon the application of the [fol. 521] present worth factor to the estimated net worth of gas reserves, I find the present fair value of gas reserves, including gas well equipment and construction, in the amount of $7,436,650. That is the value as I have determined it, to cover both the gas reserves and the present method of withdrawing or recovering those reserves.

I have set out just below on this page 2, and show gas well equipment and construction, as shown in the appraisal dated January 1, 1933, and when I say appraisal, I have particular reference to the Steinberger-Biddison-Connor appraisal which has already been entered as an exhibit in this case. The amount as shown for gas well equipment and construction is $3,894,317.00. Added to that amount is $860,644.00 which is the proportion of the undistributed general costs, or in other words, the overheads, that are applicable to the direct gas well construction and gas well equipment amounts. I might add there, Mr. Griffith, that the $860,000 is 22.1 per cent of the direct costs. The actual per cent of the undistributed costs shown in the appraisal, to the direct costs, amount to only just a little in excess of twenty per cent. It was necessary that I use an estimated amount, for this reason. It happens that in working out of the value of gas reserves and a determination of the proper percentage of overheads applicable thereto, that we get on what might be termed dead-center. You can not make a specific finding of percentages of overheads until the fair value of net gas reserves are determined, and can be included therein. I can not determine the net value [fol. 522] of gas reserves until such time as the percentage of overheads have been determined in the main appraisal, and so the 22 per cent estimate was made, in an amount which we felt was liberal enough to take care of any contingencies that might come up, and it is approximately two per cent higher than the percentage of overheads that are actually shown in the Steinberger-Biddison-Connor appraisal. The total then, of the gas well equipment and

construction, plus the overheads applicable thereto amounts to $4,754,961.00, and that amount deducted from the present fair value of gas reserves as shown above, leaves as the present fair value of net gas reserves in the amount of $2,681,689.00, as at January 1, 1933.

Q. And in your opinion, would there be any substantial difference in the present fair value of gas reserves determined by you as of this date, towit: June 15, 1934, and January 1, 1933?

A. No substantial difference, Mr. Griffith. There would be something less, I would say, due to the amount of gas reserves which have been produced and withdrawn during the intervening period.

Q. Now, if you had used the actual overhead construction costs which were determined to be approximately twenty per cent, in the Steinberger-Biddison-Connor appraisal, instead of the twenty-two per cent which you actually did use, would that have served to increase, rather than decrease the figure of $2,681,689.00, which you have determined, in Exhibit 31, to be the present fair value of gas reserves?

[fols. 523-524] A. Yes, sir, it would have increased that value by approximately $75,000.00.

Q. Now, Mr. Hulcy, if no wells had to be drilled and equipped, and if no wells had to be operated over a period of years in order to recover this gas, would there have been any occasion for you to make the deduction of the costs of drilling the wells and the cost of operating the wells in the manner that you did, to determine the net value of the gas reserves of the company?

A. No, sir; if it had not been necessary to drill or to operate wells, then it would not have been necessary to have included them herein.

Q. But these are all capital costs and operating costs whcih necessarily would be incurred in producing the gas at the mouth of the well on top of the ground?

A. That is correct.

Q. Is there any further explanation which you think needs be made in respect of your Exhibit 31?

A. Well, about the only additional statement that I would like to make, Mr. Griffith, is that, based on the net marketable gas reserves as found by Messrs. Kendrick and Dunn, and as used by me in the preparation of this evalua-

tion, the unit value per thousand cubic feet found by me, amounts to 73/100 of one cent per thousand cubic feet for the gas in the ground, and that appears to me to be a very conservative figure.

Q. That is all.

* * * * * * *

[fol. 525] E. A. STEINBERGER, a witness for defendant, recalled, testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. You are the same E. A. Steinberger who has heretofore appeared and testified in this case?

A. I am.

Q. Mr. Steinberger, have you prepared for presentation as an exhibit in this case a compilation of the Undeveloped Leaseholds of the Lone Star Gas Company, for which no reserve was calculated in the Kendrick and Dunn Exhibit herein, known as Defendant's Exhibit 30?

A. I have.

Q. Upon what basis did you prepare that exhibit?

A. I was furnished by Messrs. Kendrick and Dunn a list of leases for which they did not in whole or in part calculate any reserves.

Q. And those leaseholds would be the unoperated leaseholds of the Company?

A. That is correct.

Q. Is this exhibit which you have prepared and styled on the title-cover as "Lone Star Gas Company. Leaseholds—Undeveloped (Miscellaneous Leases for which No Reserve Has Been Calculated). Determination of Present Value, as Of January 1, 1933"—was this prepared by E. A. Steinberger, Valuation Engineer?

[fol. 526] A. Yes, sir; it is.

Mr. Griffith: We offer this in evidence as Defendant's Exhibit No. 32.

(Thereupon the document referred to above was marked for identification as Defendant's Exhibit No. 32.)

Mr. Stout: May I ask the witness a question or two?

The Court: Yes, sir.

Mr. Stout: As I understand it, this exhibit includes property where there are no gas wells of any kind existent?

A. That is correct.

Mr. Stout: You don't know, of course, other than your opinion, that there might be any gas found there?

A. That is merely taken from the books of the Company covering leases for which they spent money.

Mr. Stout: Yes, sir. It does not cover any territory ever proven to have gas wells under it?

A. I don't know about that. That is based merely upon the judgment of the Company, what leases they cover.

Mr. Stout: We make this objection. It is clearly not used or useful. We can't see any purpose of the exhibit. What they have here, as I understand it, they have leaseholds set out wherein they have no gas wells of any kind [fol. 527] or character whatsoever, where the witness testifies it was taken from the Company's books, and not even in a proven territory. We think, if the Court please, it comes directly in line with that Columbus Gas Decision.

The Court: I am not sure that I understand just what this is. Do I understand that these leases which you show in this exhibit were purchased by the Company and afterwards the Company became satisfied that they were not productive?

A. No, sir; these are leases purchased by the Company to provide for future gas supplies.

The Court: And the Company still owns them?

A. Yes, sir; and pays rent on them and expects to drill them whenever they need them for a future supply.

The Court: They are still on the books of the Company as assets of the Company?

A. That is correct.

The Court: And the Company has them, believing they contain gas?

A. Yes, sir.

Mr. Fitzhugh: These are leases, or portions of leases, some of which may have some gas wells on them; is that right?

A. These are leases that were purchased by the Company.

Mr. Fitzhugh: But every lease that occurs in this exhibit, there is no production at the present time?

[fol. 528] A. At the present time, but there probably will be in the future.

Mr. Fitzhugh: You will not get a single cubic foot of gas from any lease appearing in this exhibit?

A. I don't know.

Mr. Fitzhugh: You don't know that any of the leases contained in this exhibit may have gas under them or on them?

A. Personally, I don't know; but those leases were bought upon the recommendation of the Geological Department, and the Management of the Company saw fit to buy those leases in order to have future gas supplies.

Mr. Fitzhugh: We submit, Your Honor, that the leases in this exhibit are not even shown to have any gas.

Mr. Griffith: I don't know how I could convince the Court that *that* these leases have any gas underlying them unless I drilled some wells on them.

Mr. Fitzhugh: That is our objection.

Mr. Griffith: But, if Your Honor please, there is no deception about this exhibit. It plainly states on the title-cover that it is "Leaseholds—Undeveloped (Miscellaneous Leases for which No Reserve Has Been Calculated)". Now, subsequent witnesses will testify in detail that the volume of undeveloped leaseholds, or the total acreage of undeveloped leaseholds carried by this Company are used and [fol. 529] useful in connection with its public service operations, are necessary to provide gas reserves for the future, and that the amount invested by the Company, shown to be something slightly less than nine hundred thousand dollars in these leaseholds, may be likened to working capital or materials and supplies on hand, and brought within the exact rule laid down by the Supreme Court of the United States in the Columbus Gas and Fuel Case; but contrary to the statement by Judge Stout as to what that case holds. Of course, we concede that if the Company carried an unreasonable amount of acreage that was unoperated, that it might be that it would not be proper to include all of that acreage in the rate base; but after all, in the last analysis, it will be a question for this jury to determine whether that is reasonable. We might also say, if Your Honor please, that the author of this exhibit has made it in conformity with the allegations of our petition wherein we attack the order and opinion of the Railroad

Commission of Texas, which is in evidence here, and in which opinion and in the findings of the Commission they make express findings as to the value of these particular leases. The Commission included these leases in their so-called rate base or determination of fair value.

The Court: I think the question, and the only one to be determined here, is whether it can be properly connected [fol. 530] up as used and useful property to the public service operations of the Company in serving the public. Upon your statement that you will show this, I will admit it; but if you fail to so show, it will be stricken.

Mr. Stout: Our objection goes more properly to the weight of it; but we don't think it is proper.

The Court: Unless he connects it up with proper testimony showing that these leases are used and useful to the public service operations of the Company, then it will be stricken.

Mr. Stout: Note our exception.

Q. Now, Mr. Steinberger, please refer to this Exhibit 32. As stated on the title cover of the exhibit, this purports to do nothing other than show the leaseholds which are undeveloped and which are owned by the Company as of January 1, 1933, and for which leaseholds there has been no attempt to calculate gas reserves in the Kendrick and Dunn appraisal in evidence here as Defendant's Exhibit 30?

A. That is correct.

* * * * * * *

[fol. 531] Q. Just take the first lease that appears on that page.

A. The first lease that appears on that page, being Lease 684, is located in Stephens County, Texas. The total acreage in that lease is 80. The Lone Star Interest is seven-eighths, or .875 per cent, or 87½ per cent; resulting, therefore, in a Lone Star Acre Interest of 70 acres. The original cost of that lease was $83.32; the rental paid on that lease to December 31, 1932 was $333.33.

Q. When you speak of rentals, do you mean the delay rentals payable under oil and gas leases?

A. That is correct. Other Incidental Expenses which [fol. 532] cover properly recording fees, notary fees, and other court costs, amounted to $26.87; resulting in a total cost of this lease, as of December 31, 1932, of $443.52. There

was no reserve calculated for the entire lease; therefore, the Acre Interest for which No Reserve was calculated is 70, or 100 per cent of the Lone Star Interest, and the Cost of the Lease, as of December 31, 1932, is $443.52. Now, in the case where there is part of a lease on which Reserve has been calculated, we have only used that portion of the lease which has been excluded in the Dunn and Kendrick determination of gas reserves. As an illustration, I refer to page 4 of this exhibit. The first lease on top of that page being Lease 1364, located in Eastland County, Texas, being 120 acres, of which the Lone Star Gas Company has a seven-eighths interest, or 87½ per cent of 120 acres, resulting in a Lone Star acre interest of 105. The original consideration, or original payment for this lease was $1,200.00; the delay rental payment, as of December 31, 1932, amounted to $360.00; incidental expenses, such as recording fees, and bringing the title up to date, and other court costs, amounted to $67.72; or a total cost of this lease, as of December 31, 1932, of $1,627.72. There was a total acreage of 120; the Lone Star Acre Interest 105. The Dunn and Kendrick Report included 87½ acres as calculated reserves, leaving 17½ [fol. 533] acres as undeveloped, or for which portion no reserve was calculated; this figure being 16.66 per cent, I, therefore, applied this per cent to the total lease cost, namely $1,627.72, and arrived at a present value of this lease at $271.18. In other words, 16.66 per cent of the total cost of $1,627.72 is $271.18.

Q. Now, in a similar manner, and based upon the determinations made by Mr. Dunn and Mr. Kendrick covering the acreage for which reserves had been calculated, and for which reserves had not been calculated, did you carry forward in the last money column on each of the pages in Exhibit 32 the actual cost of the lease to the Lone Star Gas Company?

A. That is correct. The last money column represents the out-of-pocket expense to the Lone Star Gas Company for these leases.

Q. In no case is there any appraisal or write-up in connection with the value of these leases?

A. There is not.

Q. Each and every cost shown in connection with Exhibit 32 is the result of the actual expenditure of cash by the Lone Star Gas Company in the procuring of those leases and in the payment of the delay rentals thereon?

A. Represents the actual cash cost of the original consideration and the delay rentals. It does not include in each instance the cost of procuring such rentals—the cost of acquisition.

[fol. 534] Q. The cost of acquisition of the leases.

A. The cost of acquisition of the leases.

Q. Included under the heading of Incidentals, which I take to mean Incidental Expenses, there is set forth and capitalized no cost of procuring the leases?

A. There is not.

Q. Now, what is shown in Defendant's Exhibit 32 as to the actual cost to the Lone Star Gas Company of the leases in Texas for which no reserves have been calculated by Messrs. Dunn and Kendrick in Defendant's Exhibit 30?

A. By referring to page 25 of Defendant's Exhibit 32 it will be noted that the total cost of leases for which no reserve has been calculated within the State of Texas is $842,874.48.

Q. Now, refer, please, to page 29 of Defendant's Exhibit 32; what has been the actual cash cost to Lone Star Gas Company of the leases set forth at pages 26 to 29 in the State of Oklahoma, and for which there has been no calculation of gas reserves?

A. That amount is $50,460.80.

Q. $50,416.80, isn't it?

A. Yes; $50,416.80.

Q. Giving a grand total of costs of undeveloped and unoperated leases of the Lone Star Gas Company, in both [fol. 535] Texas and *and* Oklahoma, and for which gas reserves have not been calculated, in what amount?

A. The total cost of the leases for which no reserve has been calculated for the entire Lone Star Gas Company System in both Texas and Oklahoma is $893,291.28.

[fol. 536] Q. Mr. Steinberger, in order that the jury may not misunderstand this determination of costs of these leaseholds was made in respect of the leases which the company had as of January 1, 1933?

A. That is correct.

Q. Some few of these leaseholds have been cancelled and surrendered since January 1, 1933; is that right?

A. That may be true. I don't know that, Mr. Griffith. That is an Accounting Department matter.

Q. But since January 1, 1933, the company has also acquired additional leases, which are not set forth in connection with your Exhibit 32?

A. That is correct. I do know that the company has acquired additional leases since that time, as I was furnished a copy of all such leases and purchase notices.

Q. Would you say, Mr. Steinberger, that in the time from January 1, 1933, up to the present time there has been no substantial change in the total cost to the company of the leaseholds in Texas and Oklahoma which are unoperated and undeveloped and for which there has been no calculation of gas reserves in volume?

A. To my best knowledge there have been no substantial changes.

Cross-examination.

Questions by Mr. Fitzhugh:

Q. Turn to page 3, Mr. Steinberger. Look at Lease No. 1318. The cost shown for that lease is $2,611.36?

[fol. 537] A. Yes, sir.

Q. And the acre interest for which no reserve has been calculated is 169.2?

A. Yes, sir.

Q. Does that lease cover acreage upon which a dry hole has been found?

A. I don't know. You understand, Mr. Fitzhugh, as I previously testified, that the column, for instance, under which acre interest for which no reserve has been calculated is shown, was furnished to me by Mr. Dunn.

Q. Yes, sir. You don't know whether it covers an area disproven or found to be dry or not, do you?

A. I don't know. In connection with this Lease 1318, referring to page 3 of Defendant's Exhibit 32, it will be notes that the Lone Star acre interest is 287.3 acres. The acre interest for which no reserve has been calculated is 169.2, resulting in a percentage of 58.89 per cent.

Q. In any event, Mr. Steinberger, no acreage has been eliminated from the list of leases on account of its having been definitely disproven to be gas-bearing because the lease covers acreage definitely proved to be non-gas-bearing?

A. Mr. Fitzhugh, I could not answer that question. I don't know, because, as I testified before, I took the acreages furnished me by Mr. Dunn.

Q. Well, you understand the method which Mr. Hulcy is using in valuing gas reserves, do you not?

A. I know the method of it; yes, sir.

[fol. 538] Q. Well, now, if the value of gas reserves in this case should be determined by a consideration of this exhibit of yours, which covers the undeveloped leaseholds, together with the valuation by Mr. Hulcy as he has made it, one thing is certain, isn't it, Mr. Steinberger; that not a single acre of land definitely known to be non-gas-bearing will have been eliminated?

A. Well, Mr. Fitzhugh, you are asking me about two different classifications. This exhibit here has nothing whatever to do with exhibits sponsored by Mr. Hulcy.

Q. I am asking if a combination of your exhibit with that of Mr. Hulcy does not represent a value being found that included in the rate base for every acre of land that the company has any lease or fee ownership in?

A. I don't know, Mr. Fitzhugh. Mr. Dunn may have eliminated some acres which he figured would be written off in the next year. I am merely taking the acres furnished me by Mr. Dunn.

The Court: Mr. Fitzhugh, I believe the statement was made that they would show methods used by others. I understand that this witness was not expected to give that testimony.

Mr. Griffith: With this qualification, Your Honor: that this is as of January 1, 1933, and, as stated by the witness, there have been some few changes since that time.

The Court: I understand.

Q. Well, then, what responsibility are you assuming in [fols. 539-541] introducing this exhibit?—are you simply taking some data off the books?

A. I am assuming the responsibility of compiling this report on information furnished me by Mr. Dunn on acreage for which he did not calculate any reserve, taking the figures off the books representing the out-of-pocket expense to the company for these leases or parts thereof.

Q. So all you have done, then, is to make the compilation?

A. The compilation, yes, sir, of the various data furnished me.

Q. And you have not exercised any judgment of your own as to what acreage should or should not have been included?

A. No, I have not. It was furnished me by Mr. Dunn as part of his work.

---

* * * * * * *

[fol. 542] D. A. HULCY, recalled for further cross-examination, testified as follows:

Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Hulcy, turn to the second page of your Exhibit 31, that exhibit being your appraisal of gas reserves.

A. Yes, sir; it is.

Q. The first figure shown at the top of that page is a figure in the amount of $19,451,614, the Estimated Gross Withdrawal Value?

A. That is correct.

Q. Now, that figure is the Total figure shown in the right-[fol. 543] hand column on page 3, is it not?

A. That is correct.

Q. And page 3 represents a detail of the computations in getting that figure?

A. That is correct.

Q. Now, that nineteen million dollars value that you have found for gas reserves represents, does it not, the computation of the present value of future withdrawals of gas at a price in excess of the field price now prevailing in the various fields?

A. Only in so far as it pertains to the Shamrock Field. The remainder of the fields are calculated at the present field price. I believe I made an explanation in connection with the Petrolia Field. With the exception of those two, that is the price actually being paid in the several fields.

Q. The Wheeler County Field shows up on page 3 as Panhandle?

A. That is correct.

Q. Does it not?

A. That is correct.

Q. And the value given to that is ninety-nine hundred thousand plus, or almost half of your total value?

A. That is correct; that is, the gross withdrawal value; of course, the large percentage of the reserves are found in that field.

Q. The total figure in thousands of cubic feet in the [fol. 544] column under Gas Reserves for the Panhandle Field is the figure that was given you by Mr. Dunn and Mr. Kendrick?

A. That is correct, yes, sir.

Q. Now, at what rate did you figure those reserves would be withdrawn?

A. The entire reserves are calculated that they would be withdrawn over a twenty-year period.

Q. Well, in twenty equal annual withdrawals?

A. No, sir; it was not calculated in that manner—that it would be over a twenty-year period.

Q. What is your withdrawal rate, then?

A. I don't know just what the withdrawals were for 1933.

Q. I mean, what is your computed withdrawal rate—the one that you have figured on in deciding that twenty years would be required to use up this much gas?

A. Well, I have not made any annual computed withdrawal rate. I assumed that it would be withdrawn over a period of twenty years—that the average would be ten years.

Q. This much is clear: you have this much gas now?

A. That is correct.

Q. All right. Now, for the year 1935, say, how much of that gas is going to be used up?

A. I could not tell you; and I have not made any calculations on that basis.

Q. Could you tell for 1936?

A. No, sir; I could not; I have not attempted to.

[fol. 545] Q. You could not tell for any single year?

A. No, sir; I could not.

Q. But you know that in twenty years it will be all used up?

A. That is the basis of my calculations, based on information furnished by Mr. Dunn; he is largely responsible for the twenty-year period; I don't claim any credit for that.

Q. And you don't have any factual basis at all for the assumption of the twenty-year life?

A. No, sir; that is largely based on Mr. Dunn's judgment in the matter.

Q. That is a purely arbitrary figure?

A. I would not say that is a purely arbitrary figure. I am sure that Mr. Dunn has given considerable thought to that. He mentioned several things the other day from the stand that would have to do with the withdrawal of reserves, and in the light of those matters it appears to me that a twenty-year period is entirely reasonable.

Q. Maybe we can get at it this way, Mr. Hulcy: If you divide your total figure—your grand total figure of 367,362,084 M. C. F. by 20, you would get the annual consumption of this gas, assuming that it is consumed equally all the way through the life of the reserves?

A. Yes, sir; you are correct; if you will assume it will be withdrawn in equal annual amounts, then the total volume of gas divided by 20 would be the average annual withdrawal or recovery.

[fol. 546] Q. That would be approximately eighteen million M. C. F.?

A. That is correct—eighteen billion plus per annum.

Q. The actual consumption of your Company at the present time, or the actual production is considerably less than eighteen million per annum?

A. Yes, sir; I would say it is.

Q. About half of that?

A. I believe that is about the figure Mr. Dunn quoted the other day.

Q. So if you had taken the actual figure that represents the present production per annum, your gas reserves would have been lengthened out to about a forty-year life?

A. If you would assume that the withdrawals would be limited to nine or ten billion a year, then there is not any question but that it would be over a period of approximately forty years.

Q. And since you did not take a forty-year life, but took a twenty-year life, doesn't that show that you have assumed increasing withdrawals per year throughout the life of the reserves?

A. Yes, sir; it has been calculated that the withdrawals will be in excess for future years over the amount being presently withdrawn.

Q. Going back to the Panhandle Field, why can't you tell the amount of estimated withdrawals for 1936, and so on down to the end of the life of that reserve?

A. Mr. Hulcy, that would naturally be a matter of esti-
[fol. 547] mate and would be almost impossible for anyone to calculate the actual amount of gas that would be withdrawn from a particular field for a particular year. I felt that it would be reasonable to assume, and perhaps be just as accurate to withdraw the gas over a twenty-year period, and thereby get away from making estimates for withdrawals for any particular year in the future.

Q. When you testified before the Railroad Commission and introduced an exhibit before the Railroad Commission finding the value of gas reserves——

A. Yes, sir.

Q. —You did estimate the withdrawals by years, didn't you?

A. I didn't estimate them, Mr. Fitzhugh. Those withdrawals were taken from a schedule set out in the Dunn and Kendrick Report.

Q. But your exhibit included a precise amount of gas to be withdrawn from each field each year?

A. Yes, sir; it did.

Q. And you do not have that in this one?

A. No, sir.

Q. Why did you estimate it in one and not in the other?

A. Well, as I stated a while ago, I felt it would be entirely reasonable to make it on an average of ten years, or over a twenty-year period, for the main reason that it is impossible to forecast or predict conditions as they will
[fol. 548] happen from year to year over a twenty-year period, but that it would be much more reasonable to assume that these things would happend during that entire period, and not being restricted to any one particular or individual year.

Q. The way you have this figured, Mr. Hulcy, wouldn't your Company have to be taking four times as much gas at the end of the twenty years in order for your computation to work out as they are now taking at the present time.

A. Well, as I understood the figure that Mr. Dunn quoted the other day, that at the present time we were producing aproximately nine billion feet of gas per annum. If that continued for a period of ten years, naturally in the last ten years it would be necessary to withdraw gas considerably in excess of that amount, and it might be that in some of those years it would be necessary to withdraw as much as four times the present withdrawals.

Q. That is, if you continued taking gas at the nine million rate for ten years, you would have used up ninety million?

A. That is correct.

Q. And leave two hundred and seventy million to be used in the remaining ten years?

A. Approximately two hundred and seventy million.

Q. Or at the rate of twenty-seven million per year for the last ten?

A. Or about three times that amount being presently withdrawn.

Q. Now, back to page 2, what is the figure that you show [fol. 549] for your Worth Factor, and how did you get it?

A. .46319 is the Present Worth Factor used by me, and that is the factor for a ten-year period at an eight per cent discount rate; or, as previously explained, that is the present worth of a dollar which will be received ten years from date at eight per cent compound interest.

Q. Does this present worth factor represent an average?

A. No, sir; it is a ten-year factor, but which is an average of the twenty years.

Q. Now, then, suppose, Mr. Hulcy, that the withdrawals occur at the rate of nine million cubic feet for the first ten years, and at the rate of twenty-seven million for the last ten years, so as to completely use up your reserves at the end of twenty years what would be the average life of your gas reserves?

A. You are assuming that ninety billion will be withdrawn during the first ten-year period, and the remainder of it will be withdrawn during the remaining ten-year period, or in round figures we would have two hundred and seventy-seven billion during the last ten years, and ninety billion during the first ten years; is that the basis upon which you want me to make the calculations?

A. Yes, sir.

[fol. 550] A. Well, to get it actually, Mr. Fitzhugh, of course, we would have to figure out the average of each of those. I would say in round figures that the average life there would work out on my basis about fifteen years; and in that case the eight per cent discount factor would be approximately .31524.

Q. Instead of .46319 which you used?

A. That is correct; yes, sir.

Q. And using the present worth factor, what would be the value of your leaseholds, approximately?

A. Will round figures do?

Q. Yes, sir.

Mr. Griffith: I assume he means developed gas reserves.

A. You have particular reference to the net figure that I show compared with the two million eight hundred thousand?

Q. Yes. I want a figure comparable with the figure shown on page 2 of your exhibit.

A. In round figures, Mr. Fitzhugh, by using a compound discount factor of .31524 rather than the figure of .46319, the present fair value of reserves, calculated in that manner, would be approximately three hundred thousand dollars.

Q. Instead of the two million six hundred and eighty-one thousand plus?

A. That is correct.

Q. In other words, as you assume a longer life, or as you assume withdrawals in increased amounts during the latter [fol. 551] years of the life of the gas reserves, you tend to get a lower present fair value of net gas reserves?

A. That is quite true, Mr. Fitzhugh. The larger the percentage of gas reserves that are withdrawn at a longer or a further date or a future period, naturally that does require the application of a lower factor, and when that factor is applied to the gross withdrawal values, less the cost of the future years, that does give you a smaller amount for the present fair worth.

Q. And, conversely, if you can assume a rapidly increased use of gas in the near years at a shorter life, you get a much higher value?

A. That is correct.

Q. So it is to your interest, in trying to get as high a value as possible upon your gas reserves, to assume as short a life as possible?

A. Well, as to that, I would say yes. That is what we have been primarily interested in, in arriving at a figure that would show present fair value of net gas reserves.

Q. In the testimony given before the Railroad Commission, where you worked out your valuation using a compound discount factor by years and where you gave the detail of the use of your discount factor, your factor there on an average worked out to be about .350 something?

A. What particular field do you have reference to, Mr. Fitzhugh?

Q. Well, Wheeler County.

A. The factor used was approximately .368.

[fol. 552] Mr. Griffith: For Wheeler County?

A. That is correct.

Q. That discount factor would mean that you assume about a fifteen year average life, would it not?

A. No, sir; that is approximately a thirteen year average life.

Q. Instead of the ten years used here?

A. That is correct.

Q. What is the prevailing field price in the Panhandle field of Texas?

A. Now, do you have particular reference to the Panhandle field as referred to in this report?

Q. Yes.

A. Or to Wheeler County?

Q. Wheeler County.

A. The prevailing price paid by the Lone Star presently is two cents per thousand cubic feet.

Q. How long has that been the prevailing price in that field?

A. Since the company started operations there, I believe.

Q. How long has that been?

A. I would say 1926 or 1927.

Q. There are quite a number of companies that take gas from the Wheeler County field?

A. Not so many, I believe, from the Wheeler County field. Perhaps two or three, Mr. Fitzhugh.

Q. What others take gas from that field?

A. The Northern Texas Utilities Company takes some gas from that field. However, if I remember correctly, most of the gas removed by them or withdrawn by them [fol. 553] from that field is their own gas. Now, I believe a Kansas City line, the Cities Service Gas Company, takes some gas from the Wheeler County field.

Q. Are there any other large takers of gas?

A. No. I believe I was mistaken about the Cities Service Gas Company; it seems that that is just a small line going out of the field, a six inch line, shown on the map as Public Service Corporation. Now, I don't know just where that

gas goes. So the major withdrawals from the Wheeler County field, I would say, are by the Lone Star Gas Company and the Northern Texas Utilities Company.

Q. This last company you talk about is the Public Service Corporation of Texas that serves Canadian and some other towns up there?

A. I think that is correct.

Q. And it is not very large?

A. No, I would say it would not be classified as a major pipe line.

Q. It is a fact, is it not, Mr. Hulcy, that all of these companies besides yours that buy gas from other owners in the Wheeler County district are paying the two cent field price?

A. Well, where natural gas is sold as such, yes, that is my understanding.

Q. Where you pay a royalty, those payments are always calculated on a two cent price, aren't they?

A. That is correct.

[fol. 554] Q. And in the matter of making out your gross production tax reports, those are made on the basis of the two cent field price?

A. Well, I have not seen the reports, but I am sure that they are, Mr. Fitzhugh, because that is the posted field price at the present time.

Q. I show you a photostat of a report made by your company to the State Comptroller for the purpose of making your tax payment. You are familiar with Mr. Cobbs' signature, are you not?

A. Yes, sir; I am.

Q. You can tell that that is a copy of the report?

A. Yes; that seems to be a copy of Mr. Cobbs' signature.

Q. Now, look at this back sheet, please, sir, and see if you can not tell that these tax payments are made on the basis of a two cent price for the Wheeler County field?

A. That is correct. The production or the total volume seems to be calculated at a price of two cents in arriving at the gross tax.

Q. When you make gas purchase contracts, where you contract to take gas from private individuals, how long a term do those contracts usually run?

A. In some fields the contracts are made for the life of the lease. In the Panhandle field almost always those con-

tracts have been made for the duration of one year and not in excess of two years. It was not possible to secure contracts for a longer period of time. The contracts extend [fol. 555] until either party gives notice of the cancellation.

Q. How many contracts that the company now has for gas purchases in the Wheeler County area are two-year contracts?

A. I could not tell you, Mr. Fitzhugh, without making an examination of the record, but it is my general understanding that most of the contracts in the Wheeler County area are for either one or two years period.

Q. Well, they make more two-year contracts than they do for one year, don't they?

A. Well, sir, that would be merely a guess on my part.

Q. And they make some for longer than two years?

A. I don't know of any contracts in the Panhandle that have been made for a longer period of time.

Q. Are the contracts of the kind now used by the company renewable on any certain basis?

A. My understanding is, Mr. Fitzhugh, that those contracts are automatically renewed or carried on until such time that either party elects to cancel upon a certain amount of notice.

Q. So that the contracts that the company now has would be extended on the basis of the two cent price?

A. Until such time that either party elected to cancel. Almost all of the contracts in the Panhandle area at this time are subject to cancellation upon receiving notice from the producer of gas.

Q. Some of the contracts that you refer to would run during the years 1935 and 1936?

[fol. 556] A. Well, I don't know that they would—that is, by their own terms. I think the majority of the contracts in the Wheeler County area have been in existence for a period of three or four years, and some of them in excess of that.

Q. Well, any contracts that your company is renewing at the present time would run into 1936, would they not?

A. No; I don't think those contracts are renewed, Mr. Fitzhugh. They automatically are renewed after the expiration of the contract period, but then they are subject to cancellation upon a reasonable amount of notice. I have forgotten whether that notice requirement is three months

or six months, but I would venture to say that at least ninety-five per cent of the contracts held by the company at this time in the Wheeler County district for the purchase of natural gas from independent producers, if they so elected, would be subject to cancellation within a period of three to six months.

Q. Well, now, your company makes some new contracts occasionally?

A. Yes, I am sure there are a few new contracts made.

Q. In the case of new contracts, they would run into 1936?

A. If a contract were made now for a period of two years, it would run over into 1936.

Q. All right. Now, then, in testifying before the Commission, where you predicted in detail the prices that would prevail in the various fields, your exhibits there showed that in 1935 and 1936 there would be a fifty per cent increase in the cost of gas in the Wheeler County district?

[fol. 557] A. Yes, sir, that the price would increase from two cents to three cents per thousand cubic feet.

Q. As a matter of fact there is no such increase in sight at this time?

A. Well, I would not say that, Mr. Fitzhugh. I would not be surprised if such an increase would be in effect in 1935. I think everyone is familiar with the conditions as they exist in the Panhandle field, and undoubtedly some kind of solution is going to have to be worked out to take care of things.

Q. Well, Mr. Hulcy, your company certainly has contracts in effect at this time that will protect it against a raise in price in 1935?

A. No, sir. I would say that ninety-five per cent of the contracts held by the company in the Shamrock field could be canceled out by the producers between now and the first of 1935, and some of those contracts have been canceled out.

Q. What is your present prediction, Mr. Hulcy, as to the time when a rise in price in the Panhandle gas field will occur?

A. According to the calculations I made and used in this exhibit, I still felt that my earlier prediction was true,

and I have used the same periods of time—that is, that in 1935 and 1936 there will be an average price of three cents per thousand cubic feet.

Q. And you still assume that there will be a fifty per cent increase in the price of the gas in Wheeler County?

[fol. 558] A. Yes. Taking the figures read a while ago, I anticipate that an average price of four and seven-tenths cents for the life of the field would be entirely reasonable.

Q. And do you still believe that by 1934 the price of gas will have been doubled in the Wheeler County field?

A. 1934?

Q. 1938, I mean.

A. That the price will be four cents?

Q. Yes.

A. I would say, Mr. Fitzhugh, that that appears to me as being entirely reasonable. Naturally, it is an assumption and a projection.

[fol. 559] Q. And by 1944 you assume, for the purposes of your exhibit, that your Company will be paying three times as much for gas as it now currently pays?

A. Now, you have particular reference to the Panhandle Field?

Q. Yes, sir.

A. Yes, sir, by the year 1944 that the average field price paid by the Company will be six cents per thousand cubic feet.

Q. So that, while your exhibit is not in the same detail, you have made the same basic assumptions for the Wheeler County area?

A. So far as the cost of gas is concerned, yes, or the price of gas.

Q. And the price that you use in this exhibit for gas in Wheeler County is 4.7 cents per thousand——

A. That is correct.

Q. —instead of the prevailing two-cent price?

A. That is correct.

Q. In other words, if you had used in your valuation of the Panhandle Gas Reserves the price that is now actually being paid, you would have gotten a figure a little less than half the value shown in your exhibit?

A. Yes, sir, for the gross value I would have had an amount of approximately $4,200,000.00, as compared with $9,900,000.00 as gross withdrawal values.

Q. Mr. Hulcy, what was to keep you from just applying ten or twelve or fifteen cent gas in your computations? [fol. 560] There isn't a thing in the world, is there?

A. That could have been done, Mr. Fitzhugh, if you had been so inclined and wanted to make a report of that kind. What I was striving to do was to make a report that would show the minimum present fair value of the gas reserves *under* by Lone Star Gas Company, and that is what I have attempted to do.

Q. Mr. Hulcy, what has been the trend of gas prices in Texas in the last twelve or fifteen years?

A. Now, are you talking about Texas as a whole?

Q. Yes, sir.

A. Or are you talking about particular fields?

Q. Over all. Isn't it true that it has been consistently downward.

A. That applies only, as far as I know, Mr. Fitzhugh, to the Shamrock or Panhandle Field; the prices in the other fields have been largely the same or have increased.

Q. Well, isn't it generally true of the Texas Fields—just taking all the Texas fields, in general, isn't it true that the trend of prices in the Texas fields has been steadily downward——

A. No; no——

Q. —for the past ten years?

A. No, I wouldn't say that at all, Mr. Fitzhugh,—I wouldn't say that at all. We are offering the same price for gas in the West Texas area that we have been paying [fol. 561] for a number of years.

Q. What fields are you talking about?

A. I am talking about the entire West Texas fields—Stephens County, Shackelford County, Eastland County, and Palo Pinto County. I might add that on the large volumes of gas received by the Lone Star Gas Company from the West Texas Field that the price has increased. I have particular reference now to the gas purchased from the natural gasoline plants, which have amounted to a minimum of ten billion cubic feet per annum, which was in the last year, to a maximum of at least fifteen to seventeen billion cubic feet of gas. Originally, the purchase price was about two or two and one-half cents; it is now and has been for some time six cents per thousand cubic feet; so the trend of the price for large volumes of gas has been decidedly upward.

Q. What are the fields shown on page 3, that you call the West Texas Fields?

A. The Leeray Field, Sipe Springs Field, the Cheaney Field, and the miscellaneous wells.

Q. Now, do I understand you to say, Mr. Hulcy, that in all those fields the prevailing price is six cents?

A. That is correct.

Q. How long has that field price prevailed?

A. I would say that the field price of gas purchased at the well-head has been six cents almost ever since we have [fol. 562] been operating in that field.

Q. And how many fields is that?

A. The lines were extended and the larger volumes of gas were purchased from counties,—that is, farther distant than Palo Pinto County, I believe in about 1924.

Q. Are there any fields that you operate in now, Mr. Hulcy, where the prevailing field price has been raised since you started operations?

A. I don't know that I can recall just now, Mr. Fitzhugh. I am reasonably sure that there have been some increases, but I would have to make an examination of the records before I could tell you that. As I just mentioned, that is, the largest volume of gas that has been purchased by the Lone Star Gas Company at any time was the gas purchased in the West Texas area from the casing-head gasoline plants, and that field price increased three times over, from two cents per thousand to a price of six cents per thousand.

Q. Now, you are talking about casing-head plants?

A. Yes, sir, I am.

Q. Now, how about the well owners—have there been any increases in the price of gas at the well-head?

A. Well, sir, I would have to check the record before I could tell you, Mr. Fitzhugh.

Q. As a matter of fact, in the fields where you now are paying six cents haven't you in the past paid ten——

A. No, sir.

Q. —in some instances?

[fol. 563] A. No, sir, I don't recall anything like that.

Q. In Leeray, Sipe Springs, Cheaney, and the miscellaneous fields of Texas, does your Company pay royalty owners on the basis of six cents?

A. I understand that they do, yes, sir.

Q. Are there any other companies operating in these fields?

A. I think perhaps there are some smaller companies operating there, Mr. Fitzhugh. I don't believe there are any other major pipe lines coming out of those particular fields.

Q. Do those other companies pay the same prevailing field price of six cents?

A. I am not in position to say. I don't know. I haven't made any check of them. It is my understand- that six cents is the prevailing field price that is paid by anyone who purchases gas in that field.

Q. Is that the price paid by the gasoline plants?

A. No, sir, the gasoline plants they don't purchase gas on a basis of cost per thousand cubic feet; it is on a royalty basis of the gasoline produced.

Q. Well, isn't the royalty basis worked out on some basis of the amount consumed for gas?

A. No, sir, it is not.

Q. It is not?

A. No, sir, it is based on the recovery and sale price of gasoline plus the sale price of such residue gas as is avail- [fol. 564] able to be sold.

Q. How did you work out your unit value for the Petrolia Field gas?

A. Ten cents per thousand cubic feet is the withdrawal value which was arrived at in placing a value on the gas reserves in that field as at March 1, 1913, for Federal income tax purposes, and since that date has been used in making all calculations that have been made for that particular field. You understand that most all of the gas in the Petrolia Field is owned, we might say, in fee by the Lone Star Gas Company.

Q. Well, you purchase some gas, don't you?

A. Not in the Petrolia Field proper.

Q. Where is the Ray Dawson well?

A. The Ray Dawson wells were located, as I remember now, south and east of the Petrolia compressor station.

Q. How far is that out of the Petrolia Field proper?

A. Oh, I would say, roughly,—not having a map here available—three and one-half to four miles.

Q. And in purchases made from those wells your Company pays royalty on a basis of six cents, doesn't it?

A. I believe both royalty and the cost of gas—that is,

at six cents. They are not owned by the Company, those wells are not.

Q. Are there any other wells in that immediate section where you make purchases, besides from the Ray Dawson wells?

A. The only wells that I recall at this time which are [fol. 565] Company-owned wells, but where there is a royalty interest, is the N. H. Martin farm. Now, that is the only purchase that I recall at this time.

Q. So, as far as you know, there is only the Dawson well that you might say is in that neighborhood where you make purchases?

A. That is right.

Q. And you make those purchases at six cents?

A. Not at the present time. Those wells, if I remember correctly, we discontinued the taking of gas from those wells at all in March of 1933, I believe. That, as I remember now, was the last gas that was purchased from those wells.

Q. Mr. Hulcy, isn't six cents really a fair price to place upon the Petrolia Field gas?

A. No, I feel that ten cents is entirely a fair price, Mr. Fitzhugh; and I say that for this reason, that perhaps more time, we will say, by experts was given to the placing of a value—of a fair value on the Petrolia Field gas than perhaps has ever been given to any other field in this section of the country, and it was not a one-sided affair; that was handled by engineers for the Company, as well as engineers for the Department of Internal Revenue; it was necessary that the value as of March 1, 1913, be placed on the Petrolia Field, and they did arrive at and use a price of ten cents per thou- [fol. 566] sand cubic feet as the withdrawal price of that gas; and in view of that—that it did receive such a detailed study and finding, I have been perfectly satisfied to use a price of ten cents a thousand cubic feet.

Q. That study was made before the Wheeler County Field came in——

A. Yes, sir, it was.

Q. —and before that was any two-cent gas in the Texas Panhandle?

A. That is correct.

Q. And before all those independent operators were up there crying for somebody to take their gas away from them at any price?

985

A. If they were crying, yes, it was.

Q. So you are going to insist at the present time that six cents would not be a fair price to put on the Petrolia Field gas?

A. Well, I will tell you, Mr. Fitzhugh, I don't know on the Petrolia Field whether it would make a great deal of difference whether it was six cents or whether it was ten cents. I don't know whether you are exactly familiar—that is, with the way that I have worked up this report, and just what it is purported to cover, and what the final answer is on the Petrolia Field. Included in the net value of gas reserves, as found by me in the amount of $2,600,000.00 plus, which is [fol. 567] based upon the gross withdrawal value—that is, plus cost of recovery, and those amounts discounted by the use of the present worth factor, that the deduction of the production equipment—that is, gas well equipment and construction applying to the Petrolia Field, I have a negative value of in excess of $400,000.00 for the Petrolia Field; or, in other words, if I had eliminated the Petrolia Field from the investment, or from the calculations made by me, this amount of $2,600,000.00 would have been between four and five hundred thousand dollars in excess of what I have shown.

Q. Well, if I understand you, if you had figured out the Petrolia Field on about the same basis as you did the other fields, you would have found it worth less than nothing,—is that it?

A. So far as present value of net gas reserves are concerned; and I have, as I said a while ago, I have placed a negative value of between four and five hundred thousand dollars on the Petrolia Field; or, if I had left it out altogether, this figure of $2,600,000.00 would have been in excess of three millions of dollars; but it is a property owned and operated by the Lone Star Gas Company as of January 1, 1933, and I have included every producing property owned by them at that date.

Q. Anything that you cut out, though, Mr. Huley, in arriving at your figures was placed right back in again when Mr. Biddison came to his figures, isn't that right?

[fol. 568] A. I have deducted the total amount used by Mr. Biddison. Now, then, in order that we might show——

Q. Just answer my question. Now, didn't Mr. Biddison put back in everything you eliminated?

A. No, sir, Mr. Biddison put it in originally; I am the one who eliminated it. He had it in there originally.

Q. Well, whichever one did the eliminating, it is in there twice, isn't it?

A. No, it is not in there twice. Now, let me explain this, Mr. Fitzhugh,—looking at it from the way it appears in both reports, of course, Mr. Biddison does have a value on the gas well equipment and construction for the Petrolia Field of $424,398.00, and by the use of the 22.1 per cent of the overheads applicable to the direct cost, there has been included in the overheads used by me an amount of $93,792.00, making a total of $518,190.00, appearing in his report, which has been deducted by me. Now, then, the net value in both appraisals—that is, by the picking up of the figures developed by me, for gas well—that is, for gas reserves, plus the total of the gas well equipment and gas well construction for the Petrolia Field, is $60,204.00 for the whole amount, equipment, construction and gas reserves; and then the actual amount included is less than that, for this reason, that I deducted for the overheads on gas well equipment and [fol. 569] construction a percentage figure of 22.1 per cent. The actual overhead figure used in the Steinberger-Biddison-Connor appraisal is 20½ per cent, or the actual net amount included in the total appraisal for the total of the Petrolia Field—that is, gas reserves, gas well equipment, and gas well construction, is $53,413.00.

Q. So from your explanation, I take it, Mr. Hulcy, that if you had used six cents as the price of gas in the Petrolia Field you would have found no value for the Petrolia reserve in either appraisal?

A. Well, no, I wouldn't say that, Mr. Fitzhugh. The amount found would have been less.

Q. Well, it would have been practically nothing, wouldn't it?

A. No, for this reason, it would be bound to be something. At 1,877,000,000 cubic feet of gas calculated at a price of six cents would be in excess of $100,000.00; so I would say that there would be some small worth. However, it would be materially less than that and a very small amount.

Q. That is, materially less than $53,000.00?

A. That is correct.

[fol. 570] Q. That has not taken into account, though, the cost of operating the field and collecting that gas, has it?

A. Yes, it has. It has this amount of operations that have been allocated.

Q. Well, the $100,000.00 figure you speak of, wouldn't that be after deductions for labor?

A. No, sir; that is the gross amount. That is the gross withdrawal value; that is the total value that has been placed on the Petrolia gas well equipment, gas well construction and gas reserves.

Q. But you are going to keep it your testimony, are you Mr. Hulcy, that the only way fairness can be done for your company is to place a ten cent price on this gas for the Petrolia field?

A. I feel that the gas reserves withdrawn from the Petrolia field that ten cents is a fair and a reasonable price.

Q. Are you aware of the fact, Mr. Hulcy, that your company in its tax reports to the State of Texas, claims that the gas in the Petrolia field is only worth six cents?

A. No, sir.

Q. Would you be interested in seeing a photostatic copy of a report made by your company?

A. I don't know that I would be particularly interested in it.

Q. I don't imagine you would either, since it is so much at variance.

A. Well, this does not exactly check with a six cents price, Mr. Fitzhugh, according to my division.

[fol. 571] Q. For Clay County?

A. No, sir, Clay County, Texas, shows a volume of 78,584,000 cubic feet, and the value at $4,921.98, which would be an average price of 6.28 cents per thousand cubic feet, or something in excess of six cents per thousand cubic feet.

Q. About six and a quarter cents?

A. In round figures, yes.

Q. And hasn't your company been making its tax reports on that basis for some years?

A. I don't know, Mr. Fitzhugh; I have not seen those tax reports and I am not familiar with them.

Q. This much is certain, isn't it, Mr. Hulcy, that either your company has been defrauding the State on its basis for gas prices used on these reports, or else your value is too high?

A. No, sir, I wouldn't say that. I have placed a value on this gas that I find and feel to be reasonable. Now then, I would not say there would be no difference between the

Petrolia field—that is, by me using a price of ten cents per thousand cubic feet and the reports being made at six cents, any more than in the Panhandle field, where the basis of the reports to the Comptroller is two cents per thousand cubic feet for that gas and the price I have used is in excess of four cents per thousand cubic feet; and I think it is a fair and reasonable value that I have placed on those gas reserves.

Q. Well that is just one more instance of the same thing, or another inconsistency, isn't it?

[fol. 572] A. No, sir; I think the gas reserves value I have used is quite fair and reasonable.

Q. What consideration did you give to the reserves in the Miller farm lease?

A. I don't know anything about that Miller farm lease, Mr. Fitzhugh. The only information I have is that which Mr. Dunn sets out in his report of which he furnished me a copy, and said that the net gas reserves from the entire Petrolia field is shown to be a total of 1,877,058,000 cubic feet of gas, and that is the figure I have used and I am not familiar with how that item was made up.

Q. Well, you are aware of the fact that that figure as testified to by Mr. Dunn, does include the gas stored on the Miller lease, aren't you?

A. It doesn't include storage gas; no, it does not. The entire storage gas is handled through a storage account, just as any other account is handled. It is charged to a gas storage account, and as gas is removed from there it is credited to the account, and that is strictly an accounting problem and an accounting matter, but it is not handled as a production.

Q. The gas stored on the Miller lease is Oklahoma gas, isn't it?

A. That is my understanding that it is, yes.

Q. That is, it is gas that comes out of Line H or Second H?

A. I believe out of Line H or Second H, and I believe from the Chickasha field.

Q. What is the prevailing field price for gas in the Chickasha field of Oklahoma?

[fol. 573] A. Eight cents per thousand cubic feet.

Q. And do you pay a royalty on that basis?

A. Yes, we do.

Q. How about the Duncan field?

A. Ten cents per thousand cubic feet.

Q. Do you pay royalty to other owners on that same basis?

A. Yes.

Q. How about the Loco field?

A. The Loco field has a price of six cents per thousand cubic feet.

Q. Do other gas operators in the same field pay the same price in these different fields?

A. I am sure they do, Mr. Fitzhugh. No, I do know about the Chickasha district that the Oklahoma Natural Gas Corporation did pay at one time a price of ten cents per thousand cubic feet, but I am not sure what they are paying now, but I believe it is a price comparable to the amount paid by the Lone Star Gas Company.

Q. Does that company operate in the Duncan or the Chickasha field?

A. They operate in the Chickasha field; they may have a line in some portions of the Duncan field, but I do not recall right at this time.

Q. In general, though, would you say, Mr. Hulcy, that your company and the other companies get about the same price—or pay the same price in these various fields?

A. I would say that the field price is generally followed, [fol. 574] particularly by the major companies that remove or withdraw any sizable amounts of gas.

Q. In testifying before the Railroad Commission before, Mr. Hulcy, you made the statement that "We are assuming that our own gas reserves are worth exactly the same or that the gas produced by the company in any field is really worth exactly the same as that gas purchased from any other producer; it is worth that much and no more, and we have gone about it on that assumption." Do you remember that?

A. Yes, I remember that quite well.

Q. Do you still subscribe to that?

A. Yes, I do, and particularly in the calculation of a report of this kind. I believe an assumption along those lines results in minimum values that could be placed on gas reserves. Those are the prices being paid to miscellaneous independent scattered groups of gas properties. Naturally I feel that the worth of a gas reserve from large blocks of leaseholds which are owned by the company and subject to their control as long as the lease or the well shall last does

have a value in excess of the price paid to small scattered groups of wells and leases. However that same price paid to them is the price used by me in making this calculation, with the exception of the Panhandle field, and the explanation I made in connection with the Petrolia field.

Q. You could hardly call the Panhandle field very scattered, as to gas reserves?

A. Well, so far as the independent producers that we take [fol. 575] gas from, yes. It is not as compact as the company owned leases and the company owned wells; the contracts are of a short period of time on those wells, and of course on the wells owned by the Lone Star Gas Company, that is equivalent to a contract of the life of the lease rather than being limited to a period of one or two years.

Q. Have you assumed, in line with Mr. Dunn's testimony, that the Petrolia field would be abandoned when it dropped down to about 100,000 cubic feet production per day?

A. Well, I really have not gone into that matter, Mr. Fitzhugh. It was not necessary for me to do so. Mr. Dunn had arrived at a net gas reserve figure for the Petrolia field, and that was used by me. Also, on the average life of ten years or the withdrawal period, it was calculated at the same period as the Panhandle, but of course we all know that the Petrolia district, more than likely, will be abandoned quite a bit earlier than the Panhandle field, but it has just been treated as a part of the gas reserves developed by Mr. Dunn and has had no special treatment from me at all.

Q. You remember, do you not, that Mr. Dunn said it was very uncertain when the Abandonment of the Petrolia field would take place? It would be a matter of policy?

A. Mr. Fitzhugh, I didn't hear all of Mr. Dunn's testimony, and he had been testifying all morning when I got into the court room.

Q. You know, don't you, that is the substance of his testimony?

[fol. 576] A. Well, I am afraid I couldn't say. I didn't hear it, you understand; but I am sure that there is some limit and when the production reaches that point the field will be abandoned. Just what that limit would be I don't know.

Q. But regardless of when that field will be abandoned, whether it be at the time when production drops to 100,000 cubic feet per day or at some other production point, you

have assumed that the entire amount of gas present there will be recovered, haven't you?

A. Yes, whatever that amount is, I have assumed that 1,877,058,000 cubic feet will be recovered.

Q. And doesn't that fail to take into consideration the fact that the field will be abandoned probably before all that amount is recovered?

A. I don't know that I just understand, Mr. Fitzhugh. Will you read the question, please?

(Question is repeated.)

A. Well sir, I have not given any consideration whatever to the probability of the field being abandoned prior to the actual recovery of this volume of gas.

Q. You are familiar with Mr. Kendrick's and Mr. Dunn's exhibit introduced before the Commission, aren't you?

A. Yes, I saw it at that time.

Q. Now in this exhibit introduced before the Railroad Commission, Mr. Dunn assumed that when production had dropped down to 220,000 cubic feet per day in the Petrolia field, that the field would be abandoned. Now in this case, instead of assuming 220,000 to be the abandonment point, he chooses 100,000 cubic feet per day. Do you know why [fol. 577] that change in policy was made?

A. No, sir, I do not.

Q. Were you consulted on it any?

A. No, sir, I was not.

Q. So you claim no responsibility for that?

A. No, sir, I do not.

Q. Back to page 2 now, Mr. Hulcy. You show a cost of recovering or future developing costs, in the amount of $2,658,619.00?

A. Yes, I do.

Q. How was that worked out?

A. The detail of that amount is shown on page 4. Mr. Dunn sets out in his report that it will be necessary to drill a certain number of wells in the future in order that the entire gas reserves calculated by him may be recovered. He estimates that it will be necessary to drill 86 additional wells in the Shamrock area. The direct cost or the average cost of the wells as included in the Steinberger-Biddison-Connor appraisal, plus the overheads, would amount to $15,063.00 per well. 86 wells times the average cost determined per

well would be a total of $1,295,418.00. Mr. Dunn also estimates that it will be necessary to drill 31 additional wells in the Leeray field and 18 additional wells in the Sipe Springs field, and the unit costs or the costs per well in each of those areas were determined to be $30,991.00 and $22,360.00 respectively, or the total cost of all future wells which will be necessary to be drilled in the amount of [fol. 578] $2,658,619.00, and as stated, that is based on the findings set out by Mr. Dunn.

Q. What have you assumed was the average life of wells?

A. I have not made any assumption on average life of wells, other than the ten year average or that all these wells would be abandoned—these particular wells would be abandoned, at the end of a twenty year period.

Q. To get your final figure, Mr. Huley, you did apply your present worth factor, did you not?

A. Yes, which was a ten year period.

Q. And you assumed a ten year average on that?

A. Yes, that's right.

Q. So if you are wrong about ten years being the correct average life of wells, your figure would be thrown off to that extent, wouldn't it?

A. No sir, it would not, Mr. Fitzhugh. If the twenty year period is wrong, that they would be recovered over that period of time, then the present worth factor of course would not apply but that has nothing to do in particular with the ten year average for the life of wells. That would be governed more by the period of time required to remove and withdraw gas reserves.

Q. Now how did you work out your recovery operating costs, in the amount of $1,237,661.00?

A. That is shown in detail on page 5. At January 1, 1933, the company owned and operated a total of 262 wells at that date, and based on the information shown on page 4 of this report, which is the information given or the amount [fol. 579] estimated by Mr. Dunn, there would be an additional 135 wells drilled during that period or making a total of 397 wells. I assumed that one-half, or in round figures, 200 of those wells would be in operation for the entire twenty-years period, and it has been estimated by me that the recovery costs will amount to $200.00 per well per annum. That is, the estimated annual recovery cost would be an average of 200 wells per annum at a cost of $200.00

per well or a total of $40,000.00 per annum for recovery costs, and that the 20 years period would give a total recovery cost for the recovery period of $800,000.00. Then in addition to that I have made a calculation to cover the gross production tax and an average rate of 2¼ per cent is used amounting to $437,661.00 and the direct recovery cost plus the gross production tax gives a total of $1,237,661.00 as total recovery costs.

Q. How did you find the $200.00 figure you give as the estimated annual recovery cost?

A. That is based on the experience of the company. That was based largely on the actual figures for the year 1932. The average operating expense for that year was approximately $160.00 per year, and I have used a flat round figure of $200 per well, which I felt would be ample to cover all operating expenses over a long period of time and giving effect to average conditions.

Q. Was the $160.00 figure that you just gave based on a study of all fields, or some particular field?

[fol. 580] A. No, sir, that was based on the total withdrawal expense as shown for the Lone Star Gas Company, divided by the total number of wells operated.

Q. What are your total figures on that?

A. The total operating expenses for the production department, that is, the withdrawal—or applying to the withdrawal of gas, was $29,782.18; the ad valorem taxes applicable to the gas production properties was $12,573.00, making a total of $42,355.00 and I used an average of 260 wells; that amounts to $163.00 per well.

Q. What allowance do those figures make for overheads?

A. They do not make any allowance for overheads. These are the direct operating expenses.

Q. Does the $29,782.00 figure include the cost of cleaning out wells in 1932?

A. Yes, it does.

Q. Do you know what part of that cleaning out cost was for the Petrolia field?

A. No, sir, I do not, Mr. Fitzhugh. I do not have those figures broken down.

Q. What is that $29,000.00 figure again?

A. It was $29,782.18.

Q. And what all does that cover now?

A. The principal item is repairing and cleaning out wells, in the amount of $23,771.22. The remainder of the charges,

being made up of the superintendence applicable to the pro-
[fol. 581] duction of gas in the amount of $4,424.28; direct labor, $18.62; miscellaneous supplies and expenses, $5.73; maintenance other than repairing and cleaning out, $48.26; and the miscellaneous lifting expense of $1,514.07, making a total of $29,782.18.

Q. Do you have your Exhibit 13, Mr. Hulcy?

A. I don't have a copy of it.

Mr. Griffith: I have a copy here.

Q. Well, on page 6, for the twelve months ended December 31, 1932, you show in your deductions from gross revenues, production system expense in the amount of $68,634.15?

A. Yes.

Q. Wouldn't that be a figure that ought to be a comparable figure for that same year with this $29,000 figure you just gave us?

A. No, sir. It would not for the reason that one of the larger amounts included in the production system expense is the royalties paid on gas produced, and it will be noticed that in the preparation of this report it is based on net gas reserves—that is, the company's own proportion—that amount for 1932 was in excess of $37,000.00, which is included in production system expense; so they are not comparable at all.

* * * * * * *

[fol. 582] Q. Mr. Hulcy, where you purchase gas from other owners, as you do up in Wheeler County, where you pay this two-cent field price, do you have to pay the owner of the gas anything besides that two cents per thousand cubic feet?

A. No, sir; I believe that is all we pay him.

Q. You don't have to pay him anything for the depletion of his well?

A. Of his well?

Q. Yes.

A. No, sir.

Q. You don't have to pay him for depreciation on his well equipment?

A. No, sir.

Q. If he had engaged in some unfortunate drilling before

you started making purchases from him and had hit some dry holes, you would not have to pay him for any of that, would you?

A. No, sir.

Q. If the other owner had had some expense similar to your cancelled and surrendered lease expense, you would not have to pay him any additional amount on account of that?

A. No, sir; we would pay him for the gas purchased from him at the current price.

Q. Now, your Company, besides asking for the full value of your gas reserves based on this well-head price, asked [fol. 583] also that an allowance be made in its rate for depreciation, depletion, dry hole expense, and cancelled and surrendered lease expense?

A. All of those things will be included, yes, in the cost of operations.

Q. You do not anywhere in this exhibit make any sort of compensation for payment of Federal income tax, do you?

A. No, sir; I do not.

Q. Why don't you?

A. It does not belong in here at all, as I see it.

Q. Don't these amounts that you expect to receive in future years for the consumption of your gas reserves represent income?

A. No, sir; they do not—merely the recovery of value—it does not represent income at all—the realization upon an asset owned by the Lone Star Gas Company as of January 1, 1933.

Q. If you didn't regard these accruals in future years as being actual income, what would be the use of using your discount factor?

A. I have not applied it as income at all. I say these assets will be recovered over a future period of years, and for that reason the discount factor has been applied; but at no place on the books of the Company ever will the gross withdrawal value shown by me appear as income.

Q. If you had regarded these amounts to be derived from [fol. 584] gas reserves through future years as income, and computed the Federal income tax from that deduction, you would have had a very much less value for your gas reserves, wouldn't you?

A. Yes; if I had deducted 13¾ per cent of the net amount, Mr. Fitzhugh, the amount would be less, there is no question about that.

Q. How much less would your gas reserves then be?

A. Now, you just want me to make the calculation?

Q. Yes.

A. Now, as I understand what you want, Mr. Fitzhugh, is if I had a Federal income tax rate of 13.75 per cent, as a part of the cost of recovery—had I done that, the calculated amount for the Federal income tax would have been approximately $2,207,000.00 with the present worth factor applied.

Q. That is for the entire twenty-year period?

A. That is the total amount based on the $16,055,292 shown as the Estimated Net Recovery Value of Gas Reserves. With the present Worth Factor applied to that, the reduction would have been one million dollars—that is a little less than one-half of the $2,207,000.00. Then the value found for the gas reserves net upon that basis of calculation would be approximately $1,600,000.00. However, of course, that would be entirely incorrect, for the reason that if you were going to prepare a Federal Income Tax return based upon these properties, naturally, this amount of $4,754,000 depreciation would be suffered during [fol. 585] that period of time, and that amount would be included as a deduction. In addition to that, net amount found for the value of the reserves or leaseholds would be subject to depletion over the entire period, and that amount would also be allowed for deduction before the calculation for Federal income tax. These calculations I made for you are not correct at all and could not be assumed to be correct under any circumstances or conditions, for the reason that, naturally, depreciation and depletion allowances would be allowed.

Q. I believe you say in making up this exhibit you followed the valuation method similar to the methods you followed in making up income tax returns?

A. Prior to 1925. The depletion law was changed as of January 1, 1925, and what I have particular reference to was that section of the Act covering the discovery values placed upon oil and gas producing properties.

Q. The reports that you made to the Federal Government for income tax purposes for 1933 and the years prior to that are not available to us, are they?

A. Do you mean the depletion schedules?

Q. No, sir; the returns of the Lone Star Gas Company?

A. Of the Lone Star Gas Company?

Q. Yes, sir.

A. So far as I know, I suppose they are.

Q. Don't you know that those reports are not accessible to the public generally?

[fol. 586] A. Federal income tax matters?

Q. Yes.

A. I haven't ever heard about any auditor for the Railroad Commission making a request for them. I have just assumed, and gone on that assumption, that you have been afforded everything in connection with the Lone Star Gas Company's business that you asked for.

Q. Could we be furnished the originals of your report to the Federal Government for income tax purposes?

A. You mean the one filed with the Department?

Q. Yes.

A. I am not sure about that. They are out of our control.

Q. Well, can you furnish us with certified copies of the originals?

A. You are asking about something filed with the Federal Government, and which is entirely beyond our control.

The Court: Mr. Fitzhugh, you are asking him about something they filed with the Federal Government, and it would be purely a matter of conclusion and opinion on his part about what they would do. You could ask the Federal Government for them, or whether they are privileged or not, but don't ask this witness about that.

Mr. Fitzhugh: That is the point: We can't get them.

The Court: If you can't get them because of the Federal law in regard to them, why embarrass this witness about it?

[fol. 587] Mr. Stout: That is the point. We think we are right——

The Court: About what?

Mr. Stout: About proving by him that the reports are privileged. There is some controversy about what those reports show.

The Court: Well, ask him about whether they are privileged or not, if you want to.

Q. Well, are those reports privileged, Mr. Hulcy?

A. Now, you have reference to the reports held by the Department of Internal Revenue?

Q. Yes.

A. I don't believe they are at this time, Mr. Fitzhugh. There was one time when those reports were privileged and subject to inspection, but I don't believe that is the law right now. However, I have not kept up with that, and I may be mistaken about it.

Q. When was the law with respect to that changed?

A. I couldn't tell you now; I don't recall.

Q. But you are fairly certain that it has been changed?

A. That is my impression. As I say, I have not had any occasion to make an examination or request to be allowed to examine any Federal income tax returns filed by other concerns, and for that reason I don't know anything about that.

Q. About what time did this change become effective? [fol. 588] A. I couldn't tell you, Mr. Fitzhugh; it would be merely a wild guess on my part.

Q. Mr. Hulcy, when you testified before the Railroad Commission in explaining your exhibit similar to the one introduced here, and where you used the same general method——

A. Yes, sir.

Q. —you assumed for 1933 there would be used up of the gas reserves of the Company 12,114,418 M.C.F., did you not?

A. I didn't make that assumption. I used that figure, but I did not arrive at that figure.

Q. I understood you to state that you used that figure for the purpose of your calculation?

A. My calculation was based on volumes comparable to that.

Q. That year is past?

A. Yes, sir; that year, 1933, is gone.

Q. What was the actual amount of gas used by your Company for that year?

A. The only thing I know was the information given by Mr. Dunn, and I believe the figure he quoted was somewhere about nine billion cubic feet of gas. I have not had any occasion to go into that matter and determine for myself the actual production for the year.

Q. I will ask you if you didn't in your tax reports made to the State Comptroller pay taxes on the basis of having used up of the gas reserves of the company 5,432,255 M.C.F.?

[fol. 589] A. I don't know, Mr. Fitzhugh, and evidently, when you say to the State Comptroller, I take it you mean the State of Texas?

Q. Yes.

A. Of course, that report would not include any of the gas reserves used up in the state of Oklahoma; but in addition to that, I am not familiar with the report, have not seen it, and am not familiar with it.

Q. If an addition should be made to this figure on account of Oklahoma gas, there would not be added more than about five per cent, would there?

A. Now, I don't know; I don't know.

Q. Well, then, to get the comparable figure, so we will have Texas gas compared with Texas gas, on Mr. Dunn's schedule at the other hearing, which he used as a basis for your exhibit, the Texas gas for that year would have been in what amount in round numbers?

A. You mean of the total of 12,114,000,000?

Q. Yes, sir.

A. The amount of Texas gas, as shown on page 266 of this exhibit, would be 11,905,303 cubic feet.

Q. That eleven *b*illion is a comparable figure with the 5,432,255 M.C.F. on which you made your tax reports?

A. If that is the amount reported to the Comptroller's office, I would say that it would be a comparable figure.

Q. Now, then, your value depended upon the accuracy of these figures?

[fol. 590] A. Yes, sir; to a certain extent.

Q. And if you had a slight mistake here your figures would be thrown off?

A. That is the main thing I tried to do in the preparation of this report—I realized the impossibility of making a forecast over a period of twenty years of the gas withdrawn from several fields; that is, the impossibility of being able to determine ten years from now just exactly how much gas is going to be withdrawn from that particular field, and I feel that in the preparation of a report such as this,—Exhibit 31—that all those matters of guess have been eliminated.

Mr. Fitzhugh: Now, may it please Your Honor, it appears from the examination of this witness and the explanation that he has made of this exhibit, that there is no legal basis for the exhibit as prepared at all, and we make a

motion at this time that the exhibit and the testimony in connection with it be stricken from the record, because, first, it involves a guess as to what will be the price of gas obtained by the Company from production to be obtained in future years; secondly, it contains a pure guess as to what will be the amounts of gas reserves used up in future years; thirdly, it applies a price to gas obtained in future years, and by so doing and capitalizing that value the whole method really represents a capitalization of earnings. In other words, it would be finding, Your [fols. 591-592] Honor, the rate base based upon a rate at the well head. It is similar to finding, and you had as well find the whole rate base by finding out what the Company made in one year and capitalizing that. There is no difference in capitalizing that return at the burner tip, or going on back and capitalizing their returns as they realized them at the well head; it is the same method. We think that the whole method used is too speculative, uncertain, conjectural, and inaccurate to be of any use whatsoever.

* * * * * * *

[fol. 593] Redirect examination.

Questions by Mr. Griffith:

Q. Mr. Hulcy, you stated during your cross-examination by Mr. Fitzhugh that all of the wells which would be utilized to produce these gas reserves over a period of twenty years would pass out at the end of the twenty year period. Was that through some inadvertence?

A. I did not mean at the end of a twenty year period, Mr. Griffith. Of course, it has been assumed that these wells will pass out gradually over a twenty year period and that the average of ten years will prevail.

Q. And you have utilized that average of ten years in the preparation of your exhibit?

A. That is correct, and, of course, that means that wells will be going out in 1933, 1934, 1935, and each year thereafter, when we arrive at an average of ten years.

Q. Now, do you have available here now the average price paid by the Lone Star Gas Company in the several gas fields from which it purchases gas from independent producers for a period of several years past?

A. Yes, sir; I do have such a tabulation from the year 1920 through 1931. That has not been brought right up to date. I just had that in my files.

Q. Mr. Hulcy, starting with the year 1927 and coming down through 1931 what has been the average field price paid for gas by the company?

A. The year 1927, the average price paid was .0624.

Q. In other words, that is——

[fol. 594] A. Six and a quarter cents per thousand cubic feet. In 1928 it was .0626; for 1929, it was .0676; for 1930, .0673; for 1931, .1633—in other words, about six and one-third cents per thousand cubic feet.

Q. Do you have any record available where you can give us the average field price paid by the Lone Star Gas Company to independent producers in 1932 and 1933?

A. No, I don't have that available here. However, for the year 1932 the average price was something less than that; in fact, as I remember now, it was a little less than six cents, and for 1933 it was less than that amount. Now, in just what proportions I do not recall at this time.

Q. Would you say that over the last several years the Lone Star Gas Company has consistently paid an average field price for gas from the several fields of six cents or a trifle less than six cents per thousand cubic feet?

A. I would say, Mr. Griffith, from 1920 through 1933 that the average paid by the Lone Star Gas Company as a field price for gas purchased would be slightly in excess of six cents per thousand cubic feet.

Q. Now, of course, the cheapest gas that the company buys is in the Shamrock district?

A. That is correct.

Q. In Wheeler County, in the Panhandle?

A. That is correct.

Q. And the company purchases substantial volumes of gas in that district?

[fol. 595] A. They do.

Q. And to the extent of those purchases, that serves to reduce the average field price which the company has paid since 1926?

A. That is correct.

Q. Now, you have stated that the company over a period of a number of years has paid an average field price for gas in the several fields approximating six cents per thousand cubic feet?

A. That is correct.

Q. Is it your judgment that in future years the company will pay an average field price for gas in the several fields approximating the price which it has paid in recent years?

A. Yes; I would say that that is true, Mr. Griffith. It may be for a short period of time that the price may drop a little bit below six cents, but I would say that the average would be around six cents per thousand cubic feet.

Q. Now, please refer to page 3 of your Exhibit 31.

A. Yes, sir.

Q. What is the average field price which you have used in determining your value of the net gas reserves of the Lone Star Gas Company as of January 1, 1933?

A. Five and three-tenths cents per thousand cubic feet.

Q. Or something less than the actual experience of the company over a period of years?

A. Yes, sir.

Q. Mr. Hulcy, notwithstanding the cross-examination to which you have been subjected, is it still your opinion that [fol. 596] the present fair value of the net gas reserves of Lone Star Gas Company as of January 1, 1933, is not less than $2,681,689.00, as shown on page 2 of your Exhibit 31?

A. It certainly is.

Mr. Griffith: That is all.

Recross-examination.

Questions by Mr. Fitzhugh:

Q. Do you know how much the leases you have evaluated in this exhibit actually cost the company?

A. I believe, Mr. Fitzhugh, as of December 31, 1932, which is comparable to the date of this appraisal, the actual cash cost of the leases in the gas farms—that is, the producing properties—is well in excess of one million five hundred thousand dollars. That is as I remember the figure now.

Q. Now, the figure that you just gave includes all gas well construction and wells already completed on those gas farms?

A. No, sir; the figure I just read is the gas reserves alone —or do you have reference to the million and a half figure?

Q. Yes, the million five hundred thousand.

A. Oh, no; that is the cost of the leasehold itself.

Q. And of course the cost of the leasehold would cover the cost of any well that happened to be on it?

A. You mean that we drilled?

Q. No.

A. That is difference from equipment and construction. The total of the investment, December 31, 1932, was in excess of four millions of dollars.

[fol. 597] Q. And this million and a half figure included some gas well construction that had been done by some people other than yourselves?

A. Do you have reference to purchased wells?

Q. Yes.

A. Mr. Fitzhugh, it has been the practice of the company that when a leasehold was purchased with a producing well thereon that the materials alone should appear at current prices and the remainder of the cost was allocated to the cost of the leasehold, so the investment will only show just the leasehold cost and the physical material cost, if that is what you mean.

Q. So the million five hundred thousand dollar figure would include gas well construction?

A. If that were included, yes, sir; it would be the difference between those figures and the total cost.

Q. And that represents the cost to your company before any of those reserves were exhausted by your company?

A. Do you have reference to specific leases, or the entire land?

Q. The reserves represented by these leases, I mean.

A. That is correct—that is correct. That is true, with the exception of Petrolia field; and I believe I have made a former statement with reference to that; that is, at one time, I believe in 1926, where the depleted reserve had been written off against the total asset and the amount shown for Petrolia field was the net cost at that time—in other words, the depleted cost.

[fol. 598] Q. What do the books show, Mr. Huley, for the cost of Petrolia field?

A. For the total cost of Petrolia field, including well lines, production system property, etc.?

Q. Just the leases and the wells making up that?

A. Just a minute and I think I can give you that. At December 31, 1932, or 1933, the investment carried on Petrolia field for the leaseholds and gas wells amounted to approximately $484,000.00.

Q. That is an unappreciated cost?

A. That is correct, with the exception of the leaseholds of which I have just offered the previous explanation.

Mr. Fitzhugh: That is all.

P. McDonald Biddison, a witness for defendant, having been duly sworn, testified as follows:

* * * * * * *

Questions by Mr. Griffith:

Q. State your name, please.

A. P. McDonald Biddison—B-i-d-d-i-s-o-n.

Q. Mr. Biddison, you will have to talk pretty loud in order to make yourself heard. Where do you live?

A. Dallas, Texas.

[fol. 599] Q. In what business are you engaged?

A. Consulting Engineer, specializing in natural gas and petroleum work.

Q. Are you a graduate of any accredited engineering school?

A. I am, from Kansas State College of Agriculture and Applied Sciences in 1904 with the degree of Bachelor of Science in Electrical Engineering.

Q. Were you born in the State of Kansas?

A. I was.

Q. Following your graduation from Kansas State College, will you please relate to the jury what has been the general nature of the work which you have done and the general nature of the experience which you have had?

A. Well, in general my experience has been in natural gas and oil work, engineering. To be more detailed about it——

* * * * * * *

A. My first work was on construction and operation of cement plants at Iola, Kansas. Following that, I worked as electrician in a coal mine at Zeigler, Illinois, for about three months. My first work, in natural gas, began in 1905, at Columbus, Ohio, on the preparation of designs for the Kansas Natural Gas Company, then being constructed from

[fol. 600] the fields in Southeastern Kansas to Kansas City, Atchison, Leavenworth, St. Jo, Missouri, Topeka, Kansas, and Joplin, Missouri. I worked under the direction of their Consulting Engineer, who was at that time Chief Engineer for the Logan Natural Gas and Fuel Company at Columbus, Ohio, to which position I succeeded. In 1906 I went to Joplin, Missouri, with the Hope Engineering and Supply Company, designers and constructors of natural gas systems, and in 1907 I went to Independence, Kansas, as Assistant to the Chief Engineer of the Kansas Natural Gas Company, and in that capacity had charge of construction of gas compressing stations, pipe lines, regulating and measuring stations. In the fall of 1908 I went with the Columbia Gas and Electric Company as Construction Engineer on the construction of their transmission system from West Virginia to Cincinnati. In 1910 I went with the Ohio Fuel Supply Company, a natural gas company in Ohio, and did a year's construction work with them. In 1911 I was with The Texas Company at Port Arthur, Texas, on refinery construction, and in the spring of 1913 I returned to the Ohio Fuel Supply Company as Construction Engineer. I remained with them until the spring of 1919. My work in that connection embraced design and construction of gas compressor stations, regulating and measuring stations and transmission lines, and I also acted as Technical Adviser to the various departments of the company. While still retaining that connection, during 1915 and 1916 I conducted experiments on gasoline production from natural gas, and [fol. 601] subsequently built gasoline plants for that company and other companies. From 1917 to the spring of 1919 I also supervised the operation of gasoline plants for the Ohio Fuel Oil Company in West Virginia. From 1914 to 1918 I also acted in the capacity of Consulting Engineer to the Lone Star Gas Company, then having its main offices at Fort Worth, and in that capacity predicted the amount of drilling necessary to be done each year for the maintenance of an ample gas supply for their markets, predicted the amount of increased transmission capacity each year necessary to supply those markets, designed and supervised construction of their Petrolia compressor stations and of their Petrolia gasoline plant. During 1917 and 1918 I also acted as Consulting Engineer on war gases to the United States Bureau of Mines and for them supervised

the storage of helium in natural gas over the United States and supervised the construction and putting into operation of the helium plants at Fort Worth and Petrolia, Texas.

Q. By the way, what is helium, Mr. Biddison?

A. Helium is a comparatively rare gas, found in minute quantities in the atmosphere and found in some natural gases up to the limit of about two and a half per cent of the volume of the richest gases. This helium gas weighs practically twice as much as hydrogen, and it is non-combustible.

[fol. 602] Q. That is, you mean it will not burn?

A. Will not burn, will not unite with any other known substance, and was distributed by the United States Government for use in dirigible balloons on account of its non-combustible qualities. In the spring of 1919 I went to Mexico as Construction Engineer for the Agwi Compania, a subsidiary for the Atlantic, Gulf and West Indies Steamship Company; my work was the design and construction of oil pipe lines, oil pumping stations, and loading stations for boat loading of oil on steamships off-shore in the Gulf of Mexico. In 1920 I did similar work for the Tide-Mex Company, a subsidiary of the Tide Water Oil Company.

Q. This work was likewise done in Mexico?

A. Yes. I returned to the United States in the spring of 1921, and in September, 1921, became affiliated with interests owning gas producing leases in what is called the Monroe Gas Field of Louisiana, and in what has been called the Panola County Field of Texas. These interests also at that time owned the Dallas Gas Company and the County Gas Company, serving gas to the City of Dallas and its surrounding communities and incorporations. These distributing properties at Dallas were sold in the fall of 1926, and I remained in Louisiana with those producing properties. I had, up to the time of the sale of the distribution [fol. 603] properties, acted in the capacity of Consulting Engineer to those properties, and I managed the producing properties in the Monroe Field and in the Panola County Field, and while with those properties constructed transmission lines to nearby markets and built distribution systems, a gasoline plant and a carbon black plant. Those properties were sold in 1926 to interests affiliated with Electric Bond and Share, and I remained with them until 1928. During the period of those connections I investi-

gated all markets within conceivable pipe line reach of the Monroe Field, and made estimates and reports upon pipe lines to Dallas, Texas, to Houston, Texas, to Lake Charles, Louisiana, to Alexandria, Louisiana, to Baton Rouge and New Orleans, Louisiana, to Birmingham, Alabama, to Atlanta, Georgia, to Memphis, Tennessee, and to St. Louis, Missouri. I supervised the construction of a portion of the line from the Monroe Field to Baton Rouge, and supervised the construction of the entire extension of that line running from Baton Rouge to New Orleans. I supervised the construction of a pipe line from the Monroe Field to Eldorado and Camden, Arkansas. I participated in the negotiations leading to the construction of the pipe line to Memphis, Tennessee.

Q. From the Monroe Field?

A. From the Monroe Field; and I participated in the negotiations leading to the construction of the pipe line [fol. 604] from the Monroe Fields to St. Louis. In 1928 I severed my connection with those properties in Louisiana, and opened an office at Monroe, Louisiana, as Consulting Engineer. I made a valuation in that capacity of the properties of the then Fort Worth Gas Company, which is now the Fort Worth Division of the Lone Star Gas Company. I made an estimate and report for financing for a pipe line into Salt Lake City and Ogden, Utah, and one or two other minor reports during the year 1928. I then became associated with the Southern Natural Gas Corporation, and remained with them until the summer of 1931, as Consulting Engineer in connection with the construction of their transmission system from the Monroe, Louisiana, Gas Field, across Mississippi and Alabama into the major cities of western Georgia, and supervised personally the construction of a branch of that system serving Macon, Georgia, Montgomery, Alabama, and Columbus, Georgia, and the section from near Jackson, Mississippi, to Mobile, Alabama, and Pensacola, Florida. This system, all-told, embraced about 1600 miles of transmission lines. I also acted in the capacity of Consulting Engineer to their affiliated companies in Mississippi, Alabama, and Georgia, who were constructing at the same time distribution systems in numerous towns in those States. Upon completion of this work in 1931 I opened my office at Dallas, Texas, and am maintaining that office at this time. Since opening that Dallas

[fol. 605] office my work has been largely that of valuation and reporting on natural gas properties, and I have done such work for numerous natural gas companies.

Q. You are now, and have been for some time, under retainer by Lone Star Gas Company?

A. That is correct.

Q. Whereby your engineering services are made available to the Lone Star Gas Company, among others?

A. That is correct.

Q. Would you say that as a result of your experience, Mr. Biddison, you are familiar with all of the ramifications of the natural gas business, starting with the inception of a natural gas project, the construction of the project the financing of the project, the building up and acquiring of the business upon the completion of the project, and its actual operation?

A. I am.

Q. Are you familiar with the utilization of gas, as well as its production, compression, transportation, and delivery?

A. I am.

Q. You have a familiarity with the public service property plant and business of the Lone Star Gas Company, the defendant in this case?

A. I do.

Q. Mr. Biddison, there has previously been introduced in [fol. 606] evidence here by Mr. E. A. Steinberger an inventory and appraisal upon the basis of Cost of Reproduction New, January 1, 1933, of the Public Service Plant, Property and Business of the Lone Star Gas Company. Did you participate in that work?

A. I did.

Q. Will you please relate to the jury the general nature of the work that you did in connection with that appraisal?

A. I have made detailed examinations of the inventory, have had that checked against the inventory maps maintained by the Company's Engineering Department; have had a detailed check made of the equipment on gas wells, partly from Engineering Department records, but most largely from field inspections. I have had checks made in the field and from Engineering Department inventory records of the equipment in measuring stations. I have had field checks made, as well as checks made of inventory maps of the equipment in gas compressing stations. I think I have fairly

accurately checked the inventory in all of its major subdivisions of property, so that I am satisfied as to the substantial accuracy of the inventory. I have no question that there still remain in the inventory some few items whose description is not as complete as it should have been; but as to the quantities of materials I am satisfied that the inventory is one of a high degree of accuracy.

Q. Now, the appraisal which has been introduced in evi- [fol. 607] dence here purports to be, as reflected by the title cover, the joint work of E. A. Steinberger, yourself, and Ed. C. Connor. Will you please explain to the jury the primary responsibility of Mr. Steinberger, yourself, and Mr. Connor in connection with this appraisal upon the cost of reproduction new at January 1, 1933?

A. Mr. Steinberger's prime responsibility was the compiling of the inventory; secondly, he is responsible for the mechanical operation of assembly of the data, the pricing of the units of material and the units of construction cost. My prime responsibility is for the determination of the unit costs of physical property. Mr. Connor's prime responsibility was for the determination of the collateral construction costs, sometimes called undistributed general costs, and for the determination of the amounts of non-physical values embraced generally in the classes of working capital and going concern value. Now, that gives a distribution of the prime responsibility. I had been in touch with Mr. Connor throughout the preparation of those parts of the valuation for which he is primarily responsible, and I *ma* in entire agreement with him as to the amounts derived for the values which he has determined, and as to the methods which he used in the derivation of those values. He will himself, however, be in much better position to explain those methods and those costs than will I. I have previously stated that I am in entire agreement with the inventory.

[fol. 608] Q. Now, as far as the determination of unit costs is concerned, as applied in Exhibit 28 to the various classifications and items of physical property, do you assume prime responsibility?

A. I do.

Q. Will you refer, please to Exhibit 28. What is the first item of physical property set forth in Exhibit 28?

A. Production System Property, in the amount of $9,141,848.05.

Q. Now, what does that consist of, Mr. Biddison?

A. As shown on page 2, this System may be subdivided into the general classifications of Leaseholds—Developed, $2,681,689.00; Leaseholds—Undeveloped, $893,291.28; Gas Wells, $3,908,424.15; Other Production System Structures, $9,450.29; Other Production System Equipment, $95,764.08; General Supervision—Allocated, $148,596.00; and Undistributed General Costs, $1,404,643.25; producing, as shown on page 2, the total for Production System Property of $9,141,858.05, which figure has been carried forward on page 1 as the first item of Physical Property Including Undistributed General Costs, on that page.

Q. Now, Mr. Biddison, there has previously been introduced in evidence an exhibit by Mr. Hulcy, labeled Defendant's Exhibit 31, herein, giving a net value of Developed Leaseholds in the amount of $2,681,689.00.

A. Yes, sir.

Q. So the determination of that item was made by Mr. Hulcy?

[fol. 609] A. That is correct.

Q. And there has also been introduced in evidence here an exhibit sponsored by Mr. E. A. Steinberger—being Exhibit 32, I believe, giving the actual cost to the Company of the Undeveloped Leaseholds for which no reserves have been calculated, in the amount of $893,291.28.

A. That is correct. And reference is made in this valuation to those figures derived by Mr. Hulcy and by Mr. Steinberger. On page 8 of Volume 1 of this valuation reference is made to the report by Mr. Hulcy covering Leaseholds—Developed, in the amount of $2,681,689.00; and that figure is carried forward from page 8 to page 2 of Volume 1, and on page 9 of Volume 1 of this valuation the determination by Mr. Steinberger of the cost to the Company of leases, for which Mr. Dunn computed no reserves, is shown to be $893,-291.28; and that figure is carried forward from page 9 to page 2 of Volume 1 of this valuation.

[fol. 610] Q. It would therefore appear, Mr. Biddison, that the first item of physical property for which you assume primary responsibility in the matter of determining the reproduction cost new is that classification of property known as gas well equipment?

A. That is correct.

Q. Now I believe Mr. Steinberger has previously testified concerning the property which is comprised and included in

the classification known as gas well equipment. Will you please relate to the jury just how you went about determining the reproduction cost new of the gas well equipment which was owned and used and operated by the Lone Star Gas Company in the public service as of January 1, 1933?

A. The first group of this property which is set out in this valuation in detail is that for the Chickasha field in Oklahoma. A recapitulation of the values found for that field is shown on pages 11 and 12, where values are shown for each individual well in the field.

Q. Pages 11 and 12 constitute a summarizing of the developed cost of gas well equipment on gas wells in the Chickasha field and developed costs are set out in detail commencing at page 13 of Volume 1 of Exhibit 28?

A. That is correct. On page 11 the first well shown is the S. H. Brown No. 1, at a reproduction cost new of $12,971.47. The developed cost of that well is shown on page 13. On this page the materials found by inventory of that well have been priced at the existing prices for such materials as of the [fol. 611] date of the inventory, January 1, 1933, from which is derived a total cost of materials of $3,461.13.

Q. Is your development of the unit cost to be applied to the S. H. Brown No. 1 well, typical of the unit costs for all other gas wells of the company in the Chickasha field?

A. It is.

Q. Will you please give a detailed development, then, of this typical application of your unit costs?

A. Having determined that the cost of materials was $3,461.13, I have next estimated the cost of installation of fittings at the well top, the connecting up of this well, ready for service. An analysis of the labor costs for performing such services on eighteen installations made by the Lone Star Gas Company, pricing the labor at the labor prices prevailing as of January 1, 1933, produced a cost for installation of well fittings in Oklahoma of $21.13 each. In addition to the labor of installation, there is a cost incurred for handling and checking materials which amounts, in the experience of the Lone Star Gas Company to four per cent on materials. Four per cent on the $3,461.13 of materials in this well is $138.45, which added to the $21.13 of labor in making the connections, produces the figure of $159.58, which is set up on page 13 as the installation of fittings charge. Now the largest amount of cost in this well is the

drilling cost shown on page 13 to be $9,350.76, or $4.2992 per foot on 2175 feet of depth for this particular well. This figure has been arrived at on the basis of cost of $2.75 per [fol. 612] foot for drilling contract, plus a cost of $1.5492 per foot of other costs to be incurred by the company outside of the drilling contract, in connection with the drilling of wells in the Chickasha field.

Q. Now was the figure of $2.75 per foot as the drilling contract costs, the current or going contract price in the Chickasha field as of January 1, 1933?

A. It is.

Q. From what source did you determine that the company's costs were $1.54 plus per foot in addition to the drilling contract costs?

A. This cost was determined from an analysis of drilling costs in various fields by the Lone Star Gas Company, in which the actual expenditures shown by the analysis by the company were $1.3017 per foot. Now, to allow for the contingencies which may arise in the application of a figure derived from experience, to other drilling, I have added as a contingency item $.2475 per foot, producing a total estimated cost for the operations to be performed by the company of $1.5492 per foot.

Q. Mr. Biddison, give the jury a general idea of what is included in this cost of $1.54 per foot which it would cost the company in addition to the drilling contract price; that is, just a statement of the miscellaneous items that would be included in that cost?

A. The drilling contract figure which I have set up, contemplates the furnishing by the company of a rig, the furnishing by the company of water and fuel for drilling; the [fol. 613] delivery at the well by the company of the casing——

Q. And therefore it would include hauling costs?

A. Yes. The materials in the string of casing which may be lost, damaged or destroyed in drilling, or the company's property and other cost which is borne by the company; the company furnishes the slush pit.

Q. What is a slush pit, Mr. Biddison?

A. A slush pit is a pit which in the operating of a rotary rig serves the purpose of a settling basin in which the cuttings made by the drill in the bottom of the hole which are flushed up to the top by the circulation of liquid mud,

may be settled out of the mud and the mud may be pumped back and kept in circulation. The cementing of the various strings of casing is not a part of the drilling contract at the price set out in this estimate for such contract; the expense of providing materials for making of mud is to be met by the company, and there are other small items of miscellaneous expense and materials besides the supervision by the company's forces of their operations and of the operations of the contractor. These are the items that constitute the company's cost in connection with drilling wells.

Q. Have you now stated to the jury all of the items which would be generally included in the company's costs of $1.54 per foot of wells drilled and which costs would be in addition to the contract price?

A. I have.

Q. Therefore by applying the developed cost per foot of [fol. 614] $4.29 plus to the depth drilled in this well of 2175 feet, you obtain the total drilling cost of $9,350.76?

A. That is correct, and by adding together the material costs which I have cited, the installation of fittings costs which includes stores expense on fittings, and the labor of connecting up, and the drilling cost, I arrive at the total for this well of $12,971.47.

Q. Now Mr. Biddison, in the application of material costs covering casing and pipe and gate valves and fittings, from what source did you obtain those prices? That is, did you use the lowest quoted prices prevailing as of January 1, 1933?

A. They are.

Q. The lowest quoted prices?

A. The lowest quoted prices from the manufacturers of the various classes of materials, as of the date of the appraisal.

Q. Now Mr. Biddison, the development of the cost of gas well equipment for the S. H. Brown No. 1 well, in the Chickasha field—is that development of cost typical of all of the other wells in the Chickasha field?

A. It is.

* * * * * * *

[fol. 615] Q. Mr. Biddison, in testifying as to the cost of installation of fittings on the S. H. Brown No. 1 Well, in the Chickasha Field, what direct labor costs did you use—

that is, I mean what rate of pay for the various men engaged in the work?

A. Foremen, 60 cents per hour; assistant foremen, 45 cents an hour; laborers, 35 cents per hour; truck drivers 45 cents per hour.

Q. Were those current wages being paid by the Company in similar enterprises as of that date?

A. Yes, sir.

Q. Are the labor rates any less as of today?

[fol. 616] A. No, sir; on the contrary, labor rates today are higher.

Q. Now, what have you used for field supervision, for public liability, workmen's compensation insurance, and other expense in connection with these?

A. For field supervision, 5 per cent of the direct labor costs; for public liability and workmen's compensation insurance, in Oklahoma, 5.59 per cent; in Texas, 8.48 per cent; for tools and construction plant expense, in Oklahoma, 10.9 per cent; in Texas, 11 per cent;—the insurance rate for liability and compensation insurance is lower in Oklahoma than it is in Texas; therefore, when you apply the respective insurance rates to the labor embraced in tools and construction plant expense, you find a total for tools and construction plant expense in Oklahoma of slightly less than in Texas.

Q. What is embraced and included in the term "Field supervision"?

A. The unit costs that have been developed for use in this appraisal are the costs incurred by the construction gangs up to and including the first foreman. Now, each gang headed by a foreman requires some supervision by a field organization, and it is this supervision of the various gangs headed by other individual foremen which is embraced in this evaluation under the heading of field supervision. The ratios of field supervision to direct labor vary somewhat with the character of work done, and are lower [fol. 617] in connection with operations in the gas fields than they are in connection with the construction of the main line properties.

Q. Is that five per cent for supervision based upon the actual experience of the Company?

A. It is. It is based on an analysis of doing this class of work.

Q. Now, Mr. Biddison, the development of the unit costs given by you in connection with the S. H. Brown No. 1 Well apply to all other wells in the Chickasha Field, I believe you have testified?

A. That is correct.

Q. So having given the S. H. Brown No. 1 Well,—or rather a description of the development of your unit costs in that connection, will the same description be generally adaptable to all other wells in the Chickasha Field?

A. It would. I might well point out that, besides the wells which the Lone Star Gas Company owns themselves in the Chickasha Field, there are a number of wells from which the Lone Star Gas Company purchases gas, and in connection with those wells they have some equipment installed. Now, that equipment is set out in detail on page 12 of Volume 1.

Q. And a detail of that equipment appears, commencing at page 49 of Volume 1, of Exhibit 28?

A. It does. The first well in that group being Alma Petroleum Company, Parks No. 2.

[fol. 618] Q. That miscellaneous equipment located on the wells of other producers appears at pages 49 to 54, inclusive, of Volume 1, of Exhibit 28?

A. It does, and the amounts set out for the individual wells on those pages is carried forward to the recapitulation of that class of equipment on page 12.

Q. Will you refer, please, to page 55 of Volume 1, Exhibit 28. That page appears to be a recapitulation, or a summary, of the cost of gas well equipment in the Duncan Field?

A. It is.

Q. As in the Chickasha Field, does the Lone Star Gas Company own a number of wells itself, and then does it buy gas from other independent producers in the field?

A. It does, and on page 55, the first group, headed "Fee Wells", represents the value of the wells owned by the Lone Star Gas Company; while the second group, headed "Other Owned Wells", meaning wells owned by others than the Lone Star Gas Company, represents the equipment installed in connection with the wells from which the Lone Star Gas Company purchases gas in the Duncan Field.

Q. Now, what was the drilling contract price for drilling of wells in the Chickasha Field, as of January 1, 1933—I mean the Duncan Field?

A. $2.50 per foot is the drilling contract price.

Q. Now, if we refer to the Lone Star Gas Company [fol. 619] Brooks No. 3 Well, appearing on page 56 of Volume 1, of Exhibit 28, we note that you have adopted a drilling cost of 4.0492 per foot; is that correct?

A. Correct.

Q. How was that cost arrived at?

A. That figure is comprised of $2.50 per foot drilling contract for the work to be done by the driller, plus $1.5492 per foot to cover the cost of work to be performed by the Company itself, in addition to the work to be performed by the drilling contractor, arrived at in the same manner as I have previously explained for the Chickasha Field. The Chickasha Field, the contract price for the work to be performed by the drilling contractor was $2.75 per foot; in the Duncan Field it is 25 cents cheaper, or $2.50 per foot. In the Chickasha Field, the estimated cost of the work to be performed by the Company is $4.2992 per foot, while in the Duncan Field, the estimated work performed—I misquoted; start back——

Q. You want to make a correction, Mr. Biddison?

A. Yes, sir. In the Chickasha Field the amount of work to be done by the drilling contractor is at the rate of $2.75 per foot of drilling, while in the Duncan Field the amount to be done by the drilling contractor is 25 cents per foot cheaper, or $2.50. In each case the amount of work to be done by the Company is estimated to be $1.5492.

[fol. 620] Q. Per foot?

A. Per foot. The sum of these produces a total cost in the Chickasha Field of $4.2992; in the Duncan Field, $4.0492 per foot.

Q. In both the Duncan and Chickasha fields you have used the same allowance for field supervision, for public liability, and workmen's compensation insurance, and for tools and construction plant expenses?

A. That is correct.

Q. When I say the same amount, I mean expressed as a percentage?

A. I so understood it, and that is correct.

Q. With that differentiation as between the Duncan Field and the Chickasha Field drilling costs, Mr. Biddison, is it true that you have used costs in connection with the drilling of wells in the Duncan Field similar in all substantial

respects with the costs which you have used in connection with the Chickasha Field?

A. I have.

Q. Now, the Miscellaneous Equipment of wells other than those owned by the Lone Star Gas Company in the Duncan Field is set forth in detail under your listing of Gas Well Equipment covering the Duncan Field?

A. It is, the first of such wells being shown on page 61, the Harry Abels-Armstrong No. 2; and this listing continues to and including page 69; and the cost for individual [fol. 621] wells found on these pages is carried forward and set down opposite the respective wells on page 55.

Q. Will you refer, please, Mr. Biddison, to page 70 of your exhibit? What appears on that page?

A. On page 70 is a recapitulation of the reproduction cost new of gas well equipment in the Fox Field, in Oklahoma.

Q. Where is the Fox Field located?

A. Roughly, north of Gainesville, Texas, in Southern Oklahoma.

Q. Now, Mr. Biddison, refer, please, to the first well appearing on page 72 under the heading "Gas Well Equipment Fox Field." That well appears to be the Lone Star Gas Company Allen and Gilbert No. 1 Well?

A. That is correct.

Q. As in the case of the Duncan and Chickasha fields did you apply current costs for material entering into gas well equipment?

A. I did, and so derived the total costs of materials for that well.

Q. And your unit costs development of the installation of fittings was comparable to the unit costs used in connection with the Chickasha and Duncan Fields?

A. Yes, sir; derived in the same manner.

Q. Now, what was the adopted costs per foot of drilling in the Fox Field? Are those wells really located in the Loco District?

[fol. 622] A. They are in the same general area; they are close together; and the costs developed for drilling in the Fox Field are the same as in the Loco general area. The contract price for the work to be performed by the contractor is estimated at $1.50 per lineal foot.

Q. Was that the current cost as of January 1st for drilling contract work?

A. It was; while the costs of the work to be performed by the Company in addition to the work done by the drilling contractor, as in the case of the Duncan and Chickasha fields, is estimated to be $1.5492, giving a total cost of drilling these wells of $3.0492 per lineal foot of drilling.

Q. And is that the figure which we find applied to the total depth of the well, 839 feet, as shown on page 72 of Volume 1 of Exhibit 28?

A. It is. I might point out, in general, that the costs per foot of drilling increase as the well becomes deeper. Now, the drilling of this one at a depth of 839 feet, has a lower cost per foot for contract work, and also a lower cost per foot for the total cost of drilling work, including the contract work and the Company's work, than it did on the other fields cited.

Q. Did you use the same allowance for field supervision, for employer's liability, for workmen's compensation, and public liability insurance?

[fol. 623] A. The same percentage was applied to the direct labor.

Q. And the same percentages for tools and construction plant expense?

A. That is correct.

Q. By the way, Mr. Biddison, what do you mean by Tools and Construction Plant Expense?

A. Tools and Construction Plant Expense embraces miscellaneous services to be performed in connection with the construction work, such as the providing of watchmen, and providing of water-boys, and costs of ice and water for workmen, the cost of watchmen, the cost of protecting roadways, when excavation is being done around roadways, oil for lanterns, the use of lanterns themselves, and the expenses of moving men, tools, and small miscellaneous materials.

[fol. 624] Q. In other words, it consists of a series of what we might call miscellaneous items?

A. Miscellaneous general items; yes, sir.

Q. Now, in the same manner that you developed the cost of gas well equipment covering Lone Star Gas Company Allen & Gilbert well, page 72, did you similarly develop the cost of gas well equipment in connection with all other wells in the Fox field?

A. That is correct; I did.

Q. Refer, please, to page 91 of Volume 1, Exhibit 28, and also to pages 92 and 93. What is detailed on that page, or those pages?

A. On those pages there has been set out a recapitulation of the reproduction cost new of the wells owned by Lone Star Gas Company and the equipment owned by Lone Star Gas Company and connected to wells of others in the Panhandle field of Texas, in Wheeler County, or in that portion of the Panhandle field known as the Shamrock area.

Q. Now, Mr. Biddison, is the Lone Star Gas Company M. E. Ackley No. 1 well set forth in detail on page 94 of Volume 1 of Exhibit 28 typical of your development of costs for the gas well equipment in connection with wells in the Shamrock district in Wheeler County?

A. It is.

Q. Will you please explain to the jury how you arrived at those unit costs in connection with this well?

A. The materials are priced at the prices quoted by manufacturers of those materials as of January 1, 1933. [fol. 625] They are priced at cost based upon those quotations f. o. b. the Shamrock field. The total materials so priced in this M. E. Ackley No. — well is $4,924.01. The work of connecting up the well—this well being in Texas—is estimated at $21.60 per well, based upon an analysis of the labor incurred in the connecting of eighteen such installations. Now, this figure is slightly different from the figure used for that same work in Oklahoma, the difference being entirely due to the difference between the rates for liability compensation insurance between Oklahoma and Texas; the Oklahoma insurance rate being lower, the cost over all for those connections is lower in Oklahoma than in Texas. The difference is forty-seven cents per well, due to insurance.

Q. Forty-seven cents per foot per well?

A. No, sir; forty-seven cents per well.

Q. Forty-seven cents per well?

A. Yes, sir. In the items set out here on page 94, installations of fittings, $218.56, is included this $21.60 labor cost for making the connection, plus four per cent stores expense on the figure of $4,924.01 of materials in the well. Now, in addition to those two figures which I have cited, being the material cost and installation of fittings, which includes stores expense, there is the item of $9,191.88, drill-

ing cost for 1945 feet of drilling in this well. This is at the rate of $4.7259 per foot, and that cost is composed of contract rate of $3.00 per foot; this is the work that would be performed by the drilling contractor, plus the cost of [fol. 626] $1.7259 per foot for the work to be performed by the company in connection with the drilling of such a well beyond the cost to be borne by the contractor, producing a total figure of $4.7259 per foot as the total drilling cost of such wells.

Q. Was three dollars per foot to be paid the drilling contractor the current or going price for such work in the Shamrock territory as of the date of your appraisal?

A. It was.

Q. Now, from what source did you develop your average cost of $1.72 plus per foot as the company's cost in connection with this well?

A. That was developed from an analysis of the cost actually incurred by the company outside of drilling contracts in drilling wells in the Panhandle field.

Q. And is it to be contrasted with the figure of $1.54 plus per foot which was used by you as a part of your unit cost of development in connection with the Chickasha field?

A. That is correct.

Q. Now, Mr. Biddison, in the same manner that you developed your cost for the M. E. Ackley No. 1 well in the Panhandle field, did you similarly develop the cost of other wells in that field?

A. That is correct.

Q. And which wells are set forth on page 94 and subsequent pages in Volume 1 of Exhibit 28?

A. That is correct.

Q. In the same manner that you developed the cost of [fol. 627] material installed on wells of independent producers from which Lone Star Gas Company is buying gas in the Chickasha district, did you develop your unit cost of materials installed on the wells of independent producers in the Panhandle district?

A. I did, in the same fashion. On the wells owned by others in the Lone Star territory there is no cost for drilling, only the cost of materials used in connecting the wells to the lines of the company.

Q. Will you refer to pages 154 and 155 of Volume 1 of Exhibit 28?

A. On pages 154 and 155 are set out estimated costs of reproduction new of the wells owned by the Lone Star Gas Company in the Petrolia field in Clay County, Texas. In addition, on page 155 is set out an item of $67.14 for equipment owned by the Lone Star Gas Company which is used in connecting a well owned by others to the lines of the Lone Star Gas Company.

Q. Practically all of the items included in gas well equipment in the Petrolia field, however, cover wells which are owned by the company?

A. That is correct; all except $67.14.

Q. Now, will you refer to page 156 of Volume 1, Exhibit 28. The first well listed appears to be Lone Star Gas Company Block No. 15, Well No. 1. If you give the unit costs of that well, will that be typical of the other wells in the field?

A. It will be.

[fol. 628] Q. Please explain how you arrived at that unit cost development covering this well.

A. As in the case of all other examples cited, materials in this well were priced at prices quoted by the manufacturers of such equipment as of January 1, 1932, f.o.b. Petrolia delivery point. The total cost of materials so priced for this well is $2,261.51. To this is added the cost of installation of fittings, embracing four per cent on the materials in the well to cover the handling and checking of materials, and a charge of $21.60 for connecting the well to the field lines. In addition, there is a drilling charge of 1684 feet at $3.5492 per foot, or $5,976.85. This drilling cost consists of a contractor's charge of $2.00 per foot for the amount of work to be performed by the drilling contractor and a charge of $1.5492 per foot for the work to be performed by the company's forces in addition to the work to be performed by the contractor. Now, there has practically no drilling work been done in the Petrolia field for some considerable time, and a true current price for drilling in that area can hardly be obtained. This price of $2.00 per foot, however, is taken as being an equitable price based upon past experience of drilling in that area.

Q. I believe, Mr. Biddison, that through mistake you said you used prices current on material as of January 1st, 1932.

A. January 1, 1933.

Q. If you said January 1, 1932, you meant January 1, 1933?

A. I meant January 1, 1933, because that is the date as of [fol. 629] which the inventory was basically taken and that is the date on which prices were basically secured, and that is the date of the valuation itself.

Q. And not only in connection with gas well equipment materials but all other materials entering into Exhibit 28, the basic prices were as of January 1, 1933?

A. That is correct.

Q. Have you finished your explanation of the total costs in connection with this well appearing on page 156?

A. I have.

Q. In connection with labor costs in the Petrolia field did you use the same labor costs covering foreman, laborers, assistant foremen and truck drivers that were used by you and testified to in connection with the Chickasha field?

A. I did.

Q. Refer, please, to pages 183, 184 and 185 in Volume 1, Exhibit 28. What appears on those pages?

A. On those pages is presented a recapitulation of the reproduction cost new as estimated of wells which are in general located in the West Texas area. This West Texas area embraces several pools.

Q. What are those several pools or subdivisions of the West Texas field?

A. Well, those subdivisions are variously named by different people. But there is an X-ray field, an area known as the Tiffin field, one known as the Sipe Springs field, there is a Moran field, a Leeray area in Stephens and Eastland counties, and that term is sometimes used to cover a [fol. 630] much larger area than one pool at Leeray; there is an area at Frankell in Stephens County; there is an area at the town of Eastland in Eastland County; there is Desdemona field in Eastland County, Cheaney pool in Eastland County, and a Brad area in Palo Pinto County.

Q. Now, in connection with your development of unit cost covering wells in the West Texas field, did you similarly secure basis prices for the material entering into the equipment as of January 1, 1933, and apply those prices to the inventory of material as set forth in the exhibit?

A. That is correct.

Q. And did you use the same development covering the installation of fittings as was used in connection with the Panhandle, Petrolia, Chickasha, and other fields?

A. Identically.

Q. Did you use the same unit cost per foot of drilling and covering company's cost in connection with these several fields?

A. No.

Q. That is, I mean by "several fields", Mr. Biddison, the various pools or areas in what is known as the West Texas field?

A. No, because all contract drilling in various divisions of the East Texas field differs.

Q. You mean the West Texas field?

A. In the West Texas field differs, and I have used a [fol. 631] drilling contract price for the various divisions which I have cited which applies to that division.

Q. In order that the jury may know the various contract prices and company costs per foot adopted and used by you in connection with Exhibit 28, I will ask you to relate the prices that were used.

A. For the Brad field in Palo Pinto County, drilling contract, $3.00; company cost; $1.4819; shooting and cleaning, $0.1150; total, $4.5969.

Q. Now, all of those costs that you are testifying about are per foot, Mr. Biddison?

A. They are. Cheaney field, Eastland County, drilling contract, $2.50; company cost, $1.4819; shooting and cleaning, $0.1150; total, $4.0969. Desdemona field in Eastland County, drilling contract, $2.50; company cost, $1.4819; shooting and cleaning, $0.1150; total $4.0969. Eastland field, Eastland County, drilling contract, $3.00; company cost, $1.4819; shooting and cleaning, $0.1150; total cost, $4.5969. Frankell field, Stevens County, drilling contract, $3.00; company cost, $1.4819; shooting and cleaning, $0.1150; total, $4.5969. Leeray field, Stevens and Eastland Counties, drilling contract, $3.00; company cost, $1.4819; shooting and cleaning, $0.1150; total cost, $4.5969. Moran field, Shackelford County, drilling contract, $2.00; company cost, $1.4819; shooting and cleaning, $0.1150; total cost, $3.5969. Sipe Springs field, Eastland County, drilling contract, $2.50; company cost, $1.4819; shooting and cleaning, [fol. 632] $0.1150; total cost, $4.0969. Tiffin field, Stephens

County, drilling contract, $3.00; company cost, $1.4819; shooting and cleaning, $0.1150; total cost, $4.5969. X-ray field, Erath County, drilling contract, $2.50; company cost, $1.4819; shooting and cleaning, $0.1150; total cost, $4.0969. [fol. 633] Q. Now, Mr. Biddison, in a manner similar to the application of your developed unit costs covering the Chickasha Field, for example, have you applied these costs which you have just read to the determination of your total costs covering gas well equipment in the various pools or gas area included under the general classification of West Texas Fields?

A. I have.

Q. And in a similar manner have you applied these in a manner similar to your application of the installation of materials in the Chickasha Field, have you applied your developed unit costs to the gas well equipment of the Company which is located upon the wells of independent producers in the several West Texas fields?

A. I have.

Q. Now, Mr. Biddison, you spoke of the cost of shooting and cleaning of wells. Are the costs adopted and used by you in that connection the result of the actual experience of the Company?

A. They are.

Q. And has the Company probably done more drilling work in that area in the last few years than any other producer?

A. I think more than any other single operator.

Q. Does that cover the total of gas well equipment, Mr. Biddison—that is, with your description of the development of costs covering the West Texas Fields?

A. It does, and embraces up to and including page 271 [fol. 634] of Volume 1.

Q. If we refer now to page 2 of Volume 1 of Exhibit 28, do we find carried forward into the summary a total of $3,908,424.15 representing your evaluation of gas well equipment?

A. That is correct; and that is——

Q. And the cost of drilling wells?

A. And that is the amount of the estimated cost to drill these wells, developed as I have explained, from page 10 of this Volume 1 to and including page 271.

Q. Mr. Biddison, if we refer to pages 272 to 275, inclu-

sive, we find a listing of property styled Other Production System Structures.

A. That is correct.

Q. What is the basis for your evaluation of Other Production System Structures?

A. Those structures are described in general on the succeeding pages 273 to 275, and on those pages the estimated cost to reproduce each building is shown. I have not attempted to show, however, in detail in this typed valuation all the steps leading to these costs of each structure, because to do so would have made this report, instead of being eight volumes, maybe fifty or sixty volumes, if that had been carried out in regard to all structures.

Q. Take some one of the Other Production System Structures listed, Mr. Biddison, and relate to the jury how you developed your unit costs.

[fol. 635] A. Now, the details of the estimates for each one of these structures are contained in these bound volumes of working papers; there are twenty-nine of these volumes of working papers, to support the eight volumes of the evaluation itself.

Q. If counsel for the State of Texas so desire, will you be able to give a complete breakdown of your development of unit costs on each and every single item of structures?

A. Yes.

Q. Take any one of the structures listed under the heading Other Production System Structures, and relate to the jury how you developed your appraised cost.

A. Well, a simple one to take to explain, and the explanation would be in line with the method of handling all the others, would be the first item, Pressure Man's Cabin on Brooks Lease, Stephens County, Texas. That building is 8 by 10 in plan, wood frame, corrugated galvanized iron cover, dirt floor, and one door. In Volume 2 of the working papers there has been priced out at a figure representing the cost in place of each item of materials, the materials from which this building is constructed, while in Volume 26 of the working papers there has been developed the cost in place of those materials. Now, this particular structure is nearer to the town of Moran than to any other location; therefore, the material prices used are those [fol. 636] quoted by Rockwall Brothers Lumber Company, at Moran, Texas. Now, in this book 2 of the working

papers the first classification of materials in this structure is the framing, bottom-plate, 2 by 6, point 236 hundred feet board measure of lumber, priced at $7.24 per 100 in place, or $2.61 for bottom-plate; this unit price of $7.24 in place, which is $72.04 per thousand in place, is composed of $4.00 per 100 feet board measure, or $40.00 per 1000, delivered price for the lumber at the location; from which is deducted a 2 per cent cash discount of 8 cents, to produce a delivered price of $3.92 net, to which has been added an allowance of 7½ per cent waste, or 29 cents, giving a net price, plus waste of $4.21; to this is added stores expense at 4 per cent,—stores expense constitutes the field expense of handling and checking material—which produces a total cost, at the job for the material, of $4.38 per 100 feet board measure, or $43.80 per 1000; the estimated cost for installation on this class of lumber is $2.86 per 100 feet board measure, or $28.60 per 1000,—producing a total cost in place of this 2 by 6 lumber of $7.24 per 100 feet board measure. Now, that same explanation holds true with regard to the studs, rafters, purlins, and miscellaneous framing and braces. The corrugated galvanized iron with which this building is covered, 3.91 squares, is priced at $10.54 per square in place; that consists of 24 gauge, quoted by Rockwall Brothers Lumber Company at [fol. 637] $6.25 per square, delivered; 2 per cent cash discount deducted of 13 cents, producing a net delivered price of $6.12, to which is added an allowance of 10 per cent for waste, or 61 cents, producing a net price, plus waste, of $6.73; to which is added stores expense for handling and checking material in the field of 4 per cent, amounting to 27 cents, producing a cost at the job for the material of $7.00 per square of installed material. The installation cost is estimated at $3.54 per square, producing a cost in place for corrugated galvanized iron at this location of $10.54 per square, installed.

Q. Now, Mr. Biddison, these are relatively small structures, and not close to any thickly populated centers?

A. That is correct; this one is an isolated structure.

Q. It takes time to get workmen out to the field, and get them back?

A. That is correct.

Q. The amount of labor involved is not very great?

A. The amount of labor performed on the job is comparatively small.

Q. And for that reason would cost relatively higher than on a larger installation?

A. Materially so. Now, there is a bunch of miscellaneous material, such as hinges, hasps, lock, nails, priced at prices quoted by Rockwall Brothers Lumber Company excepting [fol. 638] for the lock; and for all these items a discount for cash payment has been deducted from the quotation, and an item has been added of 4 per cent to cover the field stores expense, or handling and checking materials. However, on those miscellaneous items no additional charge is made to cover their installation. Now, in addition to those materials for the structure itself, there is some gas pipe to coal stove priced at $4.41. Now, this coal stove is connected to burn gas, and the materials in that piping installation to supply gas have been priced at prices for such materials as quoted by the manufacturers of such materials as of January 1, 1933; and to those prices has been added an allowance of 4 per cent on those materials to cover the handling and checking of those materials in the field; and to them has been added an allowance of 75 per cent of the material price to cover the installation of those materials in that small piping job.

Q. In your opinion is that a reasonable allowance?

A. It is.

* * * * * * *

[fol. 639] Q. Mr. Biddison, had you completed your explanation of the developed cost covering this pressure man's cabin included in the classification of property known as other production system structures?

A. Yes, and arrived at a total cost covering this structure of $83.74, or a little over One Dollar per square foot for the structure, including this stove and the gas piping.

Q. Now Mr. Biddison, in the same manner did you develop your unit costs covering all other structures which are listed under the classification of property known as other production system structures?

A. Yes, in the same fashion for each structure, using quotations on materials from the town at which such materials could be obtained nearest to the location of the structure.

Q. And you carried your total developed cost for this classification of property over to the summary on page 2 of Volume 1 of Exhibit 28, in the total amount of $9,450.29?

A. That is correct.

Q. Refer please to pages 276 to 295 of Volume 1 of Exhibit 28. What is detailed on those pages?

A. At page 276 is a recapitulation of the tools owned by the Lone Star Gas Company and used for the purpose of drilling, repairing and cleaning out wells. On pages 277 to 295, inclusive, this equipment is detailed by items and priced by items, the prices being the prices quoted by manufacturers or dealers in this class of equipment, as of January 1, 1933.

[fol. 640] Q. Did you use the lowest prices available to the company as of that date in your development of the adopted cost for each item?

A. Yes.

Q. And the total of the account appears to be $95,764.08?

A. That is correct, and as to the groups between West Texas fields, Petrolia field, Oklahoma fields, and the Shamrock area, you will find the sub-total for the West Texas fields on page 280, and for Petrolia field on page 287; for the Oklahoma fields on page 290 and the Shamrock field on page 295.

Q. And did you carry forward to page 2 of Volume 1, Exhibit 28, your adopted total price or cost of $95,764.08?

A. Yes.

Q. Now Mr. Biddison, this classification of property known as other production system equipment and consisting of drill repair and clean-out tools; was that property all property which was used and useful in the public service as of January 1, 1933?

A. Yes it is. It is equipment which is essential to maintain the wells owned by the company in operation.

Q. And does the company as of this date, towit, June 18, 1934, have similar property and which would be appraised in a substantially similar amount?

A. I didn't get that question. (Question is repeated to witness.) You mean other than as here listed?

Q. Well, has there been any substantial change in the [fol. 641] general itemization of the property?

A. No, I am sure there has been no substantial change. Undoubtedly some of the items of this inventory have been used up and other items purchased, but the total of the amount would be substantially the same today as of the date of the appraisal.

Q. If we refer now to page 2 of Volume 1 of Exhibit 28, Mr. Biddison, does it appear that you have now discussed all of the items of physical property under the production system property classification?

A. That is true; we have discussed all items of direct structural cost in that group.

Q. Referring to page 2, Volume 1, Exhibit 28, the next item under production system property appears to be general supervision allocated, in the amount of $148,596.00. What do you mean by general supervision allocated, and explain how the number of dollars were determined?

A. Of the total amounts which had been estimated for supervision of the construction of this property of the Lone Star Gas Company under a reproduction procedure, there are certain amounts which can be considered as departmental expenses, and have been so directly estimated by Mr. Ed C. Connor as pertaining specifically to departments. Now this item of $148,596.00 is that portion of the supervision costs estimated to be incurred on this property which would be incurred specifically in connection with producing system properties. This figure has been specifically developed by Mr. Ed C. Connor and as to its complete de- [fol. 642] velopment, I prefer to let him testify.

Q. The next item appearing under production system property is undistributed general costs, in the amount of $1,404,643.25. Is that an allocation of general and undistributed costs to the production system property?

A. It is. On page 5 of Volume 1 of this valuation is shown the allocation of the total amount of undistributed general costs to the five main subdivisions of the company's property. On this page it is shown that out of $50,813,515.57 of direct structural costs for the property embraced in this valuation, 15.2 per cent or $7,737,214.80 is embraced in the group styled production system property. Therefore, of the total undistributed general costs estimated by Mr. Connor to be $9,241,074.00, there has been allocated to production system property 15.2 per cent of that amount or $1,404,643.00, as shown as the last item, Undistributed General

Costs, in the group production system property on page 2 of this Volume 1 of the valuation. Now, page 5 also sets out in detail the allocation of this $9,241,074.00 of undistributed general costs to the other main groups of property account.

* * * * * * *

[fols. 643-652] Q. State generally what is your basis of evaluation of the gathering system rights of way?

A. The rights of way for field lines has been estimated, in order to cover the expense of acquisition of the right of way and to cover the crop damages in construction, to be three times the consideration paid to the land owner for such rights of way.

Q. What consideration is estimated to be paid the land owner for the grant of the right of way across his premises?

A. This has not been set up here on the basis of a price per rod but is set up specifically at three times what the books show was paid to the land owner.

* * * * * * *

[fol. 653] The next item embraces the cost of ditching. On this line—this size line, 4-inch—the size of trench is computed as being 12 inches wide by 18 inches deep, and containing 5.5555 cubic yards per 100 lineal feet. The cost of excavation is estimated at .9756 dollars per yard, so that the cost per 100 lineal feet for trenching is 5.4199 dollars, or a little less than 5½ cents per lineal foot of ditch. This cost per cubic yard for this Chickasha field is the cost developed from a study of actual trenching for such lines in the Panhandle area in Texas, and modified to suit the insurance rates of labor in effect in Oklahoma. The actual cost for such trenching work in the Panhandle Fields of Texas was .9907 cents per cubic yard. The insurance rates [fol. 654] in effect in Oklahoma would make the cost per yard in Oklahoma for trenching in similar areas, where the same performance in man-days would be obtained, about 98½ per cent of the cost for Texas. That is the manner in which has been derived the cost per cubic yard of .9756 dollars per cubic yard. The next item is backfilling this trench.

[fols. 655-656] Q. Does that consist of putting the dirt back into the trench after the line has been laid?

A. Either into it or on top of it. The volume occupied by the loose earth after the excavation is, of course, larger

than its original volume. In addition to that, there is the volume of the pipe line, so that all the earth excavated does not go back into the trench; it is piled up on top of the trench and allowed to settle, so far as possible, to maintain the trench at overflowing condition of the backfill. The backfill is computed on the same number of yards as the excavation, but at the rate of $0.1644 per cubic yard, or a little less than sixteen and one-half cents per cubic yard. This figure for backfill is developed from a study of backfill work in the Panhandle field of Texas, where for 8,183.4 yards the labor and equipment charges, priced at rates existing as of January 1, 1933, amounted to 16.69 cents per cubic yard, or an amount, allowing for the difference in insurance rates between Oklahoma and Texas in the ratio of about ninety-eight and a half per cent for the total cost for doing such work, $0.1669 per cubic yard for Texas and $0.1644 per cubic yard for Oklahoma.

* * * * * * *

[fols. 657-661] Mr. Fitzhugh: Mr. Biddison, in giving your figures here going to make up the price installed, you didn't give an extension on backfill.

A. I thought I did. Maybe not. The rate on it is $0.1644 per cubic yard, and the amount of it is $.9133 per hundred lineal feet for backfill.

* * * * * * *

[fols. 662-672] Q. Please relate, generally, Mr. Biddison, how you arrived at the value of land in connection with the Transmission System Measuring Stations?

A. All items of land set out in this group of Transmission System Measuring Station Land on pages 69——

Q. Page 969?

A. Page 969, and further detailed on subsequent pages——

Q. Through 1049.

A. —up to page 1049, are priced at the price paid by the Lone Star Gas Company for the respective tracts, plus an estimate of the expenses of acquisition, which estimate is 15 per cent of the cost, with a minimum of $25.00 per tract.

[fol. 673] Q. Now, having determined the quantities or the number of rods involved in transmission system rights of way, how did you develop your adopted unit costs?

A. The development of the unit costs for right of way is based upon an analysis of the costs of right of way acquired by the Lone Star Gas Company in the construction of a large portion of its system. The actual costs of right of way and recording for main lines and tap lines in Texas and in Oklahoma was $.2776 per rod, while for gathering lines the cost was $.2466 in both states.

Q. Now when you refer to the costs of rights of way, do you refer to the money paid to the land owner per rod in consideration of the execution of an instrument granting a right of way across his property?

A. I do. These figures I cited in both cases covered not [fols. 674-688] only that expense but the additional cost of recording the right of way instrument. The expenses incurred in making these right of way purchases was, for main and tap lines in both states, $.1597 per rod, while for gathering lines that expense was $.1062 per rod. An analysis of the cost of clearing rights of way preparatory to pipe line construction showed costs for main and tap lines in Texas of $.2229 and in Oklahoma of $.2180. These clearing costs for gathering lines in Texas were $.2229 and in Oklahoma $.2180. The costs of damages and of repairing and rebuilding fences was for main and tap lines in Texas and Oklahoma $.2666, and for gathering lines in both states $.2566. These produce sub-totals for main and tap lines in Texas of $.9268 and in Oklahoma of $.9219. For gathering lines in Texas, $.8323 and in Oklahoma $.8274. To these records of actual costs incurred, before applying them to the entire system of the Lone Star Gas Company, there has been added an item to cover contingencies of twenty per cent of those costs resulting in final figures adopted as the average cost over all for rights of way for the entire system, for main and tap lines in Texas of $1.1122, and in Oklahoma of $1.1063. For gathering lines in Texas, $.9988, and in Oklahoma $.9929.

[fol. 689] Q. Mr. Biddison, how many miles of natural gas pipe lines have you constructed or have been constructed under your personal supervision and direction?

A. Well, I have never really added it up. It is several thousand miles. The last job I was on embraced about sixteen hundred miles.

Q. About sixteen hundred miles?

A. That was the last job.

Q. Approximately how many miles of pipe line are included in the Lone Star Gas Company pipe line system?

A. Around thirty-five hundred miles.

Q. Speak up louder.

A. Around thirty-five hundred miles.

Q. Between thirty-five hundred and four thousand miles; is that correct?

A. Yes.

Q. Now, if we refer to page 3, Volume 1, Exhibit 28, Transmission Line Equipment appears as the next classification of Transmission System Property, and it appears to be evaluated by you in the amount of $31,894,439.40?

A. That is correct.

Q. Now, where in Exhibit 28 do we find a detailed listing of the individual pipe lines in the Lone Star pipe line system?

A. Beginning on page 1983 of Volume 4, on this page is set out a summary by main pipe line divisions, showing the estimated reproduction cost of each of those divisions, and in subsequent pages to and including page 2474 of this [fol. 690] volume are shown the descriptions of each of the lines and the quantities of materials and the estimated reproduction cost for each line.

Q. Mr. Biddison, please, at the outset, in connection with this classification of property, relate to the jury in a general way the method that was pursued in the evaluation of transmission line equipment.

A. Quotations were obtained from the leading manufacturers of the materials used in the pipe lines. In each case these quotations were the prices as of January 1, 1933. The quantities of materials were specified in practically all the inquiries for quotations, so that the quotations could be made upon the basis of the quantities of materials actually required. The inventory which shows the quantities of these materials was prepared, as I have previously stated, by Mr. Steinberger. In order to arrive at the cost of installations—construction cost—analysis were made of the construction records of a large volume of construction by the Lone Star Gas Company. Cost records in sufficient detail and covering a sufficient amount of work were not available, however, to cover all phases of such construction work. For example, there was not sufficient data available

of the cost of constructing screw pipe lines to derive a figure of the laying cost from such data. For such lines, therefore, I have set up crews, with proper wages based upon wage scales being paid as of that date, with an estimate of the performance per day for such gang, to arrive at the laying cost of screw pipe. The same thing is true in regard [fol. 691] to what is called dresser coupled pipe. Now, since the Lone Star began accumulating data on construction costs in such shape as it could be properly analyzed they have not laid any large amount of either threaded or coupled pipe or dresser coupled pipe. They have laid, however, a large amount of welded pipe; they have done a large amount of ditching and of backfilling. The records of the costs of such work, as well as the painting of pipe, have been analyzed in detail for the determination of the unit cost to be used in this appraisal. That embraces the general method used in building up these values.

Q. What was the general method used in connection with the development of costs of excavation and backfill?

A. First, as to the classes of excavation, a determination was made, I believe, in 1929, not under my supervision, of the amounts of hand excavation and machine excavation and of rock work on this system, on such parts of the system as then existed. In a valuation prepared by Mr. Steinberger and Mr. Connor as of January 1, 1932, the data found from this investigation was revised and brought up to date. In preparation for this valuation, further investigations were conducted, particularly on lines acquired by purchase since the valuation of January 1, 1932. In addition to that, I conducted an investigation as to the relative amounts of hand work and machine work which would be done on the small tap lines, and in this manner the relative amounts of machine work and hand earth work and rock work on the various lines were determined. Now, the unit [fol. 692] costs for machine ditching were determined by an analysis of the amounts of time required for labor and the amounts of time required for equipment for such machine excavation work in a large volume of work performed by the Lone Star Gas Company. The study embraces the ditching of nearly two million feet—1,950,185 feet—or 368,548 cubic yards.

Q. When you say "feet" do you refer to lineal feet of pipe line construction?

A. I do. And it embraces both large lines and medium sized lines, embraces lines in which nearly thirty-five yards of earth were removed per one hundred lineal feet, and lines in which slightly under ten yards were removed per one hundred lineal feet of ditch. For the hand excavation there are two studies made, one of which embraced the excavation of those short sections on machine trench lines which would have to be skipped by a machine. This study was made on the data of work actually so performed by the Lone Star Gas Company and embraces a study of a little over ten thousand cubic yards. For the excavation by hand in those areas where machine work could not be done, or for stretches in excess of about two hundred feet, records of experience by the company in sufficient detail and sufficient quantity were not available, so such hand excavation work is estimated on the basis of the performance by a hand excavating crew, which I feel from my own experience in such excavation work is a reasonable performance. For rock excavation the unit costs used are developed from a study of the [fols. 693-705] amounts of labor, material and equipment required in excavation by the Lone Star Gas Company of 28,748 yards of rock.

Q. That is cubic yards?

A. Cubic yards; yes, sir. For backfilling or trench, the unit costs used are developed from a study of the quantities of labor and equipment used in the backfilling of over two and one-half million lineal feet of trench, embracing 464,-616.7 cubic yards.

* * * * * * *

[fol. 706] Q. Mr. Biddison, you previously testified that as of January 1, 1933, you secured pipe quotations, or quotations on pipe from larger manufacturers of steel pipe, and in requesting those quotations that you furnished to the pipe mills a list of the quantities of pipe involved in the Lone Star Gas Company's system?

[fols. 707-713] A. That is correct.

Q. After having received those quotations from the pipe manufacturers, did you use the highest or the lowest of those quotations?

A. The lowest quotations have been used.

* * * * * * *

[fol. 714] Q. Now, Mr. Biddison, I will ask you if all of the material prices which are included in Exhibit 28 were compiled under your supervision and direction by Mr. Paul Richey?

A. They were. All inquiries were made by him at my direction, and the compilation of the data received from those inquiries in shape for application to the materials in the inventory were by him and his force under my direction. I was in touch with him throughout the preparation of such data.

Q. Is Mr. Paul Richey an experienced man in connection [fol. 715] with the procuring and applying of prices for materials such as those entering into the Lone Star Gas Company's system?

A. He is. He has had many years of experience in the selling of pipe and the materials used in pipe line and well constructions, and because he was familiar with the materials and the prices therefor, having had something like ten years' experience with one of the nationally known agencies for the distribution of pipe and fittings used in pipe line and well work, his services were secured in the preparation of this evaluation for the express object of properly pricing the materials used.

Q. Will Mr. Paul Richey be available as a witness sometime later in this case?

A. He will.

Q. And he will be able to testify as to the correctness of the material prices used?

A. Yes, sir.

Q. Mr. Biddison, how many separate pipe lines does the Lone Star Gas Company have in its pipe line system?

A. There are fifteen systems owned by the Lone Star Gas Company.

Q. And those fifteen systems are made up of a number of lines each, are they not?

A. They are. Take the "A" System, Line "A" being the main line of that system, and extending from the Shamrock Field to Petrolia, Texas. It has thirty-eight branch [fol. 716] systems, of which twenty are for the delivery of gas out of the main line into smaller lines, and the balance are for putting gas into the main line.

Q. Would you say that in all the Lone Star Gas Company

has, by letter or number designation, some several hundred different pipe lines?

A. That is correct.

Q. In the preparation of Exhibit 28, have you separately determined your unit costs for each one of those several hundred pipe lines?

A. I have.

Q. And do you have a detail of that development set forth in your working papers?

A. I do.

Q. And the resultant cost as so developed in detail has been carried into Exhibit 28?

A. That is correct.

Q. Now, Mr. Biddison, it would be manifestly impossible, if this trial is ever to end, for you to detail the unit cost development of each and every pipe line of the Lone Star Gas Company system—I suppose you concur in that view?

A. We would be here until after Christmas anyway.

Q. Mr. Biddison, in order that the jury may know the method of development of the cost of these pipe lines, I will [fol. 717] ask you to take one or more lines as typical and give a detail break-down of your development costs resulting in the total value which you have found.

A. Unless there is a suggestion of some other procedure, we might as well start with the first one—Line "A".

Q. On page 1985, of Volume 4, of Exhibit 28?

A. Yes. On this page is set out, first, the amount in feet of pipe of the various sizes and weights, composing Line "A", and priced at prices for such pipe as I have explained a few moments ago in quoting pipe prices.

* * * * * * *

A. It may be noted that the bulk of this line is composed of 18-inch pipe, plain end, weighing 53.223 pounds per lineal foot. That pipe is priced at $2.7093 per foot. In the derivation of this figure of $2.7093 per foot for this pipe installed in place, the first figure is the cost per foot of the pipe.

[fol. 718] Q. The first one shown on your appraisal, Mr. Biddison, is merely the over-all cost of the pipe installed?

A. That is correct. The cost per foot of this pipe f. o. b. mill is $171.04. Applying two per cent cash discount and for freight at eighty-six cents per hundred-weight and

mill inspection at forty cents per ton, we have a net price f. o. b. railroad station for this pipe of $214.4555 per one hundred lineal feet. To this I have added an allowance for stores expense or for handling and checking of materials in the field of one per cent. The first operation in connection with the installation of this pipe is the hauling and stringing of the pipe. This has been estimated to be at $6.2270 per one hundred lineal feet.

Mr. Fitzhugh: Six what?

A. $6.2270 per one hundred lineal feet. Now, this figure applies to pipe located in the State of Texas.

Q. Part of that line is in Texas and part of the line is in Oklahoma?

A. That is correct. Now, the length of haul on that is set up in a separate tabulation, which I will get here—This is based upon a weighted average haul on this line of six and one-tenth miles. I have previously explained how the average haul of various lines was obtained. The next item embraces the hauling and stringing of the dresser couplers used in connection with this particular pipe. Now, this is [fol. 719] estimated at $.4567 per one hundred lineal feet.

Q. That is for the couplers that would be needed in connection with one hundred lineal feet of pipe?

A. That is correct, or at the rate of $.1331 per coupler for hauling. The next item in connection with laying this particular pipe is painting, estimated at $6.2173 per one hundred lineal feet.

Q. I believe you have already testified, Mr. Biddison, as to the general method of development of the painting cost?

A. The general method has been described. This figure for painting is a composite figure based upon the ratio between a figure of $6.2245 per one hundred lineal feet in Texas and a figure of $6.1865 for similar work in Oklahoma.

Q. Is that due to difference in insurance rates?

A. It is. The composite figure so computed is $6.2173 per one hundred lineal feet. The next step is the estimate of the ditching costs, here set up at $26.3838 per one hundred lineal feet, or about twenty-six and one-third cents per lineal foot of ditching. This is in turn a cost developed by weighing out the proportions in Oklahoma and Texas, the respective prices between the two States being $26.6922 and $25.0648.

Q. That is per hundred lineal feet?

A. Per hundred lineal feet. Now, those respective prices are developed from the figures of yards determined for such ditching. On this particular line the survey to which I have previously referred to determine the relative amounts of hand earth, hand rock and machine ditching [fol. 720] shows 87.62 per cent of the work to be machine ditched, 4.06 per cent would be hand work, and 8.32 per cent would be in rock. The ditch is estimated to be twenty-six inches wide by fifty-two inches deep, or to contain 34.7736 cubic yards per one hundred lineal feet. The unit cost for the machine ditching is at the rate of $.407 per cubic yard, amounting to a weighted cost per yard of all excavation on the basis of 87.62 per cent of the $.407, or $.3566. The hand work on this line is estimated to cost $2.138 per cubic yard, which constitutes 4.06 per cent of the yardage, so that its weighted proportion is $.0868 per cubic yard.
[fol. 721] Q. Is that hand work pretty well scattered through the System?

A. It is. It is in short sections. This job is largely machine work; it is what you call a machine ditched job; but, of course, there is always some hand work in connection with this machine work. Now, this price of $2.138 per cubic yard is for sections very short in length,—simply handling those short pieces which a machine is bound to skip, even on a ditch largely done with machine work; and the cost for doing work on those short sections is, of course, higher than it would be if you had men strung out over stretches of several miles. Now, the rock in this line constitutes 8.32 per cent of the yardage. The rock work in the State of Texas, based upon a study of the records of performance by the Company's forces gives $3.897 per cubic yard, while in Oklahoma the corresponding figure is $3.826 per cubic yard. In this particular case the weighted figure applied to the cost per yard of excavating rock produces an average figure over the whole yardage of $.3242, so that the total weighted cost per cubic yard of excavation on this 18-inch line is estimated to be $.7676 per cubic yard, which applied to the 34.7736 cubic yards per 100 lineal feet of line produces a total cost of excavation of $26.6922 per 100 lineal feet.
[fol. 722] Q. Of course, that is for both Texas and Oklahoma?

A. Yes. Now, that figure is a little less than 27 cents per lineal foot for the trench work on an 18-inch pipe line; and

comparing it on that basis alone, without going back into any of the details of it, I am sure that anybody familiar with pipe line construction work will realize that that is a conservative figure for ditching on a line of that size by any method. Now, I have explained the derivation then of the figure on page 1985 of $2.7903 per lineal foot for this 606,804 feet of 18-inch 53.223 pound pipe, which is the largest item of pipe in that particular line. The derivation of the cost per foot in place for each of the other sizes and for the other weights of the same size is handled in precisely the same manner.

Q. Is this Line A a combination welded and dresser coupling line?

A. It is.

Q. Now, Mr. Biddison, will you pick out some line that is entirely welded—a solid welded line without dresser couplings, and relate to the jury your development of the unit costs?

A. Well, I can take a section of Line A, which is entirely welded, or I could take Line Second B.

Q. All right; Line Second B is one of the major pipe lines [fol. 723] of the Company, is it not?

A. It is.

Q. Where does it extend from, Mr. Biddison?

A. From Petrolia to North Fort Worth.

Q. Or east of North Fort Worth?

A. Yes.

Q. And, roughly, what is the mileage of pipe included in that System—approximately 100 miles?

A. Close to 100 miles.

Q. And what is the size of the pipe line?

A. 20-inch. There is a little piece of 12-inch, and a little piece of 16-inch in connection with that line; but the line is practically all 20-inch line.

Q. Where does that appear in this Exhibit 28, Mr. Biddison?

A. On page 2020, which is a recapitulation of the B System, Line Second B is shown to be estimated to cost reproduction new $1,828,421.66. Now, that line is set forth in more detail beginning on page 2037.

Q. Of Volume 4, Exhibit 28?

A. Yes. The 20-inch pipe in that line is A. O. Smith electric welded pipe in 30-foot joints. Of this pipe there was

517,632 feet. I have estimated it to cost, installed, $3.2488, or for the pipe installed $1,681,682.84. Now, as to the derivation of the figure of $3.2488, we will start with the price of [fol. 724] the pipe itself. I have previously quoted the derivation of the price per foot for this pipe at the railroad station, f.o.b. Texas common points, as being $253.534 per 100 lineal feet; to this there has been added for stores expense—that is, field handling and checking of material one per cent, or $2.5353 per 100 lineal feet. The next item in the estimate is the cost of stringing pipe, estimated at $6.34 per 100 lineal feet of pipe. This is for a weighted average haul of 4.6 miles at an average rate per ton of $2.14. The next operation is aligning for welding, estimated at $3.020 per 100 lineal feet. The next operation is painting, estimated at $9.3167 per 100 lineal feet. The next operation is excavating trench, at $24.0593 per 100 lineal feet of trench, or slightly over 24 cents per lineal foot. Now, for the development of that trenching cost, 90.1 per cent is estimated to be machine ditching, at a unit cost of $.412 per cubic yard. .83 per cent, or less than one per cent, is estimated to be hand earth excavation, at a unit cost of $2.138 per cubic yard, and 9.07 per cent is estimated to be rock excavation, at a cost of $3.897 per cubic yard. The trench is estimated to be 28 inches wide by 51 inches deep, and to contain 32.4075 cubic yards per 100 lineal feet. The weighted cost per cubic yard [fol. 725] of excavation so obtained is $.7424, producing the average cost per 100 lineal feet for excavation of $24.0593 per 100 lineal feet.

Q. What page is that on?

A. 2037.

Q. All right.

[fol. 726] A. The next item of estimate for this line is for backfilling. This is based upon the backfilling of 32.4075 cubic yards per 100 lineal feet, at an average cost for backfilling on ditches of that size, of $.1047 per cubic yard.

Q. Does it cost relatively less or more to do the backfilling on trenches for the larger sizes of pipe?

A. It costs less per cubic yard to do backfilling on the larger ditches than on the smaller size ditches, because you have more movements to make on the smaller ditches per cubic yard of backfill made, and the analysis of backfilling shows the cost on small lines in the neighborhood of 15 cents

per yard, while on large lines it gets down to around 10 to 10½ cents per yard. Now this backfill work at $.1047 per cubic yard produces a cost per 100 lineal feet for backfill of $3.3931. To this is added for cleaning up trench, $.5604 per 100 lineal feet or a little over one-half cent per foot for cleaning up trench for construction work as finished. This is an operation which is always required. This produces a total cost of backfill of $3.9535 per 100 lineal feet. The next operation is laying and testing at $14.20 per 100 lineal feet. That is the next operation set up the way this estimate is set up. The operations of welding I will discuss after I have established the unit cost figure I am working up to now. Now, this figure of $14.20 per 100 lineal feet for laying twenty inch pipe welded is the figure derived from a study of the performance in laying twenty inch pipe by the Lone [fol. 727] Star Gas Company and it is in effect in this instance a pricing out of the labor and material and equipment prices as of January 1, 1933, and the quantities of labor and equipment and miscellaneous materials that were actually used in the construction of the line. In other words, we are applying to the construction of this line the unit costs which were derived from a study of its actual construction in this particular instance. This results in a total charge for installation, exclusive of welds, of $63.4248 per 100 lineal feet, to which has been added an allowance for omissions and contingencies of two and one-half per cent, or $7.9240 per 100 lineal feet, resulting in a cost in place, exclusive of the welds, of $324.8828, which is the figure used on page 2037.

Q. Now, were the welds separately evaluated, or rather the cost of making the welds?

A. They were and there is set out on page 2037 the number of 20 inch welds, which is 17,427. They are estimated to cost each $6.9302 or $120,772.60. I want to comment here that contract rates for welding on lines such as this in 1929, 1930 and 1931 would have been at rates nearly double this cost per weld and that the Lone Star Gas Company in welding this twenty inch Line Second B achieved labor performances which have seldom been equalled in welding work, and therefore the cost per weld on all large size welds, being based upon a study of the actual costs including this line, are lower than I have encountered in my own experience.

647

Q. Have you used as a basis for your development of [fol. 728] welding costs the actual experience of the Lone Star Gas Company, so far as performance is concerned?

A. I have.

Q. And particularly have you applied that as a basis for the determination of your welding costs on Line Second B?

A. I have. These welding costs so derived are down in the neighborhood of ten cents per lineal inch of weld, or less, whereas contract rates when work of that nature was being done in any volume ran in the neighborhood of fifteen cents per lineal inch of weld or more.

Q. You therefore believe that the welding costs which you have used throughout your appraisal are fair and reasonable?

A. I know they are.

Q. Now of course, included in Line B and all other lines which are set forth in Exhibit 28 are miscellaneous items of gate valves and fittings and other material?

A. Yes.

Q. In each case did you apply the lowest prices for that material current as of January 1, 1933?

A. I did.

Q. Giving effect to all discounts which would be allowed to large purchasers?

A. I did.

Q. Now you have previously testified, Mr. Biddison, that you used the manufacturers' qoutations on steel pipe as of January 1, 1933, or rather the lowest quotations which were given by the manufacturers as of January 1, 1933, and that [fol. 729] you furnished to the manufacturers a list of all of the pipe which would be included in the Lone Star Gas Company's system?

A. That is correct.

Q. I will ask you whether in your opinion pipe could have been bought, as of January 1, 1933, at any price lower than the prices quoted by the manufacturers?

A. I believe in the case of an actual purchase of pipe, the pipe might have been purchased slightly under those prices which were quoted to us as of that date. However, on the other hand, I am also of the opinion that the placing of an order of the size and for the tonnage involved in the Lone Star Gas Company system would so stimulate the pipe prices that those prices would not hold very long if this amount of business became available to pipe manufacturers.

Q. What has been the trend of pipe prices for the last year, Mr. Biddison?

A. Very definitely upward?

Q. Are pipe prices as of this date substantially in excess of the pipe prices adopted by the Railroad Commission of Texas in its opinion and order at issue in this case?

A. Very much so.

Q. Are pipe prices current as of today substantially in excess of the pipe prices which you have used in connection with your appraisal, that is Exhibit 28?

A. They are.

Q. To the extent of some very sizable amount of money? [fol. 730] A. Yes, and I have a tabulation prepared, although I do not have it at hand right at the moment, which will show that amount of money.

Q. Now, Mr. Biddison, in the same manner that you developed your costs for pipe installed on Line A and Line Second B, did you make a determination of the installed cost of all other pipe lines which are included under the classification of property known as transmission line equipment and included in your Exhibit 28?

A. I did.

* * * * * * *

[fol. 731] Q. The next item appearing under transmission system property appears to be general supervision allocated, in the amount of $127,242.00?

A. It is.

Q. What does that represent?

A. That represents the portion of the supervision expense to be incurred in connection with the construction of the properties which may be said to be departmental and incurred solely for that department, embracing departmental supervision expense and has so been computed by Mr. Ed C. Connor and the derivation will be explained by him.

Q. If we refer to page 5, Volume 1 of Exhibit 28, do we find an allocation of the undistributed general costs of the transmission system property?

A. That is correct, and the derivation of the figure of $6,200,760.65, as shown on page 5, is made in the same fashion as I have previously explained for similar determinations in connection with production system property and gathering system property.

Q. And the allocated undistributed general costs to the [fol. 732] transmission system property, amount to $6,200,760.65?

A. That is correct.

* * * * * * *

[fol. 732a] Reporter's certificate to foregoing transcript omitted in printing.

---

* * * * * * *

[fols. 733-734] Q. What method did you use in evaluating [fols. 735-747] Compressing System Leaseholds including Improvements, shown at page 3, of Volume 1, Exhibit 28, evaluated at $29,985.13?

A. Precisely the same manner as for land.

Q. Did you depreciate those leaseholds in accordance with their expired term?

A. Should not have done so, and I think did not on these leaseholds. The leaseholds for compressing stations were not depreciated.

Q. And you evaluated them in the same manner that you evaluated the land owned in fee by the Company; that is, by taking the actual cash cost of the leasehold to the Company, plus fifteen per cent of the cost of acquisition, recording, and so forth?

A. That is correct.

* * * * * * *

[fol. 748] Q. The next item appearing under Compressor Station Property appears to be General Supervision Allocated, in the amount of $84,271.00.

A. It is.

Q. How was that determined, and what does it represent?

A. That figure represents that portion of the supervision cost to be incurred in the reproduction of a property of this size which could be definitely assigned to this particular department—Compressor Station Department. The [fols. 749-757] figure was developed by Mr. Ed. C. Connor in detail, and will be explained by him in detail.

Q. Now, the item of Undistributed General Costs appearing on page 3, Volume 1, Exhibit 28, in the amount of $905,625.25, was determined in what manner?

A. In the same manner as I have previously explained in regard to other main subdivisions of property, and as set out on page 5 of Volume 1 of this exhibit. It is the allocation to this group of property of 9.8 per cent of the Total Undistributed General Costs estimated by Mr. Connor for the entire property, the 9.8 per cent being arrived at on the basis that the $4,994,213.25 of direct costs of Compressing System Property is 9.8 per cent of the $50,813,515.57 of direct costs of all property.

* * * * * * *

[fols. 758-759] Q. Mr. Biddison, the next item of property appearing in the summary on page 4, Volume 1, Exhibit 28, is automotive and construction equipment, evaluated by you at $423,717.82. I assume that that evaluation is of course upon the basis of the automotive equipment being new?

A. It is.

Q. As a matter of fact, a great deal of the automotive equipment of the company has been in use for some time?

A. Yes.

Q. But you have applied here the reproduction cost new of that automotive equipment?

A. That is correct. The prices applied are the prices for that equipment as of the time at which the equipment was acquired.

* * * * * * *

[fol. 760] Q. On page 3605, in connection with the summary of the general telephone system property, there appears to be allocated general supervision in the amount of $60,237.00?

A. That is right. That is the amount developed by Mr. [fol. 761] Ed C. Connor and will be developed and explained in detail by him, this being the amount which applies to the general telephone system.

* * * * * * *

Q. The next item under general system property appears to be undistributed general costs in the amount of $453,-

812.63 . . .: No, I seem to be in error, Mr. Biddison. The next item appears to be final engineering records, evaluated at $765,690.35. What are the final engineering records?

A. The final engineering records include the final engineering maps prepared by the company engineers after the completion of an installation. They are not the drawings prepared for the making of an installation but they are the final inventory records, and consist of field sketches from which are made up detailed drawings on paper or tracing cloth, from which are made ink drawings or tracings, and from which are made blueprints. These maps are kept currently up to date and their cost is not a part of the construction cost of property; they are made after [fol. 762] the construction is done. The costs shown herein have been estimated in detail by Mr. Connor from an inventory of the records in that department, and they may be completely explained by him.

Q. The next item of undistributed general costs appears to be evaluated in the amount of $452,812.63 in respect of the general system property. If we refer to page 5 of Volume 1 of Exhibit 28, do we find the allocation of the undistributed general costs to the general system property?

A. Yes, in the same fashion as previously explained for the other main divisions of the property account.

Q. Now Mr. Biddison, referring again to page 5 of Volume 1, Exhibit 28, do you show that the direct costs of the physical property of the company is $50,813,515.57 upon the basis of reproduction cost new?

A. I do.

Q. Now what do you mean by direct costs?

A. I mean those costs which in common accounting are charged directly to specific pieces of property. They exclude those costs which are so general in nature that they can hardly be said to be incurred for specific items of property or specific classes of property, but are incurred for the property as a whole. These direct costs exclude in general such items as preliminary and organization expense, engineering and supervision during construction, except such portions of such engineering and supervision expense as may be classed and identified as departmental [fol. 763] expense. It excludes administrative and legal

expense for the job as a whole, and it excludes interest during construction for the job as a whole.

Q. Does it also exclude taxes during construction?

A. It excludes taxes during construction, yes.

Q. Now the undistributed general costs referred to on page 5 of Volume 1, Exhibit 28, will be testified to in detail by Mr. Ed C. Connor, who cooperated with you in the preparation of this appraisal?

A. That is correct.

Q. And by undistributed general costs, you mean those costs which you have just identified as preliminary and organization costs, administrative and legal expense, interest during construction, engineering and supervision and taxes during construction?

A. That is correct.

Q. The total of the undistributed general costs evaluated and set forth in Exhibit 28 appear on page 5 to be $9,241,074.00?

A. That is correct.

Q. When taken in conjunction with the direct costs of the physical property of the company, what total amount do we have?

A. We have a total amount of $60,054,589.57.

Q. And is that the grand total shown on page 4 of Volume 1 of Exhibit 28?

A. It is.

Q. Now, does the figure of $60,054,589.57 include any allowance for the business which the company has attached and developed?

A. None whatever.

[fols. 764-765] Q. Or nothing for what is commonly known as going value or going concern value?

A. It includes no allowance whatever for that, and no allowance for working capital.

* * * * * * *

[fol. 766] Q. In all cases, in the development of your costs of physical property did you apply labor prices which were current as of January 1, 1933?

A. Yes; the minimum labor rate as of that date, being 35 cents per hour for this class of work.

Q. For common labor?

A. Yes.

Q. And since January 1, 1933 has the trend been upward or downward in relation to rates of pay and wages for labor of various kinds?

A. There has been a definite increase in the base rate for labor and in the rates for several grades of skilled labor.

Q. Mr. Biddison, are you familiar with an exhibit which has been offered in evidence here by Mr. E. A. Steinberger, it being an evaluation of the undeveloped leaseholds of the Company for which no reserves have been calculated by Messrs. Dunn and Kendrick?

A. I am generally familiar with it.

Q. You know that that exhibit discloses the valuation of those leaseholds based upon the actual cash cost to the Company of the leaseholds?

A. I do.

[fol. 767] Q. Are the undeveloped leaseholds of the Company well selected from the standpoint of its operations?

A. They are, in my opinion, and that opinion is formed after having made an investigation of that matter previous to the date of this evaluation.

Q. Mr. Biddison, in your experience have you had occasion to buy and sell leaseholds in the Mid-Continent area and in the Southwest, generally?

A. I have.

Q. Are you generally familiar with prices paid by willing buyers to willing sellers for developed gas reserves?

A. I am.

Q. And are you familiar, generally, with the prices paid by willing buyers to willing sellers for undeveloped gas reserves?

A. I am.

Q. Would you say that the undeveloped leaseholds, for which Mr. Steinberger showed a total value of $893,291.28 represented leaseholds which were reasonably needed by the Company in connection with its current operations?

A. Certainly; and the amount of such leases is small relatively, both in acreage and in the amount of money, to be held by a property of this size.

Q. Would you say that the book cost was a minimum or maximum of their fair value?

A. I would say a minimum, because included in that group of leases are properties in Gray and Carson counties, [fol. 768] Texas, whose value per acre, or whose value per

thousand cubic feet of gas in the ground is in my opinion fully equal to a thousand cubic feet of the same gas, or an acre of the same kind of leases in Wheeler County, which acreage has been priced and evaluated by Mr. Dunn on the basis of having been developed.

Q. Mr. Biddison, did you ever hear of a natural gas company operating upon the scale that the Lone Star Gas Company operates which did not carry a substantial amount of undeveloped leaseholds?

A. No.

Q. Would you say that the acreage and the value of the leaseholds which are undeveloped and owned by the Lone Star Gas Company is substantially less than that carried by other major natural gas companies operating in the United States?

A. In proportion to the investment, and in proportion to the volume of business, the amount carried by the Lone Star Gas Company is relatively very small, and is barely sufficient to act as an insurance policy that they may buy gas at rates which will not be prohibitive.

Q. Can these leaseholds be utilized in the future by the Company as a source of gas supply?

A. Yes.

Q. And may these leaseholds be regarded in the nature of working capital which the Company has tied up in connec-
[fol. 769] tion with current operations?

A. I think that is a good way in which to conceive of it—being parallel to working capital.

Q. Are you familiar with an exhibit which has been offered in this case styled Defendant's Exhibit 31, being an appraisal of gas reserves of the Lone Star Gas Company, testified to by Mr. D. A. Hulcy?

A. I am.

Q. Are you familiar with the volumetric determination of the gas reserves of the Company as made by Messrs. J. H. Dunn and Frank E. Kendrick, and identified in this case as Defendant's Exhibit 30?

A. Generally so, I am, yes.

Q. Do you believe that the evaluation of leaseholds so determined by Mr. Hulcy in connection with Exhibit 31 is upon a reasonable basis?

A. I do.

Q. Please state the reasons for that conclusion.

A. Well, you can take the amount of reserves which has been estimated by Mr. Dunn, testified to by him, and price them out to the various fields at rates for gas in the ground which I feel sure would be fair valuations of gas in the ground, and derive thereby figures for the developed leases equal to or in excess of the figures derived by Mr. Hulcy in the method in which he derived them.

Q. Have you had occasion to act for buyers or sellers in [fols. 770-772] the matter of the sale or purchase of developed gas reserves?

A. I have.

Q. In this general territory?

A. I have.

Q. When were those sales made and what was the price used or price paid per thousand cubic feet of developed gas reserves?

A. Well, these sales I have in mind were over a period from 1921 to 1929 at which gas reserves were sold on the basis from slightly under, in some few cases, one-half cent per thousand feet in the ground, up to prices in excess of one cent per thousand feet in the ground. As a general proposition, the larger the block of acreage the higher the price per thousand cubic feet in the ground.

Q. Are the leases, both developed and undeveloped, of the Lone Star Gas Company well located in relation to the Company's property and business?

A. They are.

Q. Is the entire public service plant and property of the Lone Star Gas Company, in your opinion, well designed and well conceived?

A. Well designed, well conceived, well maintained, and well operated. It is an excellent property from all viewpoints, as I see it.

* * * * * * *

[fol. 773] Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Biddison, turn to the first item that appears in your first volume—that, I believe, is page 13, of Volume 1, Gas Well Equipment, Chickasha Field, Casing Lap Weld, 12½-inch, 50 pounds per foot, quantity 62 feet, unit cost of $2.4718 a foot.

The Court: Raise your voice a little, Mr. Fitzhugh. I can't hear you up here.

Q. Give, if you will, Mr. Biddison, how you arrive at that unit cost.

A. The price on that, as was furnished to me by the Pricing Section, on 12½ inside diameter, 13-inch outside diameter, 50 pounds per foot, lap weld, regular casing, $2.4718 per foot, net, at destination.

Q. You say that price was furnished you by the Pricing Section?

A. Yes.

Q. Who composed your Pricing Section for this item of property?

A. Mr. Paul Richey is in charge of that Pricing Section, and in this work works under my supervision.

Q. Is Mr. Paul Richey available for cross-examination?

A. He is not today, but he will be. If you want something further on the price of that casing I can dig out something [fol. 774] further for you. He can do it with greater facility than I can.

Q. The cost you have given us represents the cost delivered f. o. b. Texas common points?

A. Yes.

Q. Do you know what the price is at the factory, or f. o. b. factory?

A. Well, I think I can get that for you, too.

Q. That is the only way we can check up on it, isn't it?

A. No; I have explained a way you can check up more readily.

Q. We can't check up on discounts or freight without getting the base price, can we?

A. This price is derived from the Oil Country Tubular Goods price sheet. The list price per foot is $2.95; the discounts are 10, 5, and 2 per cent for prompt payment, giving a net discount, or a net ratio of net price to list price of .8379, and producing a net delivered price for this casing of $2.4718.

[fol. 775] Q. Now, when you say, Mr. Biddison, that the discounts are ten, five and two you mean that you have a base discount of ten, a preferential discount of five and a cash discount of two; is that right?

A. Substantially, yes. I mean specifically that you have first ten per cent discount applied, then five per cent applied

to the remainder, and then two per cent discount to the remainder for prompt payment of the invoice.

Q. Now, have you used the same discount wherever casing is found throughout your appraisal?

A. For casing, yes.

Q. Does the Lone Star Gas Company, Mr. Biddison, get just as good discounts as any other buyer?

A. I am not sure whether they do or not. I think probably they do.

Q. Is there any reason why they should not get better discounts, being larger purchasers than most of the other buyers?

A. Well, if that were true, then the largest purchaser would pay the lowest price. If the Lone Star Gas Company happened to be the largest, they would get the lowest price.

Q. Yes, sir.

A. But there are other large purchasers.

Q. Is there any larger gas operator than your company here?

A. Not a larger gas company, but the largest gas company would not be largest purchaser of casing.

Q. Is this a discount which would prevail for a small pur- [fol. 776] chase of casing or a large quantity, or would there be any difference?

A. This is a discount which would be available to a purchaser buying in volumes comparable to that bought by the Lone Star Gas Company. I am not certain, but for the smallest purchasers the five per cent discount would not be available.

Q. Well, do you mean, Mr. Biddison, that it is a discount that the company would get on ordinary purchases over a yearly period, or do you mean it is a discount that would be available if they were buying casing for reproduction new properties?

A. I think it is a discount that would have been available to it January 1, 1933, for either purpose.

Q. All right. Now, this quotation, you say, came from the Oil Country——

A. Oil Country Tubular Goods price sheets.

Q. Who puts that out?

A. Well, such sheets are put out by the National Tube Company, Youngstown Sheet & Tube Company, Jones & Laughlin.

Q. How about the Continental Supply Company?

A. Yes, they do, too.

Q. Now, as a matter of fact, as of the date of your appraisal, Mr. Biddison, wasn't your company getting a discount on this class of casing and on other types of casing of different sizes where the discount available to your company and actually paid by it was ten, ten and two instead of ten, five and two?

[fol. 777] A. I don't think so.

Q. On yesterday, Mr. Biddison, a day telegram was sent, June 18, 1934: "Continental Supply Company, Dallas, Texas. Please confirm discounts of ten and ten as of date January first, thirty-three, on mill shipments of casing to large consumers." Signed, Railroad Commission of Texas, Gas Utilities Division. Upon today we have the following telegram: "Railroad Commission of Texas, Gas Utilities Division, Austin, Texas. Retel yesterday relative discounts on casing. Stop Our records show we were quoting as of January first Nineteen thirty-three extreme price of ten and ten per cent off list on large lots of casing. The Continental Supply Company." Now, Mr. Biddison, if that quotation given to us is correct, isn't tha- the quotation that your company would now have available to it for purchases of casing?

A. No. I think that situation is somewhat garbled.

Q. I want to show you the telegram, so you will be sure to understand what is in it. (Telegram handed to witness.)

A. Well, this telegram does not state what the ten and ten off list was applied to at all. The telegram you read to me, to which that is a reply, indicated that the ten and ten that it referred to was ten and ten off of material prices.

Q. Mr. Biddison, isn't this a quotation that anybody familiar with casing prices would understand?

A. You might understand it if it had not been for the telegram you sent to them, the way you explained it.

[fol. 778] Q. Don't you know it is ten and ten off the list price?

A. No, I don't know it, because it does not say it is.

Q. Isn't it a fact that this telegram says, "We were quoting as of January first, 1933", which is the date of the quotation sheets sent out by the Continental Supply Company, and show as to what discounts apply?

A. No, it does not. Anybody that can read English can see it does not.

Q. Well, what kind of list do you think does apply?

A. Well, that is what I would like to know.

Q. Well, will you verify and report back to us as soon as possible, Mr. Biddison, the exact discounts that your company paid on any purchases of casing made from January first, 1933, to the present time, if any such purchases were made?

A. I will endeavor to get that information.

Q. Do you know how much casing there is of this size used in the wells of the company?

A. No, not offhand.

Q. Have you any idea, then, how many dollars and cents are tied up in this five per cent discount, provided we are entitled to that correction?

A. No, not at this time.

Q. Can you approximate it?

A. No, not at this time. It would not amount to much.

Q. Well, in case this same discount applied to all your casing, would you know approximately how much we would be entitled to?

[fol. 779] A. No, not offhand. I would be able to determine that amount.

Q. How did you find, Mr. Biddison, the quantity that you show for this first item, sixty-two feet?

A. That quantity was determined by Mr. Steinberger in compilation of the inventory of materials. Now, that question can better be directed to Mr. Steinberger, since it is an inventory figure.

Q. You don't vouch for that figure?

A. Well, I have had the figures of this gas well equipment checked, and I believe them to be right. Of course, I didn't go and measure it down in the well hole myself.

Q. Well, how could you make that check?

A. From the records of the material down in the well.

Q. Did you check this item?

A. Not personally, no. I had it checked.

Q. Well, are all these quantities of casing taken from the actual records of the company?

A. Yes.

Q. There is no possibility for an error, then, as to omissions and contingencies, is there?

A. Yes.

Q. So far as quantities of casing are concerned?

A. Yes.

Q. How do you explain that?

A. There is always a possibility of omissions and contingencies in any inventory, unless you are counting dollars on deposit; I don't know of anything else you could count on with exactitude without the possibility of error.

[fol. 780] Q. If your records are correct, don't the records show for each well the amount of casing in each well?

A. They do as long as they can be determined for such lines, yes.

Q. Well, is there any likelihood that there are errors in the records of the amount?

A. Certainly.

Q. Well, isn't the record just as likely to be an overstatement of the amount as an understatement?

A. I think not.

Q. Wouldn't you be just as justified in making a deduction for a duplication that might be in your exhibit where you allowed too much of a type of property or too much pipe in a well than in a case where you have included too little?

A. No, sir.

Q. You are sure of that?

A. I am sure of that; yes, sir.

Q. You could not possibly be wrong in having too much in the appraisal—it is bound to be that you have too little?

A. The probabilities are that in any inventory of material some material will be missed in the inventory.

Q. Yes, sir. And where you have a large amount of property under ground, Mr. Biddison, there is a very large chance of putting in more than is actually there?

A. No, sir.

Q. You are positive of that?

A. Yes, sir. There is a chance of missing material that can't be seen nor handled.

[fol. 781] Q. Now, the first valve that appears in your appraisal, the very first one, where does it show?

A. I don't know, sir. I will have to look it up.

Q. Well, it will probably be on the first page, won't it?

A. Yes, on the first page.

Q. On page 13?

A. The first one appearing is Crane, four inch, one thousand pound test, No. 23, double disk, non-rising stem, 25.1094.

Q. How did you find that unit cost?

A. The list price of the valve f. o. b. Chicago is $70.00; the discount is 49, 25, 10 and two per cent cash discount, resulting in a net price f. o. b. Chicago of $23.6159 each. The amount of freight at a freight rate of 71 cents per hundred pounds is $1.4935, resulting in a net cost at railroad destination of $25.1094 each. The valve has been priced at that unit cost, or for one, in round figures, $25.11.

Q. What was the figure for freight, please, sir?

A. $1.4935.

Q. And what was the valve cost f. o. b. Chicago?

A. $70.00.

Q. Well, after the discount it was twenty-three something?

A. $23.6159.

Q. What was the last well drilled in this field?

A. I don't know.

Q. In the Chickasha field?

A. I don't know.

Q. That is the field that the inventory starts out with, doesn't it?

[fol. 782] A. Yes, sir.

Q. Did you make any effort to find out?

A. No.

Q. Do you know what they had to pay for the property that went into the last well drilled up there?

A. No, sir.

Q. Then you didn't look at the actual records of the company to make that statement?

A. Certainly not.

Q. You were not even interested in it, were you?

A. No.

Q. Now, if I am correctly informed, Mr. Biddison, the last well in that field drilled by your company was the E. P. Warren No. 1, appearing on page 45. This well, I am told, was finished in December before your appraisal was completed as of January—that is, I mean this well was completed in December preceding that January. Your total cost shown for that well is $13,094.83, isn't it?

A. It is.

Q. That is an appraised value throughout, is it not?

A. It is.

Q. It hasn't got a thing in the world to do with the actual cost of the well, has it?

A. No, sir; it is exactly what it is labeled; the estimated reporduction cost of the well.

Q. Now, I will ask you, Mr. Biddison, if as a matter of actual fact the records of your company do not show that this well cost the company, and this cost includes every [fol. 783] fitting, valve, and other piece of property shown on your inventory, the amount of $12,600.56, as compared with your $13,094.83?

A. Well, I don't know anything about it.

Q. And, in addition, the $12,600.56 includes capitalized on the books of the company interest and overheads in the amount of $549.65?

A. Well, that may be your statement. I don't know anything about it.

Q. And the figure comparable to the interest and overhead just mentioned has been otherwise included in this appraisal itself in the amount of $13,094.83; isn't that true—that is, this thirteen thousand item does not include one cent of interest or overhead, does it?

A. It does not include interest, it does not include general and undistributed overhead costs.

Q. How about administration and legal expenses?

A. That is one of the general undistributed costs that is not included in the figures showing specific items of property in this appraisal.

Q. Now, on this same well there are fittings which you have included in your appraisal as a lump sum amount of $72.05 for the lot?

A. Yes, sir.

[fol. 784] Q. How did you find that figure?

A. I am afraid I can't give you that fittings statement just at the moment. I will have to look that up and give it to you later. That is a list of fittings which has been priced out in detail, and I will get it for you.

Q. All right. Now, Mr. Biddison, you and Mr. Griffith have very kindly offered to go into every figure that you have got in your whole appraisal, for the benefit of the State in this case, and we have here skipped in our questions over property from page 13 to page 45. I don't suppose you have any objection to us making that skip, do you?

A. None whatever.

Q. And spot-checking your appraisal, so to speak?

A. No, none whatever.

Q. All right; on the same page where you show under fittings, installation of fittings in the amount of $155.56, that amount includes an allowance for stores, does it not?

A. It does.

Q. What is the allowance for stores?

A. Four per cent.

Q. You mean four per cent of the total installation cost?

A. No, four per cent of the material cost.

Q. So of the $155.56 what part is stores? In dollars and cents, I mean.

[fol. 785] A. The amount of stores expense is $134.43.

Q. So that the remainder in the amount of $21.12 represents the labor involved in the installation of fittings?

A. That is correct.

* * * * * * *

A. I can now read you that list of fittings, Mr. Fitzhugh, constituting that lot of fittings, if you desire it.

Q. Well, wait just a second, until we finish with this item.

A. All right.

Q. Now, the $134.43 for stores expense includes both handling and checking, is that true?

A. Yes, it includes the accounting for materials through the warehouse and also on storage lots.

[fol. 786] Q. How much of that cost is checking?

A. I don't know. There is no separation made of that in an accounting.

Q. Well, does it include any hauling?

A. No, sir, it does not.

Q. Just what does it include? Explain what your stores expense is.

A. It includes all of the expenses of the field storekeepers, their automobile expenses, their salaries, the rental on store yards; all expenses in connection with the accounting for material in the field.

Q. Well, now in finding the amount of the stores expense, how did you go about it?

A. I applied four per cent to $3360.65 of material.

Q. I understand that, and I think I understand, too, that you got the four per cent out of the abundance of your experience; but how do you know that four per cent is a correct amount to apply for stores expense?

A. Out of the abundance of my experience and out of the history of the cost of that kind of work for the Lone Star Gas Company.

Q. Well, you have worked on considerable construction work, you say, Mr. Biddison. There is a great deal of difference between supervising the building of a piece of construction and keeping track of all the costs, isn't that right? [fol. 787] A. Yes, indeed.

Q. Where you build 1600 miles of pipe line, which I believe you say you have built some time in recent years. On that piece of construction work, you did not keep all the books, did you?

A. Certainly not.

Q. That is properly a cost accountant's work, isn't it?

A. Certainly.

Q. All you did was to go out there and see that the men were kept working smoothly and that the pipe was properly put in,—isn't that right?

A. Not by any means.

Q. Did you check up on all the costs?

A. Why, no, not personally, but I had it done currently as the work progressed. The cost people worked under my supervision.

Q. Where was that 1600 miles of construction of which you spoke?

A. Louisiana, Mississippi, Alabama, and Georgia.

Q. And was it 1600 miles of continuous construction?

A. No, it occupied two years time

Q. All sorts and different sizes of pipes?

A. From four to twenty-two inch.

Q. Can you pick out any particular section of, or the whole business—as a matter of fact, can you give any piece [fol. 788] of construction you have ever worked on where you know the actual stores expense?

A. Well, I can't cite anything of that sort to you now, no; but I have had stores expense figures analyzed for me for ten or fifteen years past.

Q. Did you make any written records of cost studies of the sort that Mr. Steinberger, I believe, has made for your Company?

A. Yes, I have made them——

Q. In construction work?

A. —and have had them made.

Q. Have you got them with you now?

A. No.

Q. We would like very much to see them.

A. Well, I don't know whether I could produce them now or not. I had a study made several years ago of stores expense on the Dallas Gas Company's property and the County Gas Company's property, showing stores expense in excess of four per cent.

Q. And you are willing to testify now, and try to make this jury believe it, that on the work you have done in the past you have had an actual stores expense of four per cent of the cost of materials?

A. Yes, sir, on miscellaneous materials; certainly I am.

Q. But you don't cite us a single example to prove it, do you?

[fol. 789] A. I just cited you one, and also the records of this Company on the construction work which they have done.

Q. Can you give us the figures of a construction job, on the cost of materials involved, the labor involved, and your stores expense detail?

A. Which construction job do you refer to?

Q. Any construction job.

A. Why, I think I can produce for you the studies on both the properties of the Lone Star Gas Company and——

Q. No, I am talking about your personal experience now —this abundance of experience you have had——

A. Why, no, I haven't gone off with the records——

Q. —upon which you are drawing off, in the past?

A. I haven't gone off with the records of the people by whom I have been employed. They are part of their equipment and stayed in their files; but I know what has been going on in connection with those concerns. I have had studies made, not only of stores expense, but many other things in analyzing construction costs.

* * * * * * * * *

[fol. 790] Q. Talking about the same well still, Mr. Biddison,—about how long did it take to drill this well?

A. I don't know.

Q. Well, how long would it ordinarily take?

A. Well, for a completion job, that well could under favorable circumstances be done in some place between thirty and sixty days.

Q. Now, the actual record on this well, according to our investigation, shows that it was actually completed in twenty-four days. Does that sound possible, bearing in mind that it is located in the Chickasha Field?

A. It sounds possible, but it is improbable that that was the time from the beginning of operations to the completion of operations; it sounds more probable that that was the actual drilling time.

Q. Well, that might be, but suppose that that is the case, that would be about the length of time that this property would be on the ground up there, wouldn't it?

A. No.

Q. Would you need to have your casing strung out up there for several weeks or months before the well was started?

A. You probably would have the bulk of it there at the time the well was started.

Q. Well, approximately what is the length of time that some check would have to be kept of the casing and tubing, which seems to form the major part of the cost of the well, [fol. 791] and the small amount of fittings and valves?

A. Well, an account might have to be kept of that material anywhere from thirty days to a year or two, on parts of it. It depends upon how long some of it laid in stores.

Q. Well, does it appear reasonable to you, Mr. Biddison, that where there was only about $150.00 worth of small fittings, and that that is the only property to be kept track of, except the tubing and casing, that there would be $134.43 spent for stores expense in keeping track of that property?

A. Yes; and in proving that reasonableness I would like to cite that in the analysis of the stores expense incurred on about fifty wells involving near $300,000.00 worth of casing, nearly $19,000.00 of other equipment, and over $12,000.00 of miscellaneous material, or approximately $331,000.00 of total materials, the stores expense was $30,000.00 and more, or in excess of nine per cent of the total material cost on this approximately $331,000.00 worth of material; whereas, in this estimate there has been applied as stores expense on comparable material only four per cent.

Q. Who made that study?

A. That study was developed in detail by Mr. Steinberger, from an analysis of work performed by the Com-

[fol. 792] pany in drilling wells in the Panhandle and West Texas Fields.

Q. Do you have that study before you?

A. I do, in summary form.

Q. Now, give a breakdown of the $30,000.00 which you say was stores on that amount of construction.

A. I have no breakdown as to the items of expense on that with me. I have the amount in each particular field of stores expense.

Q. Well, what I mean is, how do you know what that stores expense includes?

A. Because that is what was included as stores expense on the payroll sheets and on the cost analysis sheets.

Q. Well, was it detailed in any way?

A. It was on those analysis sheets. I don't have the complete figures here. I have a summary of it only before me. As a matter of fact, it is common in oil field practice for some companies to charge a stores expense of ten per cent on all materials.

Q. Isn't it a fact, Mr. Biddison, that that stores expense or the stores expense included in that study is really a misnomer, in that it applies to the salary and expenses of a storekeeper kept in the field during the operation of the field, the expenses of which storekeeper and the keeping of the store were charged as operating expenses currently, and not capitalized on the books of the Company?

[fol. 793] A. Whether it was capitalized on the books of the Company or not, it represents stores expense that was incurred in the handling of material in the drilling of these wells, no matter what was done with it.

Q. Well, you wouldn't include in a reproduction cost appraisal, would you, Mr. Biddison, a capital cost, if the Company had never in the past recorded that as a capital cost?

A. I don't care how the Company recorded it in the past; it is a cost to be incurred in the reproduction of the property, it is a cost proper to be set up as part of the reproduction cost. The question is not here what the Company did do some time in the past; the question is what it would cost as of the date of this valuation to perform certain acts and to produce certain properties.

Q. All right. You are not going to reproduce something now in connection with a reproduction appraisal, would

you, Mr. Biddison? Wouldn't it represent some item of property or some service which has been compensated for in the past through operating expenses; never cost the Company a dime, never cost the Company a penny, and which expense is still being charged to operating expenses?

A. I would set up in a reproduction cost valuation all [fol. 794] items of expense which would be incurred in a reproduction cost—in a reproduction program. Now, what happened in the Company's past history in that respect, I don't know. It doesn't make any difference to me. The question is what would it cost, as of the date of this valuation, *to reproduce this property*. Now, some of the costs that have been analyzed from the Company's construction and operation work in the past furnish information from which unit costs may be developed as construction cost units. It doesn't make any difference whether those costs were incurred on construction or operation, if they are properly applied to the situation which we are now dealing with, namely, the cost of reproducing the property as it existed on January 1, 1933.

Q. All right. But, Mr. Biddison, isn't the real justification for the applying of value by a reproduction cost method the fact that it tends to show the amount of investment of the Company in Public Service Property?

A. That is the reason for it, to show the value of that investment.

[fol. 795] Q. You wouldn't be doing right, would you Mr. Biddison, to include in an appraisal of that sort and for that purpose items that have been expense items in the past, which have never been capitalized and which were never regarded, even by the company, as investment items?

A. Why certainly you would. It wouldn't make any difference what they had done with it in the past. If that expense would be incurred in reproduction, it is a proper item to set up. Now what they have done with their income and with their expenditures in the past has nothing to do with the value of this property. If they charged something to operations that should have been charged to the capital account, that is simply a mistake in accounting methods and has nothing to do with the value of the property.

Q. You realize, Mr. Biddison, in a rate case when you are talking about value, you are talking about an unusual kind of value, do you not?

A. No.

Q. You don't recognize there is any difference in a rate base value and value in the ordinary sense?

A. No. The rate base is supposed to be present fair value, as I conceive it.

Q. All right; whether you are right or wrong on that matter, this much is true, if I understand you correctly Mr. Biddison: that there is absolutely no relation in the method which you have used in compiling your exhibit and in the value you have found in it for public service prop-
[fol. 796] erty, and the history of the company in the past?

A. Yes, there is a very definite relation.

Q. In what way have you taken into consideration the history of the company?

A. In so far as it was possible, the unit costs used in this reproduction estimate have been derived from the history of construction of similar property by the company. Now, there is that direct relation.

Q. It is a matter of fact, isn't it Mr. Biddison, that the property of the Lone Star Gas Company started out rather small in 1909, and has been built by progressive steps through the years from then up until now?

A. That is correct.

Q. The properties were not built all in one step, were they?

A. No.

Q. There wasn't one great big combined construction of four thousand miles of pipe line?

A. No, there was not.

Q. You have in your appraisal, though, considered that the entire group of properties, all lines, would be reproduced as of one construction job, have you not?

A. Yes.

Q. Does that follow historically what has happened, as a matter of fact?

A. No. Historically this property has never been repro-
[fol. 797] duced. We are talking now about reproducing it new, as of January 1, 1933.

Q. The only way you would say that you might have in any way taken into account the history of the company in the preparation of your exhibit, is in considering some of the actual studies, or rather the studies of actual costs incurred in some small bits of construction work done by the company?

A. I think that is substantially correct, yes.

Q. You say you have that $72.05 worth of fittings on this same well now?

A. This bunch of fittings amounting to $72.05 consists of steel casing-head, 6⅝ by 2 by 2 by 1, at $14.14. One set 2 x 1 x 4 casing clamps, $5.19. One set 8¼ x 1x6 casing clamps, $8.57. One set 12½ x 1 x 6 casing clamps, $9.87. One rotary drive chain two feet long, $2.78. One four inch dresser collar leak clamp, $1.31. One eight inch ditto $2.52. One 8¼ casing coupling, $2.40. Two ¼ inch pipe couplings, 5 cents. Two 1 inch Crane malleable ells, 9 cents. Four 1 inch Vogt high pressure malleable ells, $1.71. One 4 x 8 nipple, threaded both ends, 38 cents. Two 1 x 12 ditto, 16 cents. One 1 x 8 ditto, 6 cents. Three 1 x 6 ditto, 12 cents. Two 1 x 2 ditto, 4 cents. One ½ by 2 ditto, two cents. One ¼ x 4 ditto, 2 cents. One 1 x 6 nipple threaded one end, 4 cents. One 8¼ x 6⅝ swedge nipple, $1.77. One 4 x 2 ditto, 65 cents. Three 1 inch jet nipples, $4.14. One 2 inch bull plug, 37 cents. 2.75 feet of 1 inch 1.7 pound threaded and coupled pipe, 19 cents. Two ½ inch cast iron pipe plugs, 2 cents. One ¼ inch steel pipe plug 14 cents. [fol. 798] One 2 x ½ malleable reducer, 14 cents. One 1 x ½ malleable reducer, 6 cents. One 1 inch syphon gauge, $1.96. One ½ inch Mueller stop cock, brass, 33 cents. One 6⅝ x 6⅝ x 4 steel 500 pound tee, $10.25. One 1 inch high pressure malleable tee 26 cents. One 2 x ¼ inch special tee, 54 cents. One 2 x 15 x 1 special tee $1.08. One 1 inch ground joint union, 45 cents. One ¼ inch collar weld, 23 cents.

Mr. Griffith: Does that give a total of $72.05, Mr. Biddison?

A. It does.

Q. (Mr. Fitzhugh) Does the original inventory show whether these fittings are steel fittings, cast iron fittings or malleable iron fittings?

A. Well, the original inventory describes them substantially as I read them off. There are one or two cases in which I shortened up the description somewhat.

Q. Well, there is considerable difference between malleable iron and cast iron fittings, are there not, of the same type?

A. Generally so, yes.

Q. You have in this lot of fittings quite a number of cast

iron fittings. How do you know those are properly classified as cast iron?

A. Well, I had fittings on these wells checked to find out what they were.

Q. Well what description in the original inventory is there to show a description such as to make a certain type [fol. 799] of fitting, even though they were checked?

A. Well, as I say, the description is not absolutely as complete as it could be in all cases, but the materials which I read to you from this list are pretty well detailed, as to description.

Q. Do you have the original inventory on this well?

A. I have a copy of it right here before me, from which I am reading.

Q. Do you have the fittings listed in that inventory as you have read them off here?

A. Yes.

Q. Are they listed as cast iron fittings in the cases where you read off cast iron fittings here?

A. Where I read cast iron they are listed as cast iron, and where I read malleable, they are listed as malleable.

Q. Well, really didn't you just have a lot of fittings, one lot, on each original inventory, and then you worked out this list of fittings to apply to it the unit prices you show?

A. No, we had a complete inventory of each and every item in the original inventory, and then instead of typing it all out, we grouped it as one lot of fittings, just exactly the reverse of what you suggested.

Q. Take the first nipple where you apply a cast iron price.

A. I do not apply a cast iron price to any nipple.

Q. Well now, let's see. Here is one 4 x 8 nipple, threaded both ends, at a price of 38 cents. What kind of a nipple is that?

A. It is a pipe nipple, made out of pipe, and threaded on both ends.

[fol. 800] Q. That is a steel nipple, isn't it?

A. It is a steel pipe nipple, yes.

Q. Further down in the list you have one 6⅝ x 6⅝ x 4 steel 500 pound tee, a cost of $10.25. Where did you find that $10.25?

A. Well, that tee is specifically designated here as Walworth Sigma steel.

[fol. 801] Q. Well, just let that go, Mr. Biddison; it probably don't amount to much anyway.

A. I have before me a list of Walworth prices on fittings in a heavier class than that, but I have not yet located the Walworth prices on fittings in that weight. I think there was a substitution made, according to this. I have a reference in here to a substitution for that class of material, the prices not having been originally obtained, for the use of a price by Crane Company on extra heavy cast steel fittings.

Q. You mean a Crane valve?

A. No; a Crane fitting—a cast steel fitting. This particular one is priced here at $10.25; but it does not quite correspond to the Crane price, because the Crane price is $10.42, as referred to in the substitution.

Q. What is the Crane material as to type and pressure?

A. Cast steel T screw, Series 30, 800 pounds, oil, water, or gas working pressure, their figure 764 D.

Q. Do I understand, then, Mr. Biddison, that where you have this particular item listed as a Walworth, you are really giving it a Crane price, or the other way around?

A. I think there is a substitution, because I do not find a Walworth price for this fitting. I may be able to locate it later.

Q. Aren't all these fittings as they appear in the equip- [fols. 802-803] ment of the Company in the field painted over?

A. Yes; practically all of them are painted over.

Q. And wouldn't there be the usual amount of dust and grime over them when they went to check them for the purpose of making an inventory?

A. Those showing above the ground are not covered with dirt and grime.

Q. Well, they have a coat of paint on them?

A. Yes.

Q. How could a man making an inventory, no matter how carefully he looked at the installation, tell whether the fitting was a malleable, cast iron, or steel fitting?

A. You can ordinarily tell a cast iron and malleable fitting by the shape.

Q. Well, how could you tell who made it?

A. As to who made the fittings, you can tell who made them by the mark on them. If it were a Sigma steel fitting, it would be so marked.

Q. Are all fittings so marked?

A. Not all; but most fittings carry a distinguishing mark by which they can be identified.

Q. But on this particular item, you have applied to what had a 500-pound pressure an 800-pound pressure price?

A. No; it is not that exact price. I have not found yet what the precise substitution was there.

* * * * * * *

[fol. 804] HAL C. DYER, a witness for defendant, having been duly sworn, testified as follows:

Direct examination.

Questions by Mr. Griffin:

Q. State your name, please.

A. Hal C. Dyer.

Q. Where do you live, Mr. Dyer?

A. I live in Dallas.

Q. In what business are you engaged?

A. I am in the general contracting business.

Q. How long have you been engaged in the contracting business?

[fol. 805] A. Well, in 1922 I took a job with the Henger and Chambers Construction Company of Dallas as cost accountant and general office clerk. I stayed with this firm about four years. During the time I was with this firm I handled all their cost accounting for the different construction jobs they had under way. In 1925, I believe it was, I took a job with the Jopling-Marshall Construction Company. My duties with this company were estimating—that is, preparing estimates and costs and bids on construction jobs. In 1927, this company, which was a copartnership, was dissolved, and Mr. Jopling of that firm and myself organized the Jopling Construction Company. We operated as the Jopling Construction Company until the early part of 1933, at which time our association ceased, and I entered the contracting business under my own name—Hal C. Dyer, Builder—and I am engaged in that business at the present time.

Q. In that work have you had occasion to make estimates of costs, to supervise the construction of, and to actually build some large construction projects?

A. Yes, sir; I have.

Q. Name some of the major contracts on which you have made estimates of costs, or where you have supervised the

construction, or was the superintendent of construction on the job?

A. Well, on the Crazy Hotel Building in Mineral Wells, I estimated that job, submitted a bid, and got the job on [fol. 806] the low bid, and I handled the buying, the purchasing of materials, and the awarding of sub-contracts for practically all the items that entered into this building. That job represents an investment of approximately a million dollars. We had the general contract—the figure was a little less than a half million. On the San Antonio Express Publishing Company building, in San Antonio,—a job that represents an investment of nine hundred thousand I believe, our Company had a contract for $486,000.00. I prepared all the cost data and estimates and bid on this job. I built the Dallas Gas Building in Dallas, the general contract for which was something over five hundred thousand dollars. I prepared the estimate on that job and secured the job by competitive bidding; and I was on that job as general superintendent during the course of construction. I submitted a bid on this building here, but we did not secure the contract.

Q. Do you mean this Travis County Court House?

A. Yes, sir; this court house. If I recall, we were about fifth bidder on this job. I also prepared a bid and submitted it on the State Highway Building—on Congress Avenue, I believe it is. I was sixth or seventh bidder on that job. The most recent job I have bid and built was the Chattanooga post office. Our firm did not have the complete contract on this job. We had a sub-contract—we had the [fol. 807] steel and the concrete work. We had also a sub-contract for a post office in Meridian, Mississippi.

Q. When you spoke of Chattanooga a moment ago, you meant Chattanooga, Tennessee?

A. Yes, sir.

Q. Would you say, as a result of your experience, Mr. Dyer, that you are familiar with costs of construction and methods of construction, in connection with the construction of office buildings in this territory?

A. Yes, sir; I believe that I am.

Q. Now, Mr. Dyer, yesterday, or the day before, Mr. P. M. Biddison, a witness in this case, identified pages 3518 and 3519 of Volume 6 of what is known here as Exhibit 28 in this case as being a description of your work in connection with the valuation of the general office building of the Lone

Star Gas Company in the city of Dallas; and in his testimony Mr. Biddison said that the estimate of the reproduction cost new of that building in the amount of $321,437.63, represented your estimate of that reproduction cost new; was Mr. Biddison's statement correct?

A. That is correct.

Q. And you did prepare an estimate of the reproduction cost new of the general office building of the Lone Star Gas Company in the city of Dallas?

A. Yes, sir; I did.

[fol. 808] Q. You spoke a moment ago, Mr. Dyer, of having made the estimates of costs and having been general superintendent in connection with the construction of the Dallas Gas Company building. I will ask you if that is a large office building which adjoins the Lone Star Gas Company building?

A. Yes; it is. It is on the north of the Lone Star Gas Building, in the same block. In fact, the Dallas Gas building is only 13 feet from the Lone Star Gas Company building.

Q. Now, Mr. Dyer, will you please relate to the jury in your own words and in a general way the method you pursued in arriving at the estimate of your reproduction cost new of the office building for the Lone Star Gas Company?

A. Well, the first thing I did was to spend about four or five days going through the building to get the building clearly in my mind as to just how it was finished, and the type of different materials used in the building. After I had made this general survey I went to the original architects who prepared the plans of this building and secured a set of the original plans. I took these plans and from them made a detailed estimate of every item that I could find on the plans and prepared a bid just as though I were going out to submit a bid in competition for the job. I took each item separately—excavation, concrete, form work, masonry, plastering, painting, and all the different elements that entered into the building. When I came to the heating and [fols. 809-813] plumbing items, not having a detail- knowledge of this branch of the work, but only a general knowledge, I went to the Martin Brothers Heating and Plumbing Company, who are recognized as one of the leading heating and plumbing companies in the state. I had them prepare this estimate on the heating and plumbing. I checked their estimate, and with the general knowledge I have, I know their estimate to be correct. On the electrical work I went

to the Superior Electrical Company, and had them prepare the estimate on the electrical work. On the elevators I went to both the Otis Elevator Company and to the American Elevator and Machinery Company, and they gave me an estimate on the elevator work.

* * * * * * *

[fols. 814-826] Cross-examination.

Questions by Mr. Fitzhugh:

* * * * * * *

[fol. 827] Q. So that your estimate as it now stands, Mr. Dyer, consists partly of work that you would do yourself, and in a number of items of work that you would sub-contract?

A. That is right, yes, sir.

Q. Now, you have allowed for yourself a contractor's profit, have you not?

A. Yes, sir.

Q. In what amount?

[fol. 828] A. Eight per cent.

Q. And you intend that that eight per cent would be over and above all the actual costs of construction?

A. Yes, sir.

Q. You have also allowed, in the matter of the sub-contractors' parts, a profit by the sub-contractors, have you not?

A. Yes, sir.

Q. What amount do you figure that they would get?

A. Their profit is included in the prices that they gave me.

Q. I understand, but you figure that they will make as much on their contracts as you will make on yours, at least, don't you?

A. Well, that all depends, Mr. Fitzhugh; I don't know just what margin of profit the different sub-contractors figured.

Q. Well, it is normal to expect a sub-contractor to expect to make eight per cent on his sub-contract, isn't it?

A. Yes, sir.

Q. And you probably as general contractor allowed yourself a little margin for safety there, didn't you?

A. Yes, in bidding on a job I would do that.

Q. Now, besides the over-all profit that you figure for yourself as general contractor, in the amount of eight per cent, and which appears in your estimate in the amount of [fol. 829] $22,766.38, you have allowed a further allowance of three per cent for contractor's overhead?

A. Yes, sir.

Q. Are you, in general, familiar, Mr. Dyer, with the way that the exhibit prepared by Messrs. Biddison, Connor and Steinberger has been prepared?

A. No, sir, I am not, Mr. Fitzhugh. I haven't heard any of their testimony and haven't seen any of the exhibits.

Q. You wouldn't be able to say, then, would you, whether your contractor's overhead includes the same sort of charges that are included in their general overheads in their exhibit introduced in this case?

A. No, sir.

Q. Perhaps you had better explain, then, Mr. Dyer, just exactly what expenses your contractor's overhead includes.

A. Well, if you had a contractor on this job the owner would require a bond. The bond premium is one per cent of the total contract. That bond premium or one per cent of the total cost is included in my overhead of three per cent. During the course of construction we have to have a day watchman and a night watchman, ice, fuel, temporary barricades, have to have temporary offices, temporary toilets; and then workmen's compensation insurance, public liability insurance, and contractor's contingency insurance. From my experience in the building business I [fol. 830] have found that these items on a job of $250,000.00 will average three per cent. On smaller jobs it will be higher than three per cent. The overhead item is to take care of all the incidentals that a contractor must meet that do not go into the building proper.

Q. What does the contingency insurance that you just mentioned cover?

A. The contingency insurance—contractor's contingency liability, I believe, is the term of it—it covers the insurance on our sub-contractors. For instance, if we would make a sub-contract with a transfer company to haul all of our brick and tile and steel from the railroad yard to the job, we would carry a contingency policy to protect us against any damages that he may do in performing his duties under his contract with us; even though he has his own public

liability policy that protects him, we have a policy to protect us.

* * * * * * *

[fol. 831] Q. Now, Mr. Dyer, you also have an allowance for contingencies, do you not?

A. Yes, sir.

Q. That amounts to five per cent of the total job cost, approximately $13,000.00, does it not?

A. Yes, sir.

Q. Now, what are the contingencies that that $13,000.00 is supposed to cover?

A. That is to take care of the owner when he changes [fol. 832] his mind. I have never built a building yet but when we got about half way through, the owner decided that he wanted some changes made—it's happened in every case that I have had anything to do with; and it is on an average of from five to ten per cent, is what the changes or extras, as they call them in contracting, amount to.

Q. Doesn't your contract that you usually make with a builder—that is, with a prospective builder, usually include a clause that takes care of any changes of mind that the prospective owner may have?

A. Yes, the contract provides for it.

Q. An additional compensation to the contractor over the general contract for those changes?

A. Yes, sir.

Q. Now, in this case, Mr. Dyer, you have a building that is not to be built, actually, but one that actually exists and where you know whether the owner had any changes made from the original plan,—is there any reason why you should include in a valuation of that building an allowance for changes in mind that can't possibly take place?

A. Well, my estimate is based, Mr. Fitzhugh, on a reproduction cost. In other words, if you would start to build that building to-day you would have that item.

[fol. 833] Q. I understand; but the building has already been built and if anybody ever changed his mind about the building of it, that has already occurred. Now, do you have to take care, in the valuation of that building, of any allowance for contingencies in such a large amount, for a thing that couldn't possibly happen?

A. It would happen, Mr. Fitzhugh, if they would build the building again.

Q. But you would receive additional compensation, wouldn't you?

A. Yes, sir.

Q. If there were any changes?

A. Yes, sir.

Q. Now, besides all these things, you make a still further allowance of an architect's fee of five per cent of total cost?

A. That is right.

Q. So that after you had found the total amount for the job cost, to sum up the whole matter, Mr. Dyer, you allowed five per cent more for contingencies, three per cent additional for contractor's overhead, eight per cent for your contractor's profit, or contractor's fee, and five per cent for the architect's fee?

A. Yes, sir, that is right.

Q. That is in addition to all of the profit and margin of [fol. 834] safety you allowed yourself in the work——

A. That is right.

Q. And in addition to those costs you also put in for owner's representative on the job, nine months at $250.00 per month, for a total cost of $2250.00?

A. Yes, sir.

Q. So to sum the whole matter up, you found the total job cost for the building to be $259,951.18, plus owner's representative for nine months at $250.00 per month, $2250.00, plus contingencies, five per cent of job cost, $12,997.56, plus contractor's overhead, three per cent, $8255.96, plus contractor's fee, eight per cent, $22,676.38, plus architect's fee, five per cent of the total cost, in the amount of $15,306.55, to get your total value of $321,437.63?

A. That is right, Mr. Fitzhugh.

Q. Now, there is one other item that I don't believe we have referred to. What are the items you said you failed to depreciate, besides the excavation?

A. I don't have a copy of that, Mr. Fitzhugh. I believe it is—the per cent opposite each item there is listed.

Q. The items where you show no percentage depreciated will be the items that you failed to depreciate, would they not?

Yes, sir.

Q. Those are excavation, precast concrete piling, con- [fol. 835] crete, wood forming, metal forms, open centering,

A. No, sir, that is the excavation. In a concrete frame the form work, the metal forms and the open centering is the false work that you put up and put your concrete and then wreck.

[fol. 836] Q. You also show no depreciation on carpentry work?

A. That is right.

Q. Or reinforced steel, and I believe that completes the list, doesn't it?

A. Yes.

Mr. Griffith: By carpentry work, Mr. Fitzhugh, do you mean the carpentry work on the foundation forms?

Q. I don't know. Just what does that mean, Mr. Dyer?

A. That is the rough carpentry work. The rough carpentry work is not a permanent item in the building.

Q. What do you figure, Mr. Dyer, is the total life of a building such as the Lone Star Gas Company building?

A. I couldn't answer that, Mr. Fitzhugh, because I am not old enough to where I have seen a building that stood up very long of that nature. We have not been building that type of building but for the last twenty years.

Q. It has been built now how many years?

A. I don't recall when the first unit was built, but the second unit was built in 1927, I believe.

Q. The first unit was built back about 1923, wasn't it?

A. 1923 or '24; about that time, yes.

Q. So part of the building has been in existence about 11 years?

A. I judge about that time.

Q. And part about seven years?

A. Yes.

Q. Now why do you figure, Mr. Dyer, that there has been [fol. 837] no depreciation of excavation?

A. Mr. Fitzhugh, the excavation is the cost of digging the hole in the ground, and as long as that hole is in the ground serving its purpose, there shouldn't be any depreciation on it.

Q. Is there still a hole there?

A. Yes.

Q. The hole is filled up now, isn't it?

A. No, sir.

Q. It has a building in it?

A. No sir, the building is over it, Mr. Fitzhugh. The hole is still there.

Q. Well, doesn't the depreciation occur on the excavation to the same extent that it does on the building generally?

A. Well, you take your total job and that is what I have done. I have shown a depreciation on the total job of approximately nine per cent; but the excavation, item for item, the excavation should not carry any depreciation.

Q. Well, this much is true, Mr. Dyer, that when you put men to work and excavate in order to get a hole in which to put your foundation, and the base of your building, that afterwards when you pour your concrete and set the foundation and put the building in it, that the excavation is a lost cost so far as that building is concerned, except as it serves the purpose of that building only?

A. That's right. It serves the purpose as long as it is there.

Q. Now when the building wears out, Mr. Dyer, the excavation is gone?

[fol. 838] A. It would not be serving its purpose; that's right.

Q. And to the same extent that the building generally is depreciated or its life is shortened, the life of the excavation and the value of that excavation is shortened to the same extent, isn't it?

A. Yes.

Q. Don't you think then in all justice, Mr. Dyer, to your evaluation, that you should depreciate your excavation in the same amount that you have depreciated the building generally?

A. Well, Mr. Fitzhugh, my total net worth there, under the column of net worth—I am giving excavation approximately a nine per cent depreciation. I depreciated the entire building approximately nine per cent.

Q. Yes, but you did not depreciate the excavation any in arriving at the total of the items. Here is the way I think you have figured it, and see if you agree: Suppose you had taken all the depreciable items or what you term the depreciable items, and found a certain per cent condition for those items—say 85 per cent?

A. Yes.

Q. Don't you think then that you should have applied that back against excavation and some of these other items?

A. No, sir.

Q. Which you have included as non-depreciable items?

A. No, you have to take it item for item. That would not represent a true depreciation on your reproduction cost.

[fol. 839] Q. Where you have in your appraisal reinforcing steel as non-depreciable, you don't mean to say, do you Mr. Dyer, that the steel in the building can not possibly rust or deteriorate in any way?

A. Well, taking it for an item itself, Mr. Fitzhugh, the steel today is just as good as it was when it was put in there, because it is serving the same purpose now as it was the day the building was completed, and as long as it serves its purpose there should be no depreciation on it, but if you look at the building as a whole I have taken approximately nine per cent of that item.

Q. Well is the fact that an item of property is still serving its purpose the basis of your determination of its depreciation or lack of depreciation?

A. I didn't understand you, Mr. Fitzhugh.

Q. I say is the consideration that an item of property is still able to serve its purpose the thing that determines the depreciation or lack of depreciation of an item?

A. Well, if it is serving its purpose as well as it did the day it was erected, and looks as good, and in the same state of preservation——

Q. Well, that is true of the whole building, isn't it? The whole building is serving its purpose, just as well as it did the day it was erected?

A. Yes, that's right.

Q. And if you used that sort of a criterion, Mr. Dyer, you would have to give the entire building a 100 per cent condi-

[fols. 840-841] tion, wouldn't you?

A. The building is serving its purpose 100 per cent, but it is not in the condition it was when it was built.

Q. That's right, and that is also true of the reinforcing steel, isn't it Mr. Dyer?

A. No sir. Only as you consider the building as a whole, there is a depreciation of approximately nine per cent.

Q. Well, grant, Mr. Dyer, that the reinforcing steel may give the appearance of showing no deterioration and is still holding up the building, it is true that it is bound to have suffered some small amount of wear and tear?

A. I don't think so.

Q. It has had the stress of a very heaving building on it for some eleven years, now?

* * * * * * *

[fol. 842] Q. In the bids which you say you have recently submitted, Mr. Dyer, in Chattanooga and other places, and where you included the five per cent allowances for contingencies—or where you said you did not include a five per cent allowance for contingencies, you have nevertheless made an inclusion of that amount in this appraisal, did you not?

A. I didn't understand your question, Mr. Fitzhugh.

Q. Well, I gummed it up a little bit. I say you said a moment ago, if I understood you correctly, that in the bids you recently made for buildings in Chattanooga and other places, you did not include in those bids a five per cent allowance for contingencies?

A. No, sir.

Q. But you did include that in this appraisal?

A. Yes.

* * * * * * *

[fol. 843] P. McDonald Biddison, a witness for the Defendant, being recalled, testified further upon

Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Biddison, on yesterday you were shown a telegram sent by the Railroad Commission of Texas to the Continental Supply Company, as well as a reply from the Continental Supply Company to the Railroad Commission?

A. Well, that is hardly correct. You read to me a telegram which you stated was sent to the Continental Supply Company, and you showed to me what purported to be their reply.

Q. All right; the telegrams just mentioned referred to discounts available to your company or available to anyone, for that matter, on casing, in which the discount was shown to be ten, ten and two per cent. On yesterday I believe you said you thought our telegram as originally sent was am-

biguous, and the answer was uncertain in its application. [fol. 844] Now, on yesterday we sent another telegram to the Continental Supply Company, asking them to make definite to what the discounts referred to in their previous telegram were to be applied, and today we have this telegram:

"Railroad Commission of Texas, Gas Utilities Division, Austin, Texas.

Retel yesterday casing list to which it referred was our oil country list number twenty-four dated August fifteenth 1932."

Now, I show you here, Mr. Biddison, a copy of the List No. 24 styled on the outside, "List prices, the Continental Supply Company, St. Louis", and ask you to look at this list and see if it does not show the casing referred to on yesterday, and the prices for such casing which were in force as of the date of your appraisal?

A. I don't know whether this sheet of list prices is the one in effect January 1, 1933, or not.

Q. This does show to be the list No. 24, August 15, 1932?

A. It does.

Q. Now you have in your work papers there some place, that information, have you not?

A. This sheet to which you are referring is not the list——

Q. Is your book with the yellow sheets a price book?

A. It is.

Q. Doesn't it show at the top the book from which the prices were taken?

A. It shows the source of the prices, yes.

[fol. 845] Q. And what does it state on the top of your sheet is the source of the prices you have?

A. The one I have on casing here does not show the source of the prices. I do not know which particular one this was taken from, right now. My list prices on this sheet are apparently the same as the List Number 24 you have there, as of August 15, 1932.

Q. Well, Mr. Biddison, if you should consult with Mr. Steinberger or with some of the others of the men that helped you to make this, can you not find out whether or not this is the list actually applicable as of the date at which you made your appraisal?

A. The list which you have cited there containing the prices that are shown in this price list, is apparently the

same list of prices as the one I used on regular lap-weld casing. Now, to find the specific list from which these actual prices were taken, I would have to refer that back to Mr. Richey, who is not here today.

Q. So all these casing prices, then, in the last analysis, will have to go back to Mr. Richey?

A. For details of that nature, yes. I don't think it makes much difference which one it applies to, because I think the lists were the same for all companies.

Q. The base prices shown in the list which you just checked are the same, though, are they not?

A. For lap welded regular casing, they are the same. I [fol. 846] checked those.

Q. And your prices reflect a discount of ten, five and two, instead of ten, ten and two?

A. My prices reflect a discount of ten, five and two.

Q. Instead of ten, ten and two?

A. That is correct.

[fol. 847] The Court: As I understand the method of computation, that means a difference of four and a half per cent on the whole value?

A. I haven't worked that out.

Mr. Fitzhugh: No; it would be different from that.

The Court: I want to get that straight in my mind, if I am wrong. The difference between ten and ten, and ten and five would be four and a half per cent of the whole. If I am wrong, correct it.

A. Well, in the one case the total discount would be——

The Court: There is a little difference—the difference between ten and ten, and ten and five, is four and a half. Now, if you are going to take——

A. The difference between those two sets of discounts would produce net difference in total discounts of, in the one case 26.21 per cent, and in the other case 30.62 per cent.

The Court: Now, what is the difference?

A. The difference is 4.41 per cent.

The Court: I wanted to get at the difference.

Q. At the close of yesterday's session, we were talking about the E. P. Warren No. 1 Well—on page 45, the first one there—the drilling costs of this well, as shown, had a drilling cost of $4.2992 per foot. Of that amount, I believe you said $2.75 was contractor's drilling price?

A. That is correct.

[fol. 848] Q. The remainder then is the Company's cost?

A. That is correct.

Q. Now, what is the cost to the Company made up of?

A. Well, the cost of rig, cost of water and fuel supply, the hauling of casing, the loss of materials——

Q. Do you have the amounts by items?

A. Yes. Cost of rig, $.3941; water and fuel, $.303; hauling casing, $.0775; loss of casing pulled, $.0395; digging slush pit, $.0342; hauling miscellaneous material, $.0919; cementing, $.0256; pull and run casing, $.1379; mud, ream, and clean out, $.0524; miscellaneous expenses, $.0729; field supervision, $.0693; field engineering, $.0643; miscellaneous material, $.1190.

Q. Each of those costs are unit costs, are they not?

A. They are.

Q. Now, was this unit cost for each of these items worked out by a study of a certain number of wells?

A. Yes.

Q. How many wells were studied and where were they located?

A. Fifty-three wells have been studied in that connection, of which twenty-one were in the Panhandle Field, and thirty-two were in the West Texas areas.

Q. Now, you studied the actual records of the Company on those wells, did you?

A. Yes.

[fol. 849] Q. Did you personally make the study?

A. No.

Q. Who did?

A. Mr. Steinberger personally conducted this study.

Q. Was the study carefully made, Mr. Biddison?

A. I am sure it was.

Q. Are you sure it includes all the costs in connection with the drilling of wells?

A. I think it does.

Q. On the fifty-three wells studied, can you think of any cost to the Company that was omitted by Mr. Steinberger's study?

A. There is a cost of the shooting of wells that is not included in these figures I have just been talking about.

Q. But of the items you have named off here in such detail, with the single exception of the cost of shooting, has anything been omitted?

A. I don't think so, with respect to the wells studied.

Q. Adding all these items up, Mr. Biddison, and adding them to the $2.75 per foot, contractor's drilling cost, still does not give your total of $4.2992 per foot, does it?

A. I have, in this field, a drilling contract cost of $2.75, and a Company cost of $1.5492. The sum of those is $4.2992 per foot, as used on page 45. There is nothing allowed for shooting and cleaning on this well.

Q. You say there was an allowance?

[fol. 850] A. There was not.

Q. But, Mr. Biddison, if we add right here, the items you just read off add up $1.4820, instead of $1.5492, which you say they should add to. I am trying to find out what the thing is we don't have.

A. What did you say your addition totaled to?

Q. $1.4820.

A. I think then I must have read to you the West Texas Field figures, which total $1.4819. Suppose I read the figures for the combined analysis of both the West Texas area and the Panhandle area, which are the figures that have been applied to the Chickasha field. I will read the figures which correspond to the same classifications I gave in the previous list, if that will be satisfactory, Mr. Fitzhugh?

Q. All right.

A. $.4159; $.3299; $.0752; $.0451; $.0403; $.0799; $.0736; $.1094; $.0379; $.0735; $.1055; $.0872; $.0758; with a total of $1.5492, compared with the total for the ones I previously read of $1.4819.

Q. Was any allowance made anywhere in the drilling of this well, Mr. Biddison, for contingencies and omissions?

A. Yes, sir.

Q. Was that made at the end of your classification, or separately for each well?

A. The allowance for those contingencies in drilling, so [fol. 851] far as the Company's cost was concerned, is included in the figures of the unit cost per foot for these various operations which I have read to you.

Q. So that each unit figure given does include omissions and contingencies?

A. It does.

Q. In what amount?

A. I will read you the percentages applying to the different classifications of work in the same rotation as I have read the other figures of cost: 25 per cent; 10 per cent; 20

per cent; 25 per cent; 20 per cent; 20 per cent; 25 per cent; 20 per cent; 20 per cent; 25 per cent; 20 per cent; 15 per cent; 15 per cent.

Q. Do you know about how those percentages work out over-all—that is, the amount per foot?

A. Well, in the case of the over-all analysis, and of the $1.5492 per foot, those percentages amount to in dollars per foot, $.2475.

Q. Or approximately twenty-five cents a foot?

A. Nearly that.

Q. Twenty-four and three-quarters?

A. Yes.

Q. To get the unit cost in the first place you took the actual cost of fifty-three wells?

A. Yes.

[fol. 852] Q. Then from an analysis of those actual costs you got your unit figures?

A. Yes, sir.

Q. Now, explain to the jury, Mr. Biddison, why it was necessary, after you had gotten unit cost by a study of the actual construction figures, to make an allowance of twenty-five cents per foot for omissions and contingencies? What could possibly have been omitted from your original study?

A. So far as I know, nothing was omitted from the original study. It was not designed to have anything omitted from the original study. But, in the analysis of cost data you determine only the cost of the things from which the data was derived. When you go to apply that cost data to the construction of something else, at different locations, under different conditions, it is good judgment to allow for differences in those conditions that may cause differences in costs and any estimator who does not do that is courting disaster, either for himself as an estimator, or for the people who use his estimates as the basis for bids in trying to finance a proposition.

[fol. 853] Q. Mr. Biddison, if you are going to find unit costs by a study of actual construction or actual drilling isn't it just as likely that the fifty-three wells that you studied represent more than average costs or more than the costs that would be incurred on drilling to be done under different and new situations?

A. Some wells to be drilled might cost less than these; that is true. Some might cost very materially more. But these wells that have been analyzed have not been inclu-

sive of wells which ran wild and produced damages amounting to several times the cost of an ordinary well; they have been just ordinary wells. Drilling a well is a hazardous business, and the application of unit costs of several completed wells when applied to the drilling of 250 or 300 wells requires the application of a generous allowances for contingences which may arise.

Q. How were the fifty-three wells built, Mr. Biddison?—weren't they all just wells that were drilled, regardless of location, over a certain length of time?

A. That is substanitally it; yes, sir.

Q. They were not picked wells, were they, in any sense of the word?

A. They are only picked in the sense that after the Lone Star Gas Company began to accumulate cost data in such shape as it could be properly analyzed, that this is the group of wells for which such data was available. That is the picking that was done.

Q. Isn't it a fact, Mr. Biddison, that the twenty-five cents, [fol. 854] approximately, per foot for omissions and contingencies which you have included as part of the drilling costs really represents a margin of safety to you as an estimator of costs?

A. Absolutely; that is what it is intended to be.

Q. Rather than the amount that will actually be the experience of some one in doing the same sort of drilling of different wells?

A. It is a margin of safety to cover those costs that will probably be incurred on the average.

Q. It is certain, is it not, Mr. Biddison, that none of the twenty-five cents per foot which you allowed for omissions and contingencies was actually incurred on the drilling of these fifty-three wells?

A. I think that speaks for itself; that is very plain; that is the case.

Q. How much is the twenty-five cents per foot, or rather the twenty-four and three-fourths cents per foot, for omissions and contingencies on the Warren No. 1 well?

(Here the witness made a calculation.)

A. About $551.43, if my calculations here are exact.

Q. This is comparatively—this is a medium depth well, isn't it?

A. Yes.

Q. This well is about twenty-two hundred and something?

A. Twenty-two hundred and twenty-eight feet.

Q. You do have wells where the depth is twice this amount, do you not?

[fol. 855] A. Close to that lease, yes.

Q. Is this E. P. Warren well one of the fifty odd wells you studied.

A. No.

Q. The actual drilling cost as shown in your estimate will be $9,578.62?

A. That is correct.

Q. Are you aware, Mr. Biddison, that the books of the company show that the actual drilling cost of this well, which was drilled only a month before the date of your appraisal, was in the amount of $8,651.52?

A. I don't know anything about what the books of the company show with reference to this well and the drilling cost.

Q. I believe you stated you were not estimating from the books at all?

A. That is correct.

Q. Isn't it a fact, Mr. Biddison, that if you had applied the proper discounts on casing of ten, ten and two and had eliminated the twenty-five cents for omissions—the twenty-four and three-fourths cents for omissions and contingencies, per foot, that your nine thousand dollar figure for drilling cost as shown in your exhibit would have been scaled down to approximately the cost as actually shown by the company's books?

A. It is quite evident that if I had applied lower prices for anything my estimate would have been lower; but as for ten, ten and two being the proper discount, as stated in your question, I don't think it is. I think the proper [fol. 856] discount on casing is the one I have used.

Q. Well, isn't it a fact, Mr. Biddison, that if you had figured your casing cost on the basis of ten, ten and two and had omitted your omissions and contingencies, that your $9,578.62 figure for drilling cost would have been scaled down to almost exactly the $8,651.52 figure of actual cost as per the company's books?

A. Well, no, because the change in casing cost does not change in any way that drilling figure. That change in

casing price, if there were any, would produce a change in the figures for material.

Q. Take the total cost figure, then, Mr. Biddison, of $13,094.83, for the whole well, drilling, fittings, casing and everything, if you revised the total cost to eliminate 24.75 cents per foot for omissions and contingencies and applied the discounts as indicated for casing, wouldn't you have come pretty close to the twelve thousand dollar figure shown by the company's books?

A. I don't know what figure is shown by the company's books. It is true that if I had used any lower price than I have for these unit costs I would have had a lower answer, of course.

Q. Well, Mr. Biddison, can't you look at the computation and tell if the indicated revisions were made that you would come to almost the twelve thousand dollar figure?

A. I have made no computation of what change would be effected in the cost of the casing by the difference in those discounts suggested by you. I can't answer that [fol. 857] about the casing.

Q. All right.

A. It is quite evident if you apply a lower unit price you get a lower answer. The amount of it can be computed, but I have not done that.

Q. Where you include miscellaneous cost of $.0758 per foot, what does that miscellaneous include?

A. Well, that covers miscellaneous odds and ends, things that have to be done.

Q. Isn't that about the same as omissions and contingencies?

A. No, sir; it covers other things.

Q. Well, what is the nature of those?

A. Well, I can't tell you, but it is miscellaneous material and labor, so varied in nature as not to be subject to classification under the other general classifications shown for such work.

Q. Field engineering is shown by you to be $.0872 per foot. About what per cent does that engineering appear to be of the total company cost?

A. The figure you show is field supervisions and field engineering, a combined analysis of .0758.

Q. That is miscellaneous, isn't it?

A. No. There is some difference in order in these va-

rious sheets. The engineering for the combined study is .0758 out of a total of 1.5492. That is about five per cent.

Mr. Griffith: Of the company's cost?

A. Of the company's cost, yes.

[fol. 858] Q. What was the field engineering unit cost per foot of the West Texas wells?

A. On the West Texas wells the field engineering is $.0643 per foot.

Q. Throughout your exhibit, Mr. Biddison, you have used a uniform price for contractor's drilling fee?

A. No, not a uniform one. That varies with different fields.

Q. Well, throughout the same field, then, you have used the same drilling cost, have you not?

A. Yes.

Q. Is the Duncan field—that is in Oklahoma, isn't it?

A. It is.

Q. It is a field that is closely knit, a homogeneous field so far as the location of wells is concerned?

A. Fairly so, yes.

Q. In that field the contractors, you say, make the same drilling price throughout the field?

A. Well, I don't think I said that, but I have used a uniform price per foot.

Q. One of the wells in the Duncan field is the A. E. Harp No. 3. In the exhibit introduced by Mr. Connor and Mr. Steinberger at the hearing before the Railroad Commission on this well and several other wells in the Duncan field there was a fifty cent lower drilling cost to the contractor shown on the wells concerned. Now, in your present appraisal for the Duncan field you have used a uniform price. Why has that change been made, Mr. Biddison?

A. Well, I used a uniform price for the field because I [fol. 859] think we would encounter a uniform price in drilling those wells.

Q. Well, the former appraisal recognized the fact that there would be a fifty cent difference in drilling cost on some of the wells. Have conditions changed any in that respect?

A. I don't know that that condition ever existed. Maybe it did. I don't know.

Q. Did you make any examination of the actual records of the company to check that fact?

A. No.

Q. Did you make any inquiry of drilling contractors actually operating and who have drilled wells in the Duncan field?

A. Not personally, no.

Q. Well, was it done at all so far as contractors drilling in that field was concerned?

A. No, not drilling in the field. I don't know how long it has been since there has been any actual drilling in that field.

* * * * * * *

Q. Mr. Biddison, it is a well known fact that when you drill a well you take bids from contractors just the same as you do on any other sort of construction; isn't that a fact?

A. You may or may not.

Q. Well, wouldn't you expect plenty of variation in the cost of drilling wells?

A. No.

[fol. 860] Q. Does it stand to reason, because you could drill one well in the Duncan field, for example, at a certain cost, that you could drill all wells at the same cost? I mean, there is no such thing as an established contractor's cost?

A. Why certainly, there has been in almost every field in which wells are drilled, an established contractor's price.

Q. Well, what would be the use of taking bids on a contingent basis?

A. Well, there isn't much use in doing it on oil wells. It is sometimes done, but it is not ordinarily done.

Q. Mr. Biddison, don't you know as a matter of fact that it is always done?

A. I know as a fact that it is not always done. That is because the owner has confidence in a contractor.

Q. Well, there are many fields in which that is not done?

A. There are plenty of them in which there are men in whom you can place a certain amount of confidence.

Q. Yes, and in those where your company is doing actual drilling, don't you take competitive bids?

A. I don't know how they are doing it now.

Q. Turn to page 94, please, sir. That page starts out, does it not, with the inventory of equipment located in the Panhandle field of Texas?

A. It starts the details of that, yes.

Q. In the inventory of the first well appearing on the first page of the Panhandle field section is listed a gate [fol. 861] valve, screwed, Hughes Tool Company, 2,000 pounds, non-rising stem. The unit cost for that valve is $405.72. Now, where did you find the description of that valve?

A. Where did I find the description of it?

Q. Yes, sir.

A. That description was obtained by examination of the valve. I sent men out in the field to check those.

[fol. 862] Q. All right. Does the inventory that you have included in the exhibit show exactly the same notation as your field inventory, which I believe you said was made by actual field check?

A. The previous inventory was revised as to descriptions on items of this sort from notes taken by men who went to the wells to determine the proper description of the items.

Q. All right; do you have the original notes made by the men in the field?

A. No here, no.

Q. Don't you have those in your working papers?

A. No.

Q. Is there any way to check at all, Mr. Biddison, to find a fuller description of this valve, than the one given in the inventory on page 94?

A. Well, I don't know what fuller description would be needed to identify it. We might send somebody up there to look at it and take a picture of it. I think this is pretty well identified.

Q. In the appraisal introduced before the Railroad Commission, Mr. Biddison, it shows on this same valve this notation: "Gate Valve, Screwed, Hughes Master, 8-inch, 500 pound working pressure". I believe that completes the notation. Has there been a change in the valve since the time of that inventory?

[fol. 863] A. I think not, but there has been a change in the description of that valve, based on an inspection of that identical valve because of the description that was used in that previous inventory to which you refer. The description previously given left the question open as to whether or not some of these valves referred to as Master Valves were or were not Drilling Valves.

Mr. Griffin: And you wanted to remove all doubt, as far as this case is concerned?

A. Yes. So we had them all investigated.

Q. You do not have the results of your investigation you say?

A. The results of the investigation are shown in the description given in this appraisal.

Q. Well, the other inventory, the one that was submitted before the Railroad Commission, was the result of some investigations, too, wasn't it?

A. Yes, but the descriptions given in some cases were not as complete as they should have been, and as the result of that I had the investigations conducted, to get the proper descriptions of those valves.

Q. This appears, then, in your present appraisal as a correction of the old appraisal,—is that right?

A. That is right.

Q. What is a Drilling Valve?

[fol. 864] A. A Drilling Valve is a valve having a throat opening large enough so that the drill tools may be passed through the valve without injury to the valve disks or the valve seats.

Q. What is the difference between a Drilling Valve and a Master Gate Valve?

A. Well, a Drilling Valve has the feature to which I referred, that you may run a drill through it—drill tools through it without injury to the disks or to the seat, and the Master Valve is simply the main valve on a well, and it may be a Drilling Valve or not a Drilling Valve; it may be screw or flange, or any other kind. The Master Valve refers to its position, while a Drilling Valve is the description of the character of the valve.

Q. Now, on page 98 you show further down on the page, under Adams and Prince—Burcham No. 2, a Gate Valve, screwed, Westcott 10 by 8¼ inch drilling, 800 pounds working pressure. What does the 10 by 8¼ inch refer to?

A. In that case that means that this valve has a ten-inch body, but threaded on the ends for 8¼ casing. It the same general idea of a .38 revolver on a .44 frame.

Q. Where did you get then, Mr. Biddison, your unit cost [fol. 865] of $495.88 for this same valve?

A. (After examining working papers.) Well, I don't known where this price came from. I think this should have

been priced at $445.90, this being the nearest list to suit that description.

Q. What is the $445.90 the price of?

A. The price of a 10-inch nominal Westcott, steel, solid wedge, non-rising stem, 1000 pound. It is a drilling gate valve.

Q. After discount.

A. Yes, the net delivered cost.

Q. What was the price before discount?

A. $455.00.

Q. What do you mean by 10-inch nominal?

A. I mean a 10-inch body. It may have the ends reduced to smaller size casing.

Q. Has that a price in the catalog, Mr. Biddison? I will ask you to look and see if the ten inches which you just referred to doesn't apply to the part of the valve having the connection with the casing, being capable of taking a 10-inch casing.

A. It is capable of taking 10-inch casing, yes.

Q. Rather than——

A. This 10-inch nominal pipe size as here listed for these drilling valves will take 9⅝ to——

Q. But this valve in your inventory, Mr. Biddison, as [fol. 866] already testified to by you, is supposed to take 8¼ inch casing, you say?

A. That is right.

Q. You say that the 10 by 8——

A. 10-inch valve with 8¼ inch casing threads.

Q. All right. Now, then, you will have to pick out the valve in these quotation sheets which will take 8¼ inch casing, will you not?

A. If you have got a valve with a 10-inch body and have it threaded for 8¼ inch casing.

Q. The quotation which you just gave for the 10-inch nominal valve is for 500 pounds working pressure and 1000 pounds test, is it not?

A. That is right.

Q. But the valve that appears in your inventory is 800 pounds working pressure. Now, doesn't that mean something?

A. Yes, it does, and I have been trying to find it in the 1000 pound list.

Q. Well, now, look under 800 pounds working pressure, 8¼ inch nominal size, and see if you don't find the valve you are looking for, listed at $342.00, minus two per cent, or discounted two per cent.

A. I don't have such a list as that.

Q. Do you have a list at all for 800 pounds working pres-
[fol. 867] sure?

A. I have a Walworth listed at 800 pounds working pressure.

Q. What does that give for an 8¼ inch valve?

A. A Walworth 8-inch body valve—drilling valve, net delivered cost, is $335.16.

[fol. 868] Q. Now that valve, that Walworth valve takes the same price as the Westcott valve listed in your inventory, does it not? The very valve we are talking about?

A. No, I don't think it does. This valve is a reducing size valve, as listed.

Q. This valve is marked in the inventory as a drilling valve?

A. Yes.

Q. And not a reducing valve.

A. It is marked both ways—10 x 8 drilling valve.

Q. Well, at any rate, without wasting any more time on this particular one, Mr. Biddison, what you have really priced here is a ten inch 1000 pound working pressure, $506.00 list, minus two per cent, valve, and get your final unit cost of $495.88?

A. I think that is what has been done, yes.

Q. And what should have happened, instead of doing that, would be to price the valve as an 8¼ inch 800 pound working pressure valve, at a list price of $342.00 minus two percent for discount, to get a final price of $335.16?

A. Well, I do not find before me a Westcott price list on the 800 pound working pressure valve. There apparently has been a substitution in price made on that item.

Q. Mr. Biddison, you claim to be a man of great experience—don't you know that the Westcott and Walworth valves take the same price?

A. They do for the same class of valves on the same list, yes; but the Walworth valves have been developed with a [fol. 869] style of construction which is different from that formerly used by Westcott when they furnished valves with one body size, built down in the mold for smaller size pipe connections.

Q. If I show you the discount sheet of November 1, 1933, Catalog No. 3 of Continental Supply Company, would that help you any to answer my question?

A. This list would not apply to valves of that type.

Q. Why won't it?

A. Because the valves are not of that type.

Q. Well, what does this list apply to?

A. It applies to drilling valves, but not to reducing drilling valves.

Q. If I understand you correctly, you say this catalog applies to drilling valves?

A. That list you showed me.

Q. You have actually priced this as a drilling valve at the price you have it in your appraisal?

A. Yes.

Q. Except you have a different working pressure valve?

A. That's right.

Q. If you re-priced it, still as a drilling valve, to the new working pressure, won't you make the corrections we have indicated?

A. I can't price that particular valve from that list, which does not apply to this class of valve.

Q. It certainly applies to the valve you have listed in the inventory, doesn't it?

[fol. 870] A. It certainly does not apply to that valve; that is the point.

Q. Why do you say that the Westcott valve, designated as screw, 10 x 8¼ drilling valve, 800 pounds working pressure, non-rising stem, and that is the whole designation which appears in the inventory—why do you state that is a reducing valve?

A. Because it so states in the inventory—10 x 8.

Q. On the same page, Mr. Biddison, just a few lines above, there is a valve designated as screw Westcott 10 x 8 drilling, 500 pounds working pressure, non-rising stem. Do you see that valve?

A. Yes.

Q. Is that a reducing valve?

A. It is.

Q. Is it priced as a reducing valve?

A. It is not.

Q. It is priced as a drilling valve, isn't it? These valves that we are talking about now, Mr. Biddison, are valves that

appear lots of times throughout the appraisal; isn't that true?

A. Yes.

Q. And what would apply to one would apply to all?

A. In general it would, yes. Well, I haven't any list of a 500 pound Westcott drilling valve.

Q. Mr. Biddison, I asked you about that valve to try to call your attention to the mistake you made in the first valve, but don't you in checking this list find that you have made another error in the last valve also, and that it has been [fol. 871] priced instead of an eight inch as a six and a quarter inch 500 pounds working pressure?

A. Apparently it has been.

Q. Well now, anyway, to get this matter straight, Mr. Biddison, just to show what has happened here, I wish to show you the front of a valve catalog by Westcott. Now the first number that appears in your designation in your inventory, where you said 10 x 8¼, the 10 part means the size of the body of the valve, right here (indicating on picture)?

A. That's right.

Q. And the 8¼ applies to this portion of the valve where you actually make the connection to the casing?

A. That's right. That is what constitutes a reducing form of drilling valve.

Q. What was that now—let's see now if that's right. Say that over again, please sir.

A. I say that is what constitutes the reducing form of drilling valve.

Q. You mean where the size of the body is larger than the size of the valve at the point where the casing is connected, it is a non-reducing valve; is that it?

A. No, that is not what I mean, at all.

Q. Or the reverse of that?

A. I mean where you take a valve with a ten inch body, and reduce the valve to take a smaller size of threaded pipe, you have a reducing type of valve, and that is the form in which Westcott valves were made for a number of years.

[fol. 872] Q. In your catalogs, Mr. Biddison, do you have a picture of a reducing valve?

A. I do not have catalogs with me; but I doubt if they would be shown in the recent catalogs.

Q. Doesn't a reducing valve designation mean, Mr. Biddison, simply that the valve has a smaller opening and will

take a smaller size of pipe on one side than it will on the other?

A. No, it does not mean that at all. It means that the valve in say a 10 x 8 drilling valve or a reducing drilling valve, that you have a 10 inch valve, but that it is tapped at both ends for 8 inch pipe.

Q. Well now, to get back to the valve we were originally talking about, Mr. Biddison, this ten by eight and a quarter, 800 pounds working pressure; what do you conclude should be the correct price applied on that?

A. Well, I can not give you an exact conclusion on that at the moment, because I do not find any Westcott list on 800 pound working presure drilling valves. I have one for 500 pound working pressure 1000 pound test, and I think there must have been some substitution which I have to find the reason for—some other schedule, which will be a comparable schedule.

Q. You do have the Walworth quotation, don't you?

A. Yes, I have Walworth drilling valve schedules.

Q. What does the Walworth schedule show for an 8¼ inch casing size, 800 pounds working pressure?

A. $335.16, delivered price.

Q. And isn't that the price that you should have used for [fol. 873] this Westcott valve?

A. No, because that Westcott valve is a reducing valve. If it were not of the reducing type—if it were of the later type of Westcott valve, I believe it would take the same schedule.

Q. You say this Westcott valve is no longer manufactured?

A. No, I didn't say that.

Q. Is it still being manufactured?

A. Westcott valves are still being manufactured but the design on drilling valves has been altered.

Q. When did that alteration take place?

A. I don't know. Several years ago.

* * * * * * *

Q. We still don't have a final price on it, your Honor. On page 100, Mr. Biddison, screw Crane, 10 x 8¼ drilling, 1600 pounds test, double disc, led ends, non-rising stem, priced at a unit cost of $717.36. How did you find the price on that valve?—Mr. Biddison, maybe just to save time we could arrange it this way: will you over the noon hour

pick out any three drilling valves, exclusive of Hughes and Jarechi, and show how you obtained the price on them?

A. Yes.

* * * * * * *

[fol. 874] Q. Mr. Biddison, before noon, I believe I asked you to give us the prices on any drilling valves, together with the way in which you obtained the prices on same; did you obtain those?

A. I think I have it here. On page 98, the valve to which you had previously referred—Westcott 10 x 8¼ inch Drilling 800 lbs. working pressure, non-rising stem,—there was not made up for purposes of this appraisal a price-list on each and every kind and size and weight of valve; and for Westcott 800-pound drilling valves of this type I do not have a price sheet worked up. There are a few of those valves in this group of property; therefore, in pricing, a substitution was made of a Kerotest price on a 10-inch drilling valve, net cost $495.88. Now, I do have a price-list worked up on Westcott Drilling Valves of the 500 pounds [fol. 875] working pressure, and the price for such a valve is $445.90. The price for the 800-pound test valve would be considerably higher than on the 500-pound test valve. Now, on the same page on the Burcham No. 1 Well, the Westcott 10 x 8 in. Drilling 500 pounds test working pressure, which has been priced at $245.00, should have been priced at $445.90. The price shown opposite that valve is taken from the correct list, but they apparently missed a line in crossing over to get the price.

Q. In other words it should have been priced at two hundred dollars more than you have it priced?

A. That is correct. On page 100, in the Burcham No. 2 Well, is listed a Crane 10 x 8¼ in. Drilling 1600 pounds test. I do not have the worked up price-list on Crane Drilling valves, and a substitution was made on this item. The substitution was made from the list on Kerotest valves, 10-inch, 2200 pounds, $1770.36, from a list of 3,000 pound test valves. The substitution on this should probably have been made from the 2,000-pound test list, which is the nearest test to the 1600-pound test, and the price would have been $674.24. On page 106, the J. W. Curry No. 3 Well, there is listed a Crane 8-inch Drilling Valve, 1600 pounds test, priced at $539.00. This price is taken from a 3,000 pounds test list, and should have been taken, as the nearest corresponding

[fol. 876] list, from a 2,000 pounds test list, with a price of $405.72.

Q. You mean the correction there should be to $405.72 from $539.00?

A. The correction should be to $405.72, on page 108. On page 108——

Q. Just a minute before you leave that, Mr. Biddison. The valve just priced by you was corrected to the 2,000 pound test, where it is listed as 10-inch, at a price—correction—to an 8¼, instead of 10-inch, where it is shown at a price of $414.00. Now, if you had, instead of that, taken the 8¼ inch from the 1600-pound test, wouldn't you have gotten the price of $342.00 as the base price?

A. From this catalog you are showing me, yes.

Q. Now, your inventory does show a 1600-pound test?

A. Yes.

Q. And the price you used was on a 2,000-pound test?

A. Yes.

Q. So if you used the 1600-pound test schedule, you would get a still lower price than the one you got, wouldn't you?

A. Yes.

Q. And less discounts what would that make the cost of the valve?

A. I have not made a note of that figure you have there.

Q. $342.00.

A. (Figuring) $335.16.

[fol. 877] Q. Have you anywhere in your price-list, Mr. Biddison, an 8¼-inch 1600-pound test drilling valve priced out—any make?

A. Yes; I do have Walworth 1600-pound test.

Q. Eight and a quarter inch?

A. Yes; $335.16.

Q. That is exactly the price we quoted, isn't it?

A. Yes.

Q. And isn't that the correct price that should be given this, instead of $539.00?

A. I believe it is. I was explaining the list from which the substitution should have been made—that procedure they went through.

Q. What size casing was on that valve now, Mr. Biddison?

A. Eight and a quarter inch, 32 pounds.

Q. And what was the size of the screw ends on the valve?

A. Threaded for 8¼ inch casing.

Q. Would that be a 10-inch body then?

A. No; that is not a reducing type of drilling valve.

Q. Well, as you conceive this valve, it has an 8¼-inch body, and 8¼ inch ends, and it has just an 8¼ inch sleeve, hasn't it?

A. It is eight and a quarter all the way through; while a 10-inch valve would be a ten-inch valve simply reduced in the opening to take 8-inch threads.

[fol. 878] Q. Now, a drilling valve is supposed to be a valve that has the moving parts within the moving body so recessed as to get the valve seats movable parts out of the way of any drilling stems dropped through the body of the valve?

A. That is right.

Q. If you had a valve which was more or less a constant size, or sleeve type valve, it would not be a drilling valve, would it?

A. It depends upon whether it is built as a drilling valve. If it is built with the valve seats recessed back in the body so as to be protected, it then constitutes a drilling valve. Now, drilling valves can be made in two ways: Originally, drilling valves were made by taking a 10-inch valve, and instead of tapping it out for 10-inch pipe, tapping it out for a smaller pipe. That was the first type in use, and probably the best type in use yet; but because those were very expensive the ordinary line of valves has been somewhat modified so as to recess the valve seats back into the body, and thus provide a straight opening so that the drilling stem may pass through without touching the seats. Those are the two general types of drilling valves. The first type is, of course, a heavier valve, for the same working pressure, because it is one pipe size larger.

[fol. 879] Q. Then, this valve since it is designated as drilling in the inventory, it is supposed to be a recessed valve?

A. Yes, sir.

[fol. 880] Q. All right now, in the valves that you just cited previous to this one, in each of those cases didn't you price an 8¼ inch drilling valve, Mr. Biddison, at the price contained in the quotation sheets for 10 inch?

A. No, I priced a 10 x 8¼ valve at the price contained in the quotation sheets for a valve of that style, which is a ten inch body. That same valve could be tapped out for 10 inch

pipe and be used as an ordinary ten inch valve. It would not then, however, be a drilling valve.

* * * * * * *

[fol. 881] Mr. Fitzhugh:

Q. Just to sum this up, I will ask you a blanket question. Haven't you in every case, Mr. Biddison, where you have purported to have priced an 8¼ inch valve, priced it as a 10 inch valve?

A. I didn't get that question.

(Reporter reads the question)

Q. And I am talking about drilling valves.

A. No. Not at all; not at all.

Q. Well, where your screw end is 8¼ inch, and the valve body is listed in the inventory as 10 inch, haven't you priced all those valves as 10 inch valves on the screw end?

[fol. 882] A. They are priced under those conditions as 10 x 8 drilling valves, which bears the price paid for a ten inch valve, because it is a 10 inch valve simply bushed down in the casting to take an 8 inch pipe. Where it is listed in the inventory as an 8 inch valve, it is not priced in the appraisal as a 10 inch valve.

Q. Have you gone over this enough to know that Mr. Richey will say the same thing on the same valves?

A. Mr. Richey can not testify as to the prices put in here. He can testify as to the derivation of the prices here used.

Q. How is that now?

A. Mr. Richey can not testify as to the prices, as they are applied in this valuation; he can testify as to the derivation of all those prices.

Q. Well now, if I understand it, Mr. Richey took the catalog and the quotation sheets, together with the discounts the company receives, and computed for you, following instructions you gave him, the unit prices you actually applied for valves and perhaps other equipment?

A. Yes, Mr. Richey compiled the price book on materials. He is not responsible for the application from the price book to the quantities of material in the inventory.

Q. All right.

Mr. Griffith: In other words, Mr. Biddison, if there is any mistake in the application of the price book prices to the inventory materials, you will have to bear the burden of that?

*

705

A. Yes, that is correct.

[fol. 883] Q. Well now, let me get this still a little bit clearer: Mr. Richey is the one that is personally responsible for the prices which now appear in the price book?

A. Right.

Q. And you are responsible for the prices taken from the price book, as applied to the inventory?

A. That is correct.

Q. Turn to page 276. That, I believe Mr. Biddison, is your recapitulation sheet or your summary sheet for drill repair and cleanout tools?

A. Yes.

Q. How much of the equipment there shown in the total amount for the different fields is used for the purpose of drilling new wells?

A. Well, there is very little of it in any fields that could be used for that purpose.

Q. Could you say how much?

A. No, I could not.

Q. How much of that equipment is used solely for repair and clean-out purposes?

A. Practically everything that is listed.

Q. Could you make a separation as between the equipment that is used for repair and clean-out, and that which is used for drilling purposes?

A. No, because it may be used interchangeably. Anything used in drilling could be used for repair and clean-out work, [fol. 884] and a great deal of the equipment used for repair and clean-out work could be used for drilling.

Q. In the previous appraisal, introduced before the Commission, for the same equipment and property you arrived at a total amount of $90,132.82.

A. Not me. I had nothing to do with that appraisal.

Q. Well, your company did.

A. That might be.

Q. That was divided, $58,324.24 for drill tools and equipment, and $31,808.58 for repair and clean-out tools. Is it your opinion, Mr. Biddison, that about the same proportion still prevails as between those two classes of property?

A. Well, you could divide this thing up so as to get that proportion, but it wouldn't mean anything, when you so divided it, because all this equipment in here is usable for repair and clean-out work, and necessary to be had by the company for that class of work

Q. Was any of that equipment listed on page 276 of your appraisal used in drilling the wells of the company as shown in your appraisal?

A. Some of it may have been. It was not used up, however.

Q. Well, do you know whether it was used or not?

A. No, I do not. It could not have drilled very much.

Q. Well, the $2.75 per foot price for the contract price of drilling which you have used in your appraisal includes the depreciation, return and every other expense in connection with the use of drill tools, doesn't it—that is, the contractor bears all of that expense?

[fol. 885] A. On his own tools, certainly.

Q. That is not a cost that the company has to bear, in addition to the $2.75 per foot?

A. No, not on the contractor's tools.

Q. Where the company property has been used in drilling in the past to bring into being the wells now in existence, and where the expenses of operating that drilling equipment, and all maintenance and the cost of replacements and repairs on such machinery, together with depreciation requirements, have been taken care of by operating expenses in the past, is it your testimony now, Mr. Biddison, that that property is property capitalizable and proper to be included in a rate base in an appraisal made for the purpose this is made?

A. Why, if the company has property on hand, I cannot conceive how it could make any difference what previous use has been made of it. If they have it on hand, and if it is theirs, and if it is property used and useful in the public service, it is proper to include it in a rate base.

Q. To put it another way, Mr. Biddison, if you include all drill equipment in a classification of property and arrive at a value for it, and include it in your appraisal, and at the same time forget the company has that property and use a contractor's price, which contractor's price includes all depreciation, wear and tear and cost of maintenance and operating of drilling tools in reproducing the drilling of the [fol. 886] company's wells, and include it as the cost of well equipment, haven't you a duplication to that extent?

A. No sir, not one iota of duplication. Now, if I included as repair and clean-out tools, all the tools and equipment that were required for the drilling of the 270 odd wells that the company has, after having written off the bulk of that

equipment as part of the expense of drilling wells, then there would be a duplication. But what we are talking about here is not equipment used up in the drilling of those wells, but the equipment not used up in the drilling of those wells, and I think this equipment stands in exactly the same light as if, upon the completion of the construction program, there were no equipment left over and the company then went out and bought this much.

Q. Isn't your method, Mr. Biddison, of applying a contractor's drilling price the same as if you had regarded the drilling tools of the company as separated from the property of the company and owned by some other company or corporation, or let us say, the well-drilling section of the Lone Star Gas Company?

A. Yes.

Q. In other words, you have regarded that property as serving in the same way and for the same purposes as a drilling contractor would use the property?

A. Yes.

Q. But a drilling contractor's property is not property to [fol. 887] be included as public service property, is it?

A. No, and I have not included any drilling contractor's property in here; but I have included only the property of the Lone Star Gas Company.

Q. You have included the company's tools, when they are using the tools, as you have applied it in your appraisal, just the same as if separately owned?

A. These are not the tools that drilled the 270 odd wells of the company. This is a little remnant of drilling equipment, some of which may have been used to some extent in drilling, but it represents only a very small fraction of the equipment required to drill 270 wells.

Q. Didn't you say a moment ago, Mr. Biddison, that you did not know what these tools were used for, and whether they drilled any of the company's wells or not?

A. I said I did not know whether they had drilled any company wells or not, but I certainly know that 95 to 96 Thousand Dollars worth of equipment did not drill 270 some odd gas wells.

Q. Turn to page 296, gathering system rights of way summary, where you show the gathering system rights of way for the Panhandle field of Texas, in the amount of $2,778.00. How did you find that amount?

A. These values are determined by taking the book cost of right of way purchased for those lines, and multiplying that figure by three, to obtain the estimated cost of purchasing these pieces of right of way; to include the expenses of [fol. 888] making the purchase, and the damages to be paid as a result of construction.

Q. Didn't the expenses as shown by the books show all expenses in the first instance?

A. No, they showed the cost paid to the land owner.

Q. Don't they show the cost of acquisition?

A. I believe not.

Q. Don't they show the cost of registration of deeds, and the examination of titles.

A. The figures as taken off and here used are the amounts paid to the land owner for this right of way.

[fol. 889] Q. Don't they include damages?

A. These figures do not include damages, and we have multiplied the figures by three so as to include damages.

Q. Well, how did you determine, then, that in order to find the proper conclusion to make for all these items, that multiplying the book cost, or the cost as shown by the books of the company, for amounts paid to the owner, would be an exact multiplication of that amount by three?

A. Well, in the first place, I didn't find it out to be exact, but I know from my own experience in the purchase of right of way that the amount paid to the land owner constitutes about one-third of the total cost of right of way.

Q. You take that figure as an average, do you?

A. Yes, sir.

Q. Does that include clearing?

A. That includes a slight amount of clearing. It will not cover clearing in heavily timbered country.

Q. Well, did you arrive at your conclusion from your experience in Louisiana?

A. From my experience in Ohio, Pennsylvania, West Virginia, Kansas, Louisiana, Mississippi, Alabama, Georgia, Florida, Mexico, and Texas.

Q. In the Louisiana work that you did the most of it was through quite heavily timbered country, wasn't it?

A. It was.

Q. Did you find that three times the cost of right of way to the company was sufficient to cover clearing in that territory?

[fol. 890] A. I did not. I found in that territory it cost from three to ten cents per lineal foot for clearing right of way and an additional charge would be to cover stumping at the site of the ditch.

Q. How much do you think would be required in fixing up a right of way in the Panhandle?

A. Very little, sir.

Q. Would there by any at all?

A. Yes.

Q. In any of the Texas territory is the clearing—does it amount to much at all?

A. In some parts of Texas, yes, it is very severe.

Q. I mean over all.

A. Well, it is not comparable to the amount of clearing in Louisiana, but in some parts of Texas we have heavy timber. There is a great deal of West Texas and Northwest Texas that has a good deal of scrub timber, which is just about as expensive to clear as heavy pine is in Louisiana.

Q. On page 303, in testifying about field measuring station structures, I believe you testified that $2.86 per hundred board feet covered the cost of installation of material?

A. Well, that was for some particular grade of lumber. I don't remember particularly which one right now.

Q. Well, for instance, on that page the first field measuring station structure shown is the Alma Petroleum Company Parks No. 2, shown at $60.87. How would your installation cost work out on that structure?

A. Framing lumber for this structure, two by four mate-
[fol. 891] rial, is quoted by Hudson-Houston Company at Rush Springs, Oklahoma, for No. 2 material, the delivered price is $3.50 per hundred board feet. From this is deducted two per cent cash discount. Then there is allowed——

Q. Wait a minute. The installation cost is all we want.

A. I thought you wanted the total cost.

Q. No. We can save some time there.

A. The installation cost is estimated at $2.79 per hundred board feet, or $27.90 per thousand board feet.

Q. Now, then, how did you find that?

A. That is based upon an estimate of one first-class carpenter, one second-class carpenter, and one carpenter's helper for fifteen hours each per thousand feet board measure of lumber, at rates, respectively, of sixty, forty-

five and thirty-five cents per hour, producing a direct labor charge of $21.00 per thousand feet board measure. To this is added 10.8 per cent supervision, 4.6 per cent tools and supplies, 8.8 per cent for construction plant expenses and 8.48 per cent for liability and compensation insurance. To this is added two and one-half per cent for omissions and contingencies, producing a total cost in Texas of $2.86 per hundred feet board measure. In Oklahoma, with the same direct labor, with the addition of field supervision charge of 10.7 per cent, tools and supplies at 4.6 per cent, construction plant expenses at 8.7 per cent, liability and compensation insurance at 5.59 per cent, omissions and contingencies at 2.5 per cent, I arrive at a cost per thou-
[fol. 892] sand feet board measure of $27.90.

Q. Now, if I understand you, Mr. Biddison, there is one first-class carpenter, another ordinary carpenter and a carpenter's helper, all working fifteen hours to lay one thousand board feet?

A. That is correct.

Q. Now, how do you know that that is the correct amount of time required to do that work?

A. Well, I have built several hundred such buildings myself and I have built quite a number of other structures myself, and this is based upon my experience in making structures of this character. On some of those structures it took less time for that amount of lumber, and on others it would take twice that much. This is an average.

Q. What are the structures that you say you built?

A. These are measuring station structures we were talking about. I have built hundreds of them.

Q. Well, whereabouts?

A. Well, I have built them in Kansas, I have built them in Ohio, I have built them in West Virginia, I have built them in Louisiana, in Mississippi, in Alabama, and in Georgia.

Q. Can you refer, Mr. Biddison, to a single instance where you did some construction work which necessitated building of these structures where you kept your cost records?

A. Why, yes; I have kept cost records on this class of work, or had them kept for me, at every place I have been.

Q. Well, can you find any certain number of hours the
[fol. 893] men were required to work?

A. Yes, sir.

Q. Do you have those results with you now?

A. No, sir.

Q. Mr. Biddison, when you say you rely on your experience where you built hundreds of such structures, don't you mean you have been around where such things were constructed without knowing a darn thing about what was going into the cost?

A. No, I don't mean that. I mean exactly what I have said.

Q. Have you any cost records?

A. Yes, I have cost records. I have cost records on everything I have had analyzed.

Q. Can you pull out any sheet of paper that will show the actual performance of men building these houses and the amount of time they spent doing it?

A. No, sir.

Q. Wouldn't it be safer for you to refer to a carpenter's handbook for this figure.

A. No, I think not.

Q. And isn't that what you actually did?

A. No, I did not. I am not entirely unmindful of the value of some of the handbooks in estimating work of this sort, but they can not be used safely by anybody who has not had experience in doing the work. Those handbooks will give you the performance within certain limits, but some judgment must be exercised as to where to place the limits.

[fol. 894] Q. You used in the structures where corrugated iron was installed a cost of $3.54 per square for the installation or corrugated iron, did you not—that is your Texas price, I believe?

A. $3.54 is the Texas price, and $3.46 in Oklahoma.

Q. Now, how did you get your $3.54 Texas price per square?

A. That is estimated upon the basis of one carpenter, first-class for two hours and two carpenter's helpers for four hours for the installation of one square, with the addition of the charges for supervision, tools and supplies, construction plant expenses, liability and compensation insurance, the same as on carpenter work, and an allowance of two and a half per cent for contingencies.

Q. Then you relied, did you not, in this instance on your general experience the same way as in the installation of rough carpenter work?

A. Yes. These are small buildings, with a great deal of cutting and fitting of material, and the labor cost for installation of corrugated sheets is in no way comparable to the installation of sheets on large structures.

Q. Where you have used four hours as the time required by this group of men to install one square of corrugated iron, that is only an approximation, is it not?

A. Certainly, but that is not the figure I used. The figure I used is one carpenter two hours and two helpers during that period, which gives two hours for the carpenter and four hours for carpenter's helpers.

[fol. 895] Q. Turn to Field Measuring Station Equipment, page 351. On Direct Examination you gave the method of finding the cost of equipment on Alma Petroleum Company, Parks No. 2, did you not?

A. I believe I did.

Q. You show on page 351 a Foxboro, Type C Orifice meter, as described on that page, and on this particular installation the Alma Petroleum Company, Parks No. 2, is the first one shown in the itemization, at a cost of $219.74.

A. Yes.

Q. Do you locate that?

A. Yes.

Q. On Direct Examination you said that the delivered price of the meter was $152.7382. How was that figure found?

A. That price was arrived at from a list price, f. o. b. Foxboro, Massachusetts, of $136.44, subject to a discount of two per cent for cash, which is, net, $133.7112. The freight rate is $4.30 per 100 pounds less than carload rate, or on 85 pounds $3.6550, resulting in a net cost at railroad destination for the bare meter with ordinary clock of $137.3662. To this there is to be added for 7-day jewelled clock, $11.47, and for five pounds of mercury to charge the meter, $3.902, producing the total price for this meter, with [fol. 896] 7-day jewelled clock and with the mercury, $152.7382.

Q. Turn to page 354, please, Mr. Biddison, under Field Measuring Station Equipment, for the Chickasha Field, Group No. 4. You have listed an orifice flange and plate. That applies to the wells under that group?

A. Yes.

Q. What is the purpose of that orifice flange and plate?

A. The purpose of that orifice flange and plate is for the attachment of the meter.

Q. Is it in the well line?

A. Yes.

Q. As shown by your inventory, there is no meter attached.

A. That is correct.

Q. Would there be any use for the orifice flange and plate without a meter attached?

A. Well, it is there for the purpose of the attachment of the meter when the meter is desired.

Q. At this time, though, as shown by your inventory, there could have been no use for that flange and plate, could there?

A. It was not in use as a measuring device, apparently, as of the particular date of the inventory.

Q. As a matter of fact, hasn't the whole line been removed?

A. I think not. I had all those lines checked for that [fol. 897] purpose, to find out.

Q. Well, now, where is the field line that this group appears on?

. . . . . .

Q. Mr. Biddison, we were talking just before the recess about the orifice flange and plate shown for the Group No. 4 wells on page 253—I mean page 354, being the Field Measuring Station Equipment in the Chickasha Field in Oklahoma. I will ask you if it isn't a fact, Mr. Biddison, that these flanges and plates as they appear in the appraisal are just hanging out in mid-air, without any line, meter or anything to support them? In other words, Mr. Biddison, under your Meridian gas lines you do not show any M. G. 14 or 15, do you?

A. No, I don't. I can't answer your question at this time.

Q. All right. Turn to page 406. What was the price you used for the 4-inch 11 pounds per foot pressure pipe, at the top of the page?

A. $.6652.

[fol. 898] Q. This pipe represents the first field line appearing in the appraisal, does it not?

A. It does.

Q. And this is the same unit price that you gave a breakdown on upon Direct Examination, is it not?

A. I am not sure whether it was or not, Mr. Fitzhugh. I believe it was.

Q. Now, the price that you gave on Direct Examination for the price of pipe is given f. o. b. Chickasha, is it not?

A. Well, the price I have used on pipe is Texas common point delivery, as being applicable to the territory in its entirety.

Q. Well, in the case of the Chickasha Field, that is in Oklahoma, isn't it?

A. Yes.

Q. And in that case it would be f. o. b. Oklahoma common points?

A. All pipe in this System has been figured on an 86-cent freight rate as being an average freight rate for all the points on the System for pipe.

Q. Now, the price given, then, on this pipe is f. o. b. the delivery point in Oklahoma or Texas?

A. Yes, sir.

Q. And includes, does it not, besides the cost at the mill, the freight and discounts?

A. Yes, the price which appears on page 406 is the price [fol. 899] of the pipe installed.

Q. Now, what is the price f. o. b. the factory for this pipe?

A. F. o. b. mill, $39.14 per 100 lineal feet.

Q. What is the price as of to-day, f. o. b. the mill, for the same pipe?

A. As of to-day?

Q. Yes, sir.

A. I can not give you f. o. b. mill prices as of to-day.

Q. On any pipe?

A. No, I can give net delivery prices as of to-day, but I can not give at this time f. o. b. mill prices on it.

Mr. Griffith: You say you could give the net delivered prices, Mr. Biddison?

A. Yes, sir.

Q. Well, will you be able to take from those the freight, discount, and so on, so as to get back to the mill price?

A. Yes, I can work that back. I do not have right here with me the freight book on pipe; I have it at the hotel. If I had that here I could work it out right here on the spot.

Mr. Griffith: For your information, Mr. Fitzhugh, a subsequent witness will show present-day prices on pipe in an [fol. 900] exhibit.

Q. Well, do we understand, Mr. Biddison, that you are not accepting any responsibility for the pipe prices used in the appraisal?

A. No, I don't want that impression to prevail.

Q. You are still posing as an expert before this jury, aren't you?

A. I am not posing at all. I am here as an expert before this jury.

Q. All right; you are supposed to be an expert on pipe prices just as much as on anything, aren't you?

A. Yes, but I haven't got every possible figure with regard to prices before me.

Q. Well, give the delivered price, then, on 4-inch 11-pound pipe.

A. I can't even do that at this time on large lot deliveries. I haven't received that tabulation yet; it will be available here this evening.

Q. Can you give the price, delivered, on threaded and coupled pipe, for 6-inch 19-pound 45-pound pressure?

A. As of to-day?

Q. Yes, sir.

A. No. As I say, I do not have that tabulation here in this book.

Q. And for no other size threaded and coupled pipe?

[fol. 901] A. Not as of to-day, no.

Q. Could you on lap welded?

A. Not on large lots, no. I haven't that computation yet.

Mr. Griffith: To make that clear, there are two prices prevailing, one on medium purchases and one on large lot purchases,—isn't that right, Mr. Biddison?

A. That is right; and that comparison has been worked up, but I haven't yet been furnished with a complete set of that comparison.

Q. Well, Mr. Biddison, can you give the prices for 4-inch 11-pound pressure threaded and coupled for medium sized purchases or small purchases?

A. The price as of January 1, 1933 per lineal foot for threaded and coupled 4-inch 11-pound pipe was $.4782; as of June 11th the price is $.4611.

Mr. Griffith: Do you mean June 11th, 1933?

A. As of June 11th, 1934.

Q. That applies to small lots?

A. It does.

[fol. 902] Q. In other words, from January 1, 1934 to June 11, 1934, the price per foot on this size of pipe declined from $4.782 per foot to $.4661 per foot?

A. That is from January 1, 1933 to June 11, 1934.

Q. 1933.

The Court: I think you had better repeat those figures, Mr. Fitzhugh, because I think you got the point in the wrong place, and the record will show up wrong.

Q. To make these two figures comparable before I restate them, do you have the price per foot for this size of pipe that prevailed January 1, 1934—in other words as of the date of your appraisal—that is the date of your appraisal, isn't it?

A. January 1, 1933 is the date of the appraisal, and the price as of that date is $.4782 per foot.

Q. As compared with a price June 11, 1934 of $.4661 per foot?

A. That is right.

Q. Now, what are the comparable prices for the same dates on six-inch threaded and coupled, 19.45 pound?

A. As of January 1, 1933, $.8438; as of June 11, 1934, $.8098.

Q. On the same kind of pipe, give the figures for 8-inch, 25.55 pound pressure?

A. As of January 1, 1933, $1.1662; as of June 11, 1934, $1.0883.

[fol. 903] Q. On 10-inch, 32.75 pound?

A. As of January 1, 1933, $1.5548; as of June 11, 1934, $1.4076.

Q. On 12-inch, 45.45 pound?

A. As of January 1, 1933, $2.2168; as of June 11, 1934, $2.0130.

Q. In other words, on all these sizes of pipe there has been a reduction in the cost of that pipe per foot since the time of your appraisal?

A. On this threaded and coupled pipe, yes, sir.

Q. The reduction on the 12-inch, for example, is approximately ten per cent, is it not?

A. On the 12-inch pipe, the price as of June 11, 1934 is 90.81 per cent of the price as of January 1, 1933.

Q. Yes, sir; approximately between nine and ten per cent reduction in the price?

A. Yes, sir.

Mr. Griffith: All these are prices on threaded and coupled pipe?

A. That is correct.

Q. Now, Mr. Biddison, all your prices on the field line equipment pipe include mill inspection, do they not?

A. They do.

Q. A large per cent of the field line equipment pipe was purchased from other owners, was it not—as a matter of historical fact?

[fol. 904] A. No; not to a large extent; some of it was.

Q. Yes, sir. Now, the field line pipe, or the pipe in the field lines, is the pipe that connects the well to the gathering lines, is it not?

A. It is.

Q. All such pipe is regarded by the company as being more or less temporary, at least as compared with the general transmission line equipment?

A. That is correct.

Q. For that reason, when a gathering line or field line is installed, it is not considered as permanent a proposition as the construction of the transmission line equipment?

A. That is correct.

Q. Now, isn't it the practice of the Company, as a matter of fact, to buy pipe that is non-mill inspected, and in many cases unpainted, for use in constructing the field lines?

A. I think not, from my inspection of the gathering lines and the Purchasing Department, I am convinced that practically all pipe that the Company buys is mill inspected if it is mill shipped.

Q. Regardless of what the Company's policy may be, Mr. Biddison, in the pipe that it purchases for the purpose of constructing field lines, would you have any possible way of knowing what kind of pipe the other owners from which your Company has purchased lines determined they would buy and put into their field lines?

[fol. 905] A. You can determine the type of pipe there by inspection.

Q. Well, hasn't your actual inspection showed that in a large number of cases in purchases of that sort where you bought from other owners that the pipe was unpainted?

A. It has shown that in some cases, yes.

Q. And don't you know, as a matter of fact, that other owners very rarely buy mill inspected pipe?

A. No; I don't know that. I presume that some of the pipe in the lines acquired by the Company by purchase from others probably was not mill inspected when it was laid.

Q. Don't you know, Mr. Biddison, that the other owners make a practice as an ordinary thing of simply trying to get good pipe that is already available and perhaps is second-hand pipe existing in the field?

A. Some of them may have done that.

Q. Nevertheless, you have included on all the pipe appearing in the Company's field line equipment a charge for mill inspection?

A. Yes.

Q. You have regarded all such pipe as being painted, have you not, Mr. Biddison?

A. No; the painting costs set out are not sufficient to completely paint all this pipe.

Q. How much of the pipe would be painted?

A. Well, the painting costs set out are, I think, just about [fol. 906] sufficient to cover the situation that really exists; that is, the bulk are painted, some are painted two coats, and some, I think, are, in actual fact, bare; one would about offset the other.

Q. You have included in your price an allowance for painting?

A. Yes; there is an allowance for painting.

Q. On the Chickasha lines, for instance, the allowance has been $.019140 per foot for painting?

A. What is the figure you read?

Q. I think the correct figure is $.019140 per foot.

A. That is correct.

Q. Is that right?

A. Yes; for 4-inch pipe.

Q. How did you find that allowance for painting, Mr. Biddison?

A. The cost used was determined from an analysis of the painting costs on over two million lineal feet of lines laid by the Company.

Q. How many feet?

A. Over two million feet.

Q. Two million feet?

A. Yes.

Q. Now, wasn't that two million feet of pipe one hundred per cent painted?

A. Yes.

Q. And by applying to the field lines of the Company as [fol. 907] they appear in the inventory the unit price of painting as found in that manner, wouldn't it amount to considering the field lines as one hundred per cent painted?

A. Yes; it would.

Q. Notwithstanding the fact that you know they are not that way?

A. Yes.

Q. Now, this same painting cost as applied to field lines is also used on the transmission line equipment, is it not?

A. It is.

Q. So that when we get to transmission line equipment we will encounter the same painting costs?

A. Same unit painting costs, yes, sir.

Q. Yes, sir. What price did you use for excavation for field lines in the Chickasha field?

A. .9756 dollars per cubic yard.

Q. Did you use that everywhere in the Chickasha field?

A. Yes.

Q. What did you use in the other Oklahoma fields?

A. In the Duncan Field, $.6809, per cubic yard.

Q. What was that?

A. $.6809 per cubic yard. The same for the Fox Field.

Q. What did you use in the Texas fields?

A. In the Panhandle Field, $.9907 per cubic yard. The same in the Petrolia Field. In the West Texas Field, $2.3327 per cubic yard.

[fol. 908] Q. That was $2.3327?

A. $2.3327.

Q. Didn't that last figure include rock excavation?

A. It includes all excavation, whether rock or earth.

Q. All of these figures do that?

A. Yes, sir.

Q. Is there any rock excavation in any of the fields besides West Texas?

A. Yes; there is some in the Panhandle, and there is some in the Fox area.

Q. What then, Mr. Biddison, is the classification of the different kinds of excavation as that applying to these fig-

ures; that is how much rock, and how much hand and machine excavation?

A. It is not classified. The determination of those figures is by a study of the excavation costs on well lines in the Fox Field, the Panhandle Field, and in the West Texas fields.

Q. So you have no idea of the percentage of rock excavation encountered in the West Texas field?

A. No; I have no classification on that.

Q. Do you have any way of knowing, then, Mr. Biddison, whether the lines you studied in the West Texas field are typical lines?

A. Well, they are fairly well scattered over the West Texas Field, and I think from the unit cost figure developed that they are typical.

[fol. 909] Q. But you say that, notwithstanding the fact that you do not know how much rock excavation is to be encountered in that field over all?

A. Yes.

Q. How much footage of line was studied?

A. I cannot give you the number of feet on that; but in the West Texas field it embraced 4,726 cubic yards; I don't have the details of the lineal feet before me.

Q. Did you pick out the lines that were studied?

A. No.

Q. Who did?

A. Mr. Steinberger made the study himself on such lines as the data was available for.

Q. Did Mr. Steinberger make the studies that were applied to the other fields?

A. Yes.

Q. So you take no responsibility, do you, Mr. Biddison, for the classifications of excavation in any of these fields, or for the studies made of the lines laid in the various fields?

A. I could not take responsibility for the classification, there having been no classification made; but I am satisfied as to the accuracy of the study made. I have been over that.

Q. Can you explain how Mr. Steinberger found his figure, $.6809, for the Fox Field, or will we have to ask Mr. Steinberger that?

[fol. 910] A. I can give you the summary of the findings right here if that will meet your requirements.

Q. All right.

A. For the excavation of 1763.6 cubic yards of well lines in the Fox Field, the direct labor consisted of: Foremen, 42 hours at 60 cents; sub-foreman, 100 hours at 45 cents; laborers, 2281 hours at 35 cents; truck-drivers, 79 hours at 45 cents; amounting to a total for Direct Labor of $904.10. To this is added for field supervision 5 per cent; liability and compensation insurance, 5.59 per cent; tools and construction plant expense, 10.9 per cent; the equipment, one ton truck, 80 hours at one dollar; team and driver, 30 hours at 75 cents; making a total for labor and equipment of $1200.90, which is at the rate of $.6809 per cubic yard.

Q. You are fairly familiar with the territory covered by the Petrolia and Fox Fields, are you not?

A. Yes, sir.

Q. Is there any more rock in the Petrolia Field than in the Fox?

A. No; I think there is not as much.

Q. Why would you use, then, 99 cents per cubic yard in the Petrolia Field, as against 68 cents in the Fox Field?

A. Well, the soil in the Petrolia Field is not the same as in the Fox Field, outside of the consideration of the relative amounts of rock.

[fol. 911] Q. What kind of soil do you have in the Petrolia Field?

A. The bulk of it is sandy red clay, and very hard.

Q. What kind of soil in the Fox Field?

A. My recollection of the Fox Field soil is that the bulk of it is light sandy loam, except for the rock portions.

Q. Did you figure, Mr. Biddison, hand excavation for all of the fields?

A. Well, the bulk of this work is hand excavation. There is some equipment with it; and the equipment could be of some assistance in ditching well lines.

Q. Just to sum up all these prices, for the different fields, Mr. Biddison, they represent hand, machine, and rock excavation, without any classification being made for the amounts of each?

A. That is true, except as to the use of the word "machine excavation"; there is no machine excavation in it.

Q. Not a bit?

A. Not a bit. There may be some use of a plow in this connection, but no trenching machines.

[fol. 912] Q. Why is it that th e is no machine excavation in these lines?

A. Because these lines are too short to justify the use of a machine.

Q. If the whole system were being reproduced at one stroke though, as you have intended it would be in computing your prices for the reproduction costs in your appraisal, it would be practical to use machine excavation, wouldn't it?

A. No, sir, it would not.

Q. Wouldn't you have a great deal of lengthy excavation of this sort?

A. No sir, you have a great deal of excavation in very short stretches, with long jumps between.

Q. How long does a line have to be before you can use machinery to practical advantage?

A. That depends on how far you have to move the machine.

Q. Well, suppose that the machinery is easily accessible, and it is right there available; how long would the line have to be before you would prefer the machine to hand excavation?

A. I wouldn't start up a machine to do a job on a line less than six inch, unless I had something in the neighborhood of three or four miles, even if the machine set right there.

Q. On page 482, field line equipment in the Duncan field, where Line D. N. 66, Suction Line is shown, how was that piece of construction done?

A. I don't know. I didn't see it done.

Q. Wasn't a machine actually used in the construction of that line?

[fol. 913] A. I do not know. I did not see it done.

Q. How long is it, as shown in your appraisal—that is, in round figures?

A. A little over seven miles.

Q. That is long enough to use a machine on, isn't it?

A. It might be, if you had a machine setting right there.

Q. Isn't there machinery of the sort needed, closely adjacent to the Duncan field?

A. Yes, but one would not be justified in putting on some of these small lines the size ditching machine you would use on some of those main lines. It would cost you more than it would to do it by hand.

Q. There are some long field lines in the Panhandle field also, aren't there Mr. Biddison?

A. Yes, there are some long field lines in the Panhandle.

Q. And there are quite a number of small machines up there directly adapted for that sort of work. Isn't that true?

A. I don't know about that. There may have been at various times.

Q. Is there any reason at the present time, even in piecemeal construction such as the company may do in that field right now why machine excavation shouldn't be used on those lines?

A. Ample reason. If you are going to ditch some of those well lines by machine, it would cost more there to move that machinery in and out than to do it by hand.

Q. I am talking about the long ones, now; those six to seven miles in length.

A. Oh, it is possible that there are one or two lines up [fol. 914] there in the Panhandle that you could ditch by machine, at an equal cost as you could in doing it by hand.

Q. And that has actually been done in the past, hasn't it?

A. I don't know.

Q. None of the excavation prices used on these field lines were used on the larger lines, such as transmission lines?

A. No, the cost developed here from a study of field lines was applied only to field lines.

Q. And the transmission line excavation prices were obtained from entirely different studies, were they not?

A. Yes.

Q. And as I believe you testified on direct examination, those prices were developed separately for each particular line?

A. The prices per hundred lineal feet, yes, based upon the size of the ditch and upon the proportions of machine work and hand work and rock work.

Q. Now, we would like to have, Mr. Biddison, the derivation of the costs for excavation by the various lines, and I don't know how would be the easiest way to get that. Would it be possible—how many sheets does it take to show that in your work papers?

A. Oh, about 75 to 100.

Q. Well, that is the detail.

A. I do not have it separated from some of the other developments at all. I don't know how many sheets the excavation work is on it, in a segregated amount.

Q. Well, we would like to have the development of the cost [fol. 915] per foot for excavation on each line, the classification and the price applied. The thought occurred to me,

Your Honor, if the witness could tabulate this and just hand it to us, or if the sheets were in condition so they could be photostated or if some such method were made available, it would shorten things and not be so burdensome to everybody.

The Court: Then I hope he will do that, if it will shorten things.

A. I will see if I can work out some of those requirements.

Q. How long would it take you to read that into the record, Mr. Biddison . . would it be very extensive?

A. Yes, it would be.

Q. It would take three or four hours, wouldn't it?

A. Yes.

Q. I had rather avoid that, if we could.

A. Let me consider that this evening, and see what shape I can get that up in.

Q. All right, sir, and will you report that back to us in the morning?

A. Yes.

Q. You understand what we want, now?

A. Yes, I think I understand what you want.

Q. We want the kinds and classification of excavation, and the amounts, by lines, and the cost per unit.

A. I understand what you want, I believe.

Q. Now still looking at page 406, the field line equipment in the Chickasha field, you apply, do you not, a unit cost of [fol. 916] $.033792 per foot for laying?

A. That is for laying and testing four inch threaded and coupled pipe, yes.

Q. How did you find the cost of laying, as applied to four inch pipe?

A. By estimating the cost of a gang of the requisite size to do this work, and by estimating the average performance per day.

Q. Did you give that on direct examination?

A. I think I gave substantially this same information, yes.

Q. You didn't give the gang, did you?

A. No.

Q. Will you now give, Mr. Biddison, the hypothetical gang you organized to estimate this cost? Now, Mr. Biddison, before you start, we want to get the cost for this item on the four inch, six inch, eight inch, ten inch and twelve

inch, and if it would be easier to give the gangs for each as you go along—I mean, for each classification, as you go along, we would like to have it that way. Just any way, so we get it for four, six, eight, ten and twelve inch.

A. We will start with the four inch gang: consisting of one foreman at $6.00 per day; one stabber at $4.50 per day, and 20 men at $3.50 per day, and one man at $4.50 per day, amounting to $85.00 per day. Adding to this field supervision, 5 per cent, liability and compensation insurance, 5.59 per cent (and that is for the State of Oklahoma); tools and construction plant expense, 10.9 per cent, and we have a labor total of $103.27, to which is added the equipment charges of one Ford pickup at $7.50; one team and driver at [fol. 917] $7.50, giving a total labor and equipment charge per gang per day of $118.27. For an average performance of 3500 feet per day for this gang, the cost per 100 lineal feet is $3.379.

On six inch pipe, the gang consists of one foreman at $6.00 per day; two stabbers at $4.50 per day and 29 men at $3.50; and one man at $4.50, amounting to $121.00, to which is added field supervision, insurance, and tools and construction plant expense at the same percentages as for the four inch line, and equipment charges for one Ford pickup, $7.50; two teams and their drivers, $15.00, giving a total for the gang per day of $169.50; which at a performance of 3,000 lineal feet per day is an average of $5.650 per 100 lineal feet.

For the eight inch crew, I have one foreman at $6.00; two stabbers at $4.50. Forty-one men at $3.50, and one man at $4.50, amounting to $163.00 per day; to which is added the allowances for supervision, insurance, tools and construction plant expense as for the other crews, amounting to $198.03 per day sub-total; to which is added the equipment charges for one 1¼ ton truck, $12.50; one caterpillar tractor at $17.50; one Ford pickup $7.50; two teams and drivers $15.00, or total equipment charges of $52.50, making total labor and equipment charges for the gang per day of $250.53, which on a performance of 3,000 lineal feet per day is $8.351 per 100 lineal feet.

For the ten inch crew, we have one foreman at $6.00; two stabbers at $4.50; 50 men at $3.50; and one man at $4.50, [fol. 918] amounting to $195.50, to which is added the same percentages for the field supervision, insurance, and tools and construction plant expense, making a sub-total of

$237.52; to which is added equipment charges in the same amounts as for the eight inch line, of $52.50, producing a total labor and equipment charge per gang per day of $290.02; and with a performance of 2,500 lineal feet per day, this would amount to $11.601 per 100 lineal feet.

Mr. Griffith: Now, all those figures you have given, Mr. Biddison, apply to the State of Oklahoma, and embrace the Oklahoma workmen's compensation and public liability rates?

A. That is correct, and the figures per 100 feet are all slightly higher for the State of Texas, due to the difference in the insurance rate.

Q. Those figures illustrate the method used, though?

A. The same method for both states, yes.

Q. Now for the 12 inch gang.

A. For the twelve inch crew, we have one foreman at $6.00 per day; two stabbers at $4.50; 57 men at $3.50, and one man at $4.50, amounting to $220.00 per day, to which is added the same percentages for field supervision, insurance, and tools and construction plant expense as for the other crews, producing a sub-total thereby of $267.28. Adding to this the equipment charges identical with the eight and ten inch crews, of $52.50, this amounts to a total per gang per day of $319.78, which on a performance of 2,000 lineal feet [fol. 919] per day amounts to $15.989 per one hundred lineal feet.

Q. Where, in these gangs, you have given one man at $4.50 per day, Mr. Biddison, what does he do?

A. Well, he is officially designated at a collar pounder. With a hammer he pounds the collars as the joints are being pulled up, and he interchanges with the stabbers.

Q. How many hours do these men work—eight hours?

A. This is based on ten hours per day, of which in excess of nine hours would be spent in actual work on the job. A ten hours day does allow for time in transit, morning and night. The usual performance under this ten hour day schedule for this class of work is 9½ hours of actual performance.

Q. The main difference, just looking through all these gangs now, there is one foreman in each gang, and there are two stabbers in all the gangs except the four inch gang, which gang has only one stabber?

A. That's right.

Q. And you say there is only one collar man, or collar-pounder in each of the gangs?

A. That is right.

Q. So that the only variation, the only real variation that you have in these different gangs, is in the common laborers in each gang?

A. Yes, that's right.

Q. And the common laborers run from twenty men, in the four inch gang, to fifty-seven in the twelve inch gang?

A. Yes.

[fol. 920] Q. How do you know, Mr. Biddison, that twenty men will be required as common laborers in the four inch gang to lay the daily performance you say would be obtained, of 3,500 feet?

A. I know from experience in laying screw pipe.

Q. Now, what experience are you talking about?

A. Well, I have had experience in screw pipe for something approaching thirty years, now.

[fol. 921] Q. Can you refer us to anything besides your general experience, Mr. Biddison?

A. Well, I could refer you to some specific experience besides my general experience.

Q. All right.

A. I have laid four inch screw pipe in a number of places, or had it laid for me.

Q. Well, pick out a place where you laid some pipe.

A. Well, I have had crews working for me in Ohio laying four inch screw pipe and in West Virginia laying four inch screw pipe and in Louisiana four inch screw pipe and in Mexico laying four inch screw pipe.

Q. Did you have the same size gang you are using here?

A. Sometimes larger and sometimes smaller.

Q. Well, did you ever have this identical gang?

A. I don't know whether I ever had the identical gang or not.

Q. So you can't say you ever had a gang of this exact size where you obtained 3500 feet of performance per day?

A. No, but I can say that, having had years of experience in laying screw pipe, I know what size gang it takes to make such performance as I have set up here.

Q. Can this be termed anything more than just an enlightment guess?

A. Yes. I would dignify it by calling it a very careful estimate.

Q. I know; but this whole gang set-up of all these laborers, ranging from twenty to fifty-seven, the footages of the pipe the use of certain equipment, teams, drivers, Ford [fol. 922] trucks, or the necessity of a tractor, is all in the last analysis a figment of your imagination, is it not?

A. It is all the result of my experience, and I have had pipe laid under my jurisdiction of all of these sizes, threaded and coupled.

Q. Well, it represents nothing more than your opinion, does it?

A. It represents my opinion based upon my experience, and that is all.

Q. Well, I understand you to say you don't recollect that you ever did this size performance with this size gang?

A. I can't remember the size of the gang on any particular date ten or fifteen years back, but I know in general the size of crews required for any size pipe.

Q. Well, you put in daily performances of from thirty-five hundred on the four inch to two thousand on the twelve inch. Even if you had used the same daily performance for all your gangs wouldn't you have stood a better chance of arriving at the correct estimate by trying to regulate the number of common laborers to obtain the same performance?

A. Why, no. There is a limit to the performance which you can have with any size pipe, regardless of the number of men you may put on. I don't think you could put more men on the twelve inch crew and lay any more pipe, but with two crews you could lay more.

Q. Do you think if you increased the number of common laborers to, say, seventy-seven, you could get any better performance in the laying of that size pipe?

A. Very little. You might increase it some, but very little.

* * * * * * *

[fol. 923] Q. We were just talking, Mr. Biddison, before the recess about the way you found your cost for laying by the application of estimates made, using a hypothetical gang. Now, have you attempted to check the costs involved or the performance obtained on work of this nature actually done by the company as shown by the company's records?

A. No, but I have had checks on other work done by other people. For example, on laying eight and ten inch oil lines during the days when those lines were laid almost universally with screwed pipe an average performance of one hundred joints per day for a crew was considered very excellent performance.

Q. A crew of what size?

A. Larger crews than are set up in this estimate. It would be at least four additional men on the eight inch and six additional men on the ten inch than here set up. I laid ten inch in Mexico for oil lines, and the standard performance down there was one joint per man per day, and to get fifty-five joints laid per day required a crew of fifty-five men besides the foreman.

Q. What did it cost you to lay that pipe?

A. I can't tell you now; I don't remember.

Q. What kind of labor did you use?

A. Mexican labor.

[fol. 924] Q. You probably in construction in Mexico eliminated machinery almost entirely, didn't you?

A. Yes, and it is almost eliminated here, except just for the purpose of hauling equipment and making bends.

Q. Did you use any tractors, trucks, teams and drivers?

A. Yes, sir.

Q. Used tractors, did you?

A. No tractors—used trucks.

Q. You don't mean to say, do you, Mr. Biddison, that the use of Mexican labor would give you a comparable cost to the use of American labor on construction work done in Texas?

A. It may and may not. The case I cited where we laid fifty-five joints per day did not give a comparable result to what I would expect to have up here.

Q. But you have not made a check, if I understand you, Mr. Biddison, of any of the company's records of their actual performance obtained?

A. I have not. There is no data available to make any such check that I could find or that Mr. Steinberger could find.

Q. Well, the company has been laying four inch pipe for a number of years, hasn't it?

A. Yes, in small lots.

Q. And is still laying four inch pipe?

A. Yes, in small lots.

Q. The cost records of your basis of work are all present in the company's books and records as of the present time, aren't they?

[fol. 925] A. The over-all cost figures are: the classification is not.

Q. Now, the unit cost you use for hauling and stringing appears to be $.017765 per foot. How did you find that cost? Before you answer that question, Mr. Biddison, is this the same development that you use in the case of transmission line equipment?

A. The same development, but applied to the length of haul determined for this particular field.

Q. Well, then it would be probably more logical to take up that figure when we come to Transmission Line Equipment, won't it?

A. Well, it doesn't make any difference, as I see it.

Q. Well, go ahead with it, then, and see what we get.

A. For this particular line, on which the pipe weighs eleven pounds per foot, the estimated cost per one hundred lineal feet for unloading, hauling and stringing is $1.17765 per one hundred lineal feet. This is based upon a weighted mean length of haul for pipe in this field of 13.06 miles, and based upon that length of haul the cost per ton is $3.23 per ton. This $3.23 per ton is arrived at on the basis of $1.512 per ton, plus $.1312 per ton per mile of haul. Thirteen and six-hundredths miles times $.1312 per ton per mile is $1.7131, which, added to $1.512, gives $3.225, as I have computed it, but it is $3.23 as used in the tabulation.

[fol. 926] Q. How did you obtain the figure $.5121 for loading on the wagons?

A. This figure was arrived at from an analysis of the hauling expense incurred in the unloading, hauling and stringing of over 19,000 tons of pipe.

Q. Was that a study made by Mr. Steinberger?

A. The data was accumulated by Mr. Steinberger, and I have made the study and the determination of the division between the cost for the unloading from cars to trucks and from unloading from trucks to the ground, and for the portion of the expense which varies with the distance of haul.

Q. How did you make the division of the team time between—or the truck time between the unloading and the hauling?

A. That division was made by plotting the data from these jobs on coordinate paper, and finding how the cost varied

with the length of the haul. It is a graphic analysis proposition.

Q. All right, just describe that.

A. From which it is found that the cost of hauling is a substantially constant figure, plus an amount, which varies with the length of the haul, just as anybody would expect it to be.

Q. How did you go about plotting that graph?

[fol. 927] A. Well, for the various jobs on a sheet of coordinate paper I plotted as one ordinate the cost per ton, in dollars, for hauling pipe; on the other ordinate I have plotted the miles of haul; I have drawn a line representing the average locus of the points for seventeen different jobs of pipe hauling.

Q. Which job study was the biggest job?

A. The biggest job is Line 0-29.

Q. How close does the data from the work done on Line 0-29 come to the locus found on your whole study or on the graph you just spoke of?

A. In cost it lies substantially below the average locus of points. That is a short haul, 2.9 miles.

Q. Do you have any line that coincides fairly closely with the line finally found?

A. Yes, I have one that is precisely on it, and one which the dot marking the line cuts the line, and the spots are about equally divided on each side of the line.

Q. What is that line—what is the line that exactly hits your graph?

A. I am mistaken. The one which precisely hits the line is an average of two points which do not hit the line; they are at the same amount of distance per haul—23½ miles; they embrace a total of about a little over 3,000 tons—about 3100 tons.

Q. Well, for your graph to work out the way you intended [fol. 928] it to, Mr. Biddison, it would have to be true that irrespective of the sizes of pipe the cost per ton mile for hauling would have to be the same?

A. Yes.

Q. That is, it makes no difference whether you are hauling 2-inch pipe or 20-inch pipe, your ton cost of hauling that would be the same?

A. That is right.

Q. Well, do you have now, Mr. Biddison, any line, the study of which falls along the locus you found and used?

A. Yes; they are all very close to the line, except the two instances; and in those two instances the costs are far above the line.

Q. Well, which line study would you say comes closest to coinciding with your graph?

A. I believe the one that comes the closest individually is Line K-51, with 2526 tons—no, 1272 tons.

Q. At what cost?

A. At a cost per ton of $1.986, or per ton mile of $.3755.

Q. Does the total cost per ton of $1.98, plus, include both the hauling and the unloading?

A. It does.

Q. And what was the mileage of the average haul?

A. 5.3 miles.

Q. You used that cost, then, of $1.51 per ton mile for [fol. 929] unloading all through your study?

A. Yes, sir; that is slightly modified between Texas and Oklahoma due to difference in insurance rates. The Texas figure is $1.532 per ton, plus, $.1329 per ton per mile of haul. The Oklahoma figure is $1.512 per ton, plus $1.312 per ton mile of haul.

Q. Now, then, if you multiply 5.3 miles by .1329 and add it to the $1.53, you get the computed cost on Line K-51, do you not?

* * * * * * *

A. Yes, that is right.

Q. And what is the total computed cost, then?

A. $2.236 per ton.

Q. Now, that compared with the actual cost of $1.986 per ton?

A. Yes, sir; and, specifically, the difference is accountable for by two things, one of them being that the figure for this line on the graph lies at a trifle below the adopted average line, and the other being that in making up the estimate I have allowed an additional charge to that shown by the graph to cover the unloading from cars to stock [fol. 930] piles and from stock piles to trucks again, because in such a program of construction of pipe lines as is contemplated in this appraisal it will be necessary, as was not necessary so far as I have been able to ascertain in the study of these hauling costs, to store some of this pipe in storeyards.

Q. Nevertheless, this shows, does it not, Mr. Biddison, that the computed cost as taken from your graph and applied to the line which you yourself say is the line—the graph of which is the nearest to the graph you used, shows your figures to be off 24 cents per ton?

A. No, it does not show my figures to be off at all; it shows a difference in there of about that amount.

Q. Well, it shows that the computed figures are off 24 cents per ton from the actual figures on the line that you say most closely approximates your graph.

A. Well, I think our difference is one of terminology. It shows that difference; it does not show my figures to be off; it shows that difference.

* * * * * * *

[fol. 931] Q. Well, I mean the actual figures show a difference of 24 cents over the computed figures.

A. Certainly.

* * * * * * *

Q. How much was allowed for unloading, per ton, into stock piles?

A. There is an allowance of 10 cents per ton for handling through stock piles, and an allowance of 5.7 cents per ton for loss of time of the gangs moving from one job to another.

[fol. 932] Q. Then the allowances are not for contingencies?

A. Well, they might be classed as contingencies; so far as the 5.7 cents per ton is concerned, it is an allowance for an item of expense which I feel certain would be incurred.

Q. Now, there still exists a difference between the 10 cents plus the 5.7 cents, which you just gave us, for a total of 15.7 cents, and the 24 cents; what is that difference?

A. I have an allowance on the movement of 10 per cent for contingencies in that item, which amounts to $.0121 per ton mile of haul. In other words, the equation of the lines which I have drawn as the locus of the points found in this study is $1.375 per ton, plus $.128 per ton mile haul. Now, to this I have added for an allowance for handling to stock piles at the unloading points ten cents per ton, and for lost time in moving $.057 per ton, and as a contingency on the movement $.0121 per ton; producing

the results and figures found of $1.53 per ton plus $1.32 per ton mile haul.

Q. Now, in all the work that was done none of this 15.7 cents was actually incurred, was it?

A. I believe not.

Q. That was in a study of how many tons?

A. 19,564.32 tons; and we are applying the resultant figures to something like four hundred thousand tons, as I recall it.

Q. And was any of the ten per cent of the hauling costs which you allowed for contingencies actually experienced in that tonnage?

[fol. 933] A. No; this ten per cent is to allow for something that was not experienced; but probably would be when applied to a larger quantity.

Q. Yes, sir. And, of course, as is usually the case with an allowance for omissions and contingencies, Mr. Biddison, you might just as well have made a deduction for expenses that would not be incurred in the reproduction of the Company's property as well as those actually incurred?

A. I think that would be foolish to do that.

Q. Now, when you get down further in your computations and add up all these unit costs which have been made up of these smaller items which we have been breaking up here,—for example, cost of pipe, plus the cost of freight, including the cost of ditching, backfilling, painting, and so on, laying and testing,—you finally get to a total cost of $.633528 per foot?

A. That is correct.

Q. Then to that you apply an additional amount for omissions and contingencies, do you not?

A. That is correct.

Q. In the amount of five per cent of that total?

A. Yes, sir.

Q. So that is a calculation of omissions and contingencies based on omissions and contingencies, isn't it?

A. To that extent, the omissions and contingencies item, with regard to this hauling, the ten per cent on the move-
[fol. 934] ment end of it becomes increased by five per cent, or becomes ten and a half per cent.

Q. Isn't it a fact, Mr. Biddison, that if you were asked to take out the omissions and contingencies from your appraisal, having based omissions and contingencies on omissions and contingencies, that you never in the world could

tell what the whole amount is without several months of work?

A. Well, I think it would be considerably of a task to take out the amounts for omissions and contingencies, yes.

Q. Could you come anywhere near telling what the entire amount of omissions and contingencies in your whole appraisal amounts to?

A. I could hardly make a guess at this time. I could form a rational conclusion after some deliberation on the matter that would be fairly close.

Q. It would reach into millions, wouldn't it?

A. No; that is silly.

Q. You mean it would not amount to one or two million?

A. I think it would amount to considerably less than a million dollars.

Q. And you say that, nevertheless, after saying that you do not know the exact amount?

A. Yes, sir.

Q. And could not compute it?

A. I did not say that I could not compute it. I said that it would take a very long time to compute it.

[fol. 935] Q. Turn to your appraisal—Panhandle Field of Texas, listed as Field Line Equipment, on page 555. On that page you show P. N. 1 J. B. Clark—O. T. Gordon No. 1, a Tie In charge or cost of $21.82, in this particular instance. Now, throughout the appraisal you have a tie-in cost for each field line, do you not?

A. Yes, sir.

Q. What is the basis of the tie in charge?

A. That is the expense outside of the straight away laying of the line incurred in connecting the line into the line into which it is tied in, and the amount set out is based upon an analysis of the cost of making such connections by the Lone Star Gas Company. In the Panhandle Field a study was made of the expense of making such tie ins on fifty lines at an average cost of $21.82 per line.

Q. Are the charges for tie in found by a study of the actual costs?

A. Yes.

Q. Was an allowance made in the figures of that study for omissions and contingencies?

A. No.

Q. In a reconstruction new, Mr. Biddison, of the entire properties, is there any reason why the field lines could not be attached to and tied into the gathering lines at the same time the gathering lines were completed?

[fol. 936] A. None whatsoever.

Q. When construction on the field lines started?

A. None whatever.

Q. Wasn't that actually done in the way the Panhandle Field was developed?

A. I don't know which end they started at on those lines, but whichever end you start at you have to tie it in at the other, and that is what this cost represents. Even if you start at the gathering line it has to be connected——

Q. If the tie in should be made at the time the gathering lines are started, regardless of which direction you are going, whether you start with the field lines and construct them and come to the gathering lines, or whether you do the reverse of that, building the gathering lines, and going to the field lines, as soon as you construct one and go to the other, the gang would be there and ready to make the tie in, and you would eliminate the cost of having to send a gang back to make the tie in, and you would thus avert most of the cost shown in this appraisal?

A. This does not contemplate having a gang do nothing but tying in lines at all. This contemplates the gang ready to tie the line in.

Q. Why is the segregation for the tying in made then? It is put in here as a separate item?

A. Because it is estimated it would require that much expense to do the job of making that tie in. This twenty-one [fol. 937] or twenty-two dollars finishes the tie in expense, and your line might be one hundred feet long, or three or four miles long, and its cost will vary from causes other than expenses of this tie in. The tie in expenses would be fixed, regardless of the length of the line. That is the reason it is separated.

Q. Are there any Fullerton Drips appearing on the Field Line Equipment of the Panhandle Field of Texas?

A. I don't believe there are in the Panhandle Field. I would have to go through that to find out definitely.

Q. Well, pick out somewhere a Fullerton Drip and explain how that cost was found?

Mr. Griffith: There is one on page 406, Mr. Biddison, in connection with the M. G. 3 line to Alma Petroleum Company—Parks No. 2.

Q. Is that going to take up considerable time. If it is, you can take it up the first thing in the morning.

A. I would prefer to do that. It will really save time. I am not sure how long it will take to look it up.

Q. Do you know off-hand, Mr. Biddison, without referring to records, what you used for welding on the Fullerton Drips?

A. No, sir; I don't, without looking at the records.

Q. Now you say that type of drip was developed by your Company?

A. It was developed by one of the employees of the Company.

Q. Is it a patented drip?

[fol. 938] A. I believe it is.

Q. Do you pay a royalty for the use of that type of drip?

A. I believe there is no royalty paid to him. I believe that drip was developed by him while he was in the employ of the Company, and therefore the Company has some proprietary interest in it and uses it without royalty; that is my recollection.

Q. Have you included in your unit price for these drips a charge for royalty?

A. I think not. I would have to look that up to be positive, and I will do so.

* * * * * * *

[fol. 939] Q. On yesterday, Mr. Biddison, we asked you for the development of the excavation figures you used by lines?

A. I am having that information copied off for you.

Q. And when we quit yesterday afternoon I believe I had asked you for the development of the price put upon the Fullerton Drip, which appears in several places in the appraisal. The particular one I believe that we had called attention to was the one on page 406.

A. This Drip on page 406 is 10 x 4 x 4 inches at $263.04. The materials in this drip consist of 23 feet of 10-inch plain end pipe at $1.1473 per foot, amounting to $26.3879; 2.75 feet of 10-inch threaded and coupled pipe, at $1.7053 per foot, $4.689; 10 feet of 4-inch plain-end pipe at $.3601 per

foot, $3.6010; to the sum of this material cost is added four per cent for store's expense, and to the material cost is added the cost of doing the welding work, consisting of one [fol. 940] 10-inch orange peel weld, at $12.2916; two 10-inch baseball type welds at $2.60; three 10 x 10 x 10 T welds at $8.60; one 10 x 4 swedge weld at $13.017; one 4-inch circular weld at $2.6141; two 4-inch 45-degree L welds at $2.4577; one 4-inch T weld at $3.4315; one 10 x 10 x 3 weld at $2.9583; producing a total of $117.8435 for this drip.

Q. Where you gave prices for pipe what were the weights involved?

A. Ten-inch plain-end, 31.445 pounds per foot; 10-inch threaded and coupled, 35.75 pounds per foot; 4-inch plain end, 10.79 pounds per foot. There is further included in this drip as installed 40 feet of 10-inch 35.77 pound threaded and coupled pipe at $1.7053 per foot; 10 feet of 2-inch threaded and coupled pipe, 3.75 pounds per foot at $.1763 per foot; one Lunkenheimer ¾-inch 150-lb. brass screwed gate valve at $1.5328; one Westcott 2-inch 500-pound working pressure gate valve Screwed at $12.7711; One ¾ x ½ inch bushing at $.0185; six feet ½-inch threaded and coupled pipe .860 pounds per foot, at $.0411; one 10-inch pipecollar at $5.6198; one 10 x 2 drip cap at $22.204; two 2-inch Ells common malleable, at $.1966; one ½ inch Street Malleable Ell at $.0259; one ½ x 8 nipple, threaded both ends, at $.10358; two 2 x 8 nipples, threaded both ends, at $.1207; one 2 x 10 nipple threaded both ends at $.1452; one 2 x ½ inch reducers at $.1372; and the estimated cost of the installation at $31.85.

[fol. 941] Q. Were the prices you used for the footage of pipe in the weights already given the same prices as used in the other places in the appraisal where the pipe appears?

A. Yes.

Q. Now, the designations "orange peel," "baseball-type", "Circular," "L", and "T" types, as applied to welds, refers to the shape of the weld, does it not?

A. That is correct.

Q. And all those are special welds, are they not?

A. Yes, sir.

Q. Now, Mr. Biddison, in working out your prices to apply for the special welds, did you work those prices out on the basis of lineal inch of weld?

A. Yes, sir.

Q. Did you use the same price per lineal inch on all the special welds?

A. Yes.

Q. And what was that price?

A. I was mistaken in stating that was the same price per lineal inch of weld on all sizes of pipe; it is not.

Q. Well, what is the correct statement?

A. Well, the correct statement is that for the various sizes of welds the amount of oxygen, and the amount of acetylene, and the welder's time in minutes, and the amount of rod, has been estimated for each size of pipe.

Q. You mean that for each size of pipe you took all those [fol. 942] components, and then from that worked to an estimated cost of a lineal inch of weld?

A. An estimated cost per weld on each size of pipe.

Q. Did you come down to the lineal inch of weld?

A. A lineal inch figure could be derived from this; but I do not have it set up here as a lineal inch figure.

Q. Did you make any differentiation between the special welds—that is, the orange peel and baseball welds, on the same size of pipe, from the ordinary circular weld?

A. Yes, sir.

Q. Now, how did you work that out?

A. From the amount of material required, and the amount of time required; based on a per lineal inch basis, those are apportioned on the various sizes of pipe, so that for a baseball weld we have an entirely different figure than in the case of a plain circumferential weld.

Q. That is per lineal inch?

A. Yes.

Q. Did you use your same cost for special welding in City Gate measuring station installment as you did on these Fullerton Drips?

A. On that special welding, yes, sir.

Q. Did you use the same costs for special welds where special welding occurred on the transmission line equipment?

A. For the welding up of special fittings only; not for welding of the pipe line itself.

[fol. 943] Q. I am talking just about the special welds now?

A. For these costs we used special welds for special fittings.

Q. Wherever they occurred—on transmission lines or where?

A. Yes.

Q. In other words, these prices which you used on the Fullerton Drip for special welding are the prices that you used on special welding throughout your appraisal?

A. That is correct.

Q. How did you find that the cost of the 10-inch orange peel weld would amount to $12.29 plus?

A. Which well—the orange peel?

Q. Yes, sir, 10-inch orange peel, I believe you gave $12.29—perhaps a little more.

A. It is computed that on a weld of this size there would be 185.58 inches of cutting to be done; 61.86 inches of welding to be done; that the requirements for cutting are oxygen 48 cubic feet, acetylene 12.4 cubic feet, welder's time 110.5 minutes; that for welding there would be required oxygen 69.3 cubic feet; acetylene 63 cubic feet; rods 4.8 pounds; welding time 147 minutes; for a total of oxygen 117.30 cubic feet, acetylene 75.4 cubic feet, rods 4.8 pounds, welder's time 257.5 minutes. Pricing the acetylene at $.01316 per cubic foot we have for the oxygen $1.5437; pricing the acetylene at $.0306 per cubic foot we have for the acetylene $2.3072; pricing the rods at $.11154 per pound we have for the rods $.5354; and with the labor at $.0307 per minute, we have $7.9053; or a total for this weld of $12.2916.

[fol. 944] Q. How was the amount of oxygen estimated, Mr. Biddison?

A. That amount of oxygen was estimated from data furnished by the Linde Air Products Company as to the requirements for oxygen and acetylene on shop welding work.

Q. Is the estimate of the amount of oxygen made on the basis of per lineal inch of weld?

A. Per lineal inch of material of the various thicknesses, yes.

Q. Well, what differentiation did the Linde people make as to thickness in giving you the estimate?

A. Well, the thicker the material, the more oxygen it would take per lineal inch of cutting.

Q. Well, did the Linde people furnish you a table that was graduated by thicknesses?

A. Yes.

Q. Who are the Linde people?

A. They are the largest manufacturers of materials and equipment for oxygen acetylene welding in the United States.

Q. They are the originators, are they, of the Linde Welding process?

A. Yes, sir. I might say that what is called the Linde weld is not suitable for this class of work at all.

Q. Well, the Linde weld is an electric weld?

A. No, sir; it is an oxygen acetylene weld.

Q. What is it that is distinctive about the Linde weld?

A. The character of rod used and a difference in the type of flame used in welding, and with that type of weld in such [fol. 945] places as it can be used smaller amounts of rod are required and lesser amounts of labor.

Q. What kind of welding tip is used in that process?

A. A special type designed for that particular class of rod.

Q. Well, now, were not these figures that you used and which were put out by the Linde people applicable to welds other than the Linde process?

A. Why, the figures which I have used here will apply properly, I think, to any of the ordinary welding processes. They will not apply to what is known as the Linde weld, nor to what the Air Products Company calls their—I believe they call it their fleet weld; it is supposed to be a fast welding process, with some more such designation for it. The ordinary welding time will apply here, regardless of who makes the oxygen, acetylene or the rod. These are the amounts of time and material for ordinary welding.

Q. Did the Linde people also furnish you compilations for the length of time of laborers and materials to be used?

A. They furnished a compilation on that, but there have been some substantial modifications made from that.

Q. Up or down?

A. Well, in some cases one way and in some cases another.

Q. Did they furnish you an estimate for the amount of time or the number of minutes to be used in making various welds?

A. Well, their tabulation which they furnished had some data as to the time for making various classes of welds, but [fol. 946] a great many of these welds shown here are not of the classes shown in their tabulation at all.

Q. Well, how did you find the estimate of 147 minutes supposed to be consumed in making this particular weld?

A. It is derived primarily from a tabulation furnished by Linde after a conference with welders to determine the proper classification.

Q. Well, did you adopt the Linde estimate?

A. Not entirely.

Q. What was the Linde estimate of the number of minutes?

A. I don't have it here; I can't tell you now.

Q. Didn't you use exactly, Mr. Biddison, the Linde estimate appearing on their sheets?

A. In some cases we did, and in some cases we did not.

Q. Well, why would there be any variation?

A. Well, in some of these cases the amount of time required was not shown by the Linde tabulation.

Q. I see. But where it was shown you used the Linde computation, did you not?

A. Usually so. We made some modifications from it.

Q. Were the prices for materials also furnished by the Linde sheets?

A. Furnished by Linde quotations.

Q. By the Linde quotations?

A. Yes.

Q. Is that the source of your material units?

A. It is.

[fols. 947-949] Q. For labor you used $.0307 per minute?

A. Yes, sir.

Q. Did that come from the Linde sheets?

A. No, sir.

Q. How was that found?

* * * * * * *

[fol. 950] A. I set up a welder at one dollar per hour; welder's helper at forty cents per hour, producing a total of $1.40 per hour. To this has been added five per cent for supervision, seven and a half per cent for use of tools and construction plant expenses, 8.48 per cent for liability and workmen's compensation insurance, and ten per cent to cover loss of pipe and materials in bad welds, producing thereby a total of $1.84 per hour, which is .0307 dollars per minute.

Q. Your installation cost was $31.85, I believe you said?

A. Yes, sir.

Q. How did you find that?

A. On the installation of twelve drips, requiring ten hours foreman's time; forty-five hours assistant foreman's time; thirty-two hours laborers; fifty-two hours truck drivers; field supervision, seven and a half per cent; insurance at 8.48 per cent; tools and construction plant expenses at 12.1 per cent; thirty-five hours use of truck, and an allowance of five per cent for all contingencies. The total cost of installation of twelve drips was $401.00, which is $33.42 each.

[fol. 951] Q. In checking through your Field Line Equipment, Mr. Biddison, there seem to be field lines included which go to wells which have been abandoned. Why would the field line be included if the well had been abandoned?

A. I had a very exhaustive examination made of that particular situation, and I am sure that there are no field lines included in this valuation which were not in use as of the date of the valuation. Now, it is true that you will find in a few instances field lines listed which at one time were connected to wells to which they are not now connected. But I am positive there are no field lines listed in this inventory which were not used and useful and in service as of the date of the inventory.

Q. Now, where you have included, then, as of the date of your appraisal, Mr. Biddison, lines which are now no longer used, are you willing to make some correction in your appraisal on that account?

A. Why, certainly, any material—any item in this appraisal which since the date of the appraisal has ceased to be used and useful would properly be deducted in the ascertainment of the value as of this date.

Q. Do you have that now?

A. On the other hand, any items added would also be properly added.

Q. Do you have with you now, Mr. Biddison, a list of the [fol. 952] wells that have been discontinued since the date of your appraisal?

A. No, I do not.

Q. On page 467—correction: on page 474, the line of the Reavis No. 5-A, where you show 264 feet of 4-inch line,—I will ask you if it isn't a fact that in the appraisal of this date you have no Reavis No. 5-A well.

A. Well, I couldn't answer that question.

Q. Can't you check back against your wells?

A. Well, I don't have the data here at all as of to-day.

Q. I am talking about as of the date of the appraisal.

A. There is no such well listed, that is correct.

Q. Well, then, there shouldn't be any line, should there?

A. Yes, sir, there should be a line. That line was investigated and found to be in service as of the date of the inventory.

Q. Now, what was it serving? It wasn't serving the Reavis 5-A, was it?

A. Well, I can't tell you without having a map of that line before me, which I do not have; but I am certain that that line was in service, because I had a very careful check made of well lines which were in service and which had gone out of service.

Q. Well, is it your testimony, now, Mr. Biddison, that this line is now serving some other well than the Reavis [fol. 953] No. 5-A?

A. My testimony is that as of the date of this valuation every item of such equipment in here was carefully checked for the determination of the question as to whether it was used and useful as of that date, and I believe this inventory is correct as of that date.

Q. So you would not accept a correction on account of this line?

A. Why, not until I had better information than you have suggested to me, no.

Q. What well does D. N. 36 serve? I believe that is on page 468.

A. Well, as shown, it serves Armstrong No. 5, and acts as a by-pass across to another line.

Q. The Armstrong No. 5 Well has been abandoned, hasn't it, and was abandoned as of the date of your appraisal?

A. Apparently so.

Q. On the preceding page—467—D. N. 34, the line to Bondurant No. 2 Well,—that line had also been abandoned as of the date of your appraisal, had it not?

A. Apparently so.

Q. What well was this line serving?

A. I can't tell you, but the line was evidently used and useful at that time, because the line was investigated at that time for the determination of that specific question.

[fol. 954] Q. Well, now, so we can clear this matter up, Mr. Biddison, I will read off the lines which appear from our information to be lines that have in the past served wells which were abandoned and are still abandoned as of the date of your appraisal: D. N. 34, D. N. 36, Fox 49, Fox 50. An inspection of the equipment listed in your appraisal shows a number of gas wells and well lines upon which there appears no meter. Why would those wells and lines be without meters?

A. Well, I can not answer you with respect to any specific well right now, but it may well happen that wells be temporarily disconnected, and during this temporary disconnection the meter be removed. That is not an unusual operation.

Q. Well, the absence of the meter shows the well is not in use, doesn't it?

A. Not in use at the time the meter was removed.

Q. And the absence of the meter on the line would show that the line was not being used, would it not?

A. Not necessarily. Some portion of that line may have been in use.

Q. All right.

A. I don't think a temporary non-use of a line removes it from the class of equipment used and useful in public service, however.

[fol. 955] Q. Now, Mr. Biddison, I will give you a list of the wells and lines wherein no meter appears, and ask you to make a check as to whether or not these wells and lines were actually being used and useful as of the date of your appraisal: The M. G. 14, M. G. 15, D. N. 10, D. N. 17, D. N. 22, D. N. 23, D. N. 34, D. N. 36, D. N. 47, D. N. 56, D. N. 58, D. N. 61, D. N. 66, and D. N. 70; and the following lines leading to wells in the Fox Field: 49, 50, 53, and 75; and the following lines leading to wells in the West Texas Field: 2, 17, 99, 100, 102, 103, 108, 109, 151, 185, 187, 202, 206, 214, 215, 223, 224, 225, 254, 282, 287, 289, and 299. Now, the meter on those seems to be missing from both the well and the line. I will give you a list of Gas Purchase Stations where there is no meter, and ask you to make the same investigation as to them: Line K. C. F., Gulf Production

Company, Taylor Plant; Line O. D., Phillips Petroleum Company, Stephens County——

A. Just a minute. (Witness makes memorandum.) All right.

Q. Line O-D-A, Gulf Production Company, Brooks Hanlon Plant; Line O-D-C, Hanlon Gasoline Plant No. 2; O-E-B, Humble Atlantic Gasoline Plants; Line O-E-C, Caddo Compressing Station; Line O-G, Phillips Petroleum Gasoline Plant; Line O-L-A-A, Robinson No. 1, E-2—cor-
[fol. 956] rection, No. 1 and 2. Line 26, Hagaman Well No. 6.

A. Hayden?

Q. Hagaman, H-a-g-a-m-a-n. Line 30-A, T. G. Shaw-Briden No. 1 Well; Line 224, Simmons Ward No. 2 Well.

A. All right.

Q. Where wells were purchased, Mr. Biddison, at a time —just a month or so or a few months before the date of your reproduction appraisal, wouldn't you feel yourself bound by the cost to the Company of those wells and property?

A. No; I would feel bound by it if I were setting up reproduction cost.

Q. Have you in your appraisal anywhere depreciated gas well equipment,—casing in the well, for example?

A. Not in my reproduction cost new estimate, no.

Q. Did you in your final fair value—your depreciated value or your fair value computation?

A. I did not, on account of the method used by Mr. Hulcy in the determination of over-all values of gas reserves and gas wells, the method being one designed to produce a present value figure.

Q. On page 98, on the Adams and Price—Burcham No. 1 Well, you show a reproduction new cost of $12,647.20, do you not?

A. Yes, sir.

[fol. 957] Q. Now, as a matter of fact, if this well actually cost the Company $5001.25 at just about the date of this appraisal, wouldn't you be willing, Mr. Biddison, to accept a correction for the difference between $12,647.20 and $5001.25?

A. No, I would not be willing to accept any such correction as that. In the first place, I don't know that that figure you cited is the purchase price of the well——

Q. Well, granting for the moment that it is, Mr. Biddison, the correct figure——

A. Well, I am not going to grant that it is.

Q. I know, but just for the purpose of finding out how you theorized on it,—if that is the correct cost to the Company at a time just about the date of your appraisal, wouldn't that show the true value of the well and equipment?

A. No; I have set out here the estimated cost to reproduce this equipment in toto. Now, the fact that the Company may have picked up one or two bargains in gas wells doesn't affect my idea of the value of the property one iota, and certainly does not affect the cost of reproducing it.

Q. Your reproduction cost new appraisal, then, proceeds on the theory, does it not, Mr. Biddison, that the Company never got a bargain in its life?

A. No, my reproduction cost new appraisal does not pro- [fol. 958] ceed on that theory at all.

Q. And if the property were being reproduced in wholesale, notwithstanding the fact that you would be bargaining for an enormous amount of property and an extremely large number of wells, that out of the whole outfit you would never get a bargain in the bunch?

A. No, it doesn't proceed on any such theory as that at all. It proceeds on the theory that these wells would be developed as wells are normally developed, and I have estimated the cost of reproducing them on that theory.

Q. Well, what would be the difference in buying the Adams and Prince-Burcham No. 1 Well, the whole well, at $5,000.00, and turning around and finding what it would cost to get that well at, in a reproduction, by pricing the individual things that go into the well?

A. Well, I think if the Company were able, by virtue of some peculiar circumstances, to buy for $5,000.00 that which was worth over $12,000.00 that it does not affect its value at all.

Q. In other words, you think that the cost of what, or the price that a purchaser would pay a seller is in no way indicative of value.

A. Cost and value are not identical. They may at some times be the same.

Q. Well, doesn't it stand to reason, Mr. Biddison, that if [fol. 959] the seller of this well was willing to give it to your Company for $5,000.00 that it actually did not cost him more than that?

A. Well, if the Company bought it for $5,000.00, well then, that is what it cost. That is quite apparent. But as to its value, I don't think that the purchase price is necessarily a measure of its value. If the Company had paid $35,000.00 for that well, I don't think that would have constituted its value.

Q. All right. Do you believe that the man who sold you this well sold it to the Company at a loss? He made his fair profit, didn't he?

A. I don't know anything about what profit he may have made in the past, or whether he made any or not, or whether he took a loss or took a profit. I don't think that is any criterion of its value.

[fol. 960] Q. All right; turn to your section, Transmission System Measuring Station Land. On page 971, the first item appearing on that page is city gate station site in Wilbarger County, Texas, one lot priced at $175.00. How much of that price is the expense of making the purchase?

A. $25.00.

Q. Did you use $25.00 on every bit of property that is shown in your appraisel?

A. No, sir, I used fifteen per cent of the purchase price, but not less than $25.00. If the fifteen per cent were less than $25.00 I used the $25.00, but if the $25.00 were less than the fifteen per cent, I used the fifteen per cent.

Q. Then this site cost $150.00 plus $25.00 for purchasing expense?

A. That's right.

Q. If it had cost a Thousand Dollars, Mr. Biddison, would you still have used $25.00?

A. No, sir; I just explained that I would have used fifteen per cent in such a case.

Q. All right, sir; how did you find your fifteen per cent allowance with a $25.00 minimum, for these different acquisition costs?

A. Well, that is my idea of what it would cost.

Q. Why would it cost any more, Mr. Biddison, to buy a parcel of land that cost you $500.00, than it would to buy one that cost only $300.00?

A. Well, $500.00 is considerably more money than $300.00 is, and the negotiations would take longer and it would be [fol. 961] more difficult to conduct the negotiations and obtain the land at a satisfactory price.

Q. Do you figure that for that small difference in the price, it would take more time and cost more to make the purchase?

A. It might not in all instances, but on the average it would. As a general rule, the cost increases for expense of purchase as the price increases, on an average.

Q. The abstract to be examined is no longer in one case than the other, is it?

A. Not necessarily.

Q. The length of the abstract does not depend on the price paid for the land, does it?

A. No.

Q. And you some times have a very long abstract on a very small parcel of land?

A. You may have.

Q. And the converse is also sometimes true?

A. Yes.

Q. Was any attempt made to relate this fifteen per cent allowance with a $25.00 minimum to the actual costs of the company as shown historically by their books?

A. No. The matter was discussed, however, *the* the members of the land and lease department, who were familiar with the costs of making such purchases.

Q. Do you mean that is the source of your estimate?

A. No, I do not mean that is the source of my estimate; but the information I got from them is confirmatory of the [fol. 962] data which is here used.

Q. Well, have you or anybody else, Mr. Biddison, for the purposes of this appraisal, tried to relate the prices or the costs you have actually used in your appraisal, to the costs of the company on the books?

A. No.

Q. I mean, has somebody dug out the actual costs of the company as shown by its books, and tried to relate that to the costs used in this appraisal?

A. No, that has not been done.

Q. On page 992, where you show the city gate station at Grapevine, Texas, for example, what are the improvements that you have evaluated on that station?

A. They consist of Elwood wire fence, with corner posts and gate posts; driveway gate; the gate chain and Best Universal Lock; gravel driveway, and a sixteen inch pipe culvert.

Q. Any gravel or walkway or anything of the sort?

A. Gravel driveway, yes.

Q. How much have you figured on the gravel driveway?

A. $18.07.

Q. How much is that per cubic yard of gravel?

A. It is $2.03 per cubic yard, on 8.9 cubic yards.

Q. Well now, without taking up in detail each one of these stations, Mr. Biddison, how did you find the gravel price for each of these stations?

A. That price is obtained by quotations from dealers at nearby points, handling that class of material.

[fol. 963] Q. Do you mean that you have used a different price of gravel for each station?

A. Yes.

Q. You priced out on all these parcels of land the shrubbery and all that sort of thing, didn't you?

A. Where such shrubbery existed, yes. In this particular block there is no shrubbery existing.

Q. How did you go about pricing that sort of thing out in this appraisal, Mr. Biddison?

A. Well, the inventory showed the number of these various items of shrubbery, rose bushes, or whatever they might be. My recollection is that rose bushes were about 35 cents apiece, installed, and that shrubs for hedges were at, I believe, about ten cents apiece installed.

Q. You priced out the shrubbery at the Grapevine, Texas, station, didn't you?

A. There is none shown for that station in the inventory.

Q. Well, where is there a station that you show as having some shrubs? Don't waste any time on it.

A. Here is one right here, the first one I came to in leafing through here is Clifton, in Bosque County.

Q. What do you show for that station?

A. Ninety-seven hedge bushes, at fifteen cents installed, and seven cedar trees at $4.00 each installed, and one willow tree at $1.00 each installed.

Q. Is there any grass on that plot?

[fol. 964] A. I think not. It is not so inventoried.

Q. Well, where you have got sod at all, you have priced it out, haven't you?

A. I think so. I think that was priced as sown seed, is my recollection of it.

Q. Wherever you have a tree that naturally grew on the plot before you ever acquired the property, you have priced it out too, haven't you?

A. No.

Q. Well, these cedar trees at Clifton, for example; weren't they already on the plot before you acquired it?

A. I think not.

Q. Well, you didn't go back to check the records on it, did you, to find out about it?

A. Well, I don't remember enough about that particular station to say definitely.

Q. What kind of a hedge is this one, where you have 97 bushes?

A. It is mainly privet hedge.

Q. Do you mean to say, Mr. Biddison, that the man checking out the inventory actually got into the hedge to find out where the roots were?

A. No, I don't mean he actually dug into the hedge to find the roots. I mean that they counted out the number of bushes making up the hedge.

Q. You have a number of barberry bushes also on some of these tracts, haven't you?

[fol. 965] A. I think so. I can not pick out a location right now where they have them.

Q. You have seen a barberry hedge, haven't you?

A. Yes, I think I have.

Q. And you know it is one great big tangle, isn't it?

A. Yes, I would say so.

Q. Do you mean to say that a man actually got down and dug into that hedge to see just how many roots had been planted, or what made up that hedge?

A. I mean they counted the number of bushes in the hedge.

Q. Isn't it a fact that somebody just went out and made a guess at about what he thought ought to be there? And that's the way the determination was made?

A. We have the determination made of the number of plants set out, the number of bushes.

Q. Now all of this cost for shrubbery improvements, grass, rose bushes, trees and so forth, have been currently charged as operating expenses, ever since the time the company started making these improvements. Isn't that true?

A. No, I am sure that is not true.

Q. Do you mean that those costs have been capitalized?

A. I mean that some of them have been. Some may have been charged as operating expenses; I don't know.

Q. All the cost of maintenance has gone in as operating expenses, has it not?

A. I presume it has; it should have been.

[fol. 966] Q. Then is the cost of growing that shrubbery, improvements, and trees—that has all been charged as maintenance and operating expense?

A. I suppose all the maintenance cost has been so charged. It should have been, I know.

Q. And the cost of creating that new value has been included in the operating expenses and the costs of operation, as presented in this case heretofore by Mr. Hulcy?

A. I don't know anything about that.

Q. Well, you know that is the fact, don't you Mr. Biddison?

A. No, I do not know that is a fact, and I do not see that it is material if it were. The point is, whether this property exists there today, and what is its value.

Q. And that, regardless of whether the company has already been compensated for it or not, or is being compensated for it currently?

A. I think if a company were compensated for a piece of property it would not be the owner of the property any more. You do not ordinarily get paid for something and still own it.

Q. What is the next item of property—transmission system measuring station leaseholds, isn't it?

A. Transmission system measuring station leaseholds follow transmission system measuring station lands.

Q. On page 1052, the first leasehold on that page you show in the amount of $85.94. What was the original cost of that leasehold, Mr. Biddison?

[fol. 967] A. The consideration paid was $100.00.

Q. Now the amount showing here of $85.94 shows that this has been depreciated?

A. Yes.

Q. How much did you depreciate this—or how did you go about computing the amount of depreciation?

A. This happens to be the identical one that I explained in detail on direct examination.

Q. Well, I beg your pardon.

A. To the $100.00 consideration, I added $25.00 for the cost of acquisition, giving a total of $125.00 cost; and the term of the lease was twenty years, of which six years and

three months had expired, or a ratio of cost expired of $39.06, producing a net figure of $85.94.

Q. You did depreciate these leases on the amount of expired lease on all of them?

A. Yes, and as I stated before, I think that is erroneous procedure, and should not have been done, and it was done through a misunderstanding of instructions.

Q. In the case of compressing station leaseholds, I believe you say you did not depreciate those?

A. That is my recollection; that it was not done in that case.

Q. Suppose you had a lease on a private dwelling, Mr. Biddison, that was to run for one year, or twelve months. Would you say that lease would be more valuable to you than a lease on the same dwelling that was to run only one month?

[fol. 968] A. I didn't get that question straight.

(Reporter repeats question to witness.)

A. I would pay more money for a long term lease than for a short term lease, certainly.

Q. It would be worth more to you?

A. Certainly it would.

Q. And you have used an entirely reasonable method in depreciating leaseholds in the case of transmission system measuring station leaseholds?

A. Yes, but I think your example is confusing the item of land rent with the payment for a long term lease. They are two different propositions. Now, I conceive of this money paid for this lease as an acquisition of a right for the use of that property, and that right to use it is just as valuable at one stage of its use as at another stage of its use. It is true the company should be accruing in its retirement reserve a fund for the retirement of this leasehold at the end of its life, but I do not see that the value, which was paid for initially, changes at all throughout the life of the lease.

Q. Whoever heard of anybody setting up a retirement reserve except to take care of a loss in value. Isn't that the purpose of a retirement reserve?

A. Certainly.

Q. And isn't the fact that your comp-ny sets up a reserve to take care of this loss of value one which shows that you

recognize as part of your accounting system that the value is being lost as the time is used up?

[fol. 969] A. No sir, it does not. It recognizes that the loss will occur at some time in the future, and in order to distribute that loss over the entire life of the property, you set up a reserve as it is used.

Q. Instead of saying that you think a correction should be made back upon the value as found by you of the transmission system measuring station leaseholds, don't you think a correction should be made to show the depreciation also occurring on your compressing station leaseholds?

A. No, sir, and I have stated directly to the contrary. That may be your opinion of it, but I am directly opposed to that opinion and have so stated.

Q. All right; some of these parcels of land are used not only by yourself but by other people; isn't that true?

A. I don't remember definitely with regard to leaseholds. There is some joint use of fee lands in the transmission system.

Q. Well, there is of the leaseholds too, isn't there? Take the leasehold at Tipton, Oklahoma, for example.

Mr. Griffith: What page, Mr. Fitzhugh?

Q. The same page—1052.

A. I don't know whether there is any joint use in that station or not.

Q. At any rate, Mr. Biddison, where there are lands, whether they are owned in fee or covered by leases, you have included in your appraisal that land as if it were 100 per cent used by the Lone Star Gas Company?

[fol. 970] A. That is true, yes; and I presume some of these leases are the same as the land; that is, where they have structures jointly owned by the Lone Star Gas Company and the distributing company.

Q. About half of the land covered in your appraisal is used jointly by the Lone Star Gas Company and some other person or company?

A. I don't know whether there is half of it or not, but a very considerable number of the tracts.

Q. But in no case have you made any deduction in the value by reason of the use made of it by other people or the fact that the land is not used by the Lone Star Gas Company alone?

A. That is correct.

Q. Turn to transmission system measuring station structures, and that is Volume 3. Now the station showing on page 1219 as the College Station measuring station structure is an example of one of the concrete type of structures, is it not?

A. Yes.

Q. How did you find the value for that structure in the amount of $1,391.43?

* * * * * * *

[fol. 971] A. This building is 9 feet by 46 ft. 1 in. in plan, and 7 ft. 6 in. high. It is a reinforced concrete structure, with concrete floor, walls, and roof, painted two coats inside and outside, contains six windows, two doors, four ventilators. The total cost is estimated at $1391.43. It is owned jointly by the Lone Star Gas Company and the Community Natural Gas Company, the Lone Star Gas Company owning 75 per cent of the building, so the Lone Star interest is 75 per cent of $1391.43, or $1043.57. The total cost is developed as follows: Excavation, 2.7 cubic yards at $1.09, $2.94; foundation forms, 255 square feet at $.11, $28.05; reinforced concrete, 5.86 cubic yards at $18.76, $109.93; earth fill for floor, 8.91 cubic yards at $.60 per cubic yard, $5.35; finish concrete floor, 361 square feet, six inches thick, at 37 cents per square foot, $133.57; forms for walls, 1622 square feet at $.16, $259.52; reinforced concrete in walls, 13.05 cubic yards at $18.76, $244.82; forms for roof, 454 square feet at 16 cents, $72.64; reinforced concrete in roof, 8.37 cubic yards, at $18.76 per yard, $157.02; two five-panel doors, 6 ft. 1½ in. by 31 in. at $5.04 each installed, $10.08; door framing, 2 x 6 No. 2 lumber, .3200 board feet [fol. 972] at $5.66 installed, $1.81; blind stock, 31 feet at $.06, $1.86.

Q. Those are the major items, aren't they?

A. Yes. I had better add six windows at $11.21 each, $67.26. That constitutes the major items, although the steel ventilators built in amount to about $75.00.

Q. Do all these individual items—these you have given us and the smaller items—add up to give $1391.43 for the total value of the structure?

A. Yes, sir. I think I should add sand cement finish inside and outside on walls and roof amounting to $71.96; that is

257 square yards at $.28, and the painting 25.29 squares at $3.74, is $94.58.

Mr. Griffith: That is two coats?

A. Yes, sir.

Q. What are the approximate number of yards of concrete in the whole station?

A. Exclusive of floors, a little over 28 yards.

Q. That represents, does it not, Mr. Biddison, a fairly good order of concrete work?

A. Yes, sir.

Q. And you applied to all of that cubic yardage a cost of $18.76 a yard for concrete?

A. Yes, sir.

Q. Now, the material that went into that concrete work was material purchased locally, was it not?

[fol. 973] A. I don't know where the actual materials were purchased for the original construction, but the prices used in this estimate are prices from Bryan, Texas.

Q. From what places in Bryan did you obtain your quotations?

A. John F. Grant.

Q. Did you obtain prices from any other place?

A. No.

Q. Are the prices competitive?

A. I believe so.

Q. What I mean is, there are other persons doing business that could furnish the same materials at Bryan?

A. Well, I am not sure; I presume there may be.

Q. But you did not obtain quotations but from the one, did you?

A. No.

Q. Bryan is about ten miles from College Station, isn't it?

A. I don't know; some few miles.

Q. Aren't there some dealers right in College Station?

A. I think not.

Q. There is a lumber yard there, isn't there?

A. I am not certain.

Q. How much did you figure for the cost of pouring concrete?

A. Labor costs per cubic yard for this concrete $7.02 plus $.85 per cubic yard for the handling of the reinforcing steel.

Q. Or a total cost of $8.05 a cubic yard for labor?

[fol. 974] A. No; $7.87.

Mr. Griffith: That is including reinforcing steel work?

A. Yes.

Q. Well, that is just the labor—not the steel, isn't it?

A. That is right.

Q. Now, if I understand you correctly, Mr. Biddison, that $7.87 is for labor only per cubic yard of concrete?

A. Yes, sir.

Q. Isn't that awfully high, Mr. Biddison?

A. Not for this class of work.

Q. This College Station structure is a typical structure so far as the concrete type of construction is concerned, is it not?

A. Yes.

Q. Now, you have some structures that are made of brick; is that right?

A. Yes; and quite a number that are wood frame with corrugated roof and sides; and quite a number that are steel frame and corrugated roof and sides.

Q. On Line J there are quite a number of those brick structures, are there not?

Mr. Griffith: I think you will find one at the top of page 1189, Mr. Fitzhugh.

Q. How much did you figure, Mr. Biddison, for the brick work on that station?

[fol. 975] A. For face brick work, $75.80 per thousand installed; common brick work, $39.80 installed.

Q. Now, what was the labor involved in each of those?

A. For face brick work, $50.50 per thousand; for common brick, $28.00 per thousand. The brick itself, for face brick, delivered at the job, including the cash discount allowance, the allowance for waste of ten per cent, and the store's expense of four per cent, is $25.30; for common brick, $11.80.

Q. Wherever you have brick work on these measuring station structures, have you used the same labor costs throughout, Mr. Biddison?

A. Used the same labor costs, but there would be a slight variation due to the difference in costs for mortar materials.

Q. That would not be a very substantial amount, would it?

A. No, sir; it would not be a large amount.

Q. Turn to the next item of property, Mr. Biddison, appearing on your appraisal,—"Other Transmission System Structures." On a great many of these structures, Mr. Biddison, there appears a storm cellar. Was the concrete work —that is, the labor on the concrete work for these storm

cellars, figured at about the same rate as on the concrete work at the College Station structure that we were talking about a while ago of $7.87 a yard?

[fol. 976] A. At mostly the same rate, except for the difference that these are not reinforced concrete structures; therefore, no expense for handling reinforcement is included.

Q. That would take about 75 or 85 cents off the cost of labor?

A. Roughly, it takes off about 85 cents a yard for labor. I can give you——

Q. That would leave the labor costs about seven dollars a yard?

A. I can give you the labor costs specifically applying to any one of these you may wish.

Q. Well, pick out one of them, then?

A. There is one at the Shamrock Warehouse site. I suppose that will be about as easy to look up as any of them.

Q. Well, without going to the trouble of looking that up, Mr. Biddison, it is in round figures, approximately seven dollars a yard, isn't it?

A. Yes.

Q. On these structures, now, where you show pipe storage racks, one of those is shown on page 1360, at a cost of $528.89. The description is wood timbers on concrete piers, painted one coat. How heavy are the timbers used in making those pipe storage racks? I don't mean exactly—if you can just give us an idea?

A. Well, these might be as small as 4 x 8, or as large as 8 x 10.

Q. Pretty good sized timbers, though?

A. Yes.

[fol. 977] Q. Now, what labor rate did you use in the installation of these racks—that is, what is your installation cost for labor?

A. Do you refer to the labor charge per cubic yard on concrete, specifically, or——

Q. No, sir; I mean the cost of installing—let me see if I understand exactly what these racks are. They are concrete piers, aren't they, just a sort of wall of concrete built across and on top of those are piled these large timbers?

A. Yes.

Q. To support the pipe?

A. That is right.

Q. Is there any skilled labor or anything in connection with putting those wood timbers up?

A. Yes.

Q. Are they nailed together or dovetailed in or anything like that?

A. They are matched together at the ends, ordinarily. I can't state specifically as to this particular one, but generally the ends are morticed together; whether they are in this particular one or not I can't state. I know what the general practice is.

Q. Well, what I have in mind is finding the labor cost for the handling of these timbers.

A. These timbers are six by eight, priced at $74.20 in place.

Q. Do your notes show how many of those six by eight timbers are used?

A. No, it does not. It shows 2400 feet board measure.

[fol. 978] Q. Well, do your notes show that they are morticed?

A. No.

Q. They are just laid up on the piers, aren't they?

A. Well, they are on the piers and they are fitted in to fit each other, but I don't know whether they are morticed in this particular job or not.

Q. Well, that would work out about thirty twenty-foot pieces, wouldn't it?

A. Let's see. Yes, about that. Well, I don't find the price on the six by eight lumber right now on this list.

Q. Well, can you approximate it, Mr. Biddison?

A. Yes. The erection labor on that would be about $28.60 per thousand feet.

Q. That would make the labor run about $72.00 on the whole job for this particular structure, would it not?

A. Yes; a little over that.

Q. Or, in other words, about two dollars and a half or two dollars and forty cents apiece for the laying of these timbers?

A. Yes.

Q. Now, on this same page, Mr. Biddison, you have a cottage—a four-room cottage with shiplap, ceiling and sills, papered, concrete foundation, at a unit cost of $1629.14. Did you use, Mr. Biddison, in pricing out this cottage about the same general plan that you used in finding the cost for the city gate measuring station structures?

A. Yes, the same general plan.

BLANK

PAGE

BLANK

PAGE

CLERK'S COPY.

Vol. II

TRANSCRIPT OF RECORD

Pat. 166

Supreme Court of the United States

OCTOBER TERM, 1937

No. 313

LONE STAR GAS COMPANY, APPELLANT,

vs.

STATE OF TEXAS, THE RAILROAD COMMISSION OF TEXAS, ET AL.

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF THE STATE OF TEXAS

FILED AUGUST 13, 1937.

BLANK

PAGE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1937

No. 313

LONE STAR GAS COMPANY, APPELLANT,

vs.

STATE OF TEXAS, THE RAILROAD COMMISSION OF TEXAS, ET AL.

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF THE STATE OF TEXAS

VOL. II

INDEX.

	Original	Print
Record from District Court of Travis County—Continued.		
Statement of facts of trial on the merits—Continued.		
Testimony of—Continued.		
Paul Richey	1122	841
E. A. Steinberger (recalled)	1161	854
Ed C. Connor	1167	858
Paul Richey (recalled)	1198	874
Ed C. Connor (recalled)	1259	908
Reporter's certificate ..... (omitted in printing)	1507-A	
Testimony of P. McDonald Biddison (recalled)	1677	1141
E. A. Steinberger (recalled)	1835	1226
Ed C. Connor (recalled)	1897	1256
Reporter's certificate ..... (omitted in printing)	2284-A	
Testimony of E. F. Schmidt	2289	1459
D. A. Hulcy (recalled)	2410	1529
E. F. Schmidt (recalled)	2479	1567
D. A. Hulcy (recalled)	2522	1592

JUDD & DETWEILER (INC.), PRINTERS, WASHINGTON, D. C., DECEMBER 28, 1937.

—3104

BLANK

PAGE

[fol. 979] Q. This cost compares somewhat favorably with those structures, some of them?

A. Yes.

Q. Did you use about the same labor time per thousand feet of lumber?

A. Well, for framing lumber the labor charge is $28.60 per thousand on these cottages.

Q. Is that the same that you use on the measuring station structures?

A. Yes.

Q. Now, where you have a whole house to build should not you be able to get a better price per thousand feet of lumber for the labor involved?

A. As a general rule, yes.

Q. That is, there is a great deal more lumber work in one of these cottages than there would be in city gate measuring station structures?

A. Yes, sir; also a better grade of workmanship.

Q. The next classification of property appears to be Transmission System Measuring Station Equipment. On page 1403 you show an installation cost for that equipment in the Transmission System Measuring Station Equipment at Iowa Park, Wichita County, Line A-2, in the amount of $215.27. How was that amount found?

A. Total materials in this station are estimated to cost $764.90. Exclusive of welds, they are $758.01. To this is added four percent for stores expense, in the amount of [fol. 980] $30.32, and against the total amount of materials is applied 24.4 per cent for installation cost, amounting to $184.95. This produced a figure of $215.27.

Q. How did you find that 24.4 per cent would be the labor cost in making the installation?—Incidentally, Mr. Biddison, is that 24.4 per cent applied to materials after stores has been added or before stores?

A. That is before stores. In the installation of $49,596.40 of equipment of this nature by the Lone Star Gas Company's forces the expense for labor and equipment; including field supervision, insurance, construction plant expenses, was $12,116.02, or the installation charges were 24.4292 per cent of the value of the equipment.

[fol. 981] Q. Does the $12,116.00 mean the actual cost to the Company, or is that a computed figure?

A. That is a computed figure from the labor hours actually used, priced at labor rates as of January 1st, 1934.

Mr. Griffith: 1933, you mean, Mr. Biddison?

A. 1933, I should have said, yes.

Q. Does that include an allowance for omissions and contingencies?

A. It does not.

Q. Is the labor for welding included?

A. It is not.

Q. How did you separate in making this study of the welding labor?

A. Well, I say the labor welding is not included. The labor of welding for special fittings, which are charged in as fittings, is not included in the setup here. There is some welding labor in it.

Q. Do you know how much?

A. No, I don't.

Q. Well, doesn't your inventory on this particular piece of installation elsewhere include all the welding?

A. Yes, it does.

Q. Well, then, the inclusion in your installation cost of a portion of the welding would be a duplication, would it not?

[fol. 982] A. This does not include the welding for making up these special fittings which are priced in as welded fittings. I think there is no duplication in this.

Q. Your installation cost includes the plain welds, doesn't it—any welding done on the job?

A. Which figure of installation cost do you refer to now? I don't follow you.

Q. The twelve thousand figure that you find in your study includes all welding on the job, doesn't it?

A. No, I have just stated it did not.

Q. Well, how do you make the separation to get rid of all the welding time?

A. Why, just by leaving the welding out.

Q. Well, here is what I mean, Mr. Biddison,—how in the world could you tell whether the labor was helping a welder or doing something else—how could you make the separation upon the sheets which you had available to you?

A. Well, a welder is listed as a welder, and a welder's helper is listed as a welder's helper.

Q. Each time you have one of these jobs, Mr. Biddison, you have both the welder and the welder's helper working on the job?

A. Ordinarily, yes.

Q. And they do nothing but weld?

A. That isn't always the case. It is usually the case. [fol. 983] Q. Well, where they do other things than weld, particularly the welder's helper, how do you make a separation of the time when you make your studies?

A. I think possibly you had better let Mr. Steinberger go into the analysis of the original data on this, to clarify that point. Mr. Steinberger made the original study.

Q. Oh, I see. Now, on this particular installation there is only—for welds there is only $6.89. It stands to reason that there is a whole lot more welding on this particular installation than any $6.89 amount, does it not?

A. Well, there is a lot more welding shown than that. In the item of $50.12 for 6 x 66 inches with orange peel welded ends—there is some welding in that item; in the item of $27.44 for similar equipment there is some welding in that; in the item of $31.76 for cushions there is some welding in that.

Q. But as to the study and the way the study was made, you say we had better talk to Mr. Steinberger?

A. Well, to get back into any details as to the classification of these welders and welders' helpers and their omission, I think you had better go back to Mr. Steinberger and get his original figures on it, of which I have here only a summary. I might say that these fittings that I refer to [fol. 984] here as welded fittings are not the class of work that is done out there in the field on location; those are generally shop made and shipped in as fittings.

Q. Oh, with the welding work already done on them?

A. Yes, sir.

Q. Is your Volume IV handy, covering the Transmission Line Equipment. On page 1983 your grand total for this item of property is in the amount of $31,894,439.40.

A. That is correct.

Q. In other words, this item of property represents about half of your total value—total physical property?

A. Yes, physical property.

Q. Now, the excavation figures which we asked you for yesterday apply to this class of equipment, do they not?

A. They do.

Q. And the excavation figures represent, next to the price of pipe, the largest item of cost for the installation, isn't that true?

A. Yes.

Q. When did you say, Mr. Biddison, that those sheets will be available to us?

A. I don't know just how long it will take to get this data; there are about 500 lines to copy; it is a two or three day job to set it up. It is in progress now.

Q. Do you suppose that they will be available this week any time?

[fol. 985] A. I am going to try to have them for you before the week-end.

* * * * * * * *

Q. All right. Now, do you have the prices as of this date, Mr. Biddison, on this size of pipe for larger purchases? I believe that is what you said you did not have yesterday.

A. I believe I can get it in about a minute. The net delivered price as of June 11, 1934, Texas common points for 12-inch 45.450 lap welded line pipe, black, single random length, threaded and coupled, is $1.8499 per foot.

[fol. 986] Q. What is the cost, f. o. b. factory or f. o. b. the mill?

A. $1.4677 per foot.

Q. How did you go about getting those prices, Mr. Biddison?

A. These prices were secured through quotations of the National Tube Company, Jones & Laughlin Steel Corporation, and the Youngstown Sheet and Tube Company.

Q. Were the quotations from all those manufacturers the same?

A. Yes.

Q. Exactly the same?

A. Yes.

Q. How were these quotation- obtained? I mean what sort of letter—what was the information given the manufacturer?

A. Well, the manufacturer has been given a statement of the tonnage involved in the Lone Star Gas Company's system, for the purpose of naming the price based upon the tonnage.

Q. Do you have the letter written these manufacturers?

A. No, Mr. Richey, who is here, has the letters written to these manufacturers, and their replies thereto. He is here for the purpose of going into that in such detail as may be desired.

Q. On page 2037, Line 2nd B is shown—you have at the top of that page 517,632 feet of 20-inch 59.231 pounds per foot, A. O. Smith 30-foot joint pipe, shown at a total cost [fol. 987] of $1,681,682.84, at a unit cost per foot of $3.2488 per foot. Does this amount of 517,632 feet of this quantity of pipe check with the amounts actually shown per the Company's books for the pipe installed?

[fol. 988] A. Well, this checks with the engineering department's survey record on it after completion, and that is where the figure is derived from.

Q. Does it check with the records of the company showing the purchases of pipe?

A. I don't know.

Q. Has any check been made by you, Mr. Biddison, to find out if there is any snaking of pipe in the ditch on this quantity?

A. No, I did not check to find out about how much snaking there is. I know there is snaking, but I didn't check any records to find out any such thing as that.

Q. What do you mean by the term, snaking?

A. I mean variation from a straight line in the ditch.

Q. That is, in laying pipe, in order to cram more pipe into the ditch, you wave it around as much as you can in the ditch rather than laying it in a perfectly straight line?

A. That is correct.

Mr. Griffith: What is the purpose of that, Mr. Biddison?

A. The purpose of that is to provide slack so the pipe will not have so great a tendency to pull in two upon contraction when the weather gets cold.

Q. That results, doesn't it, in there being more lineal feet of pipe in the ditch than there are lineal feet of ditch?

A. Yes.

Q. In finding this quantity, Mr. Biddison, did you add in an amount for snaking?

A. No.

[fol. 989] Q. You didn't do that, did you?

A. No.

Q. Have you anywhere in your appraisal added in any amounts for snaking?

A. Well, there has been an allowance on omissions and contingencies in various places, which is designed to cover that, among other things.

Q. How much of the allowance for omissions and contingencies is to cover the item of snaking?

A. Well now, I don't know. Enough of it to cover it.

Q. How much is the allowance for omissions and contingencies that you apply to this length of pipe?

A. Two and one-half percent.

Q. On this particular line, what does that amount to, in dollars? Round numbers would be sufficient, Mr. Biddison.

A. Well, I have missed a column in here and have an error, but in round numbers it is $49,000.00.

Q. Approximately $50,000.00, you might say, in round numbers?

A. In round numbers, $49,000.

Q. Now, what all does that cover, besides snaking?

A. Any other omissions, whatever they may be.

Q. Do you mean omissions from the actual length—the measured length?

A. Yes, or any other cause.

Q. Well now, aside from the item of snaking, Mr. Biddison, how could there be a failure to include all the pipe when the lines may actually have been measured?

[fol. 990] A. Well, there may have been more fittings than we have computed and many other things could happen to cause an omission from inventory, and this is designed to allow for any and all of them.

Q. Well, the fittings on the line are a small item aren't they, and amount to only about $10,000.00?

A. That's right.

Q. And it wouldn't make any great difference in the total if some of the fittings were left off?

A. No, and this does not make any great difference in the total, either. There are undoubtedly welds made on that line at intervals closer than thirty feet.

Q. This line was built when?

A. I don't remember definitely, but about 1929, I believe.

Q. All of the actual construction costs on this line were carefully kept by the company at the time they were incurred. Is that not true?

A. I believe that is true. Mr. Steinberger has analyzed the cost of construction on this line in some considerable detail.

Q. And the construction costs actually applied to this line were based on a study of the costs incurred at the time it was built?

A. Yes, in great measure.

Q. Then there should not be any variation from the appraisal or the values as found by you, and those actually shown by the books of the company?

A. Well, I don't think that inference is justified. The labor rates are not necessarily the same and the cost of [fol. 991] pipe we know was not the same, and the cost of welding rod and other welding materials has varied, and innumerable things may have been changed since 1929.

Q. But so far as the inclusion or the exclusion of items are concerned, the same things should be valued, should they not?

A. Yes.

Q. And the cost per the books does not show any allowance for omissions and contingencies, does it?

A. Not that I know of. I don't see how it would.

Q. As a matter of fact, don't all the costs on the company's books take account of any omissions and contingencies?

A. They take account of such omissions and contingencies as were not provided for in the original estimate.

Q. Well now, if you made a correction, Mr. Biddison, to bring the costs as per the books down to present day figures, and make the changes you have indicated for the purpose of getting prices of material and the prices of labor now current, then they should be exactly the same?

A. If I did that, but I didn't do that at all. I am making an estimate of costs of reproduction on this job.

Q. Why wouldn't that be a good thing to do here, Mr. Biddison?

A. Because that would not be an estimate of the cost of reproduction of this job, but simply a reconciliation of book figures to something else.

Q. It would be a correction of costs of a property that was incurred at a fairly late date to present day figures, wouldn't it?

[fol. 992] A. Yes, it would be that.

Q. Is there anything inconsistent in using that sort of an estimate here?

A. Yes, I think so. There should be allowances made for variations made from those recorded performances. I am certain today that line, if it were to be rebuilt, that the performances had and a great many other elements of cost would not be attempted to be duplicated today in a reconstruction of that line.

Q. Now, just what are you talking about there?

A. I am talking about the fact that this line was originally constructed very cheaply, and I do not think that the owners of that pipe line would today attempt getting the performances which they did have in the actual construction of that pipe line.

Q. Why wouldn't they?

A. Because the performance figures attained resulted in subsequent expenses in the actual construction. If you analyze the cost of this line, here is a twenty inch line, at about $3.25 per foot, in place. There are a little over $17,000.00 cost per mile, for a twenty inch line, a phenominally low figure for any time during my knowledge of the gas business, extending back for thirty years. The old rule of thumb method of estimate was $10,000.00 per mile per inch of diameter, which on this twenty inch line, would have made this $20,000.00 per mile, and here we have a reproduction cost of only a little over $17,000.00 per mile. [fol. 993] Mr. Griffith: Mr. Biddison, didn't you intend to say $1,000.00 per mile per inch of diameter?

A. Yes.

Q. When you say it would probably have been a little bit better for the company to have spent a little bit more money on this line, rather than suffer the additional costs that came on later, you referred to the fact that your company would probably suffer by the fact that your company bought this line cheaply and when this matter is brought out in a rate controversy, they would suffer by it?

A. No sir, I referred to the fact that when they got this line completed, they had some difficulties which had to be remedied and at an expense to them.

Q. What are the difficulties you are referring to?

A. The difficulty I am referring to is breakage of welds.

Q. You haven't had any more upkeep on this line than you have on similar lines of construction?

A. The Lone Star Gas Company spent considerable money after the construction of this line on account of the grade of welding which had been done. It cost considerable money in gas.

* * * * * * *

[fol. 994] Q. On page 2037, Mr. Biddison, where you show a unit cost of $3.2488 per foot on 20 inch 59.231 pounds per foot, A. O. Smith 30-foot joint pipe, that is the unit

cost on that large batch of pipe we were talking about before noon, isn't it?

A. Yes, sir.

Q. Will you please break down that unit cost?

A. The cost of pipe per foot delivered railroad sidings, per 100 lineal feet is $253.5340 net. To this is added for store's expense, one per cent, or per hundred lineal feet, $2.5353. There is added for stringing per hundred lineal feet, $6.34; and for lining up pipe $3.02; for painting, $9.3167; for excavating, $24.0593; for backfilling, $3.9535; for laying and testing, $14.20; producing a sub-total for installation of $63.4248 and a subtotal, including pipe and installation, of $316.9588. To this is added two and a half [fol. 995] per cent, or $7.9240, producing a figure of cost in place of $320.8828 per hundred lineal feet. This is exclusive of the welding.

Q. Now, this purchase of pipe involves, as shown in your inventory, 517,632 feet?

A. Yes, sir.

Q. That is a sizable purchase of pipe isn't it?

A. It is.

Q. Yesterday you were asked, or day before yesterday, you were asked, Mr. Biddison, if in your opinion, pipe could have been bought as of January 1, 1933 at any price lower than the prices quoted by the manufacturer, and your answer was: "I believe in the case of an actual purchase of pipe that the pipe might have been purchased at slightly under those prices that were quoted us as of that date." Just exactly what did you mean by that statement?

A. Just what I said.

Q. Now, on purchases of as large a batch of pipe as this, is it your opinion that in the case of the actual purchase of a large quantity of pipe such as this, it could actually be purchased at under the prices quoted to you by the manufacturers?

A. No; I don't believe that; but I do believe that if an order were to be placed for pipe comparable in size to the amount in the Lone Star System that some concessions [fol. 996] might have been had from the prices quoted as of January 1, 1933. Now, what those concessions would be, I don't know, and I don't know how to find out. There were no such sizable purchases being made, and we got the lowest quotations that manufacturers would furnish us on this pipe for our evaluation.

Q. The prices you have used in pricing out your inventory would apply to one carload just as well as to a purchase of a thousand carloads; isn't that true?

A. I think that is not true. The prices we have are based on the quantities of pipe in the system, and they are the quotations furnished by the manufacturers.

Q. But there is no limitation, so far as the quotation given you is concerned, as to the quantity, whether it be a large or a small quantity?

A. The quotation is based on the quantities of pipe in the System—on the quantity of pipe that the Lone Star Gas Company has.

Q. After you furnished to the manufacturers the different sizes of pipe in the correct amounts as you found them for the Lone Star Gas Company, isn't it true that the quoted price they gave you then was just exactly the same quoted price they would have given anybody on carload lot purchases?

A. I don't think so.

Q. Well, did you check it?

A. Well, I have no facilities for checking any prices [fol. 997] they may have quoted any and everybody.

Q. You are an expert on this; you know what the prices for carload lots are?

A. Well, it varies all over the board as of that date?

Q. What do you mean by that?

A. I mean it fluctuates widely, depending on the conditions of purchase. Conditions were such on that date, where it might have been that distress lots could be picked up at bargain prices.

Q. Weren't all the quoted prices as of the date of your appraisal practically the same from all the large pipe manufacturers?

A. Yes; substantially the same.

Q. Aren't they the same practically all the time?

A. Very closely the same. At the present time, I think they are absolutely identical for all sizes and weights.

Q. That is the usual thing, isn't it?

A. It is usual for them to be very closely together. The variations would ordinarily be slight.

Q. Now, referring again to the prices as of today, don't those prices apply just as much to one carload as to a hundred carloads or more?

A. Well, the prices on small lots will apply to small lot purchases; the prices on large lots apply only to large lot purchases. There is a very distinct classification as to [fol. 998] size of purchases today that did not exist as of January 1, 1933.

Q. What is the line of cleavage that exists today? When is a purchase classified as a small purchase, and when as a sizeable purchase that takes a different price?

A. In the case of pipe from 2⅜ inches to 5 9/16 inches, O. D., the division point is at 500 tons; in the case of pipe that is 6 inches to 7⅝ inches, O. D., the division point is at 1000 tons; on pipe 8 inches O. D. to 9⅝ inches O. D., the division point is 1500 tons; on pipe 10 inches O. D. to 10¾ inches O. D., the division point is at 2000 tons; on pipe 13 inches O. D. to 26 inches O. D. the division point is at 2500 tons.

Q. What is that you are reading from?

A. I am reading from a book compiled from data filed under the Steel Code.

Q. Well, is that a quotation sheet?

A. No, sir; it is not.

Q. What is the source of that information?

A. The source of that information is a quotation sheet.

Q. Well, what quotation sheet?

A. Well, I don't know whether this came from Jones and Laughlin, or Youngstown Sheet and Tube, or National Tube Company. They are identical in that respect.

Q. You mean that you have some information that you don't know the source of?

[fol. 999] A. I mean precisely that. I have information here that is uniform with regard to companies. Which sheet this is taken from I don't know. I don't know which one it was copied from.

Q. What is the difference so far as the price is concerned as between the small quantity purchases and the large quantity purchases?

A. The large quantity purchases bear an additional ten per cent discount.

Q. Does that stand true for all sizes?

A. Yes, sir.

Q. Well, that would apply to 12-inch or 20-inch, just as well as to 4-inch?

A. That is correct.

Q. Now, that is one division point, Mr. Biddison. Is there another division point for still higher purchases of pipe in still larger quantities?

A. There is not.

Q. You are positive about that.

A. I am. I had a great deal of difficulty in even getting quotations based on this large lot, and this large lot price is stated by the manufacturers to be the lowest price they are allowed to quote under their agreement with Code authorities.

Mr. Griffith: What do you mean by Code authorities—under the National Industrial Recovery Act?

A. Yes, sir.

[fol. 1000] Q. Are you familiar with that Code?

A. Well, I am familiar with the schedule filed on pipe. The balance, I am not.

Q. There is not a thing in the Code that prevents them from making quantity discounts on very large quantities of pipe, is there?

A. That is my interpretation of the wording of this agreement, that they will not quote below that schedule.

Q. The reason the Code takes no notice of extremely large quantity purchases of pipe is because those are such large quantities that the Code makes no exception?

The Court: I think you had better stay out of the Code, gentlemen.

Q. The Code that affects these companies is the Code of Fair Competition for the Steel Plate Fabricating Industry?

The Court: Gentlemen, I would rather you would not go into those things. There were some pleadings filed to which you objected, and I sustained the objection.

Mr. Griffith: I was cognizant of that when I asked the witness if he meant under the N.R.A.; but he had already stated "Code authorities." I thought it was fair for the understanding to be given.

Mr. Fitzhugh: Well, would it be improper for us to ask any questions as to prices fixed by the Code?

The Court: I think so. They have been fixed long since his estimates were made.

[fol. 1001] Q. All right. Go back to unit price now, Mr. Biddison. Your store's expense is one per cent of what—one per cent of cost of pipe?

A. The store's expense on pipe is computed at one per cent of the delivered cost of the pipe.

Q. Now, how did you arrive at that allowance?

A. An analysis made of construction work performed by the Lone Star Gas Company's forces in which the value of the pipe delivered was $2,192,073.31 and in which other materials, including fittings, paint, and welding materials, amounted to $173,027.27, shows actual direct plant store's expenses of $23,249.12. Now, if to these miscellaneous materials we apply a store's expense of four per cent, amounting to $6,921.09, we have remaining of that total store's expense actually incurred applying to pipe, $16,328.03, which is approximately three-fourths of one per cent of the delivered value of the pipe. Now, this construction work was done at a time when the Company had warehouses already constructed in connection with their operations. So, in this estimate to allow in reproduction for the fact that the Company would not have established warehouses, and to allow for the rental of temporary warehouse sites and storage yards, there has been applied in connection with transmission line construction four per cent to the miscellaneous materials and one per cent to pipe.

[fol. 1002] Q. The warehouses that were used in the actual construction of this line you say are still there?

A. No, that was not my statement. I stated that at the time these lines were constructed the company was operating and did have some warehouses which were available for use in such construction work. That would not be the case under a reproduction program.

Q. In the study that you made was Line B one of the lines included—or Second B, rather?

A. It is.

Q. How much of your study did the study of Line B amount to?

A. Well, on pipe there was involved $1,256,849.63; on other materials, $94,571.99.

Q. That is, the study of Line Second B was almost half of your study?

A. That is correct.

Q. What were the warehouses that were actually used in the construction of Line Second B that you say are missing?

A. I didn't say any of them were missing. I said under a reproduction program you are going to produce the whole property, warehouses, lines, and everything.

Q. All right. What warehouses would you use in a reproduction of the property that were not there at the time Line Second B was actually constructed?

A. Well, if you are going to reconstruct Line Second B you would require warehouse facilities at three or four locations along the line.

[fol. 1003] Q. Well, you actually had those at the time it was constructed?

A. Yes.

Q. The cost of warehouses is included in your study?

A. Yes, certainly. I could not have studied these costs if there had not been some warehouse costs to study.

Q. Now, in your cost of stringing, what did you figure the average haul to be?

A. Weighted average haul, 4.6 miles.

Q. This line follows pretty well the railroad, does it not?

A. Well, it follows generally the route of the Fort Worth & Denver City.

Q. Is the haul on this line—the average haul,—considerably less than that on the other lines of the company?

A. Well, it is considerably less than on a great many of them. For example, the average haul on Line A is 6.1 miles; the average haul on Line G is 9.28 miles; on Line H, 7.14 miles; on Second H, 8.3 miles. There are, however, numerous lines on which the average haul is lower.

Q. Did you use the same average haul for Line B?

A. Yes, sir.

Q. How did you find your allowance for laying and testing?

Mr. Griffith: You mean that as to Line Second B, Mr. Fitzhugh?

Mr. Fitzhugh: Yes, sir.

Q. I am talking about the cost, now, that entered into the cost of this pipe, $14.20 per hundred feet.

A. The cost of laying and testing welded lines has been [fol. 1004] developed from a study of the cost incurred in the laying by the company of nearly a million and a half lineal feet of welded lines. The labor hours and the equipment hours used have been analyzed and priced at the prices as of January 1, 1933. Then that data has been plotted against various sized lines to determine the cost per lineal foot for laying such line. For twenty inch line,

59.231 pound welded line, in Texas, such cost has been so determined to be $14.20 per one hundred lineal feet.

Q. Did you make that study, Mr. Biddison?

A. Mr. Steinberger's forces accumulated the data, and I have analyzed it.

Q. Well, now, did your analysis change Mr. Steinberger's findings in any way?

A. The only change made from the findings found was to change labor prices to agree with labor prices as of January 1, 1933.

Q. You assume no responsibility for the study?

A. I made the study.

Q. Well, I mean, Mr. Steinberger did the work, didn't he?

A. Mr. Steinberger accumulated data as to labor hours, etc., and I made the study of it so as to classify it by sizes of pipe.

Q. Was this line that we are talking about one of the lines included?

A. It was.

Q. What were the Second B costs actually incurred for laying and testing?

[fol. 1005] A. The costs at prices of labor as of January 1, 1933, are $73,392.48.

Q. What does that represent per hundred feet?

A. $14.18.

Q. What are all the items that enter into this seventy-three thousand dollar total?

A. Direct labor, 3,767 hours—no. Correction. I was on the wrong line. Foreman, 3,767 hours; laborers, 67,123 hours; tractor drivers, 13,727 hours; truck drivers, 4,031 hours; watchman, 2,319 hours; blacksmith, 10 hours; McCormick-Deering tractor, 11,447 hours; one ton truck, 3,573 hours; team and driver, 7,362 hours.

Q. What are those in dollar amounts?

A. Foreman, $2,260.20; labor, $23,493.05.

Q. I'll tell you, Mr. Biddison, instead of giving it that way just give the rates at which it is figured in the total; that will be sufficient.

A. Foreman, 60 cents; laborers, 35 cents; tractor drivers, 45 cents; watchman, 35 cents; truck driver, 45 cents; blacksmith, 50 cents; tractor, $1.75; truck, $1.00; team and driver, 75 cents. Now, to the total direct labor is added for field supervision 7.5 per cent; liability and compensation

insurance, 8.48 per cent; tools and construction plant expenses, 12.1 per cent. The total direct labor is $34,561.00. Total equipment charges are $29,126.75. Total field overheads are $9,704.73; producing a total of $73,392.48.

Q. Have you anywhere here included gas lost?

[fol. 1006] A. No, sir; it is not. On this particular line that was a very substantial item, as I recall it, something over forty-five thousand dollars' worth of gas.

Q. At what price do you figure that?

A. That was figured at field price.

Q. How much?

A. I think we figured two cent gas, is my recollection of that. I don't have the details on that before me. I have seen the figures.

Q. At the hearing before the Railroad Commission, at which you were present, Mr. Biddison, wasn't it said in that hearing that all the gas used in testing welds, Second B, was figured at a cost of 15 cents per thousand?

A. I don't know what was stated over there in regard to that. I don't think I was there when testimony on that point was brought out.

Q. On the same page you show 20 inch wells, quantity of 17,427, at $6.932 each. How was that cost found?

A. That cost is developed from 15,005 firing welds at $5.4287 each, amounting to $81,457.64 and 2,422 tie-in welds at $16.2327 per well, amounting to $39,315.60. Combining the two, we have 17,427 welds, amounting to $120,773.24, or an average rate per weld of $6.9302, as used on page 2037.

Q. Where did you get the $5.4287 cost for firing line weld?

A. From an analysis of welding work done by the Lone Star Gas Company's forces I found that for 20 inch wells, [fol. 1007] whose circumference is 62.832 inches, labor and equipment charge would be per lineal inch $.055; that the cost of the rod per lineal inch of weld would be $.068, based upon the consumption of—The figure of cost of rod I want to correct. The cost of rod would be $.0072, based upon the use of .068 pounds at a cost of $.1059 per pound; that the cost of carbids would be $.01105 per lineal inch of weld, based upon a consumption of .108 pounds per lineal inch at a cost of $.06136 per pound; that the consumption of oxygen at .00368 drums per lineal inch weld at $3.5734 per drum would be $.01315 per lineal inch, and that the total materials per lineal inch of weld on this 20 inch pipe would be $.0314, which, added to the labor and equipment charges,

would produce a total per lineal line of weld of $.08640, which, on 62.832 inches of welding, is $5.42868 per weld. Now, the common contract price on welding 20 inch lines in 1929 was $9.00 per weld.

Q. On the same pipe?

A. On 20 inch A. O. Smith pipe; yes, sir.

[fol. 1008] Q. The same thickness?

A. Yes, sir.

Q. Where was that contract price in vogue?

A. In Kansas.

Q. None of the 2nd B wells were contracted at that rate, were they?

A. No, I merely cite that to show that this work was done very cheaply.

Q. Since these lines were built and those cost studies you refer to were made, have there been any improvments in the welding processes used in the building of those lines?

A. There have been some new welding methods developed that have been used to a limited extent, but I don't think anybody knows yet whether those new methods are improvements or not.

Q. At any rate, none of your figures show any of the improvements, do they?

A. No, sir, my figures are based upon the class of welding which exists in the system, the same as they are based upon the kind of pipe that exists in the system.

Q. Which is the biggest dresser coupler line in the system?

A. I don't know whether O or K would be the bigger one.

Q. Well, turn to the K System, page 2171. At the top of that page you have Plain end pipe installed in place, 18-

[fol. 1009] inch 49.074 pounds per foot, at a unit cost of $2.9009 per foot. Break that up, please, sir.

A. 18-inch plain end dresser coupler line pipe 53.223 pounds per foot, cost of pipe——

Q. Now, wait just a minute. Take the top pipe of 49.074 pounds.

A. Weight per foot, 49.074, cost per foot delivered f. o. b. railway sidings, $197.5743 per 100 lineal feet; stores expense per 100 lineal feet $1.9757, hauling and stringing pipe $6.01 per 100 lineal feet; hauling and stringing couplers $.750 per 100 lineal feet; painting $6.2245 per 100 lineal feet; excava-

tion $54.6773 per 100 lineal feet; backfilling $3.5661 per 100 lineal feet; laying and testing $12.236 per 100 lineal feet; total $283.0145 per 100 lineal feet, to which is added 2½ per cent for omissions, or $7.0754 per 100 lineal feet, producing a total figure of $290.0899 per 100 lineal feet.

Q. You show a cost for painting of $6.2245 per 100 feet. Now break up that cost, please, sir.

A. This consists of labor and equipment charges of $2.02 per 100 lineal feet; paint, 5.77 gallons amounting to $.4709, thinner .1737 gallons amounting to $.1416, or a total material cost of $4.8465, and a combined labor and material cost of $6.8665.

Q. Was that based upon a study made by Mr. Steinberger?

[fol. 1010] A. It was based upon a study made by me of data collected by Mr. Steinberger.

Mr. Griffith: Covering the Company's actual experience?

A. Yes, sir.

Q. What was the price you used for paint?

A. $.7840 per gallon, plus 4 per cent stores expense, making the final cost $.8154 per gallon; for primer the price is $.7840 per gallon, with 4 per cent stores expense added, brings the cost to $.8154, or the same as for the paint.

Q. Is there any difference, Mr. Biddison, in the diameter of the pipe being painted, or, rather, I mean is there any difference in the cost of painting per square foot for different diameters of pipe?

A. Yes, there is.

Q. The cost per square foot tends to be less, the larger the diameter, is that right?

A. That is correct, both the cost of labor and the cost for materials.

Q. What are the costs per square foot, then, for the other sizes of pipe, either per square foot of surface or per lineal foot of pipe, either one?

A. The total costs?

Q. Yes, sir, the cost per square foot of surface or the [fol. 1011] cost per lineal foot of pipe?

A. Well, let me give you the total cost per 100 lineal feet on all sizes, then.

Q. All right.

A. 1-inch $.9060 per 100 lineal feet; 1¼ inch, $1.0368; 1½ inch, $1.1155; 2-inch, $1.2647; 2½ inch, $1.4659; 3-inch, $1.6166; 4-inch, $1.9420; 6-inch, $2.6259; 8-inch, $3.2358;

10-inch, $3.9298; 12-inch, $4.5366. Now, these sizes which I have read so far are nominal sizes. The following sizes will be outside diameter sizes: 14-inch, $4.9825; 16-inch, $5.5825; 18-inch, $6.2245; 20-inch, $6.8665.

Q. Were those prices taken off of a graph?

A. Yes.

Q. Or a plotted curve?

A. They are determined by a graph, and the graph indicates that.

Q. Now, then, a part of the cost of this pipe per foot has been figured in by you as excavation at the rate of $54.6773 per 100 feet, is that correct?

A. $54.6773 per 100 lineal feet for excavation?

Q. Yes, sir.

A. That is correct.

Q. Now, what were the unit costs for the different kinds of excavation?

[fol. 1012] A. For machine excavation, $.4260 per cubic yard; for hand excavation, $.2138 per cubic yard; for rock excavation, $3.8970 per cubic yard.

Q. What was that figure, please, sir?

A. $3.8970 per cubic yard.

[fol. 1013] Q. What was your unit cost for backfill?

A. Per cubic yard, $.1063.

Q. The unit cost for hand excavation of $2.138 per yard is for short lengths, is it not?

A. That is correct.

Q. You have a unit cost for hand excavation of longer lengths?

A. Yes.

Q. What is that unit cost?

A. $1.31 per cubic yard.

Q. Now, when did you use one and when did you use the other?

A. Well, I used the lower figure when we have a considerable stretch of hand excavation.

Q. About how many feet do you usually have to have in order to use that price?

A. Over two hundred lineal feet in one location.

Q. Now you do not show anywhere on the K line, the use of the lower cost for hand excavation, do you?

A. No.

Q. That is, in your inventory you evidently considered that Line K has no hand excavation of over two hundred feet?

A. Well, it has no long stretches of hand excavation that may be considered as being equivalant to long stretches. Such hand excavation as there is in connection with this construction is in comparatively short stretches, and at such places where hand excavation would be expensive—that is, approaches to and across ravines and so on.

[fol. 1014] Mr. Griffith: You meant to say machine excavation, did you not, Mr. Biddison?

A. Well, any character of construction, whether hand or machine, would be expensive at such locations.

Q. This line exceeds 100 miles in length, doesn't it?

A. Close to eighty miles. I have not converted it into miles.

Q. It is 565,000 feet, in round numbers, isn't it?

A. Well, I will tell you what it is precisely.

Q. Well it doesn't matter particularly about that, only approximately. But it is a good, long line, isn't it?

A. Yes. Yes, it is over 100 miles.

Q. But in all that distance you have not used the lower unit hand excavation price a single time, have you?

A. No, sir.

Q. How did you find the $1.31 cost per cubic yard for hand excavation over 200 feet?

A. A suitable crew for the doing of that particular work was set up and considered to consist of one foreman at sixty cents per hour; two sub-foremen at 45 cents per hour, and eighty laborers at 35 cents per hour, amounting to $295.00 per day. Adding to that for work in Texas field supervision at seven and one-half per cent, liability and workmen's compensation insurance, at 8.48 per cent; tools and construction plant expense at 12.1 per cent, and we have a total labor charge per day of $377.85. Add to that two Ford pick up trucks at $15.00 produces a total of $392.85. Now I estimate [fol. 1015] that these eighty men will only average handling 3.75 cubic yards per day per man or a total of 300 cubic yards per day for the gang, at a cost of $1.31 per cubic yard.

Q. Is the size of the trench in any way considered in this calculation?

A. No, this is an average figure, which will apply on practically all trenches in connection with the company's system

here, because the trenches are of such size that excavations can be reasonably accomplished.

Q. What is the size of trench for the 18 inch on Line K?

A. For the 18 inch, the trench is 26 inches wide by 43 inches deep, average.

Q. What size trench is usually used for the ordinary four inch tap line?

A. About 14 inches by 30 inches. It may sometimes be dug to 16 inches.

Q. Wouldn't it make considerable difference, Mr. Biddison, whether you were digging or excavating in a 26 inch trench, or a 14 inch trench?

A. Yes, it would make some difference.

Q. Well, have you considered that anywhere in this calculation?

A. No, I have set this up as an average figure, over-all, for that class of hand excavation, without trying to account for the difference in performance between the narrower and the wider trenches.

Q. What is the average size ditch to which you have applied this unit cost of $1.31 per cubic yard?

[fol. 1016] A. I have applied it to any size ditch where that class of work was estimated to be done.

Q. Do you know what the average size of those trenches is?

A. No, they vary very widely, both as to the depth and as to the width. I don't know what the average would work out in either direction.

Q. This whole set up is hypothetical throughout, is it not —the number of men used and the performance of 3.75 cubic yards per day per man?

A. Well, I guess that term fits it.

Q. What was your reasoning, Mr. Biddison, in deciding that 3.75 cubic yards would be the performance?

A. Well, I think that is a performance that might reasonably be expected to be achieved in doing hand excavation under those conditions, based upon my experience.

Q. You have not checked that, Mr. Biddison, against the actual experience of the Company, have you?

A. Not on transmission lines. There is no analysis of that class of work on transmission lines containing enough data, properly kept, to enable a complete analysis to be made. But I have had analyses made of ditching work under varying conditions at varying times and places, and I think 3.75

cubic yards per may per day is a very rational average, under those average conditions.

Q. And so deciding, Mr. Biddison, you draw upon your general experience, rather than upon any practical experi-
[fol. 1017] ence of the company or actual figures; isn't that true?

A. Yes.

* * * * * * *

Mr. Fitzhugh:

Q. Where the performance was found by you in your hypothetical study, Mr. Biddison, to be 3.75 cubic yards per man per day, what sort of soil do you figure that to apply to? What average condition of soils do you figure that to be?

A. Well, just an average condition of soils, Mr. Fitzhugh. That is an over-all figure. The performance may vary from less than two yards, to in excess of five yards.

Q. Do you figure the average soil conditions on the Lone Star Gas Company to be loam or sandy, clay, or what?

A. No, the soil conditions on the average on the Lone Star Gas Company system would be more severe than sandy loam; they would more nearly approach a clay condition, as an average.

Q. As an ordinary thing, is that hard digging or easy digging?

A. Ordinarily in Texas, it is hard digging.

Q. The cost of $1.31 per cubic yard for hand excavation where the footage was over 200 feet was used by you on field lines, was it not?

A. No, it was not.

Q. Well, was it used on tap lines?

A. On tap lines, yes. That is, on such tap lines as are
[fol. 1018] estimated to be dug by hand.

Q. Now, on tap lines, Mr. Biddison, when did you decide whether to use hand or machine excavation?

A. I made an investigation of all tap lines and based upon that investigation decided to use hand excavation on certain lines on which it did not appear to be advantageous to use a ditching machine. Now a survey previously conducted had indicated a division between hand work and machine work on tap lines which I felt was erroneous to the extent that it classified as machine work all work which could be done by machine, without regard to whether or not it would be

economical to move in a machine to do that work. I had those tap lines re-classified in that respect, so that there has been herein estimated as being hand work, some of the work which in previous estimates on this system have been classified as machine work.

Q. And where you changed over from machine to hand excavation you inevitably get a higher cost, do you not?

A. You inevitably get a higher cost than was used for estimated machine excavation on there, without allowing for the long jumps between jobs.

Q. What I mean is, if you re-classify certain lines in this appraisal as being hand excavation, that were formerly classified as machine excavation, the cost of those lines now estimated as hand excavation will be in excess of what it was formerly?

A. Yes, but not higher than what I would estimate that performance by machine excavation at this time and in this appraisal, because I would allow for the excessive cost of [fol. 1019] moving those machines between jobs, which was not done before.

Q. Where in this estimate of yours a higher estimate on tap lines shows up than on the former appraisal, is that due to the change from hand to machine excavation?

A. No, it may be in some cases due to the change from machine to hand excavation costs, and in other cases it may be due partly to that, and in some cases where machine excavation is used it may be due to the fact that in the analysis of machine excavation I have allowed for the variation of the cost per cubic yard with the size of the trench dug.

Q. Now, your costs for hand excavation per cubic yard where the hand excavation is on lengths less than 200 feet, goes from $1.31 to $2.138. How did you find that cost?

A. That was developed from an analysis of the labor and equipment required in excavating over 10,000 yards of such excavation on work done by the Lone Star Gas Company.

Q. Is that one of Mr. Steinberger's analyses?

A. Yes.

Q. On the lines studied in that analysis, what was the per cent of hand excavation?

A. I can not give that to you, Mr. Fitzhugh. I have before me only the summary of that. That can be obtained from Mr. Steinberger.

Q. Your unit cost for rock excavation, I believe you gave as $3.897 per cubic yard. Give a breakdown of that figure, please.

A. That was developed from a study of the data on the excavation of 28,748.1 cubic yards of such rock excavation, [fol. 1020] in which the total direct labor was $65,604.56, priced at rates as of January 1, 1933, and which labor costs, after adding field supervision at 7½ per cent, liability and compensation insurance at 8.48 per cent, and tools and construction plant expense at 12.1 per cent, become $84,026.32. The charges for equipment were $10,983.75 and this covers the use of truck, air compressor, tractor, team and driver. The cost of materials: dynamite, fuse, caps, amount to $17,012.54, or a total cost of $112,022.61 for the excavation of 28,748.1 cubic yards, or an average rate of $3.897 per cubic yard.

Q. Now that is likewise based on one of Mr. Steinberger's studies, is it not?

A. It is.

Q. Are your unit costs for machine excavation and for backfill per cubic yard also based on studies which were made by Mr. Steinberger?

A. They are based on data accumulated by Mr. Steinberger and analyzed by me.

Q. And where you say you have analyzed Mr. Steinberger's work, Mr. Biddison, what you mean is that you have simply adjusted the number of hours or man hours as found by him, and the performance, to a wage schedule as determined by yourself?

A. No, I don't mean that. I mean that besides doing that, when I say I have analyzed it, besides doing that in the particular case of this backfilling and ditching work, I have gone further than that in order to determine how the cost per cubic yard for excavation and backfill vary with the size of [fol. 1021] the trench. In other words, I have sorted this data out and grouped together certain portions of it, and stuck it in groups so as to obtain values that would apply to trenches of various sizes.

Q. I thought I understood you while ago to say you used the same prices regardless of the size of the trench?

A. No, I said that with regard to this figure for hand ditching.

Q. Well now, how did you vary the prices so as to give some recognition to the difference in the size of the trench—the difference in the trench size?

A. What are you talking about now—hand ditching or machine ditching, because in the one case I did not allow for any variation.

Q. In the case of machine excavation and backfill.

A. I have determined from a study of the data on six trenching machines that the cost per cubic yard for excavation will vary on trenches of varying sizes, from a figure of about $.386 per cubic yard for trenches averaging 40 cubic yards per 100 lineal feet, to about $.603 per cubic yard for trenches having an average area giving 10 cubic yards per 100 lineal feet, and I have used values in between those corresponding to the size of the trench.

Q. Do you know what the weighted average cost of machine excavation for the entire system is?

A. I worked it out once, Mr. Fitzhugh, but I have forgotten now. I will see if I can find that information for you.

Q. Could you give it anywhere approximately?

A. The weighted over-all cost on excavation?

[fol. 1022] Q. Just machine?

A. Just machine—my recollection is that it is some place between 40 and 45 cents, but I would want to look that up and not be tied to my memory on that figure.

Q. Was that part of a study you made to find the over-all cost of excavation, all types?

A. Yes.

Q. Do you remember what your final results were on the whole study?

A. No, I do not now.

Q. Will you have that study available?

A. Well, I am not sure whether I have that study here with me at Austin or not, but I will try to find out something on it.

Q. All right; did you vary the cost of rock excavation in accordance with the variation in trench size?

A. No. I used the over-all average figure determined as I have explained.

Q. Did you adjust the backfill figures to give some recognition to the variation in trench size?

A. Yes.

Q. In the same way that you did machine?

A. Yes.

Q. What is the variation that you took into consideration there?

A. That cost varies from trenches having an average of 50 cubic yards per 100 lineal feet at $.101 per cubic yard up to $.13 for trenches having an average of 10 cubic yards per 100 lineal feet, and that was determined by a study on backfilling.

[fol. 1023] Q. Now, this line is Dresser coupled, I believe you said?

A. Yes, sir.

Q. The laying and testing on a Dresser coupled line is different from that on a welded line, isn't it?

A. Yes, sir.

Q. Now, will you show how you obtained your unit cost for laying and testing of Dresser coupled lines—say, the 18-inch part of the line—we are still talking about Line K, shown on page 2171, and this is still a part of the breakdown of the first unit cost figure appearing on that page?

A. I have estimated a gang consisting of a foreman and thirty-nine men.

Q. Mr. Biddison, pardon me, just a minute. Did you use a different hypothetical gang for each size of pipe?

A. Yes, sir.

Q. Well, could you give the gangs for the 18, and 12, and 16—you could probably give them together easier, couldn't you? Give it any way that will be easier, one at a time or——

A. Twelve, sixteen, and eighteen, you wanted?

Q. Yes.

A. One foreman and five men at $4.50; one man at $7.50, and 28 men at $3.50, amounting to $131.50 per day. To this is added field supervision at 7½ per cent; liability and compensation insurance at 8.48 per cent; tools and construction plant expense at 12.1 per cent; one 1¼ ton truck at [fol. 1024] $12.50; three caterpillar tractors, $52.50; one Ford Pick-up, $7.50; one team and driver, $7.50; or $80.00 for equipment charges; giving a total daily charge for labor and equipment of $248.42. At a performance of 3,000 lineal feet per day this amounts to $8.281 per 100 lineal feet laid. On 16-inch Dresser coupled pipe, the crew consists of one foreman at $6.00 per day; two men at $4.00 per day; two at $4.50; three additional at $4.50; and one at $7.50; and

27 additional men at $3.50; producing $145.50 per day. Adding the same overhead accounts produces a sub-total of $186.36; and with the same equipment charges at $80.00, the total crew per day is $266.36. At a performance of 2500 lineal feet per day this amounts to $10.654 per 100 lineal feet. For 18-inch pipe, the crew consists of one foreman, and two men at $4.00 per day; five men at $4.50 per day; and one at $7.50 per day; and 31 additional men at $3.50 per day; amounting to $152.50. With the same overhead percentages this amounts to $195.32 per day; and with the same equipment charges of $80.00 per day, the total labor and equipment per day is $275.32, which on an average performance of 2250 lineal feet per day is $12.236 per 100 lineal feet. These costs are less than $4.50 per ton.

Q. About how many tons of performance were there per day on each size?

A. Well, take 16-inch pipe——

[fol. 1025] Q. It would be about the same tons performance for all, wouldn't it?

A. I don't know; I have not set it out in performance by tons. It is a little over 59 tons on the 16-inch.

Q. Well, you do get fairly close to the same performance in tons for all sizes, don't you, by the use of these gangs?

A. On the larger sizes it will run close to the same amount per ton; but the amount per ton will run up very markedly on the smaller sizes.

Q. As you go to the larger sizes of pipe, more and more you depend on machinery, don't you, Mr. Biddison?

A. Yes, sir.

Q. And the more you use machinery the less you would expect the labor per ton to be; isn't that true?

A. The more machinery you use, the less proportion of your total cost is labor, manifestly.

Q. Your labor costs, as well as your equipment costs, get progressively higher as the size of pipe increases; isn't that true?

A. Not in the sizes we have been talking about, no.

Q. Per ton performance it does?

A. The equipment charges per day are identical on the sizes we have been talking about. The gang has increased with the size of the pipe.

Q. Well, on per ton performance, both equipment and [fol. 1026] labor increase as you go to the larger sizes of pipe, isn't that true?

A. Yes; I think that is right.

Q. How did you happen to decide, Mr. Biddison, on the particular size gang to use for each size of pipe?

A. I took that size gang which it takes to handle that pipe and lay the pipe rapidly. I decided on it by setting out the crews necessary to perform each specific function.

Q. All this is hypothetical?

A. It is hypothetical in the sense that it is not taken from the Lone Star Gas Company records, if that is what you mean by hypothetical.

Q. You are not drawing from anything more specific than your general experience, are you?

A. No; but I am drawing from all that, extending over thirty years. I have had to estimate construction of pipe lines in this same manner that were later built. I have had plenty of opportunity to find out whether I could estimate or not.

Q. Well, you have had experience in the art of living for over thirty years, but you are not a doctor, are you?

A. No; and have not set myself up as one.

Q. Wouldn't it be better if you had some specific studies to depend on?

A. Well, I have had specific studies in these thirty years.

Q. Have you any of those reduced to writing, charts, or [fol. 1027] graphs, or anything of that sort?

A. Not here. This is my experience set down in general right here.

Q. You just made these all up, didn't you?

A. From my experience, yes, sir.

Q. All right, sir. How did you find your unit cost for 18-inch Dresser Couplings, as shown on page 2171, at $5.8781 per coupling?

A. This is based on a quotation f. o. b. Bradford, Pennsylvania, of $5.05 net; freight-rate is $.91 per hundred pounds; the weight is 91 pounds; the amount of freight is $8281; producing a net cost at railroad destination, January 1, 1933, of $5.8781.

Q. The Dresser Couplings used on this line, as shown in your inventory, total up about $176,000.00, don't they?

A. About that.

Q. In round figures. Now, on such a large purchase of couplings as that, Mr. Biddison, wouldn't the Company be assured of additional discounts.

A. No, sir; they would not.

Q. Doesn't the price that you have just given apply to small purchases of couplings?

A. It does. The Lone Star Gas Company, I believe, could put in an order for one coupling and get it at this price; but if they put in an order for ten million of them I think they could not get the price one cent cheaper.

[fol. 1028] Q. What makes you say that?

A. Because that is the price. By virtue of the fact that the Lone Star Gas Company is a large purchaser of Dresser Couplings, the Dresser Company has allowed them to place small orders, and get the same price on these small orders as on large orders.

Q. What is the largest order for Dresser Couplings that you know of this Company making?

A. I don't know what that largest purchase is.

Q. What do you know of the largest purchase any company making?

A. Well, something in the neighborhood of 150,000 couplings at one order.

Q. Do you know the price paid for those?

A. No; not now, I don't know.

Q. Don't you know that on that order there were additional discounts allowed by the Coupling people?

A. On what?

Q. Discounts for such a large order as that?

A. I know there was not.

Q. So, it is your testimony, if I understand you correctly, Mr. Biddison, that whether you buy one coupling, or ten thousand, you are going to pay exactly the same price?

A. No, sir; my testimony is not any such thing as that. My testimony is that the Dresser Company has a price for couplings to their large purchasers, and to them they will [fol. 1029] sell small quantities of couplings also at the same price. But purchasers who never purchase except in small quantities do not buy at such prices; they pay a much higher price.

Q. But the prices you have applied in your inventory, Mr. Biddison, are the prices that your Company would pay, whether it bought one coupling or large quantities?

A. That is correct. Fortunately, they can buy a small quantity of couplings at the same price that they pay for their large orders. That is a concession the manufacturers have made to them.

Q. Turn to page 2182. At the bottom of the page you show Tubing, Seamless, Plain End, 6 inch, 23 pounds per foot, in the quantity of 71,913 feet, at a unit cost of $1.5010 per foot, total cost of $107,941.41. Now, that represents, does it not, Mr. Biddison, the installation of tubing in a pipe line?

A. Yes, sir.

[fol. 1030] Q. Now, this tubing is the type of pipe that you usually use in an oil well; isn't that true?

A. Yes, sir.

Q. Or gas well?

A. Yes.

Q. How came the company to install this type of equipment in a pipe line?

A. I don't know, Mr. Fitzhugh.

Q. Ordinarily it would not be done, would it?

A. Well, it is quite often done, to use oil country tubular goods in pipe lines.

Q. Well, you wouldn't ordinarily use such a large amount, approximating one hundred and seven thousand dollars' worth, would you?

A. Well, not as a regular practice, no.

Q. Isn't the reason that this pipe happened to be installed, Mr. Biddison, because the tubing was available at second-hand prices and could be bought cheaper than pipe could be purchased?

A. Well, now, Mr. Fitzhugh, I stated I didn't know why it was put there, and I can't go any further than that.

Q. This is far more expensive than pipe, isn't it?

A. Considerably more so, yes.

Q. But it only serves the same purpose as pipe, doesn't it?

A. Well, it has some qualities which ordinary pipe does not have. That is the reason it costs more.

Q. Does it carry gas any better?

A. Yes; you can carry higher pressure than ordinary [fol. 1031] pipe of the same weight.

Q. Well, when you have tubing and ordinary pipe in a line you can't have any higher pressure without the line blowing out?

A. No.

Q. In this same line just above you show 18 pound per foot pipe and about one hundred thousand feet of that. Now, a line with that sort of pipe and this tubing could not

carry any higher pressure than the 18 pound pipe could stand?

A. It would depend upon which end the tubing was on.

Q. Well, which end is the tubing on in this case?

A. I don't know.

Q. Do you think it is fair, Mr. Biddison, to price this as tubing where it is serving the function only of pipe?

A. Why, certainly; it is tubing, and therefore ought to be priced as tubing. It is six inch, and therefore ought to be priced as six inch.

Q. Where the use is an unusual use and not the use ordinarily made of tubing, don't you think that ought to be taken into consideration in the finding of the price?

A. Why, no. I think the material ought to be priced at what it is.

Q. And if you had one of the pipes studded with diamonds you would still insist on that value?

A. I would still insist it ought to be classed as pipe studded with diamonds. Now, when it comes to appraising the value of a utility there may be some occasions when [fol. 1032] it is taken into account, but when you take reproduction cost new I think you should price it at what it is.

Q. If this tubing had been priced as line pipe sufficient to answer the purpose of this line there would have been a reduction of about forty thousand dollars below what you show; isn't that true?

A. I don't know whether it is true or not, Mr. Fitzhugh. I would have to get the location of the six inch line before I could answer.

Q. Well, you know it is approximately true?

A. No, sir. That is the reason I say I would have to investigate it. If I thought it was true I would say so.

Q. Well, what would you have to investigate?

A. Find out the location of the tubing in that line and find the conditions under which it is operated.

Q. You mean to see whether it is all in one place?

A. Yes, sir, and under what pressures it is operating. I can't answer that it is approximately true without having any facts before me. It might be true.

Q. Well, now, suppose that you put in a line 23 pound line pipe, or the nearest weight, and figure that price as against the one you found, wouldn't you have a comparable price?

A. No, sir; you would not. Twenty-three pound line pipe

would not cost the same as twenty-three pound seamless pipe and would not be as useful.

Q. Why.

A. There are different grades of material. One has a joint that is not as strong as the pipe.

[fol. 1033] Q. In the case of which?

A. In the case of line pipe there is a joint that is not as strong as the pipe and the material is not the same class of material as tubing, which does not have a longitudinal seam—it is seamless.

Q. Is there a bridge somewhere on the K. System?

A. I think so.

Q. Well, take the bridge that appears on 2102. This bridge is shown in the inventory to be a suspension bridge, at a cost of $64,099.61. How was the value of this bridge found?

Mr. Griffith: Mr. Biddison, I think you might explain to the jury what kind of a bridge this is.

A. This bridge is a wire cable suspension bridge across the Red River near Gainesville, Texas, for the purpose of carrying a transmission line. The Red River bed with the bulk of its length across North Texas is of shifting sand bars, and it is very difficult to maintain pipe line crossings in the river bed, and the Lone Star Gas Company at one time had river crossings in the river bed near this point, but on account of the cost of maintaining those crossings it built this suspension bridge to carry their lines across the river.

A. Along that line, Mr. Biddison, there are about six such bridges as this appearing in the inventory, aren't there—that is, suspension bridges?

A. I believe it is four of these suspension bridges. There are other bridges, smaller bridges.

[fol. 1034] Q. As an ordinary thing, you don't have to construct a bridge, except where there are extraordinary conditions?

A. Yes, only in case of unstable stream beds. All of these suspension bridges have been set up in this valuation at their total cost to the company as found on the company's records. In the case of this bridge across the Red River at Gainesville I was afforded an opportunity to see the cost record sheets of the contractor who constructed it. He had a substantial loss shown on his analysis of his own con-

struction records, and, taking the performance shown by his actual construction records and pricing them out on the basis of prices as of January 1, 1933, I found a substantial increase in cost over the actual cost on the company's books for this bridge over that contractor's bid. On that basis, the suspension bridges have, therefore, been priced at their cost.

Q. What were the construction conditions that this contractor encountered that made him show a loss?

A. Well, he had some losses up there—around twenty-eight hundred dollar flood loss.

Q. That is, an unusual condition came up that he had not anticipated in putting in his bid?

A. No, it is one of the conditions that occur in bridge construction.

Q. Well, did you inquire—make the same sort of inquiry on the other bridges contained in the exhibit?

[fol. 1035] A. No, sir. I didn't have an opportunity to do that in regard to the other bridges. But in the case of this bridge, where the contractor's actual costs were over twenty thousand dollars in excess of his bid price, I decided that it would be very reasonable to take the book cost on all bridges.

Q. What was the actual cost as per the company's books?

A. As set up on the company's books from that examination, $64,099.61.

Q. Now, as shown in your inventory that cost is complete, including designing fees and the cost of soundings. Did the contractor furnish all those?

A. No.

Q. Well, doesn't this include something in addition to the contractor's cost?

A. This includes the contractor's cost, with the cost paid for the design of the structure, which was by parties other than the designer, and of the securing of the information from which to make the design.

Q. So it does include more than the contractor's cost?

A. Well, it includes those three items.

Q. What was the contractor's cost alone?

A. I haven't that separated here; I can't tell you now.

Q. Does that figure include all engineering and overheads?

A. No, it does not.

Q. Why do you say that?

A. I say that because it does not include them.

[fol. 1036] Q. Well, where it shows designing fees, doesn't it include all services that are grouped in your appraisal as engineering supervision?

A. No. This designing fee was paid to a bridge designer for the purpose of designing this class of structure. It does not include the company's general engineering supervision during construction.

Q. Now, in the transmission line equipment of the company there are quite a number of gas cleaners, are there not?

A. Yes, sir.

Q. And on page 2044 you show three such gas cleaners at a unit cost of $2440.30 each. Just what are those gas cleaners?

A. Well, gas cleaners are cylindrical tanks containing baffles and kept weighted with oil, upon which the oil may impinge, and this oil then will hold the dust contained in the gas. They are for the purpose of removal of dust from the gas.

[fol. 1037] Q. Are these cleaners patented cleaners?

A. I believe there is a patent on them.

Q. Now, what part of the unit cost which you show, is to be attributed to the cost of the cleaner itself?

* * * * * * *

A. This figure of $7320.90 is comprised of $4,539.36 for the cleaners themselves, $2,280.03 for fittings and liquid tanks in connection with the cleaners, $421.72 for headers and cleaner foundation, and $9.79 for liquid tank platform. The delivered costs of the cleaners are $1373.25 each, the estimated cost of hauling is $28.88, the estimated cost of erection in place is $56.06, and the stores expense on the cost of the cleaners at 4 per cent is $54.93, which makes a cost of $1513.12 each, or $4539.36 for the cleaners.

Q. Where did you find your base cost of $1373.25 per [fol. 1038] cleaner?

A. That is on a quotation by the Acme Separator Company, specifically on a 48 by— a 48-inch with 12-inch connection.

Q. Does the Lone Star Gas Company get a special discount on these cleaners?

A. I don't know what discounts they might get in ordinary purchases. These are from quotations by the manufacturers of the separators.

Q. Well, do you know, Mr. Biddison, whether they would actually have to pay on an actual purchase to-day $1373.00 for one of these cleaners?

A. Well, I think they would; that is what the manufacturers said they would have to pay.

Q. But you don't know, do you, whether that is before or after discounts which the Company might have?

A. Well, that is after the two per cent cash discount.

Q. Well, you don't know whether there is a preferential discount or not in order for the Lone Star Gas Company, do you?

A. Well, the manufacturer refused to quote anything further than the two per cent discount. That is all I know about it.

Q. Did you yourself write the letter to the manufacturer?

A. No, sir, I did not.

Q. Who did that?

[fol. 1039] A. I believe Mr. Paul Richey wrote that letter individually. He can answer the question for you, at any rate.

Q. That depends, again, on one of Mr. Richey's prices?

A. Yes, these are prices derived by him in the routine course of development of the cost of this whole job.

Q. Now, on page 2044, the same page, there appears under Special Construction, Trinity River Crossing, 12-inch and 16-inch, 578 feet, at a unit cost of $10.9103 per foot, or a total cost of $6306.15; on the next page, 2045—on two pages past that, on 2046 there is Special Construction, Diversion Channel of the Trinity Crossing, 1120 feet at a unit cost of $6.9753 per foot, as compared with the unit cost on the other page of $10.9103 per foot. Now, those crossings are right side by side, aren't they, Mr. Biddison?

A. No, I think not. One of these crossings, I believe, is of the——

Q. Both crossings are on the Diversion Channel, aren't they?

A. I am not sure whether they are or not. I am trying to find out about that now.

Q. Well, at any rate, Mr. Biddison, can you explain why there is a difference in these unit costs, both being about the same size of pipe apparently?

A. Well, they are different lengths.

[fol. 1040] Q. But the unit cost in one case is Ten Dollars a foot and in the other is six dollars a foot, plus?

A. Well, one of these crossings contains—and this is the 12 and 16 inch crossing—contains 351 feet of 12 inch 37.453 pound pipe at $2.4409 per foot or $857.14, and 227 feet of 42.053 pound 16 inch pipe at $2.8188 per lineal foot or $639.87, and containing twelve 16-inch welds, amounting to $68,58, and eighteen 12-inch welds amounting to $79.76; and 13,419 cubic yards of wet excavation at 30 cents, and miscellaneous equipment, concrete blocks and so forth as anchorage, all of which amounts to $6,306.15. Now that crossing is 578 feet long and so that is at a rate of $10.9013 per foot. Now the other crossing contains a different bill of material and priced out by units the same way and dividing the total by the number of feet, it works out at a different unit price per foot.

Q. Nevertheless, Mr. Biddison, the one that has the twelve inch pipe in it, or the smaller size of pipe, is the one that shows to have a higher unit cost; isn't that true?

A. That might be. Wait until I find out—this crossing on Line Second C, which consists of 12 and 16 inch pipe, contains 607 feet of 16 inch 42.053 pound pipe at $2.8188 per foot or $1711.01, and 513 feet of 12 inch 37.453 pound pipe at $2.4409 per foot amounting to $1252.18; twenty-six 12-inch welds, amounting to $115.21; and thirty-six 16-inch welds, amounting to $172.19; 13,586 cubic yards of wet excavation at 30 cents per cubic yard amounting to $4,075.80; miscellaneous concrete work for anchorage, so that the total amount is $7,812.34; and the crossing is 1120 feet long, [fol. 1041] which is an average price of $6.9753 per foot.

Q. Well then, the difference can all be found in the fact that in the computation of Line Second C, where you have 1120 feet, you apply a price of 30 cents per cubic yard for wet excavation, while on the other computation you only had 578 feet of excavation figured at the same rate?

A. Largely so, yes.

Q. You had the same yardage in each case, didn't you, or approximately 13,500 cubic yards of wet excavation in each case?

A. In the second one, there was 13,586 cubic yards of excavation; in the other there is 13,419 cubic yards of excavation.

Q. Now, why is it, Mr. Biddison, that where one of these lines is practically twice as long as the other that you have practically the same amount of cubic yards of excavation?

A. Well, I could not explain that to you now without the detailed maps before me, and I do not have them before me.

Q. I believe the next classification of property is compressor station equipment in Volume 5. The Alvord station, the first one shown, is a comparatively small station is it not?

A. Yes.

Q. Will you turn over then, Mr. Biddison, to the Joshua station; that is a sizable one, isn't it?

A. It is.

Q. On page 2984 the first item shown is the station site, land. The amount of $1,150.00 represents, doesn't it [fol. 1042] $1000.00 paid for the land, plus $150.00 added by you for the purchase price?

A. I will check that in just a moment—that is correct.

Q. Now the improvements shown in the amount of $3,662.80 consist of fences, sidewalks and so forth, do they not?

A. Yes.

Q. In your direct examination I believe you said at the Caddo plant you applied 57.1 percent of the cost of fence for installation costs?

A. Yes.

Q. Did you do the same thing in this instance?

A. Yes.

Q. The next item appearing on the same page is the compressor building, in the amount of $18,804.85. How was that price found?

[fol. 1043] A. This building is priced on an estimate by Austin Brothers as of January 1, 1933, erected on concrete foundation, at $10,500.00; plus charge of sotre's expense of $420.00; plus estimated cost of painting inside and out, 133.57 squares at $5.88 a square, $785.39. This quotation does not include hauling to site, for hauling is estimated at 150,000 pounds at $.2769 per hundred-weight, $415.35, or $12,120.74. In connection with the installation of this building there are 227 cubic yards of excavation at $1.33—$301.91; 6107 square feet of form work at $.13, $793.91; 133 cubic yards of reinforced concrete at $14.66, $1949.78; 280 cubic yards of excavation by scrapers, at $.26 a cubic yard, $72.80; 9248 square feet of 5½ inch concrete floor, at 38 cents per square foot, $3,514.24; 1.2 M. brick used

as flooring, at $42.89 a thousand, $51.47; producing a total of $18,804.85.

Q. What was the first figure that you gave, the $10,500.00?

A. An estimate by Austin Brothers as of January 1, 1933.

Q. An estimate to do what? To put up the building?

A. To furnish the material and put up the building.

Q. Did you obtain quotations from anybody besides the Austin Company?

A. No, sir.

Q. This building has a concrete floor, does it?

A. Partly concrete and partly brick—mostly concrete. [fol. 1044] Q. The flooring in total cost is one of the biggest items in the total amount, isn't it?

A. Yes.

Q. How did you get your cost of 38 cents per square foot for flooring?

A. This is based upon a cost of one cent per square foot for grading and tamping; 4.2 cents per square foot for wire mesh reinforcement; 23 cents per square foot for the base concrete, 4½ inches thick, on the basis of $16.78 per cubic yard; 4 cents per square foot for the finish coat for flooring, and 5.9 cents per square foot for the finishing of the finish coat.

Q. How thick a finish coat are you figuring on, Mr. Biddison?

A. One inch.

Q. Is that what the finish coat actually is?

A. We didn't break this floor up to find out; but that is the common finish for a finish coat on that kind of flooring.

Q. That finish coat is at the rate of 10 cents per square foot?

A. Almost.

Q. Or 9.9 cent per square foot?

A. That is right.

Q. On page 2988, you show a number of Compressor Engines. In the first lot there are 8 units at $9,800.93 per unit. Does that price represent any discount given the Lone Star Gas Company by the Cooper Bessemer people, [fol. 1045] manufacturers of these compressor units?

A. Discount from what?

Q. Discounts from the quoted prices?

A. No, sir; this represents quoted price, and the date of this appraisal there is no discount available to the Lone Star Gas Company by virtue of quantity purchases.

Q. How many compressor units are there in the whole Lone Star Gas Company system?

A. I don't really know.

Q. Approximately how many?

A. I don't know; I have not added them up; there is a large number of them.

Q. One hundred or a hundred and fifty?

A. A hundred or so, I would guess, yes.

Q. Is it your honest opinion that upon a purchase of that size of such expensive engines that there would not be some special discounts given the Company on that account?

A. It is my honest opinion after a conference with the Cooper Bessemer Company officials that there would be no discounts whatever below these quoted prices to anybody on any number.

Q. In the past the Lone Star Gas Company has consistently gotten discounts from them, has it not?

A. Yes, sir; for a while the Lone Star Gas Company got a discount below the prices generally available to other purchasers, that is true; but that arrangement has expired.

Q. But that will not prevail in the future?

[fol. 1046] A. That is my testimony.

Q. And it does not prevail at the present time?

A. That is my testimony precisely.

Q. What did you figure on these particular units would be the cost of haul, or hauling these machines to the point of installation?

A. The estimated hauling costs on this group of units is $1,575.06.

Q. That is the total cost for these eight units, is it?

A. Yes, sir.

Q. About what is that per ton mile?

A. This is at the rate of $7.5655 per ton for unloading, hauling, and unloading on a haul of 1.52 miles.

Q. Now, those costs are based, are they not, on a study made by Mr. Steinberger?

A. No.

Q. What are they based on?

A. Based on some data obtained in part by Mr. Steinberger, and part obtained by myself.

Q. Well, explain what you mean, Mr. Biddison?

A. Well, in effect, the men who have been hauling that class of equipment and unloading it submitted data which has been analyzed. The data was not data incurred in the routine cost accounting work which Mr. Steinberger has been carrying on. In substance, the data is this: That to unload from cars to trucks, or to unload from those [fol. 1047] trucks to the ground at the plant site a 160-horse-power engine weighing 25.9 tons, the following crew is required: one foreman for 10 hours, 8 laborers for 10 hours, two truck-drivers for 10 hours, amounting to $43.00 per day. Adding to that for plant supervision 16.1 per cent; tools and construction plant expense 16.3 per cent; compensation and liability insurance 8.48 per cent; one 2½ ton truck at $17.50; one 1¼ ton truck at $12.50; and five per cent allowance for contingencies, on top of the sub-total of $90.58 at that point, we have a total cost, to either unload from cars to truck, or to unload from truck at the site, of $95.11; which on 25.9 tons is 3.67 and a fraction cents. Now, covering both operations of unloading from cars to trucks, and from trucks to unloading at destination, amounts to $7.3444 per ton.

* * * * * * *

[fol. 1048] Q. Mr. Biddison, in going back through the record on testimony already taken we find that the explanation that you made of the cost for rights of way is a little bit indefinite. Now, as I understand it, you took the actual costs showing upon the books of the Company and multiplied that by three to get the cost for gathering lines rights of way?

A. That is right.

Q. Now, the part that is not plain to us is just exactly what costs were included in the costs as per the books. Will you clarify that for us?

A. The costs taken were the purchase prices paid to the land owner.

Q. Now, does it include all of the legal expenses for the examination of abstracts?

A. No, sir.

Q. Does it include all of the acquisition costs?

[fol. 1049] A. No, sir.

Q. Is there any acquisition costs?

A. No acquisition costs included in the base figure taken from the books and multiplied by three. The multiplication by three is to make allowance in the estimate for crop damage and expenses of acquisition.

Q. But in the cost as per the books, the base figure, is there any cost of acquisition at all?

A. In the costs we have taken from the books there are no expenses of acquisition.

Q. Now, the multiplication by three is for the purpose of taking care of acquisition costs, examination of titles, recording fees, some clearing——

A. And damages.

Q. —and damages?

A. Yes, sir.

Q. Does it cover any additional items besides those mentioned?

A. No, sir; I believe that is the crop.

* * * * * * * *

Q. Is it a correct statement to say that this multiplication of the base price, being the cost of right of way as paid to the land owner, as shown by the books, is made to include all of the costs, including clearing?

A. It is.

[fol. 1050] Q. Now, on page 1100, that is your summary sheet for the Transmission System Rights of Way?

A. For Transmission System Rights of Way, yes, sir.

Q. Did you work out on main and tap lines for rights of way the actual average cost paid per rod to the land owner?

A. I have developed as the actual cost of right of way and recording for main and tap lines $.2776 per rod.

Q. What part of that was for recording?

A. I don't have it separated here.

Q. Now, then, if you multiplied that figure by three it comes out approximately 83 cents per rod, does it not?

A. Yes; $.8328.

Q. That compares with the computed cost that you used of $.9268 per rod, or about 93 cents per rod—that 83 compares with practically 93 that you computed per rod?

A. Yes, sir.

Q. Now, this method of three times the cost was a good method in the matter of gathering lines. Wouldn't it also

be a good system for the computation of the costs of rights of way for the transmission lines rights of way?

A. No; it would not.

Q. Why do you say that?

A. Well, because a study of the actual costs on this transmission system rights of way include the cost of right of way, and recording, cost of acquisition, cost of clearing, cost of damages and rebuilding fences, and is $.9268 in [fol. 1051] Texas per rod. Now, this is not a study of the entire right of way purchases by the Company, and when we apply this figure to the entire right of way purchases, I think we should make an allowance for contingencies in making such purchases, and for the probability of condemnation costs. Now, as a general proposition, the cost of buying rights of way on these small well lines—the cost of rights of way on these small well lines is not as high as it is in cross country transmission lines.

Q. Well now, Mr. Biddison, if you multiplied your base figure of .2776 by three to get the 83 cents amount we have just been talking about, that compares with $.8323 that you found for gathering lines, doesn't it?

A. It does.

Q. So, if you use the same methods you would come out about the same figures?

A. If you use the same figures and same method you ought to get the same answer. The question is the proper application of the answer. I have derived answers in each case which I think are suitable and proper.

Q. Yes, sir; and furthermore, in addition to the 93 cent figure you found for the transmission line right of way in Texas, you added 20 per cent for contingencies, didn't you?

A. Yes, sir.

Q. What are the contingencies that could possibly hap-
[fol. 1052] pen in rights of way, Mr. Biddison, besides all of the costs you have already named and actually studied?

A. Well, the contingencies can occur in purchases of rights of way almost without number. You have no assurance at all if you go back and purchase any single piece of right of way on this system at its present location you might not have to condemn a large number of contracts.

Q. Where you made actual studies of actual costs to the Company, those have included all the things that might actually happen in connection with rights of way?

A. They have included the cost of right of way, and recording, cost of acquisition, cost of clearing, cost of damages and rebuilding fences. They have not included any expenses incurred in condemnation proceedings; therefore, I have allowed above the sum of those figures an amount of money to cover not only the possibility but the probability of court costs in securing rights of way.

Q. Mr. Biddison, how many rods of the transmission system rights of way, as shown by the records of the Company, were actually condemned?

A. I don't know.

Q. How many rods of the gathering lines of the Company were actually condemned?

A. I don't know.

Q. And if any of the rodage in your main and tap lines [fol. 1053] figure of $.2776 was condemned, the costs of condemnation are in that figure, are they not?

A. No; the amount of money paid to the land-owner is in that figure—not the cost of condemnation.

Q. How many feet in a rod, Mr. Biddison?

A. Sixteen and a half.

Q. Under the present set-up for prices on steel pipe, in the purchase of steel pipe is the jobber entitled or permitted to divide his commission with the purchaser, or in the case of the Lone Star Gas Company with the Lone Star Gas Company?

A. I think not.

Q. Under the present schedule what is the jobber's commission?

A. The jobber's commission varies with the class of goods. I believe on——

Q. On pipe?

A. On plain end pipe, I think the jobber's commission is three per cent; that is my recollection of it.

Q. Could you look that up to make certain, Mr. Biddison?

A. Yes; I can get it. I can get a schedule that states that. I don't have it now.

Mr. Griffith: Mr. Paul Richey will have that for us.

Q. The jobber who handles purchases made by your Company is Mr. Simpson of the Lone Star Gas Corporation?

A. No, sir; he is not a pipe jobber. He is purchasing [fol. 1054] agent for the Lone Star Gas Company, and not a jobber in any sense.

Q. What is a jobber?

A. A jobber is a sales agent for a manufacturer. A jobber represents the manufacturer of material; the purchasing agent represents the buyer, and Mr. Simpson represents the buyer.

Q. Is Mr. Simpson of the Corporation paid a commission on pipe sales that he makes for the benefit of the pipe manufacturers?

A. He does not make any sales for the benefit of pipe manufacturers. He buys as the agent for the users of pipe.

Q. Is he paid commissions by the companies for whom he makes purchases for representing them in the purchase of pipe?

A. I know some companies use to pay him a commission of some sort for making their purchases for them. I don't know whether they do it at this time or not.

Mr. Griffith: But they were not connected with the Lone Star Gas Corporation?

A. No; they were not.

Q. How much cheaper can Mr. Simpson buy pipe for the Lone Star Gas Company than it could buy for itself if it bought directly?

A. I don't know. I do know, however, that Mr. Simpson has facilities in buying pipe, by virtue of his location and his familiarity with the business, which enables him at any [fol. 1054a] specific time to get what is probably rock-bottom prices on pipe.

Q. Can he buy at discounts below the quoted price?

A. I think the prices he has bought pipe at have been the prices quoted him. I don't know what you mean by buying below the quoted price. He buys on quotation.

Q. Could he as of the date of January 1, 1933, the date of your appraisal, have bought pipe at discounts below the quoted prices used by you for pipe in your appraisal?

A. I think he could have gotten some concession from those prices in case of actual purchases.

* * * * * * *

[fol. 1055] Q. Mr. Biddison, if you are correct that there is a jobber's commission of from three to five per cent, or

whatever it is, wherever your company is making a purchase of a substantial quantity of pipe, such as would be made if the company's plant were to be reproduced new, and where the purchase of pipe would run upwards probably of ten to twenty millions of dollars, under those circumstances it would be worth while for your company to set up a subsidiary company to act as a jobbing concern, would it not?

A. Why, it would be only in case you would work that scheme on the pipe manufacturer.

Q. Even with the local companies that work here in Austin or Fort Worth or Dallas or any other Texas city the jobber's commission of five per cent is allowed, is it not, by the manufacturer?

A. The schedule states that a commission may be allowed to the jobber up to certain limits. It does not say that anybody can go out and set themselves up as a jobber and get those prices.

[fol. 1056] Q. Well, isn't it a fact, Mr. Biddison, that all you have to do to be a jobber is to buy a certain purchase of pipe from a pipe manufacturer and sell it to somebody else?

A. No. To set yourself up as a jobber you have to make arrangements with the manufacturers to handle their line of goods and get the agency for their line of goods. Now, I am quite certain that the whole United States is pretty well covered with factory representatives of pipe manufacturers, or, in other words, jobbers for those various pipe mills. The point about that commission is that if the jobber does the work of making the sale the pipe mills will pay him a commission for doing that work. If the pipe mill does the work itself of making the sale I don't see why they should allow any commission to anybody for doing what they have done themselves.

Q. Well, it is worth something to the manufacturer to sew up the business, isn't it?

A. Certainly; that is the reason for his allowing a commission on it.

Q. Yes, sir. Well, if a subsidiary were to be set up to assure to the manufacturer of pipe all the business of the Lone Star Gas Company it would be worth something; wouldn't it?

A. I suppose it would.

Q. Probably greatly in excess of any five per cent jobber's discount, wouldn't it?

A. Well, I don't know why it would be worth any more to sell through one jobber than through another.

[fol. 1057] Q. All right. Now, Mr. Biddison, in your examination prior hereto you have stated that the differential between electric welded pipe and lap welded pipe was in the amount of about fifteen dollars per ton net?

A. Yes, sir. That differential was maintained for several years.

Q. What is the differential today?

A. Two dollars per ton.

Q. So that differential has dropped from fifteen to two dollars per ton?

A. Yes, sir. There is also an added differential for double length pipe, and most electric welded pipe is double length pipe, so that the bulk of the electric welded pipe would carry two differentials.

Q. What is the added differential for double length pipe?

A. Two dollars a ton, I believe. I think that two dollars per ton on the double length may be subject to some slight discounts which the two dollars for electric welded pipe would not carry.

Q. What is the differential today for seamless pipe?

A. I don't remember.

Q. Have you allowed in your appraisal, Mr. Biddison, two and a half per cent for omissions and contingencies on all transmission lines regardless of the size of line or of the type of line as to whether it is a welded dresser coupled or threaded and coupled line?

A. Yes.

Q. And you have also used, have you not, Mr. Biddison, [fol. 1058] a uniform price throughout your appraisal per ton for unloading pipe from cars, regardless of the size of the pipe?

A. Yes, sir. I should explain that that figure is slightly different as between Oklahoma and Texas on account of the difference in insurance rates, but aside from that difference the statement is correct.

Q. You have been asked the question heretofore, Mr. Biddison, as to what the approximate amount of the total omissions and contingencies in your whole appraisal is. Have you figured that out yet?

A. No, I have not given it any consideration since the question at all.

Q. Have you worked out as yet, Mr. Biddison, the per cent of hand excavation on the field lines?

A. That is not complete. I am having it worked out, but it is not quite ready yet.

Q. Have you found as yet the per cent of hand excavation in the studies made for the cost of excavation on the field lines—the transmission lines, rather?

A. No; I didn't know that I was asked to get that figure.

Q. Do you have that information with you now?

A. I believe the data is here. If it is desired, I will try to get that. I may be able to have that for you by morning—I am not sure.

Q. Yesterday, I believe, when we quit, Mr. Biddison, we were talking about the compressor station at Joshua.

A. Yes.

Q. On page 2988, Mr. Biddison.

[fol. 1059] A. What page?

Q. Page 2988. At the bottom of the page you have a notation, concrete foundation, including excavation, 132 cubic yards, at $17.35. Now, that cost, or one similar to it, is included everywhere where you have installation of these units, is it not?

A. Yes, sir.

Q. How was this particular unit cost of $17.35 per cubic yard derived.

A. This particular figure is developed as follows: Excavation, 172 cubic yards, at $1.3318, $229.07; forms, 1760 square feet, at 15 cents per square foot, $264.00; concrete 132 cubic yards, at $11.15, $1.471.80; 192 lineal feet of three inch pipe sleeves—this is casing around the foundation bolts—at seven cents, $13.44; 744 square feet of sand finish on concrete, at $.0338, $25.15; two cubic yards of grouting, at $34.38, $68.76; 744 squares of painting, at $.0384, $28.57; four sets of foundation bolts, at $47.24 per set, $188.96; making a total of $2,289.75, which, for the 132 cubic yards, is $17.35 per cubic yard.

Mr. Griffith: What are those foundation bolts of which you speak?

A. They are the bolts that hold the engine itself down to the foundation.

[fol. 1060] Q. Of the $11.15 for concrete cost, how much of that is material?

A. $4.37 of labor and $6.78 is material.

Q. All right. Now, the 132 yards of concrete in this batch serve as foundations for air compressors, is that right?

A. Yes.

Q. That is, this cubic yardage was divided into four batches of concrete, wasn't it?

A. Yes, sir.

Q. How would you pour that concrete, Mr. Biddison? Wouldn't you just make your—run your mixing machine up to the forms and pour your concrete directly?

A. No, you would do some wheeling of your mixed concrete on that.

Q. On the units shown just above on the same page, the same station, where you have 8 units with a cubic yardage of 290.4, did you use the same labor cost per yard?

A. Yes, sir, the cost for the concrete itself is identical in both jobs.

Q. $4.37 per cubic yard for labor?

A. Yes, sir.

Q. On the next page—2989, where you have 152 cubic yards as foundations for four units—those foundations are slightly larger, are they not?

A. A little bit; almost the same size.

[fol. 1061] Q. And on that concrete you used $4.37 for labor per cubic yard, also?

A. Yes, sir.

Q. Is $4.37 the amount for labor per cubic yard used throughout in the foundations for compressor stations?

A. Yes, sir—no, not for all foundations; for the large foundations, such as engine or large building foundations; it is not the price used for labor on concrete work in the small batches for small piers and work of that sort.

Q. Yes, sir, I understand that; but it is used as the price per cubic yard for all foundations for compressor engines?

A. Yes, sir.

Q. What was the cost of labor per cubic yard on the small installations.

A. On what I have classed as medium batch work, which is work down to, I believe, one yard in size, $9.49, and on small piers and work of that sort, $11.09.

Q. Now, that is not just the labor cost, is it?

A. Yes, sir, that is labor I am talking about.

Q. At the Petrolia Compressing Station, the foundations for the compressors are considerably larger than at those located at other stations, are they not?

A. Yes, they are much larger.

Q. Did you use $4.37 for labor per cubic yard for the [fol. 1062] concrete at those foundations?

A. Yes, sir.

Q. Now, those foundations run in excess of 300 cubic yards per foundation, do they not?

A. Either in excess or very close to that figure.

Q. And there are several thousand cubic yards of such foundations at the Petrolia Station, are there not?

A. Well, there is—no, not several thousand; there is——

Q. Well, there are over a thousand, anyway, aren't there?

A. Well, offhand, I would say close to two thousand. I don't think that is several thousand.

Q. On pages 2989 and 2990 you show some Babcock and Wilcox Boilers. There is nothing particularly distinctive about these boilers—that is, the Babcock and Wilcox boiler is no different from any other boiler, is it?

A. Yes.

Q. What is the distinctive feature of the Babcock and Wilcox boiler?

A. Well, the distinctive feature of the Babcock and Wilcox boiler is the manner in which the tubes and the tube headers are arranged. There are other boilers manufactured whose general appearance is similar to these.

Q. Well, what I was getting at, Mr. Biddison, you didn't get any competitive prices on those boilers, did you?

[fol. 1063] A. No.

Q. You took the Babcock and Wilcox figures on them?

A. Yes, sir.

Q. Now, these boilers, or rather the first boiler at the Joshua Compressing Station Plant is shown in your appraisal in the amount of $32,760.00. If your Company were actually to be reproducing a plant such as the Joshua Compressing Station and they were actually going to make a purchase of a boiler like that, wouldn't you get competitive prices?

A. Why, you would get a quotation from Babcock and Wilcox Company, or from their representative, and you would also have quotations from people who manufacture

other lines of boilers, yes. I don't think there is any question about that.

Q. Wouldn't you be able to get a boiler for a much cheaper price than the $32,760.00 you show in your appraisal?

A. I am certain you wouldn't get a boiler with the same features that this one has. You can go out and buy another 440 horse-power boiler cheaper than that; without doubt you can go and buy somebody else's boiler of 440 horse-power at a higher price.

Q. Well, the point is, isn't there a difference between preparing an estimate where there is nothing at stake and nothing involved and not going to spend any money, and under different conditions where you are actually going to [fol. 1064] spend the money and build something and want the work done?

A. No, there is not. Now, at the same time I appreciate the fact that when one is actually placing orders, that there is occasionally an opportunity to chisel a little bit here and a little bit there, but the prices for this class of equipment are in general stable, fixed prices.

Q. You have not in your appraisal at any place asserted that there would be any chiseling done, have you?

A. No.

Q. Or any savings at all, or any bargains?

A. As far as possible, we got the benefit of the bargains in obtaining the prices. There might be a few items on which, when orders were actually placed, some slight concessions might be had, but they would be minute in total.

Q. Now, just point out, Mr. Biddison, anywhere in your appraisal a really good bargain.

A. Well, take page 2990, the prices for these boilers we have just been talking about.

Q. Well, couldn't anybody buy a boiler of that type for that price?

A. Yes, and I think it is fully worth it.

Q. And that is your idea of what a bargain is, just getting a thing at the ordinary bargain price that anybody [fol. 1065] can buy it at?

A. Getting your money's worth, yes, sir; that is my idea of a bargain—getting your money's worth.

Q. All right. On the Joshua Compressor Station there is shown to be a number of different kinds of piping which serve, as shown in your appraisal, as Air Starting Lines,

Fuel Lines, Air Intake Lines, Water Lines, Boiler Feed Water Lines, Steam Lines, Steam Exhaust Lines, Low Pressure Suction Lines, High Pressure Discharge Lines, Exhaust Lines, Auxiliary Water Lines, Drain Lines, Fuel Service Lines, and Water Service Lines, and perhaps some others. How did you get the labor costs for the installations of that piping?

A. As an example, suppose we take Water Lines, including Engine and Compressor Connections Above Ground,—the total amount of fittings is $5360.89, of which $1450.20 consists of welds, leaving a balance of $4910.69 of materials subject to stores expense at four per cent, amounting to $196.43. A study of the ratio of labor cost to installation cost on three stations, Brad Station, Sipe Springs Station, and Joshua No. 2 Station, shows a ratio of labor cost to material cost of 32.48 per cent. This amount applied to $5360.89 of materials, plus $194.43 of stores expense gives $1805.02 of installation charge.

Q. Mr. Biddison, does that installation percentage of 32.48 per cent include welding?

A. No, sir, it does not.

Q. No welding at all, of any description?

[fol. 1066] A. No, sir, it does not include welding. I still have an item in that connection of $22.10 which I have to run down. The $22.10 item consists of the hauling expense on $5,360.89 of pipe and equipment, less $450.20 of welded fittings, or $4,910.69 of materials, at .45 per cent.

Q. Have you any allowance in this, Mr. Biddison, for omissions and contingencies?

A. No, sir.

Q. I mean in the $2023.00.

A. No sir. Yes, there is.

Q. You still have not accounted for about $200.

A. There is 2½ per cent allowance in that—2½ per cent.

Q. Does that make up the $200 that you have not yet accounted for? The total you gave was $1805.00 and then you gave us $22.10 additional, whereas your total installation cost was $2023.

A. I gave you $196.45 as the first item.

Q. Is that stores?

A. Stores expense, yes.

Q. Well, that completes the total then, does it?

A. It does.

Q. Turn to Volume 6, please sir, the Petrolia compressing

station shown on page 3101, at a total cost of $1,056,638.41. The main compressor building shown on page 3102 is shown in the amount of $56,571.82, is it not?

A. Yes.

Q. Did you get this price from an estimate given you by the Austin people?

[fol. 1067] A. No, sir.

Q. Where did you get the estimate on this building?

A. This is an estimate by the Mosher Steel Manufacturing Company of Dallas.

Q. Did you get a bid from anybody else?

A. No, sir.

Q. Were they the original constructors of this building as originally built?

A. No, the original structure was built by a concern at Fort Worth, and I believe their name was Southwest Construction Company. They were the construction organization of one of the packing concerns over there at the time. They were the original builders. If I remember correctly, Mosher built an addition to it.

Q. This building is almost entirely corrugated iron, is it not?

A. Yes.

Q. Do you know what the cost included in this estimate was per square for corrugated iron, installed?

A. No, the estimate does not break that down.

Q. You really do not have a breakdown on any of the costs in this building?

A. On some of the other buildings I do, yes. I can give you a breakdown on them.

Q. This is one of the largest buildings, isn't it?

A. It is the largest compressor building, yes.

Q. Have you on any of these buildings which are constructed of corrugated iron figured the cost per square for iron installed?

[fol. 1068] A. Yes.

Q. Did you use the same cost that you used on measuring station regulator structures?

A. No.

Q. What is the cost that you used?

A. $3.16 per square for labor of installation.

Q. That compares with the $3.54 used for the measuring station structures, does it not?

A. Yes, it compares in this way—that for the placing on

these structures of the corrugated iron on these compressor station buildings the estimated cost is $2.75 per square, to which is added 15 per cent additionally or 41 cents per square to cover flashing and the incidental metal work to be done otherwise than on the corrugated sheets. The truly comparable figure is $2.75 per square on the compressor buildings as against $3.54 on the small transmission measuring station buildings.

Q. The $3.54 per square labor cost for the measuring station structures included the metal work and the flashing done on them, didn't it?

A. Well, there wasn't any flashing work done on those structures.

Q. None at all?

A. Well, there may have been some in some few instances, but it would be only a small amount.

Q. And your costs include that?

A. Yes, if there is any.

Q. Your average measuring station structure is about four feet square by about seven or eight feet high, isn't it? [fol. 1069] A. Well, I believe the average would run nearer to six feet by eight feet.

Q. Six by eight by about seven or eight feet high.

A. Yes, about eight feet high.

Q. And your average city gate measuring station structure is about what size?

A. Oh, about ten by thirty.

Q. Now, what is about the average size of these compressor station structures?—Well, to give the jury a general idea, Mr. Biddison, isn't the ordinary structure about the width of this room and about the same height or a little less, and possibly somewhat longer?

A. Yes, maybe twice as long.

Q. They are sizable structures, aren't they?

A. Yes.

Q. And these corrugated iron ones have corrugated sides, ends and roof?

A. Yes.

Q. Turn to the main units of the Petrolia compressing station shown on page 3123, Mr. Biddison. On the four units shown in the middle of that page, totalling a cost of $310,791.68 or a unit cost of $77,697.92, I will ask you, Mr. Biddison, if you have included in your unit cost a four per

cent allowance for stores?—Can't you answer that question, Mr. Biddison, without having to look it up?

A. No sir, I want to look it up and see what the stores allowance was on it. The total stores expense on these four [fol. 1070] units was $5,109.77.

Q. Now, how was that amount found?—Or, Mr. Biddison, before you look that up, how do you think it ought to have been found?

A. Well, I think it ought to have been found by applying a percentage to the engines as developed by a study of what the stores expense has actually been on compressing station units.

Q. Well, now, see if you really did that.

A. That is what I am doing. Yes, that is what was done.

Q. Mr. Biddison, what were the computations you had to make there; were you working back to see what you did?

A. No, I am applying 1.8 per cent to the cost of this material, F. O. B. railway siding.

Q. Where did you get the 1.8?

A. 1.8 is the figure derived by a study of the stores expense on compressing stations.

Q. Secured by a hypothetical study?

A. No, it was secured by a study of the actual stores expense incurred in the construction of compressor stations.

Q. What actual expense is that?

A. The actual expense incurred in the construction of the compressor stations at Brad, Joshua Number Two and the Sipe Springs station.

Q. Now those are all small stations, aren't they?

A. Yes, compared to this Petrolia station, they are small stations.

Q. How much does a compressor unit of the type used in those stations cost, approximately?

A. Well, those 160 horse power units are somewhere [fol. 1071] around Eight Thousand Dollars a unit.

Q. As compared with what?

A. Or $9,000, I believe.

Q. As compared with $77,000 and something, I believe, for these units at Petrolia?

A. Yes.

Q. What does that $5,000 and something for stores expense actual- cover on these Petrolia compressing station units?

A. It covers accounting for materials and handling and checking materials.

Q. Now these compressing station units are very large machines, aren't they, Mr. Biddison?

A. Yes.

Q. You couldn't hardly lose one of them, could you?

A. It would be quite difficult, yes.

Q. Well then, what checking in and out of a warehouse is going to be necessary on one of these big units?

A. One of these machines when shipped is shipped dismantled and consists of several carloads of material. Of course the main frame, which weighs somewhere around thirty to thirty-five tons, is not crated, or boxed, and the flywheel may be shipped without being crated or boxed, but every other item of equipment on that engine is crated and boxed and has to be accounted for and checked in upon receipt and has to be found ready for use when they go to put it in place. That is an expense in stores accounting in the handling of this equipment.

Q. All right; now is that always the case on all sizes of [fol. 1072] compressor engines? Are they always shipped dismantled?

A. No, you can buy small units completely assembled. The units at Brad and Joshua and Sipe Springs are smaller units and they came in a more completely assembled form then the big Petrolia units did.

Q. Now does the installation costs on these Petrolia units represent costs found in the same method as for the installation of the small units at Brad, Sipe Springs and the other stations you mentioned?

A. You are talking about the installation charge on the equipment?

Q. Yes.

A. No sir, it does not.

Q. How did you work out this installation cost?

A. From a set up which I made particularly for the Petrolia station, based on my own experience in erecting engines similar to those—and incidentally, I supervised the erection of the original installation at Petrolia.

Q. Is that one of these hypothetical set ups?

A. I don't like the name, but it falls in the class with others to which you have applied that name.

Q. Well, you will agree it is all hypothesis, don't you?

A. No, I do not agree to that at all.

Q. You think that would be a dangerous admission, do you?

A. No, I don't think it would be a dangerous admission; that is not my idea. I do not think it is a proper terminology.

Q. What would be the proper term to apply to it?

A. It is simply an estimate based on my experience. It [fol. 1073] is not an estimate based upon the data accumulated from the properties evaluated.

Q. Or on any other property?

A. Yes, it is.

Q. In specific detail?

A. In specific detail, yes, dating back—my first one was in 1904, or '05—1905.

Q. If there is any one thing you are supposed to be an expert on, Mr. Biddison, it is supposed to be compressor stations and compressor engines?

A. I have built a lot of them, yes.

Q. Didn't you and Mr. Griffith pay particular attention to that on your direct examination to show how thoroughly informed you are on that particular class of property?

A. I don't know that we paid any more attention to that than to other things.

Q. Well, this is really your strong point, isn't it?

A. I know a lot about it, among other things.

Q. Nevertheless in computing your costs for Petrolia you have made a purely hypothetical set up, representing a gang set up or something of the sort, where you have never really used a gang of that particular size on any installation in your experience?

A. I don't know that I have ever used a gang of this particular size, but this is a gang of the approximate size which would be used and the performance is that which could reasonably be expected of that sort of a gang on this work.

* * * * * * *

[fol. 1074] Q. I asked just before recess for your hypothetical set-up for these Petrolia installations.

Mr. Griffith: The same kind of set-up you stated was based on your experience, Mr. Biddison.

A. This station consists of two single and five twin engines. I might state that a single engine of this type consists of two power cylinders in line with a compressor cylinder

on the opposite side of the shaft and in line with the power cylinders. There is one main bearing for the shaft in the engine frame, and the other end of the shaft is supported by an out-board bearing. Now, the twin engine has four power cylinders, and the bed-plate for one side sets in the same location that the out-board bearing would set in the case of the single engine. The erection work for six of these twin engines would take about the same amount of time as the erection work for the five twins and two singles. I have estimated that it would require seventy-five days to erect these engines, and twenty-five days for testing and adjusting, breaking in and tuning the engines. Now, on this basis, I have set up the crews that would be required, and the time for which those individual men would be required. I estimate that the wages paid would be $12,166.00. To that I have added for supervision 16.1 per cent; for tools and construction plant expense 16.3 per cent; for liability and com- [fol. 1075] pensation insurance 8.48 per cent; for a total of $4973.46; the use of a tractor for sixty days at $750; the expenses of the erector sent down from the factory for four months at $150 a month, plus traveling expenses, or $870.00 total; making a sub-total of $18,759.46 to which I have added a contingent allowance of five per cent, bringing the sub-total to $19,697.73. For painting the engines I estimate 150 gallons of primer, and 100 gallons of enamel paint, which with four per cent store's expense amounts to $687.41; or a total of $20,384.84; which is $2.70 per horse-power on 7550 horsepower; and which amounts to 68¾ cents per hundred pounds.

Q. What crews did you use, and what were the rates of pay, Mr. Biddison?

A. One foreman at $6.00 for 100 days; one erector at $25.00 for 100 days——.

Q. Is that at the rate of $25.00 a day?

A. Yes, sir. Two machinists at $5.00 for 75 days; two operators at $5.00 for 60 days; two oilers at $3.50 for 60 days; one rigger at $6.00 for 60 days; one tractor operator at $4.60 for 60 days; one pipe fitter on small pipe at $5.00 for 60 days; one fitter's helper at $3.50 for 60 days; one pipe foreman at $5.00 for 60 days; ten rigger's laborers at $3.50 for 60 days; three erector's laborers at $3.50 for 60 days; eight piping laborers at $3.50 for 45 days; 4 additional piping laborers at $3.50 for 15 days; two painters at $4.50 for 36 days; two painters at $3.50 for 36 days.

[fol. 1076] Q. What is that cost for erector that you have there—what is the erector?

A. That is the factory representative who supervises the erection.

Q. You mean he is an engineer?

A. Yes; he is an engineer and erector sent down by the factory, paid for by the company.

Q. Would that be a necessary cost?

A. Absolutely.

Q. Wouldn't you have men working for your company that would be capable of putting these machines in without having a factory representative come to supervise the installation?

A. Well, there are men in the employ of the Lone Star Gas Company who I think could erect those engines, but when you buy those engines you have no guaranty applying upon their operation unless you have them erected by a factory representative.

Q. On the jobs where you worked in installing compressor station machinery were you the erector on those jobs?

A. Well, I supervised the whole job; but I always had on engines of this class an erector from the factory every time.

Q. Did you install these engines that are listed on page 3123?

A. I supervised the installation of part of them.

Q. What was the date of that installation?

[fol. 1077] A. I believe that was in 1914.

Q. About twenty years ago then?

A. Yes, I am not absolutely certain of that year; it might have been slightly later than that.

Mr. Griffith: You also made the estimates of the cost before the station was built, didn't you?

A. Yes, sir; made the estimates of cost, made the designs, and supervised the installation. The original installation consists of three singles and two twins.

Q. And they had to have a factory representative come down and make the installation?

A. To erect the engines themselves, yes, sir; that is customary practice in large machinery, whether it be gas or steam engines.

Q. When did you last supervise the installation of some compressor machinery?

A. 1930.

Q. Of this size?

A. Yes, sir.

Q. Where were those compressor units installed?

A. Two of them in Alabama and five in Mississippi—change that answer—seven of them in Alabama and two in Mississippi.

Q. Now, on the seven that you installed in Alabama, Mr. Biddison, what gang set-up did you use?

A. Well, the gang was similar to this one.

[fol. 1078] Q. Did you have exactly the same number of men?

A. Well, I don't know whether I had exactly the same number of men, or whether they worked exactly the same hours.

Q. What was the total labor cost on that job?

A. The labor on that job was all performed with respect to five of these units by a contractor who had a turn-key job. On two of the units, however, which were built directly by Company forces, the erection labor cost was in excess of three dollars per horse-power.

Q. Did you work for the contractor or the Company?

A. I worked for the company—supervised the contractor.

Q. Do you know what the contractor's costs were on the five machines installed under the turn-key contract?

A. I do not.

Q. What did the contractor charge the Company for that installation?

A. Well, I don't recall the costs now; but I do recall that the over-all costs of those stations were about $145 per installed horse-power.

Q. You don't know what the contractor's part was, though?

A. Not now, no. His contract included the foundations, the main building, the auxiliary building, the engines, electric wiring, and all auxiliary equipment, including electric generator, and electric pumps, oil filtering apparatus, and so forth.

Q. Are these Worthington Snow horizontal double acting [fol. 1079] twin tandem, four cycle, gas engines being made now?

A. Yes, sir.

Q. Are they made by anybody else besides the Worthington Snow people?

A. They are made by the Henry R. Worthington Company; that company is the manufacturer of that engine.

Q. On page 3515 you show General Office Land in the amount of $44,545.00. I believe you stated on direct examination that that figure was derived from the books of the Company?

A. Yes, sir.

Q. When was that land purchased?

A. I think about 1922 or '23, about that time.

Q. About '22 or '23, you say?

A. Yes; about that time.

Q. Now, since that purchase, a part of that land has been sold to the Dallas Gas Company, has it not?

A. Yes, sir.

Q. How much did the Dallas Gas Company pay to the Lone Star Gas Company for the land purchased?

A. $1626.48.

Q. What was the purchase price of the whole parcel of land as per the books?

A. The purchase price was $4,500.00; to that is added delinquent taxes, $1171.47; making a total cost of $46,171.47.

Mr. Griffith: I believe you said $4500.00 where you mean $45,000.00.

[fol. 1080] A. I meant $45,000.00.

Q. So you then made a deduction of the amount sold to the Dallas Gas Company?

A. Yes, sir.

Mr. Griffith: That is just a small strip that was sold?

A. Yes; I think 13 feet, if I recall right.

Q. So that the $44,545 shown in your exhibit includes about five or six hundred dollars worth of delinquent taxes?

A. Includes $1171.47.

Q. Of delinquent taxes?

A. Yes.

Q. On pages 3516 and 3517, Other General Land, you show several parcels of land ranging from the highest $18,052.00, to the lowest $2500.00. When were these pieces of land purchased?

A. I can't tell you the date on the eighteen thousand one; the other parcels, however, were purchased in connection with the Company's General Shop which was built about 1926 or '27, I believe.

Q. And you have placed them in your appraisal at the actual cost?

A. Yes, sir.

[fol. 1081] Q. On page 3520, where you show the General Shop Warehouse, at a cost of thirty-nine thousand dollars plus, I believe you say that that cost was found by an estimate given you by Austin Brothers?

A. Yes, sir, who built the structure.

Q. Was that the actual cost incurred by them in building the warehouse?

A. No; that was a quotation made by them as to the cost of reproduction.

Q. Did you obtain any competitive bids from any other people?

A. No, sir. The figure given there of $39,247.90 I explained on Direct Examination included some items not embraced in the Austin Brothers contract or in the Austin Brothers quotation which were parts of the building not covered by work which they had done.

Q. In the classification General Office Furniture and Fixtures, page 3722, the first item shown there——

Mr. Griffith: It is page 3522, Mr. Fitzhugh.

Mr. Fitzhugh: 3522, yes, sir.

Q. The first item upon that page is a Special Oak desk with inlaid top, figured at a cost by you of $1260.00. Where did you get the price for that desk?

A. All these prices on this equipment were furnished to me by Mr. Richey. I don't know offhand just which desk that one is.

Q. That is a pretty high priced desk, isn't it?

A. Yes, sir; it is.

[fol. 1082] Q. The next eleven desks shown in the inventory are a Cathedral Oak and some walnut desks. Were those prices furnished by Mr. Richey also?

A. Yes, sir; those prices were obtained through him.

Q. The Cathedral Oak desk is priced out at the price of $342.00, isn't it?

A. Yes, sir.

Q. The walnut desk just following at $820.00?

A. For two.

Q. For two of them?

A. $410.00 each.

Q. Yes, $410.00 each. Following in the inventory is a small desk at $585.00. How do you account for the smaller desk being more expensive?

A. Well, the price on desks does not run in proportion to size, Mr. Fitzhugh.

Q. Well, they are both walnut desks, aren't they?

A. Yes, sir. One is a rolltop desk and the other is something else.

Q. Would that make the difference in cost?

A. Well, it would account for some difference in cost at least.

Q. Well, as a matter of fact a rolltop desk is no longer considered the stylish thing, is it?

A. Well, I know some people that wouldn't have anything else.

Q. They are less expensive as a general rule than a flattop desk?

A. No, sir. As a rule a rolltop desk is the more expensive desk.

[fol. 1083] Q. On page 3529 there are some Davenports listed, one red leather upholstery, one green leather upholstery, and another different size red leather upholstery. Now, those are all special upholstery jobs, aren't they?

A. Yes. I think a great deal of this equipment was made up on a special order under a contract for such equipment—that is, this high priced equipment.

Q. Now, where the furniture has been specially made to order, how did you get the prices on it?

A. Well, a great deal of material that is not carried in stock will be made up on order.

Q. I know, but does this $270.00 for these special upholstery jobs represent the price actually paid or a calculated or appraised price?

A. It represents an appraised price.

Q. To really inquire into the prices for furniture we would have to ask Mr. Richey about it, wouldn't we, Mr. Biddison?

A. Yes, sir.

Q. When you come over to the miscellaneous classification, page 3558, you show a Collins and Aikman Paddington carpet over one-quarter inch Ozite Lining. That carpet covers the entire tenth floor of the Dallas gas building, doesn't it?

A. It is so stated; yes, sir.

Q. Except one office?

A. Yes, sir.

Q. The price of that is $3,531.00?

A. It is so shown; yes, sir.

[fol. 1084] Q. Is that a price also given you by Mr. Richey?

A. Yes, sir. This may have been the actual price paid for that carpet; I don't know.

Q. Now, on the next page, 3559, is shown a Super Worsted Chenille Carpet Special Color installed including one-fourth inch Ozite lining. Now, that is a carpet made for just one room, isn't it—can you look up and find the size of that carpet?

A. No. The work papers do not show the dimensions of that carpet.

Q. Can you tell from those papers the source of the price of $1,100.00 placed on that carpet?

A. No; that would have to come through Mr. Richey.

Q. Would the same apply to the Oriental Throw Rugs on the same page?

A. Yes, sir, and any other carpet or any other piece of furniture listed on this list.

Q. Would that also include the Hand Made Draperies?

A. Yes, sir. It would include anything in this list, General Office Furniture and Fixtures.

Q. On page 3568, under General Shop Equipment, you show a Bruce-Macbeth vertical, four cylinder, four cycle gas engine, 110 horse-power. Does any one else make a gas engine of this type besides the Bruce-Macbeth people?

A. Yes, at least a dozen other manufacturers.

Q. Did you get prices on any other engine that serves the same purpose as this engine?

A. No.

[fol. 1085] Q. Is this a competitive price? I mean did you get bids on this engine?

A. I got quotations from the manufacturer of this engine.

Q. Well, you just got it from one manufacturer?

A. Yes, got it from the manufacturer.

Q. On page 3582 you list under General Tools $32,935.84 for compressing tools. What do those tools consist of?

A. Well, they consist of wrenches, hammers, calipers, tongs.

Q. Does that include all the tools necessary to operate compressor engines?

A. Yes, sir.

Q. Isn't it a fact, Mr. Biddison, that when you buy those compressor engines the tools come with the engine?

A. Usually if you buy several engines you get one set of tools, which are practically used up by the time your compressor station job is done.

Q. You mean you use up all the tools that come with the engine in getting the engine installed?

A. Yes.

Q. But your price for engine does include tools?

A. Yes, sir; it includes a set of tools, and a lot of tools that are not a part of any set.

Q. Pipe line tools you show as $58,558.42. What do those tools consist of?

A. Those consist of tools used by the pipe line men in the operation of pipe lines and repairs, maintenance work.

Q. Does that include welding wagons or acetylene gas equipment?

A. Yes.

[fol. 1086] Q. How many welding wagons have you got in this fifty-eight thousand amount—incidentally, you don't include the detail on any of these items in your appraisal?

A. No.

Q. Just have the lump sum figure?

A. Specifically, now, what class of welding equipment is it you want me to pick out?

Q. Acetylene equipment mounted, or wagons. I don't know what you call—acetylene wagons, I guess, or welding wagons, whatever term you give to those pieces of equipment. What do you call those?

A. Well, they are wagons for hauling generators. They might often be styled as generator wagons.

Q. Yes, sir.

A. Thirteen generator wagons.

Q. At what cost?

A. Ninety dollars each.

Q. Does that include the generator mounted?

A. No, sir; it does not. There are five generators at $260.00, and one generator at $308.70, and one generator at $260.00. I believe that is the total of generator wagons.

[fol. 1087] Q. Well, just in a general way, what are the biggest items in this $58,000.00 amount?

Mr. Griffith: The detailed working papers that you have in front of you, Mr. Biddison, cover a great many items of this class of equipment?

A. Yes, sir, they do; but there is a very considerable amount of welding equipment, aside from the wagons and generators, which I have already mentioned, consisting of regulators, welding torches, tips for torches, poles——

Q. There is no separation in the detail sheets that you have there before you now, as between equipment used on new construction and equipment used for maintenance and repairs, is there?

A. Why no; equipment may be used indiscriminately for one or the other.

Q. Or for both?

A. Yes, certainly. Just because your are going to do an operating job you wouldn't go buy a special wrench.

Mr. Griffith: In other words, Mr. Biddison, is there a distinction between an operating wrench and a construction wrench?

A. No.

Q. There is a difference in the way in which you handle the cost of one of those wrenches, though, whether it is [fol. 1088] maintenance or construction?

A. No, the expense of the use of those tools is based on the use thereof.

Q. The wearing out of a tool used in new construction is properly charged as an item of capital expense——

A. Yes, sir.

Q. —and the wearing out of a tool used in maintaining a pipe line, or repairing a pipe line is properly charged to maintenance and operation expense of that line?

A. Certainly.

Q. On page 3589, where you have listed a Packard car, a Packard Touring Car, and a Packard Sedan, at varying prices, are those the prices new?

A. Those are the prices new, upon purchase of the cars.

Q. And it is the purchase new, whether the car was built in 1921 or 1930, is it not?

A. Yes, it is.

Q. The same for the Chrysler cars listed?

A. Yes, sir, the same for all cars listed.

Q. What is this LaSalle Standard Coupe, listed on page 3590, used for?

A. I don't know specifically; I don't know who that car is assigned to.

Q. You have listed seven Buick cars, fourteen Oldsmobiles, a Dodge, an Oakland, three Studebakers. Can't all [fol. 1089] those cars be bought at present-day prices cheaper than those you have included in your appraisal?

A. Well, now, I don't think you could go out and duplicate some of those cars to-day at any price.

Q. Could you have as of the date of your appraisal?

A. I think not; when it comes to actual duplication on January 1, 1933, of a 1930 model car, you can't actually go out and duplicate it.

Q. You mean you couldn't get the same model?

A. That's the point exactly.

Q. But you could get a better model, couldn't you?

A. Well, you could get a different model; it might and might not be better.

Q. A better model at a less price?

A. In some cases you could buy a better model at less price, and in some cases at a less price you would get a model that was not so good.

Q. Well, it is a matter of common knowledge, isn't it, Mr. Biddison, that an ordinary car depreciates over 30 per cent after the first year, for no other reason than the fact that there is a new model that comes out? If you just bought a car and let it stay in your garage for a year, it would have lost about 30 per cent of its value, would it not?

A. Not necessarily; it might have lost some value on a trade-in.

Q. You are distinguishing, now, its value in use from its [fol. 1090] value in dollars and cents?

A. Yes, sir——

Q. Yes.

A. —its value in trading.

Q. On page 2602, where you show Buckeye Ditchers——

Mr. Griffith: Do you mean 3602?

Mr. Fitzhugh: Yes, 3602. Thank you.

Q. Where you show Buckeye Ditchers, six of them at $5991.02 each,—I will ask you, Mr. Biddison, if those ditchers are not used entirely for new construction?

A. They may be used for new construction or for replacement work both; they may be used for any purpose for which a ditch is dug of a size which this machine is adapted to dig.

Q. Well, it would be a very rare occurrence where you are simply doing ordinary maintenance work or ordinary repair work on lines, to use ditchers, isn't that right?

A. Well, ordinary maintenance work you don't use a ditcher, but then on replacement work, which is an operating expense—that is, a charge against your reserve account, we quite often use our ditching machines.

Q. What length of trench would have to be dug before it would make it profitable to use one of those Buckeye Ditchers?

[fol. 1091] A. It depends upon how far that piece of trench was away from the ditching machine.

Q. Well, under average conditions.

A. Well, if this ditching machine were somewhere as far as a hundred miles away from the job to be done, I would say you would have to have in the neighborhood of five miles of pretty good sized ditch to justify moving that machine in.

Q. Can you cite an instance, Mr. Biddison, where any of these Buckeye machines have been used in the last few years on any replacement job or repair job?

A. I believe one of them was used last summer down on the J System, if I recall properly.

Q. How much construction work was done there?

A. I don't recall.

Q. How far did the machine have to be taken?

A. I don't know.

Q. These machines are the machines that were used to dig trenches for about half of the present system, isn't that correct?

A. No, I don't think for half of the present system. They have been used on construction for all portions of the present system, that is correct.

Q. In arriving at your ditching costs—your excavation cost for machine excavation, did you allow for the use of these ditching machines?

[fol. 1092] A. No, sir, I did not. I allowed for the use of a ditching machine, or ditching machines to do that work. Now, that work is not tied down to these six particular machines, or any other particular six machines. As a matter of fact, that amount of ditching work could not be done with these six machines.

Q. As a part of your excavation costs what did you allow for ditching machines, in machine excavation?

* * * * * * *

[fol. 1093] A. Well, out of my total cost per cubic yard, for which I have previously cited figures, the cost of ownership of machines I estimate to vary from $.048 per cubic yard on trenches averaging 40 yards per 100 lineal feet, to $1.185 per cubic yard on trenches averaging 10 yards per 100 lineal feet.

Q. How do you find your $.048, the figure for the first class of trenches?

A. Well, in the first place, taking the data accumulated by Mr. Steinberger and analyzing it, I have found that, on ditches averaging 40 cubic yards per 100 lineal feet, such machines can be expected to make about 1090 lineal feet per day, but that, on trenches averaging only about 10 yards per 100 lineal feet, such machines can be expected to make about 1700 lineal feet per day. I have computed that the interest charges on such a machine will vary from about $.1707 per 100 lineal feet, when making an average speed of 1000 feet per day, to $.0569 per 1000 feet when making 3000 lineal feet per day; and that at an average life of 125 miles per machine the repairs will amount to $.7738 per 100 lineal feet, and the amortization charge is $.967, or a total of $1.7435 for amortization and repairs, which, added to the interest charges, produces interest charges varying from [fol. 1094] $1.9412 per day, at a 1000 foot per day speed, to $1.8004 per 100 lineal feet at a speed of 3000 feet per day.

Q. Why did you include in this an allowance for amortization?

A. Well, because if a machine is going to be used on a ditch the cost of that machine has got to be amortized from the total amount of ditching it is going to ditch.

Q. Well, does that take the place of depreciation allowance?

A. Yes.

Q. How did you find your allowance for amortization, of $.967?

A. Well, it is obtained——

Q. What is that, dollars per cubic yard?

A. Per 100 lineal feet.

Q. It is per 100 feet, yes.

A. It is obtained by dividing the estimated cost of the machine by the total number of feet expected to be ditched by the machine, with 125 miles being about the economic limit for operation of the machine.

Q. Well, what are the figures that you divided to get this answer?

[fol. 1095] A. I do not have that full development here before me. I have a summary but not the full development here before me. It is the cost of the machine divided by the number of feet in 125 miles.

Q. Now, per hundred lineal feet you have interest $.1707. That is on the basis of 1090 feet per day performance, isn't it?

A. No, that is on the basis of a thousand feet per day.

Q. A thousand feet per day?

A. Yes.

Q. And how did you find that?

A. By computing interest charges on the cost of the machine and finding that interest cost per day and dividing that interest cost per day by ten, which represents ten hundreds of feet, or one thousand feet.

Q. Do you have the detail on it?

A. No, not here. I only have the summary sheets here before me.

Q. Do you know what the allowance was that you made for idle time?

A. Yes.

Q. That is, you figured the machine would be idle part of the time and you have made an allowance for that?

A. Yes. In this study it was found that out of 493 total days on the job, these machines were active 451 days, and that would give you 42 inactive days out of a total of 493 days.

Q. Was this amount for interest figured on the full value of the machine?

A. Yes.

[fol. 1096] Q. Throughout the life of the machine?

A. Yes.

Q. Notwithstanding the fact that at the same time you are amortizing the value of the machine?

A. That is correct. Using a straight line amortization on the machine and a straight line interest rate.

Q. Well now, if you are going to have an allowance for amortization, Mr. Biddison, shouldn't your interest be computed as the machines wear out on the depreciated value rather than on the full value?

A. No, sir, it should not.

Q. What is your reason for saying that?

A. Well, it just isn't sound business.

Q. What made you pick 125 miles performance as being the optimum per machine?

Mr. Griffith: Do you understand what counsel means?

A. I understand what he is getting at. Because at about that figure the cost of repairs and amortization are lower than at any other point. They are substantially identical at 125 and 150 miles, the total cost for repairs and amortization. At mileages above that, the cost of repairs increases so rapidly that the total cost for repairs and amortization (and therefore the total cost for ditching) increases, and at mileages below that, the cost for amortization increases so rapidly that the total costs of amortization and repairs (and therefore the total cost for ditching) increases rather rapidly; so at around 125 to 150 miles it seems to be the [fol. 1097] economic point for retirement of that class of equipment, and it does not make any material difference whether the figure is 125 or 150 miles, according to the records on these six machines studied.

Q. Isn't it a fact, Mr. Biddison, that from the records on these very identical machines that you can very easily see these machines have done considerably more than 150 miles each?

A. No.

Q. Do you have the records on these machines available?

A. I have plotted the records on them.

Q. How many miles has this machine listed as No. 635 gone?

A. I do not have the record of that individual machine, but we have repair records per mile up to an average on these machines of 125 miles, or close to it.

Q. Some of these machines are new and some of them are old, are they not?

A. I don't know the purchase dates on any of these machines.

Q. If the average works out around 125 to 150 miles figure, that shows that some of them have been used for considerable more mileage than that, wouldn't it?

A. No, it would not show that at all.

Q. Well, if the average works out at around 125 miles, and some of them are new, that would mean that the older machines ran considerably more than 125 miles, wouldn't it?

A. That would be true, yes, if some of them were new, but I do not know the purchase dates on them.

Q. What cost have you used for gasoline?

A. I have used the actual amount of money paid for [fol. 1098] gasoline in the operation of the machines.

Q. Well, during what years was that consumption?

A. Well, mostly 1927, eight and nine.

Q. And the same would apply to oil?

A. Yes.

Q. That is, lubricating oil?

A. Yes.

Q. Now, isn't the allowance of interest by you on these ditching machines, Mr. Biddison, about the same thing as if some regulatory body should allow a rate of return on the rate base? That is, if you return to the owners interest for the use of capital tied up in machines, you are sort of putting yourself in the place of giving that item of capital a rate of return as it might appear in the rate base, are you not?

A. Let me see if I can understand that question.

(Reporter reads question.)

A. That may mean something to you but it does not to me. I don't understand what you want.

Q. After we get through finding what the values of the company's properties are in an ordinary rate investigation, then we apply a rate of return to that to find out what the company should make?

A. That is correct.

Q. All right; now that rate of return in ordinary layman's language might be considered interest, might it not, on the capital investment?

[fol. 1099] A. Yes; it is comparable to that, at any rate.

Q. All right now, if in the obtaining of the base value or the amount of the investment itself you have computed that value by including and making an inclusion of an amount for interest on the investment, you have already done what you expected to do later on in applying the rate of return back to the investment account?

A. Why no, I have not done any such a thing.

Q. What was the rate of interest you figured?

A. Eight per cent.

Q. And that eight per cent interest as calculated by you has been included as part of the value of the property of the company?

A. Eight per cent interest on the machines that would be required to be used in the reproduction of this property, and for the length of time that they would so be used, has been included as part of the reproduction cost, yes.

Q. And at the same time that eight per cent interest is figured on the undepreciated value of the machines?

A. Certainly.

Q. Throughout the life of the machines, I mean?

A. No sir, not throughout the life of the machines. In effect it is set up in this valuation for the length of time these machines would be used on this work.

Q. And in no case do you use a depreciated machine cost upon which to compute your eight per cent interest?

A. Certainly not.

Q. Now, the same method used by you on computing the [fol. 1100] costs of using these Budkeye ditchers was used by you in the matter of the backfillers, mounted air compressors, Cleveland baby digger and similar items. Is that right?

A. Well it amounts substantially to that.

Q. The next item of property is the general telephone system. Did you say Mr. Biddison that you made the valuation of this property yourself, or took somebody else's figures?

A. No, this is my evaluation.

Q. Where did you get the cost which you applied for the wire, poles, cross arms, insulators and materials of that sort?

A. The prices of materials were developed for me by Mr. Richey; I have them in the price books here.

Q. Have you had any experience in installing telephone systems?

A. Yes, I have. I built several hundred miles of telephone lines.

Q. Did you build any of the Lone Star Gas Company's telephone system?

A. No, I did not. I have built systems like it, though.

Q. Do you know what the cost of building any of the Lone Star Gas Company's telephone lines was?

A. By individual branches, you mean?

Q. Yes, or in the whole system—any part of it.

A. Well, I can not tell you offhand; I have an analysis of some of the construction costs on telephone system, which established a ratio of labor to material costs on the telephone system.

Q. Was that study by Mr. Steinberger?

A. The data was accumulated by him, yes.

Q. So the basic data on that will be best obtained from [fol. 1101] Mr. Steinberger, will it not?

A. Yes, and he can tie it back for you to the specific lines from which the costs were taken.

Q. Now, in using Mr. Steinberger's data as a basis, you have departed from using your own experience, have you not, and are using his?

A. Well, I have simply accepted an analysis of actual construction costs, made on the company's property, as being an easier and more rapid manner than using my own experience. I can set it up in detail from my own experience if you want me to.

Q. I mean, you have not changed Mr. Steinberger's figures any, have you?

A. No, not on that.

Q. On page 3607, where the installation cost of the tap to Hollis gasoline plant, Harmon County, Oklahoma, Line A, in the amount of $40.25 is shown; how was that installation cost determined?

A. The total material cost is $64.52. The installation cost, including stores expense, consists of four per cent on the material or $2.58, and 58.39 per cent of the material, or $37.67, of actual installation charges, making a total of $40.25 for the installation costs, including stores expense on the materials.

Q. Does the 58.39 per cent include any omissions and contingencies?

A. I do not remember definitely whether it does or not, but I think it should, properly.

Q. In spite of the fact that you studied actual cost records?

A. Yes. It does include ten per cent allowance for contingencies and omissions.

[fol. 1102] Q. Is that ten per cent of material?

A. No, sir; it is an allowance of ten per cent of the installation cost.

Q. Well now, is your testimony, Mr. Biddison, for instance on the installation of the poles, that about 58 per cent of the pole cost would be used up in putting the poles in?

A. No, sir; it is my testimony that on the installation of telephone systems, about that per cent of the total material cost would be incurred for putting it in.

Q. You don't mean by that, that it could be separately applied to the separate items?

A. Why, certainly not.

Q. By applying ten per cent for omissions and contingencies to the installation cost alone, how would that work out if it were applied to the material as well?

A. Well, it would be close to five per cent of the total.

Q. The per cent that you have been applying on other classes of property, for omissions and contingencies, has mostly been two and one-half per cent, hasn't it?

A. Mostly, yes.

Q. Why is it you think there would be so much more omissions and contingencies on a telephone system?

A. Because there is a larger amount of waste in a telephone line construction, and your costs can vary so widely in the variation of the class of territory over which the construction progresses.

[fol. 1103] Q. What is it that you waste so much, Mr. Biddison, in a telephone system?

A. We lose poles, and wires, and insulators, and cross arms and brackets.

Q. You mean as you are building the line, you do that—during construction?

A. Yes, and some times you lose wire even after you get a line built. It is not at all uncommon for anybody to go out and steal a mile or two of wire off a telephone line.

* * * * * * *

[fol. 1104] Q. On the final section in Volume 6, as to engineering records, who prepared that data?

A. Mr. Ed C. Connor.

Q. So you bear no responsibility for any part of this section?

A. No; not as to development of the detail.

Q. When was the first inventory of these properties prepared?

A. I don't know.

Q. Well, the Sanderson and Porter inventory was made some two years back, wasn't it?

A. I think the Sanderson and Porter inventory was prepared about 1928.

Q. Did you have anything to do with that?

A. No, sir.

Q. Did you have anything to do with the first appraisal and inventory prepared by Mr. Steinberger and Mr. Connor?

[fol. 1105] A. No, sir.

Q. Did you make any check of the inventory of property appearing in that appraisal?

A. At that time?

Q. Yes.

A. No; not at that time. I did make a check after the appraisal was completed of certain items of property.

Q. You mean that you went out and looked over the property?

A. Went out and looked over the property and made checks from map records.

Q. Did you find that the fundamental data in the company's office, that is the maps and engineering records were sufficient to identify properly and to tell what property existed without making a field check?

A. No.

Q. You found a field check was necessary, did you?

A. Yes, sir.

Q. Now, you testified, did you not, Mr. Biddison, that you checked over the evaluation of the undeveloped leaseholds, as shown by the exhibit introduced by Mr. Steinberger?

A. Well, I have inspected it, and I think it is properly determined.

Q. And I believe that you stated that the number of leaseholds covering undeveloped acreage shown in that exhibit were not unusual, but that they were a normal amount for a [fol. 1106] company of this size to have?

A. No; I think I went a little further than that. I said it was a small amount for a company of this size to have.

Q. How much gas is there under those undeveloped leaseholds?

A. Nobody knows.

Q. Is there any way of telling what reserves, if any, those represent?

A. Yes.

Q. You mean that you now know how much gas is under those undeveloped leaseholds?

A. No; I don't mean that at all.

Q. Well, how can you tell then whether that is a normal or sub-normal amount for a company of this size to have?

A. I have been connected with gas companies for years, and I know that the amount that this Company has is a small amount both in acreage and in amount of money.

Q. What other gas companies do you have in mind in making that statement?

A. Well, I have been connected with the Kansas Natural Gas Company, and with the Logan Natural Gas and Fuel Company——

Q. Take them one at a time. The first company you named was the Kansas Natural?

A. Yes, sir.

Q. How much undeveloped leaseholds in acreage does the Kansas Natural Gas Company have?

A. The Kansas Natural Gas Company is a part of the [fol. 1107] Empire System now. The Kansas Natural Gas Company is no longer in existence.

Q. Well, pick out some company that you can give us the complete figures on?

A. I can't give you complete figures on any of them.

Q. Well, how can you say that this was a usual or less than usual amount as to acreage of leaseholds undeveloped and money tied up?

A. Simply by a ratio proposition. It is a small amount of money compared with the total amount of money.

Q. What is the normal?

A. Well, here is this Company with seventy millions of dollars valuation with less than one million dollars in undeveloped acreage. If they had three or four times that, I would say it would not be more than a normal amount.

Q. Do you know anything about the Cities Service System?

A. I don't know their ratio at this time. I know they have had a very much higher ratio than that in the past.

Q. Now, suppose, Mr. Biddison, that the reserves already developed and in existence at this time are known to be

sufficient to satisfy the Company's needs without the purchase of any additional gas reserves, or the development of any new reserves, for a period of from twenty to forty years, would there be any necessity for having undeveloped leaseholds in any amount?

A. Yes, sir; there would be.

[fol. 1108] Q. Well, if there exists such a necessity the use of those leaseholds would not come into being for a period of at least twenty years, would it?

A. It might, or might not—very likely would.

Q. Isn't their use so remote, and at a time so distant from the present, as to make them negli-ble, so far as their consideration from any standpoint is concerned now?

A. I don't think so. I think a great many of these leases will be drilled in the comparatively near future.

Q. That is just along the policy of the Company—along its general line of policy in getting what gas it can as soon as it can get it?

A. Yes; being ready for the time it has to have it.

Q. If it got the opportunity to buy some more gas at a cheap price it would go ahead and make the purchase?

A. Yes, sir; if they can buy gas at less than they can produce it for, I don't doubt but that they would do it.

Q. It is the policy of the Company to store up as much gas as it can?

A. That has not been the policy of the Company, as evidenced by the amount of gas they now control and the amount of acreage they have under lease. On the contrary, the Company's policy has been from its inception to buy gas.

Q. Have you bought any leases in the Panhandle Field of Texas?

A. No.

Q. In recent years?

[fol. 1109] A. No; I have not.

Q. Have you bought any oil or gas leases in the East Texas Field?

A. Yes.

Q. Was that purchase made on your own account or for some company?

A. It was made primarily for a partnership.

Q. Were those gas bearing lands?

A. No, sir; oil lands.

Q. And the Company does not operate in the East Texas Field, does it?

A. No, sir.

Q. Have you made any purchases in any of the West Texas gas fields for anybody?

A. No, sir; I have not.

Q. Have you made any purchases in the Oklahoma fields from which the Lone Star Gas Company takes gas?

A. No; I have not. Yes, I have, too. That was a long time ago, however; that was along about 1917.

Q. Well, those purchases would not hardly make you an authority on the field price or the acreage price being paid in those fields, would it?

A. I don't think so, no.

Q. Now, Mr. Biddison, you have in recent years almost made a business of testifying in rate cases, haven't you?

A. No, sir.

[fols. 1110-1112] Q. You have testified in a great number?

A. No, sir; not a very great number. In recent years I have spent the bulk of my time in valuations and reports.

Q. For rate——

A. For rate-making purposes, that is true.

Q. And whenever a rate case appeared involving any of the companies you have been working for, you did appear in those cases as a witness, did you not?

A. Yes, sir.

Q. I believe that you work for or are employed directly by the Lone Star Gas Corporation?

A. I am retained by them.

Q. Are you being loaned by the Corporation for purposes of this case to the Lone Star Gas Company?

A. What the Corporation or the Lone Star Gas Company does in respect to that, I don't know. My retainer is under such conditions that my services are contracted for to be available to the Lone Star Gas Corporation and any of its subsidiary or affiliated companies; therefore, when one of them asks for my services, I give them.

* * * * * * *

[fol. 1113] Q. Now, just to look at your appraisal as a whole, Mr. Biddison, you have figured that there would be a wholesale reproduction of the Company's properties, and that none of the properties would be rebuilt piece-meal; is that correct?

A. That is correct. I figured a wholesale construction
[fol. 1114] program to reproduce the properties.

Q. You have figured that none of the Company's present personnel would take part in that reproduction?

A. Well, I have not given any consideration to the question of whether the Company's precise personnel would be on the job or not. It would be a personnel of comparable ability; whether the identical persons or not does not make any difference.

Q. In the case of drilling equipment or new construction, ditching machinery used in new construction, and other of the Company's property used in new construction, now owned and which might be used in new construction, in no case in your appraisal have you given any consideration to the fact that that property could be used in the reconstruction, have you?

A. No, sir. It does not make any difference whether a piece of equipment that is setting out here is used, or some other is used. The reproduction cost bears the expense of such equipment as is consumed and used up in construction.

Q. In the pricing of pipe valves, meters, and various other items of property that appear hundreds and thousands of times throughout the appraisal, you have relied primarily on the price-lists made out by Mr. Richey, have you not?

A. Yes, sir.

[fol. 1115] Q. In working out the installation costs, or the costs additional to the price of the component parts of the property, in order to get the price of these units of property installed, you have relied in part upon data compiled by Mr. Steinberger and correlated into cost studies as compiled by him, and in part upon the cost figures that you have found by the use of hypothetical gangs; is that true?

A. That is true; but I would like to add in connection with these cost studies by Mr. Steinberger that I have gone through the analysis of the basic data myself.

Q. In none of the cases where you have gone through Mr. Steinberger's studies have you changed any of his basic data, have you?

A. Not the basic data; but I have drawn the conclusions and checked the particular conclusions in such instances as I did not draw the conclusions originally myself.

[fol. 1116] Q. That is, where he has made performance studies you have accepted the number of hours of labor found by him?

A. The number of hours of labor taken from the records by him; yes, sir.

Q. And you have accepted the performance of work done by those hours of labor as found by him?

A. As taken from the records; yes, sir.

Q. In the case of General Office Lands and Other Lands you have relied solely upon the cost as per the books, have you not?

A. Yes, sir.

Q. In the case of drill tools and automotive equipment you accepted the cost as per the books?

A. Not as to drill tools, but as to automotive equipment I accepted the cost.

Q. Yes. Well, as to your automotive and construction equipment you took that as per the books?

A. As to the automotive equipment as per the books. As to other equipment, that was priced out from quotations.

Q. Well, how about ditching machines?

A. That is as per quotations.

Q. And in the case of General Office Furniture and Fixtures and Other General Furniture and Fixtures, you took the prices as given you by Mr. Richey?

A. Yes, sir.

Q. All the overheads, I believe you say, have been determined by Mr. Ed C. Connor?

A. That is correct.

[fols. 1117-1118] Mr. Griffith: That is, all the general overheads?

A. Yes, sir—general overheads.

Q. As a matter of fact, Mr. Biddison, don't you appear in the part that you have played in this appraisal as simply a compiler—haven't you computed from basic data given you by other people and finally had it printed in book form?

A. I think that is a matter of opinion. That is not my opinion.

Q. You don't think that is a true statement?

A. No, sir; I don't. I think I have explained rather fully what my position was in this respect.

* * * * * * *

[fols. 1119-1120] Q. Mr. Biddison, where you have testified that you used cost studies based upon the construction experience of the Lone Star Gas Company as affording a guide to the installation of construction costs as

set out in Exhibit 28, I will ask you if in all cases that experience of the company was adjusted to conform to labor prices which were current and prevailing as of January 1, 1933?

A. It was.

* * * * * * *

[fol. 1121] Q. Well, you do know of your own knowledge, don't you, Mr. Biddison, that the general overheads charged—the general overheads incurred by the company or the costs of the properties—I'll put it that way—prior to 1927 were not capitalized on the books of the company?

A. That is my understanding.

Q. Mr. Hulcy's testimony was that for that reason the books did not show the true historical cost of the property?

A. That is my understanding.

Q. Now, Mr. Biddison, I will ask you if the books had been kept so as to show the true historical cost, that an adjustment on the books to show when property was being retired and adjustments to show when new property was put in or replacements made, if it would not then be possible to take the historical cost as per the books with an adjustment for present day prices and by that means to obtain a true value?

A. I believe it would; yes.

Q. If that were possible, wouldn't that be greatly preferable to finding value by wholesale reproduction, which is purely hypothetical?

A. Well, I don't know. I know it would be a valuable [fols. 1122-1124] aid. I think it would be a good method.

* * * * * * *

PAUL RICHEY, a witness for defendant, having been duly sworn, testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. What is your name?

A. Paul Richey.

Q. Where do you live, Mr. Richey?
A. Dallas, Texas.
Q. By whom are you employed?
A. Lone Star Gas Company.
Q. In what capacity?
A. I have charge of the pricing section of the Purchasing Department.

* * * * * * *

[fol. 1125] Q. And are you the Mr. Paul Richey who prepared and furnished price-books and prices and quotations on materials which enter into Defendant's Exhibit 28 in this case?
A. I am.
Q. Will you please relate in a general way, Mr. Richey, just what you did in the assembling of prices covering materials entering into the Lone Star Gas Company's public service property?
A. Quotations were solicited and secured direct from manufacturers or their dealers, and various supply companies and other concerns, and in preparing the prices factory shipment basis was considered, and all special and preferential discounts, including the cash discounts, were taken into consideration.
Q. By the term "taken into consideration" do you mean that the discounts were taken in order to get the net price which was applied in Defendant's Exhibit 28?
A. That is correct.
Q. Now, you of course, were not responsible for the direct application of the prices which you secured, to Defendant's Exhibit 28?
[fol. 1126] A. I was not.
Q. But you did assemble and prepare, and furnish to Mr. Biddison and Mr. Steinberger all data relative to costs of materials which are evaluated in Defendant's Exhibit 28?
A. That is right.
Q. In connection with that work, did you prepare any price-books?
A. I did.
Q. What were the price-books which you prepared?
A. I prepared what might be termed an original price-book, covering items disclosed by the inventory and, in

addition, as corrections were made by those responsible for the inventory, a supplementary book was prepared.

Q. And in all cases did you furnish your determined net prices to Mr. Biddison and Mr. Steinberger, for utilization in connection with the preparation of Defendant's Exhibit 28?

A. I did.

Q. Now, in addition to being familiar with the general run of the equipment and material which enter into the Lone Star Company's public service property, are you familiar with past and current prices for casing?

A. I am.

Q. And line pipe?

A. I am.

[fols. 1127-1133] Q. And have you prepared, for presentation as an exhibit in this case, a compilation reflecting pipe prices in large lots?

A. I have.

Q. Is this the compilation to which you refer, Mr. Richey, it being styled on the title cover "Lone Star Gas Company —Pipe Prices—Large Lots"?

A. That is correct.

Mr. Griffith: We offer the exhibit so identified by the witness, in evidence.

(Thereupon the document above referred to was marked as Defendant's Exhibit 33.)

* * * * * * *

[fol. 1134] Q. Now, I will ask you this one question relative to Exhibit 33, Mr. Richey, whether in each case of a quotation covering pipe prices for any particular size of pipe for any one of the dates set forth in the exhibit, you have used the lowest quoted price by any manufacturer?

A. That is correct.

Q. Mr. Richey, have you also prepared a compilation showing a comparison of pipe prices as between January 1st, 1933, and June 11th, 1934?

[fol. 1135] A. I have.

Q. Is this the compilation you refer to, it being styled on the title cover "Lone Star Gas Company—Comparison of Pipe Prices—January, 1933, to June 11, 1934, inclusive"?

A. It is.

Mr. Griffith: We offer the exhibit so identified by the witness, in evidence.

* * * * * * *

Examination by Mr. Fitzhugh:

Q. Mr. Richey, are the prices you show here as of January 1st, 1933, the prices that Mr. Biddison used in pricing out his appraisal as of that date?

A. That is right.

[fol. 1136] Q. That is in your net cost column, as shown on page 1 and subsequent pages?

A. That's right. Net cost.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 34.)

By Mr. Griffith:

Q. Now, Mr. Richey, did you prepare Exhibit 34 with the primary purpose in mind of showing the trend in pipe prices from January 1, 1933, to June 11, 1934?

A. I did.

Q. You have just testified that the prices appearing in Defendant's Exhibit 34, as of January 1, 1933, were the prices which were adopted and used by Mr. Biddison in Defendant's Exhibit No. 28?

A. That is correct.

Q. And you have also testified that the prices shown in Defendant's Exhibit 34 as prevailing on June 11, 1934, prevail as of to-day?

A. I did.

Q. Now, refer please to page 1 of Exhibit 34. What is shown in relation to the trend of buttweld standard black pipe, single random lengths, as between January 1, 1933, and large-lot purchases in the column headed June 11, 1934?

A. It is shown that the price trend is upward from January 1, 1933, from almost four per cent to nearly eight per cent.

Q. As to the lapweld line pipe, black pipe in single random lengths, what is shown in relation to the smaller sizes—that is the sizes from 2⅜ inch to four inch?

[fol. 1137] A. From 2⅜ inch O. D. to four inch O. D. it is shown that the prices have declined approximately ten per cent.

Q. There is in the Lone Star Gas Company system a relatively small amount of pipe of this character?

A. That is correct.

Q. Now, commencing with the four and one-half inch size, do we find that the prices as of June 11, 1934, is 107 per cent of the price quoted as of January 1, 1933 and used by Mr. Biddison in his appraisal?

A. That is correct.

The Court: That does not mean 107 per cent higher, but simply seven per cent higher?

A. That is right—7.18 per cent.

The Court: An increase of 7.18 per cent?

A. That is correct.

Q. And similarly for the other sizes of pipe appearing on that page, without exception, running through the 10¾ inch pipe, do we find that the price trend is definitely upward?

A. We do.

Q. On page 2, where you have set forth lapweld line pipe, black, single random lengths, in sizes from 10¾ inch of the various weights, to 24 inch, has the price trend been upward without exception?

A. It has.

Q. In approximately what percentage would you estimate it?

A. Five per cent, approximately.

Q. Approximately five per cent?

[fol. 1138] A. Yes.

Q. On the double random lengths of pipe appearing on page 2 of Exhibit 34, do you similarly show a price trend upward?

A. That is correct.

Q. In approximately what amount?

A. Six per cent.

Q. And on the seamless line pipe, black, single random lengths, appearing at the bottom of the page, it does not appear you have set forth a percentage?

A. No, sir, I did not carry that out into a percentage, although the prices are slightly upward.

Q. The prices are slightly upward as compared with the prices as of January 1, 1933?

A. That is correct.

Q. Now on page 3 we get into the threaded and coupled pipe. Is that correct?

A. That is right.

Q. The lapweld line pipe, black, in single random lengths.

A. Yes.

Q. In connection with this pipe do we find that the price trend generally has been downward since January 1, 1933?

A. That is correct.

Q. But in respect of this pipe, Mr. Richey, I will ask you if there is relatively a small amount of this pipe in the Lone Star Gas Company system?

A. That is right.

Q. In other words, by far the preponderant proportion [fol. 1139] of the pipe in the Lone Star Gas Company system is line pipe, plain end?

A. That's right. I have observed the inventory; I could not make any statement as to percentage, but it is very evident that the threaded and coupled material is negligible.

Q. Can you give any explanation for the decline in threaded and coupled pipe prices as between January 1, 1933, and June 11, 1934, when the price trend on the other pipe has been upward?

A. The threaded and coupled line pipe is somewhat similar to casing and tubing or what might be termed oil country goods. In other words, that is a class of goods that is carried in stock by supply companies and dealers around over the country, and for that reason carries a larger profit than the plain end material. In addition to that, the plain end pipe was generally sold in very large quantities, whereas threaded and coupled material was not. I would say that it was evident that the threaded and coupled pipe carried a profit that was probably somewhat excessive, whereas the plain end material carried a very small margin.

Q. Refer please to page 4 of Exhibit 34. On that page you have set forth the prices as of several dates covering buttweld standard galvanized in single random lengths of pipe; buttweld line pipe galvanized in single random lengths; lapweld line pipe galvanized in single random lengths; buttweld extra-strong black pipe in single random lengths; lapweld extra-strong copperoid pipe in single random lengths; and buttweld extra-strong cooperoid pipe in single random lengths?

A. Yes.

[fol. 1140] Q. In connection with some of this pipe it would appear from this page that there has been a slight decline in price from January 1, 1933, to June 11, 1934?

A. A slight decline in some of the material shown on page four, and an increase in some of the other sizes.

Q. But so far as the quantities of material involved in the Lone Star Gas Company pipe line system are concerned, I will ask you if the pipe appearing on this page is relatively small, or constitutes a relatively small per cent?

A. A very small per cent. It might be observed that we do not carry any per cent figures on the buttweld standard galvanized in the small sizes, as there is very little if any of that material appearing in the Lone Star Gas Company inventory. We did set some prices up on it, however.

Q. You wanted to show the trend of prices on all kinds of pipe?

A. That's right.

Q. If you refer to page 5 of Exhibit 34, what do we observe in relation to the electric welded pipe?

A. On the Republic electric weld pipe we have an increase of 6.89 per cent on the 4½ inch O. D. size; and 6.77 per cent on the 6⅝ inch O. D. size. On the Smith electric weld steel pipe we have a 3.10 per cent increase on the 16 inch O. D., and 5.05 per cent increase on the 18 inch O. D. and 5.17 per cent increase on the 20 inch O. D.

Q. Now Mr. Richey, in connection with this case Mr. Biddison has several times referred to A. O. Smith pipe. Is [fol. 1141] A. O. Smith pipe the pipe which you have here designated as Smith weld?

A. Yes, that's right.

Q. Now in relation to Smith weld bell and spigot pipe, what is the trend?

A. The trend is slightly upward, showing a percentage of increase of 2.82.

Q. Now all of these prices which appear throughout your Exhibits 33 and 34 covering the pipe are based upon quotations as given by the manufacturers therein named?

A. That is correct.

Q. And do you know that in respect of the prices shown under the column dated June 11, 1934, that they are the net prices and the lowest prices available to the Lone Star Gas Company as of this date?

A. I do.

Q. Refer please to page 6 of Exhibit 34. What do you show on that page?

A. We show casing and tubing, and show that the price trend from January 1, 1933, up to June 11, 1934, is definitely upward.

Q. On the tubing, lapweld threaded and coupled, it would appear that in relation to the two inch size, the increase is as much as nine per cent?

A. That's right.

Q. And that the lowest percentage of increase is approximately two per cent on other items listed on that page?

A. That is correct.

Q. Mr. Richey, has there been any change in the price [fols. 1142-1143] level of valves and fittings over a period of the last several years, and more specifically within a period of the last year and a half?

A. There has. The trend of prices on valves and fittings has been definitely upward over a period of a number of years, and the trend has been very sharply upward during the year 1933.

Q. Have you prepared an exhibit for presentation in this case reflecting a compilation of statistics showing price trends in relation to typical valves and fittings?

A. I have.

Q. Is this the compilation to which you have referred, the same being styled on the title cover, "Lone Star Gas Company, Price Trend of Typical Valves and Fittings"?

A. It is.

Q. We offer the exhibit so identified by the witness in evidence.

* * * * * * *

[fol. 1144] (Thereupon the document above referred to was marked as Defendant's Exhibit No. 35.)

* * * * * * *

Q. Mr. Richey, turn to Exhibit 35 and explain how you arrived at the price trends set forth on page 1 thereof.

A. We have adopted a figure of 100, or $100.00, as you might like to call it, and have applied the base and preferential discounts appearing in the discount sheets of the Walworth Company, arriving at net costs f.o.b. the factory on the various dates that the discount sheets were published, or net costs f.o.b. destination, and have adopted a percentage of 100 for the figures applying to the first discount sheet which was published on July 8, 1925, and which was available to us.

[fol. 1145] Q. Now, do the figures 30, appearing after 7-8-25 indicate the discount sheet?

A. That is the base discount.

Q. Then what is the subsequent discount?

A. The 25 and 10 per cent is the discount for direct factory shipments, and 2 per cent is the cash discount for prompt invoice payment.

Q. Now having made those deductions from $100, you got a net price F. O. B. factor of $46.31 as of that particular date?

A. Yes.

Q. How did you compute the amount of the freight?

A. By taking an average of the actual amounts of freight applicable to the standard globe and angle valves, and arriving at it on a percentage basis.

Q. You therefore got the net cost of that valve equipment F. O. B. the destination, or rather determined it to be $47.78?

A. That is correct.

Q. And you took $47.78 as representing your base percentage of 100?

A. That is correct.

Q. Now, in a similar manner, do you on page 1 of Exhibit 35 show the dates as of which you made the determination of the net F. O. B. factory costs, set forth the base and preferential and cash discounts, the amount of the freight, the net cost F. O. B. destinations, and the percentage relation to the base percentage of 100 on July 8, 1925?

[fol. 1146] A. I have.

Q. At the bottom of page 1 of Exhibit 35, it would appear that on April 1, 1934, you have made no allowance for freight on the shipment of these valves from the factory?

A. That is correct.

Q. Why is that.

A. On page 1—Yes, on April 1, 1934, the Walworth Company began allowing full freight on L. C. L. shipments, regardless of weight.

Q. What do you mean by allowing the full freight on L. C. L. shipments?

A. To allow the full freight on shipments from their factory at Kewanee, Illinois, to destinations in Texas, on 100 pound shipments or more.

Q. Does that mean, in substantial effect, that they paid you the freight or allowed it, as a further deduction from the cost F. O. B. the factory?

A. That is right. The practice theretofore had been to give a freight allowance, but not the full amount of the freight; but on April 1, 1934, they began allowing the full amount of the freight.

Q. And that made a drop or a decline in the price quoted as of December 28, 1933, or rather, over the price quoted as of December 28, 1933, in the amount of 3.08 per cent. Is that correct?

A. From an increase of 29.76 per cent, to 26.68 per cent, [fol. 1147] over the base of 100 per cent.

Q. As of July 1, 1933, what was the percentage relation to the price as of 1925?

* * * * * * *

[fol. 1148] Q. Just proceed, Mr. Richey, with the answer.

A. I slightly misundertood the question. The per cent of difference between the one hundred as of July 8, 1925, and that of July 1, 1933, would be 23.52 per cent, as shown.

Q. Yes, sir. Now, the percentage increase as of April 1, 1934 over the price as of 1925 is 26.68 per cent?

A. That is correct.

Q. Or, as expressed here, using 1925 as the base of 100 per cent, April 1, 1934 represents 126.68 per cent?

A. That is correct.

Q. On page 2, have you plotted in the form of a graph or curve the price trend of Standard Globe and Angle Valves-Bronze, which you have detailed on page 1?

A. I have.

Q. And page 2, therefore, shows graphically the trend in Standard Globe and Angle Valves?

A. It does.

Q. Similarly on page 3 of Exhibit 35, do you show the price trend on Standard Wedge Disc Gate Valves?

A. I do.

Q. Iron body, bronze mounted, non-rising stem, screw ends, 2 to 12 inch size?

A. That is right.

Q. And what does the price as of April 1, 1934 bear to [fol. 1149] the— what is the relation of the April 1, 1934 price to the 1925 price?

A. The April 1 price shows an increase of 19.49 per cent over the July 8, 1925 price.

Q. Effective as of April 1, 1934 on these items of Standard Wedge Disc Gate Valves, have the manufacturers commenced the allowance of freight from the factory to destination in Oklahoma or Texas?

A. They have.

Q. And that occasions the apparent drop in price from December 28, 1933 to April 1, 1934?

A. That is correct.

Q. In connection with all of the prices set forth in this exhibit, Mr. Richey, I will ask you if the prices shown as of April 1, 1934 still obtain as of this date?

A. They do.

Q. On page 4 have you set forth in the form of a curve or graph the statistical information which appears on page 3 of the Exhibit?

A. I have.

Q. And which graph shows that the price trend on the Standard Wedge Disc Gate Valves is upward?

A. It does—decidedly upward.

Q. Refer please to page 5 of Exhibit 35. What do you show on that page?

A. I show Standard Double Disc Gate Valves, iron body, [fol. 1150] brass mounted, 200-pounds oil, water or gas working pressure, 2 to 8 inches in size, and show that the April 1, 1934 price as compared to the January 6, 1926 price is 25.51 per cent higher.

Q. And on page 6 of Exhibit 35 have you plotted a graph showing the price trend on the Standard Double Disc Gate Valves?

A. I have.

Q. What do you show on page 7 of Exhibit 35?

A. Page 7 shows Standard Double Disc Gate Valves, iron body, bronze mounted, 200 pounds oil, water or gas working pressure, in 10 to 12 inch sizes; and shows an increase of 9.74 per cent as of April 1, 1934 over the price applicable January 6, 1926.

Q. On page 8 have you similarly plotted a curve showing the price trend in relation to the Standard Double Disc Gate Galves which are detailed on page 7?

A. I have.

Q. What appears on page 9 of the Exhibit?

A. On page 9 we have Double Disc Gate Valves, non-rising stem, iron body, brass mounted, 500-pounds oil, water or gas working pressure, 2 to 6 inches in size; and on April 1, 1934 the price as compared to that applying July 2, 1927 shows an increase of 8.85 per cent.

Q. On page 10 have you again plotted the curve or graph showing the trend of prices on these double disc Gate Valves, 500 pounds working pressure for oil, water, or gas?

[fol. 1151] A. I have.

Q. And does that curve reflect the general upward trend in prices?

A. It does.

Q. What appears on page 11 of your Exhibit 35?

A. Double Disc Gate Valves, non-rising stem, iron body, bronze mounted, 500 pounds oil, water or gas working pressure, 8 inches in size. We show a decrease of approximately 13 per cent on April 1, 1934 as compared to the price applying July 2, 1927.

Q. But as compared with prices prevailing as of December 31, 1931, what is the relation of the present price?

A. December 31, 1931 as compared to the present price shows to be approximately the same.

Q. Has the price trend been upward since July 1, 1931?

A. It has.

Q. Refer please to page 13 of Exhibit 35, what do you show on that page?

A. I show Double Disc Gate Valves, 500 pounds oil, water, or gas working pressure, non-rising stem, iron body, bronze mounted, 10 and 12 inch sizes; and in connection with these valves we show a slight decrease, or a decrease of approximately 1½ per cent as of the price applying July 2, 1927.

Q. What has been the trend of prices for the last two years—or last year and a half?

A. The trend has been slightly upward.

[fol. 1152] Q. Refer please to page 15 of Exhibit 35.

A. On page 15 is shown the price trend on Standard Malleable Fittings, and it shows an increase on April 1, 1934 of 12.54 per cent over the price applying July 8, 1925.

Q. Have you plotted on page 16 the price trend on these Malleable Fittings?

A. I have.

Q. I will ask you if as reflected by the curve or graph on page 16 of Exhibit 35 there is a very marked increase in the price of Malleable Fittings since 1931?

A. There has been.

Q. Refer please to page 17. What is set forth on that page?

A. I have outlined the trend of prices on Standard Cast Iron Fittings, and show an increase of 33.44 per cent as of April 1, 1934 over the price applying July 8, 1925.

Q. I will ask you, Mr. Richey, if since 1931 there has been a very marked increase in the price of these Standard Cast Iron Fittings?

A. There has been.

Q. And is that reflected by the curve or graph on page 18 of Exhibit 35?

A. It is.

Q. Has there been a very decided increase in those prices since January 1, 1933?

A. There has been.

Q. Now, Mr. Richey, is this generally true: That on prices [fols. 1153-1157] covering representative valves and fittings found in the Lone Star Gas Company system that the prices for valves and fittings as used by Mr. Biddison in Defendant's Exhibit 28 is appreciably below the now prevailing price for such valves and fittings based upon the maximum discounts which are available to the Company?

A. That is correct. I might state that there was an increase of ten per cent in Dresser Couplings on December 15, 1933.

Q. Now, you have no exhibit prepared showing the increase in the price of Dresser Couplings?

A. No, sir.

Q. But they have appreciably increased in price since January 1, 1933?

A. They have, ten per cent.

Q. And there has been a marked increase over the price used by Mr. Biddison in Defendant's Exhibit No. 28?

A. That is correct; and from the information we have been able to obtain through our contact with various supply companies and manufacturers it is most likely that any changes in price in the immediate future will be upward.

* * * * * * *

[fol. 1158] Q. Now, Mr. Richey, your Exhibits 33, 34, and 35 disclose definitely the upward trend of prices in relation to Oil Country Tubular Goods, and in relation to line pipe, and in relation to valves and fittings?

A. That is right.

[fols. 1159-1160] Q. In respect to other items of property which are inventoried and appraised in Defendant's Exhibit 28, would you say that the price trend has been upward or downward since January 1, 1933?

A. Through information we have been able to obtain generally by contact with various representatives of material companies and manufacturers and supply companies, etc., the price trend on almost every commodity has been upward. While I have nothing with me to substantiate it, I personally know that material prices have increased very materially, in some cases over fifty per cent, within the past year. Office furniture and fixtures have increased from fifteen to thirty per cent within the past year.

* * * * * * *

[fol. 1161] E. A. STEINBERGER, a witness for defendant, was recalled for further Cross-examination, and testified as follows:

Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Steinberger, when you were on the stand before you were asked for a classification on excavation on some line. What line was that?

A. Line B, from Petrolia to Fort Worth, Texas.

Q. Have you gotten that classification prepared?

A. I have that classification prepared; yes, sir.

Q. You have that data with you?

A. Yes, sir. However, it is not prepared in exhibit form, Mr. Fitzhugh. I have merely prepared it in pencil form.

Q. That is all right. Now, as you testified heretofore, I believe, Line B and Line Second B run parallel from some point near Petrolia down to about Rhome, Texas, where they diverge; is that right?

A. That is correct.

Q. What is the station number at the point where Second B leaves Line B?

A. I don't remember the exact station number, Mr. Fitzhugh, but it is approximately three or four miles north of Rhome.

Q. You can locate that point in your tabulation, can you?
[fol. 1162] A. No, I can not, because my tabulation is on Line B only, but I can give you the approximate mileage from Petrolia; it is approximately sixty miles south of Petrolia, which would be Station 3,170 plus double 0.

Q. That is approximately, then, the point of divergence?

A. That is it, approximately. It may be a mile or two off.

Q. Starting at that station, now, on Line B can you give the classification of excavation from that station to the end of the line south?

A. Yes; I can give it to you every five hundred feet, which would be a distance of approximately thirty miles.

Q. How many stations will that be, approximately?

A. It would be 388 locations or observations.

Q. In order to give the excavation classifications for that portion of the line will it be necessary for you to read the classification of each one of those stations?

A. Yes, Mr. Fitzhugh, because I do not have the classifications segregated.

Q. Well, suppose we give you some time and call you back at some future time, could you have it worked out so as to show that?

Mr. Griffith: Now, Your Honor, these witnesses have plenty to do without making classifications for Mr. Fitzhugh. We want to give all the information we can, but Mr. Fitzhugh would have the witnesses working every night.

Mr. Fitzhugh: All right, Mr. Griffith.

Q. Then go ahead, Mr. Steinberger, and read every sta-
[fol. 1163] tion classification into the record.

A. Station No. 3,176 plus nought nought, machine earth excavation, trench depth 26 inches. Station No. 3,175 plus nought, nought, machine earth excavation, trench depth 15 inches. Station No. 3,180 plus nought nought——

The Court: Gentlemen, is it necessary to read all 388 of those?

Mr. Fitzhugh: I didn't think so, Your Honor. That is the reason I asked him to work it out.

The Court: What is it you want?

Mr. Fitzhugh: I want to get the classification of excavation on Line B.

The Court: How long would it take to do that, Mr. Steinberger?

Mr. Fitzhugh: We asked for it several days ago and thought we could get it.

A. Well, Mr. Fitzhugh, you just told me to bring the observation. You didn't tell me to make the classification.

Q. Well, you might be right about it.

A. If you had asked me, I would be glad to do it.

Q. How long would it take?

A. Possibly an hour or an hour and a half. I will have to have an adding machine.

The Court: I am just expressing my views about it. I am sitting here as a court. I am not going to require one side to do a lot of figuring for the other side. If the witness is willing to do it, I am sure they will appreciate it, [fol. 1164] but I am not going to make an order requiring the witnesses for either side to make a lot of calculations.

Mr. Fitzhugh: All right. If the witness says he does not know, that is all right.

Mr. Griffith: Your Honor, with the expression by the Court, the witness will be glad to comply with the suggestion and will devote the next hour and a half to do it.

The Court: Very well, Gentlemen. All right, Mr. Fitzhugh. Go ahead.

Q. Do you have that same sort of data on Line A?

A. No, I do not, Mr. Fitzhugh.

Q. Well, can you procure, Mr. Steinberger, and furnish to us the same sort of classification on the portion of Line A that goes through the State of Oklahoma?

A. To have the record clear, please tell me in detail just what information you want on that, so I can have it segregated.

Q. I would like to have the percentage of earth excavation, the percentage of rock excavation, and the percentage of machine excavation, on the portion of Line A that traverses the territory within the State of Oklahoma.

A. I will be glad to get that information to you some time next week, Mr. Fitzhugh. That line is about 108 miles long. It will take some time to make the calculation.

Q. Well, there is only about forty miles in Oklahoma?

A. That is correct, but in order to have the balance you would have to work both portions.

Q. Well, all you would have to do would be to take the readings of the stations in that forty miles?

[fol. 1165] A. Yes, but the information I have now is in percentages. I would have to have the figures to work the percentages.

Q. On the lines where you made machine excavation studies you also made the same studies as to the hand excavation in connection with the machine, did you not?

A. Yes, sir.

Q. Now, what was the percentage of hand excavation in connection with machine?

A. I don't know, Mr. Fitzhugh. I didn't make any segregation as to the percentage of hand excavation and machine excavation.

Q. Did you make a study on hand excavation?

A. Yes, sir.

Q. Do you have that to refer to now?

A. Yes, I expect I can refer to it. It is about ten thousand cubic yards. Do you want me to read all the lines into the record, Mr. Fitzhugh?

Q. Will you read the lines studied, cubic yards of hand excavation on each, and the percentage of hand excavation?

A. Per cent of hand excavation? I can give you the per cent of hand and machine earth excavation on the lines I have studied and the yardage of hand excavation. I do not have the yardage of machine excavation in a form I can get to it, but I can refer to additional data figures. Line K-B, 16 inch, 3,157.7 yards. The per cent of excavation on that line was: Machine, 91.5 per cent; hand—I have a composite figure here, Mr. Fitzhugh, of hand and [fol. 1166] rock, 8.5 per cent.

Q. Well, now, these percentages that you give, are they percentages that apply to the whole of K 16 inch or the cubic yards?

A. No, the entire 16 inch line of 123,347 feet.

Q. Well, isn't the 3157.7 the amount included in your study?

A. It is 123,347 lineal feet of trench.

Q. Well, what is the cubic yardage in your hand earth excavation study, then?

A. I don't have it segregated here.

Q. Well, how were you able, Mr. Steinberger, without making such a separation, to make the study of it—how were you able to reason anything from it?

A. Mr. Fitzhugh, I do not have the complete data before me. I have here the combined excavation of hand and rock. Now, if you desire the information I will be glad to have it for you Monday. I will return to Dallas this week-end and get the additional data.

Q. Well, what we are trying to find, Mr. Steinberger, is the data that Mr. Biddison had to have in order to figure out the prices he used in his exhibit.

A. Well, the data I furnished him was complete yardage of hand and my study of it, 10,972.7 yards.

Q. Now, then, in order for Mr. Biddison to reason anything from the study of that ten thousand yards of excavation he had to know the lines, the cubic yards of excavation, and the per cent of hand earth excavating?

[fol. 1167] A. In order to get the unit cost on that it was not necessary for him to get the additional data, because he used the unit cost derived from this computation over all the system where hand and machine excavation was a composite figure or a composite performance.

Q. All right. Then, if we wait until Monday, Mr. Steinberger, you can have the total yards, the lines that it applied to, and the per cent of hand excavation on each line?

A. Yes, sir.

* * * * * * *

Ed C. Connor, a witness for defendant, having been duly sworn, testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. State your name, please.

A. My name is Ed C. Connor.

Q. Where do you live?

A. I live in Dallas, Texas.

Q. What is your business, Mr. Connor?

A. I am a Civil Engineer.

[fol. 1168] Q. Are you a graduate of any accredited engineering school?

A. I am a graduate of the University of Texas, from which institution I received the degree of Civil Engineer in 1904 and the degree of Bachelor of Science in 1905.

Q. Following your graduation from the University of Texas in 1905 in what work did you engage?

A. I engaged in railroad engineering for several years. I had charge of maintenance of way on the division of the Houston & Texas Central Railroad from Llano, Texas, to Hempstead, Texas. I then was Resident Engineer on the construction of a swing bridge across the Red River at Shreveport, Louisiana.

* * * * * * *

A. I said I was Resident Engineer on the construction of a swing bridge across the Red River at Shreveport, Louisiana. Upon the completion of that work I moved to Dallas and became connected with the Texas Bitulithic Company, which was at that time and is now one of the largest companies engaged in the construction of roads, streets, and similar public works. During my connection with that company I had charge of practically all jobs of construction activities. Finally, I became General Superintendent in charge of construction. I then became Chief Engineer for J. W. Thompson Company, a general contractor, and the [fol. 1169] work that I did for Mr. Thompson was in connection with the construction of the Union Terminal at Dallas, Texas.

Q. Is that the railway terminal where all the railroads enter and depart from the City of Dallas?

A. That is correct. The work there consisted of the construction of the station, the building of the track layout, the building of bridges, power-houses, and round-houses, and the movement of more than 2,000,000 yards of earth. Upon the completion of the Union Terminal in Dallas I became General Manager of a large contracting firm which specialized in the construction of roads and bridges, storm sewers and other similar types of construction. During the War I resigned my position with the company, and was assigned by the State Highway Department to represent the State in conjunction with the representatives of the Bureau of Public Roads, in the matter of the priority of the movement of materials of construction into the State of Texas. In 1919 I became Chief Engineer and Supervisor of Public Utilities in the City of Dallas. The City of Dallas, controls

through the operation of its franchises, all capital additions to each of the utilities which operate in the City of Dallas, with the exception of the Telephone Company. It was my duty to approve all capital additions to each of the utilities in the City of Dallas, and to pass on their charges as to whether or not they were operating on capital charges, dur- [fol. 1170] ing the years 1919 and 1920. During this time, in association with Mr. Grover C. Bland, as representing the City of Dallas, I made an investigation of the property of Lone Star Gas Company, and in connection with Mr. Wesley Shaw, of the United States Bureau of Mines, I made a complete investigation of the gas supply commercially available to the City of Dallas. During that time there was an inadequate supply of natural gas available, and the City of Dallas delegated me, in association with Mr. Wesley Shaw, of the Bureau of Mines, to make an investigation of the gas supply available to the City at that time. Later, in association with Mr. P. L. Ports, also of the United States Bureau of Mines, I made a supplementary report to the City of Dallas, covering the investigation of the gas reserves and the cost of production of gas in the area adjacent to the City of Dallas. In the year 1920 I became a Consulting Engineer, operating on my own account, specializing in work in connection with public utilities; and I have been engaged in that work continuously since that time.

Q. Commencing in the year 1920, when you launched your activities as a Consulting Engineer, will you please relate in a general way to the jury the nature of the work you have [fol. 1171] performed, and the various clients which you have served?

A. As a Consulting Engineer I have represented the Cities of Hillsboro and Belton, Texas, in a rate case in the Federal District Court, involving the charges for electric light and power. I have also represented the City of Brownwood in a similar piece of work. I represented the City of San Antonio in the preparation of schedules for the sale of natural gas, prior to the introduction of natural gas into the City of San Antonio. I represented the City of Corpus Christi in the matter of the design and construction of a natural gas system built by the City of Corpus Christi; and I have represented the City of Corpus Christi continuously since that time in any matter pertaining to the operation of the natural gas system. I have also represented the City of Marlin, and other communities in the State of Texas. I have

represented the Texas Power and Light Company, the Orange Light and Power Company, and other electrical companies in the State of Texas.

Q. More specifically, Mr. Connor, what have you done in connection with the natural gas business?

A. I think it was in 1921, or thereabouts, that I became—I was retained by the Lone Star Gas Company, and I have [fol. 1172] been retained by the Lone Star Gas Company, as a Consulting Engineer since 1921.

Q. And you now have offices in the Lone Star Gas Company's general office building at Dallas?

A. That is correct. I have represented Municipal Gas Company before its acquisition by Lone Star Gas Corporation, and since its acquisition by Lone Star Gas Corporation. I am now, and have been since the date of its organization, Consulting Engineer for Community Natural Gas Company. I have represented the Brownwood Gas Company as a Consulting Engineer before its acquisition by Community Natural Gas Company.

Q. Is that the Gas Company doing business in the City of Brownwood, Texas?

A. That is correct. It is now a part of Community Natural Gas System. I have represented the Shreveport Gas and Electric Company, the Company which distributes natural gas in the City of Shreveport, Louisiana. I represented the Arkansas Natural Gas Company, and the Texas Cities Gas Company before its acquisition by Lone Star Gas Corporation, and since its acquisition by Lone Star Gas Corporation. I have represented the Dallas Gas Company and the County Gas Company, which companies serve the metropolitan area of the City of Dallas with natural gas. [fol. 1173] I represented the Palmer Corporation before it became a part of the United Gas System.

Q. What is, or what was the Palmer Corporation, Mr. Connor?

A. The Palmer Corporation was a large natural gas producing and transportation company which served the City of Shreveport, Louisiana. I represented the Houston Gulf Gas Company as its Consulting Engineer, from the inception of that company, or even prior to the inception of that company, and acted as General Manager of the company, and served as a member of the Board of Directors of that company during the period of time that the property was being constructed.

Q. Is that a large natural gas pipe line company transporting gas from the point of production in Refugio County, Texas, to the City of Houston, Texas?

A. That is correct. I also represented the owners of the Dixie Pipe Line Company in the preliminary stages of the development of that company. Both of those companies are now a part of the United Gas System; in fact, I would say that they were really the companies which form the basis of the United Gas Company's present organization.

Q. That is the company that is engaged in the supplying of gas to Houston, Beaumont, Port Arthur, Orange, and [fol. 1174] San Antonio, among others?

Q. Also the City of Austin?

A. That is correct. I have represented the Gas Service Company, of Kansas City, Missouri, on several occasions, as well as the Industrial Gas Company, of Marshall, Texas, the Empire Gas and Fuel Company, and the Coleman Oil and Gas Company.

Q. Now, the latter company, where does it operate?

A. It operates in Central West Texas.

Q. Mr. Connor, as Consulting Engineer, have you ever represented investment bankers who were interested in natural gas projects?

A. I have.

Q. Or in their financing?

A. I have.

Q. Will you please relate in a general way the nature of the services that you rendered in that connection?

A. I made reports on properties that were in contemplation—the financing of which was being contemplated by these particular investment bankers, and it was really upon the insistence of the investment bankers who had underwritten the Houston Gulf Gas Company that I accepted the position of General Manager of that company during the period of its construction.

Q. Mr. Connor, have you ever done any considerable [fol. 1175] amount of appraisal work in connection with natural gas properties?

A. I have, yes, sir.

Q. Will you please relate in a general way the several appraisals or rather the main appraisals which you have made of natural gas properties?

A. I made an appraisal of the property and business of the Lone Star Gas Company in 1925; I also collaborated

with Mr. E. A. Steinberger in the preparation of the reproduction cost of the property and business of Lone Star Gas Company as of December 31st, 1931; and, in collaboration with Mr. P. McDonald Biddison and Mr. Steinberger, I have collaborated in the preparation of the appraisal which is now, or which has been presented in evidence in this hearing.

Q. And which appraisal of the Lone Star Gas Company's public service property we know as Exhibit 28 in this case?

A. Exhibit 28, that is correct. I have made an appraisal of the property and business of the Brownwood plant of the Community Natural Gas Company; and I have collaborated with Mr. Steinberger and the valuation section of Lone Star Gas Company in the preparation of a large number of appraisals of individual plants located in the States [fol. 1176] of Texas and Oklahoma. I made an appraisal of the property of the Fort Worth Gas Company in 1923, at the time that the property was acquired by the Lone Star Group. I also made an appraisal of the property and business of the company in 1928; and another appraisal of the same property, in 1931. I have made an appraisal of the property and business of the plant of the Texas Cities Gas Company located in Waco, Texas, which appraisal was made for the owners of that property before it was acquired by the Lone Star Gas Corporation. I have also made an appraisal of the property and business of the gas plant located at the City of Galveston, Texas. I made an appraisal of the transportation and production properties and the business of the Palmer Corporation located in Louisiana. I have made an appraisal of the property of the Gas Service Company located in Wichita, Kansas. I have also made an appraisal of the properties of the Coleman Oil and Gas Company.

Q. Now, in addition to the several appraisals which you have made, have you made and prepared investigations and reports covering the costs of construction, and probable gross and net revenues of natural gas projects?

A. I have. As I have stated before, I was connected with the enterprise which ultimately became the Houston Gulf Gas Company from the very inception of the project; in [fol. 1177] fact, it was on my suggestion to Messrs. Moody and Seagrabes that that property was initiated; and for these gentlemen I prepared a market analysis of the City of Houston and its environs, and made an estimate of the

cost of building the line, and an estimate of the probable earnings which would be derived from the operation of the line, in order that these gentlemen might present the facts to the people from whom they hoped to secure the money with which to build the property.

Q. What do you mean by a market analysis, Mr. Connor?

A. I mean by that an analysis of the probable use of gas which will be developed in a community over a period of years after the introduction of natural gas into that community. A study of that sort would include an analysis of the probable sales of domestic gas, as well as the probable sales of gas to industrial consumers. I also assisted the firm, or collaborated with the firm of Sanderson & Porter, of New York, in the preparation of the original estimates for the Dixie Pipe Line Company; and it was upon these estimates that the money was secured for the construction of this line, which, as I have stated before, is now a part of the United Gas System. For the Benedum Trees Interests of Pittsburgh, Pennsylvania, I prepared an estimate of [fol. 1178] the cost of construction, the cost of operation, and the probable income of a natural gas pipe line from northern Louisiana to the City of St. Louis, Missouri; and in connection with this estimate I also prepared a market analysis of the City of St. Louis. For the same interests I also prepared an estimate of the cost of construction, cost of operation, and probable income of a natural gas pipe line from northern Louisiana to Memphis, Tennessee; and in connection with this report I also made a market analysis of the City of Memphis. I prepared an estimate of the cost of construction and the cost of operation, and the probable net income of a natural gas pipe line from the Three Rivers Field in Live Oak County, to the City of San Antonio. This work was done for J. E. Jarrett & Company, investment bankers. For the Palmer Corporation of Shreveport, Louisiana, I prepared an estimate of the cost of a pipe line, and the earnings which might be derived from this line, and the business which could be secured from the holdings of this company in eastern Louisiana, to Vicksburg, Jackson, Meridian, Bogalusa, and Hattiesburg, Mississippi.

Q. More specifically, now, Mr. Connor, what has been your main activity for the last ten years in relation to the Lone Star Gas Company's property?

[fol. 1179] A. My activities in connection with the Lone Star Gas Company have been varied. I have been called upon from time to time to acquaint myself with practically every phase of the Company's business and operations; I have had an opportunity to become familiar with each and every department which constitute the operating and construction organization of Lone Star Gas Company. For the past several years I have been closely associated with the work done by Mr. E. A. Steinberger, and have collaborated with Mr. Steinberger in the collection and assimilation of data which are important in determining the costs of construction. Since 1927 I have devoted a very substantial part of my time to the study of the behavior of steel pipe, once it is laid in the ground and put into service. I have analyzed the records of Lone Star Gas Company from the day that the first pipe was put into the ground up until the middle of the year 1933, for the purpose of determining exactly what had happened to each foot of pipe that had gone into the ground in that system.

Q. In other words, did you start with the commencement of the Company's operations in 1909, and make a complete analysis of all replacements, abandonments and removals of steel pipe in the Lone Star System from 1909 to July 1st, [fol. 1180] 1933?

A. That is correct—I have done so, and in connection with that work I have attempted to familiarize myself with the behavior of the other equipment, and all of the causes which would contribute to the failure of that equipment, the removal of it, the replacement of it, or the taking it out of service. I have extended that study recently to include each and every town which has a distribution plant and which is owned and operated by the subsidiary companies of Lone Star Gas Company——

Q. Corporation?

A. Corporation,—for the purpose of ascertaining the behavior of steel pipe in those cities and towns. That study of the Lone Star Gas Company's system covered the history of over sixty million feet of equivalent 3-inch diameter pipe, and the study of these town plants covered the history of approximately sixteen million feet of equivalent 3-inch diameter pipe.

Q. Have you had any occasion, Mr. Connor, to make a study of the life of gas wells in the territory wherein Lone Star Gas Company produces and purchases gas?

A. I have. I have acquainted myself, I think, with every factor which would have a bearing upon the probable life [fol. 1181] of gas wells now connected to the Lone Star Gas Company's system, and have analyzed and studied the source of supply of Lone Star Gas Company, and the behavior of these sources of supply, with reference to their rate of decline, for the purpose of ascertaining the probable rate at which gas will be taken from these sources of supply in the future.

[fol. 1182] Q. Mr. Connor, have you made any studies on a large scale in respect of the replacement, retirement and abandonment of steel pipe in any particular community?

A. Yes, in the city of Fort Worth, but I have amplified that study to include all of the plants of the Community Natural Gas Company, as well as practically all of the plants of the Municipal Gas Company. The sole exceptions to the cities operating under the Lone Star group for which I have not made studies are the cities of Dallas, Waco, El Paso and Galveston. The City of Dallas affords a very poor source of information for the reason that most of the pipe in the distribution plant in the city of Dallas is cast iron pipe.

Q. And of course in connection with the Lone Star Gas Company appraisal and a determination of the annual amount required for depreciation, depletion and amortization, we are concerned only with steel pipe as distinguished from cast iron pipe?

A. That is correct. There is no cast iron pipe in the Lone Star Gas Company system.

Q. In addition to the other studies which you have made, Mr. Connor, have you made studies covering or relating to the replacement, retirement and abandonment of gas meters and gas services?

A. I have accumulated data wherever it has been possible to do so, concerning each item of property used and useful in the natural gas business.

[fol. 1183] Q. Mr. Connor, have you ever made any original studies for the purpose of determining the effect of the rate of growth of utility properties upon the annual replacement of property units, expressed as a percentage of the units installed?

A. Yes, I have.

Q. Have you similarly made studies as to the relation of annual renewals of physical property to the per cent condition of new of physical property?

A. Yes, I have.

Q. Have you made similar studies concerning the factors of amortization of physical units of property, and the relation of such amortization to the replacement of units of the same property?

A. That is true, specifically with reference to the property of the Lone Star Gas Company. Of course each problem of that sort would be peculiar to an individual property.

Q. By the way, Mr. Connor, what do you mean by the term "amortization"?

A. I mean by the term amortization the setting up of a uniform annual sum, which at the end of a given period will equal a sum of money for which the accumulation was designed to provide.

Q. Can you give some simple illustration of the application of an amortization fund?

A. Yes. If you had a lease and built a building on a piece of leased ground that cost you $100,000.00 to build, and your lease would expire in fifty years and the right of pos- [fol. 1184] session of the building would revert to the owner of the land, then in order to make yourself whole at the time of the expiration of your lease you would of necessity have to set up some sum of money which, accumulated at the end of fifty years would equal $100,000.00. Now the usual way in which an accumulation of that kind is estimated is to compound it annually at some predetermined rate of interest. It is never contemplated that a sum of that sort will be used except at the terminal point of the accumulation.

Q. In other words, in the case of the illustration which you have used, of a lease terminating at the end of fifty years, do you mean that it is not contemplated that the sum will be used until the fiftieth year had expired?

A. That is correct, and that is what the term amortization is generally construed to mean.

Q. Mr. Connor, have you made any studies relative to the acquisition of business by natural gas companies and the development of the use of natural gas in communities?

A. I have made extensive studies of the rate at which people will take on natural gas service, once it has been in-

troduced into the community in which they live. And not only the rate at which the number of consumers will increase per year as measured in the numbers of the inhabitants, but also the rate at which these consumers will increase their consumption in the years following the introduction of natural gas service.

Q. Have you made specific studies, Mr. Connor, in relation to the attachment of business on the Lone Star Gas [fol. 1185] Company pipe line system, both in relation to domestic gas sales, sometimes referred to in this case as residential gas sales, and also industrial gas sales?

A. I have. I have studied the largest cities on the system; that is, Fort Worth and Dallas and they constitute the two largest markets, as well as the small communities. The Lone Star Gas Company serves a large number of very small towns, and the rate at which the largest cities will take gas, or rather, the rate at which the number of consumers will increase and the rate at which the consumption of gas will increase, is very different from the rate at which the business can be attached in the smaller communities. In the smaller communities, the saturation, if I may use that term, is completed much more quickly than in the larger cities.

Q. What do you mean by "saturation", Mr. Connor?

A. I mean the normal amount of business which you can expect to secure in a given community, represented by the number of meters per thousand inhabitants, and the number of cubic feet of gas per meter which you may expect to sell.

Q. Mr. Connor, as a result of your experience, do you feel that you have an intimate knowledge of all phases of the natural gas business?

A. Yes, perhaps with the exception of the geology of natural gas and the technique of the drilling and completion of natural gas wells.

Q. But you have had experience in all other phases of the business?

A. Yes, I have.

[fol. 1186] Q. Mr. Connor, if we refer to page 6 of Volume 1 of what we know in this case as Defendant's Exhibit 28, do we find that page to contain a recapitulation of the general and undistributed costs, of the preliminary and organization costs, of the working capital, and of the going con-

cern value as determined by you in connection with that appraisal?

A. That is correct, and there is also included in the Exhibit No. 28 my estimate of the cost of final engineering records and certain costs of supervision, which I determined independently in connection with this appraisal.

Q. Now, Mr. Connor, in support of your evaluation of the preliminary and organization costs, and the general and undistributed costs, and the amount of working capital required, and the going value or business development which the company has had, have you prepared Volumes 7 and 8, as following Volumes 1 to 6, inclusive, which have previously been introduced in evidence and styled Defendant's Exhibit 28?

A. I have.

Q. Are these the volumes, Mr. Connor, of the inventory and appraisal of the public service property of the Lone Star Gas Company as of January 1, 1933, which cover in detail the evaluation of the preliminary and organization costs, the general and undistributed costs, the working capital, and the going value in connection with the Lone Star Gas Company's property?

A. That is correct.

[fols. 1187-1188] Mr. Griffith: We offer in evidence the volumes so identified by the witness, as Volumes VII and VIII of Defendant's Exhibit Number 28.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 28, Volumes 7 and 8.)

Mr. Stout: May we interrogate the witness with a question or two, please your Honor?

The Court: Yes.

Questions by Mr. Stout:

Q. Mr. Connor, you make no segregation between property in Oklahoma and property in Texas, do you?

A. No, sir, not in this exhibit.

Q. None whatsoever?

A. No sir. These volumes apply to the property of Lone Star Gas Company as a whole.

Q. You make no segregation in regard to overheads, as applying to what might be, if any, interstate business, or intrastate business or property?

A. No sir, I have made no such allocation.

* * * * * * *

[fol. 1189] Questions by Mr. Griffith:

Q. Mr. Connor, if we refer to Volume 7 of Exhibit 28, what do you show on pages 2 to 8, inclusive?

* * * * * * *

A. I set out the nature of the work which I have attempted to do. I show its relations to the portion of the [fol. 1190] appraisal which has heretofore been introduced, and I set out also a statement of the manner in which I proceeded to do the work in connection with the preparation of the estimate.

Q. Without reading, but attempting to summarize the method that you have pursued in the evaluation of the preliminary and organization or development costs, and the general and undistributed costs, Mr. Connor, I will ask you to state your method of arriving at those costs, in just a general summary to the jury.

A. Mr. Biddison, in the estimate which he has presented, confines his findings to those costs which can be specifically identified with units of physical property, and the cost of constructing these units of physical property.

[fol. 1191] Q. In other words, what Mr. Biddison described as Direct Structural Costs of the Physical property?

A. That is correct. The costs that Mr. Biddison incorporated in his estimate began with the beginning of actual construction and ended with actual construction, and only included such costs as could be described as Direct Structural costs. Now, if we set out to reproduce the property and business of Lone Star Gas Company, there would be a great many other items of expense than those which have to do with the Direct Structural Costs. Some of these expenses would be incurred substantially beyond a period of time during which actual construction took place. Some of the costs would follow the period after the plant had been completed, and there would be certain costs of a nature so general that they could not be allocated to specific property items, nor can they be inventoried and priced; but they are, nevertheless, real actual costs that would be met in the reproduction of the Lone Star Gas Company, and they would be met in the reproduction or reconstruction of any other gas company.

Q. And historically, have such costs actually been encountered and experienced in connection with the construc-

tion of other natural gas properties of a substantially similar character?

A. That is correct.

Q. And based upon your own experience, have you actu- [fol. 1192] ally participated in those costs and seen those costs incurred?

A. I have. Now, these costs, in view of the fact that they cannot be inventoried and priced from catalogs and quotations, must be approached in a different manner when an estimate is to be made. Frequently, estimates of the general and undistributed costs, preliminary and organization costs, and the cost of business development, are made by the application of a percentage to the physical property—of the costs of the physical property. I was not willing to follow that method. I made it my business in connection with my association with the Lone Star Gas Company to study each and every department in that organization that would find its counterpart in the reproduction of this property, and I made it my business to learn the duties of each and every individual who would be engaged in the various tasks which would be necessary to reproduce this property, and it was in that way that I have made this estimate.

Q. Did you endeavor in the making of this estimate of the general and undistributed costs, Mr. Connor, to apply, in so far as possible, the actual historical development of the property?

A. Yes and no. There are certain phases of the historical development of the property which would not be at all applicable to the reproduction of the property. For instance, [fol. 1193] when the Lone Star Gas Company was organized back in 1909 it consisted of one 16-inch pipe line from the Petrolia Field to Fort Worth and to Dallas, and received its supply of gas from a few wells located in the Petrolia Field. That was the initial stage of the Lone Star Gas Company as it has developed from that time. Now, the organization of a company of that magnitude or that size would have no relation whatever to the organization of the Lone Star Gas Company as it exists today; and so, in that way, I could not, and did not give any consideration to the historical experience of the Company, exactly in the same manner that Mr. Biddison in his estimate of reproducing the physical property gave no consideration to the fact that back in 1909 they did not use automobile trucks to trans-

871

port pipe, or that the ditching machines in those days were not at all comparable to the ditching machines they use today.

Q. Or that the price of pipe in 1909 was comparable to today's cost for pipe?

A. That is correct. In other words, a reproduction cost estimate, as I view it, must take into consideration the thing which you are attempting to reproduce; and, so, the preliminary development and organization expenses which might have been historically incurred in the organization of a very small company back in 1909 would not form the basis for an estimate of what it would cost in the matter of pre-
[fol. 1194] liminary organization and development expenses if the Lone Star Gas Company were to be reproduced today.

Q. Now, Mr. Connor, if the Lone Star Gas Company's public service property were to be reproduced today, would somebody just haul off and start tomorrow with the business of constructing pipe lines and drilling wells and building structures?

A. No. I think it is perfectly obvious that there would be a long period of preparation before the first move could be made to start the construction of the system. In the first place, money would have to be provided, plans would have to be laid, a corporate organization would have to be perfected, and a thousand and one things would have to be done prior to the initiation of expenditures which Mr. Biddison has discussed and covered in his analysis of the costs of construction.

Q. On page 8, of Volume 7, Exhibit 28, do you have a general summary of what you call your Preliminary Development and Organization Costs?

A. Page 8, that is correct.

Q. Now, as Judge Stout has suggested, on page 9, of Volume 7, Exhibit 28, in your classification of Preliminary Development and Organization Costs, you have followed the accounting classification of the Interstate Commerce Commission, as provided for Steam Railroads?

[fol. 1195] A. That is correct.

Q. And all of these costs are catalogued in that accounting classification?

A. The Interstate Commerce Commission's classification of accounts defines what organization expense is, as construed by the Interstate Commerce Commission.

Q. Of course that is not binding on Judge Stout?

A. No; I did not intend for it to be.

Q. But it is a generally accepted accounting classification for this character of expense?

A. That is correct; and I think that it might help in an understanding of some of the subsequent testimony if I should read the definition of the classification as prescribed by the Interstate Commerce Commission, which is as follows: "This account shall include all fees paid to governments for the privilege of incorporation, and office and other expenditures incident to organizing the corporation and putting it in readiness to do business; the cost of preparing and distributing prospectuses; cost of soliciting subscriptions for stock; cash fees paid to promoters, and the actual cash value (at the time of the organization) of securities paid to promoters for their services in organizing the enterprise; special fees; cost of preparing and issuing certificates of stock; cost of securing the necessary permits from State authorities and other like costs." I might state in that connection that the classification of accounts as pre- [fol. 1196] scribed by most regulatory bodies carries a similar definition.

Q. Now, Mr. Connor, historically, the Company actually experienced costs of that character to a greater or less degree, did it not?

A. That is correct. No company could come into being and develop physical properties and put them into operation without the incurrence of preliminary development and organization costs.

Q. In other words, the State of Texas exacts an incorporation fee from the Lone Star Gas Company?

A. Yes, sir; there are certain out-of-pocket expenses that can be readily identified; but, of course, there are other much larger expenditures, which when analysis is made of the business itself, and the necessary steps which must be taken to put it into being, will be greatly in excess of the governmental fees.

Q. Now, all these costs necessary to the completion of the corporate organization, are they just as essential and just as necessary as the costs which are incurred in connection with the construction of pipe lines or the acquisition of lime, brick, mortar, or cement?

A. They are just as necessary, and they are equally as inevitable.

Q. Now, Mr. Connor, upon what basis have you assumed

[fol. 1197] that the Lone Star Gas Company would be reproduced—have you assumed that it would be constructed over any period of time?

A. Yes, I have prescribed a definite period of time for the initiation of the project, the preliminary development and organization period, the period of incorporation, the period which would be required after the property was incorporated up to the time that actual construction could be begun, then the construction period itself, and then the period of time following the construction period which would be required to secure the business now enjoyed by the Lone Star Gas Company. Those periods are divided as follows: The preliminary development and organization period is set out at a year and a half; the pre-construction period, which would consist of that period of time in which materials of construction would be assembled, final plans would be drawn, construction organizations perfected, and so forth, has been set at six months; the actual period of construction I have estimated to be three years; and at the end of four years after the completion of the plant I have estimated that all of the business of the Lone Star which it now enjoys would be secured by an identical plant reproduced at this time.

* * * * * * *

[fol. 1198] Mr. Griffith: If the Court please, on Wednesday of this week I believe it was, the witness P. M. Biddison was asked to have prepared, for the purpose of furnishing the same to counsel for the State, a complete breakdown of the percentage of hand and machine excavation and the cost per hundred lineal feet on the several pipe line systems designated and included in Defendant's Exhibit 28. That data has been typed and is now handed to counsel for the State.

* * * * * * *

Paul Richey, a witness for defendant, recalled, testified as follows:

Cross-examination.

Questions by Mr. Fitzhugh:

Q. I believe you stated, Mr. Richey, on direct examination that you are the same Mr. Richey that Mr. Biddison referred to so many times?

[fol. 1199] A. That is right.

Q. You furnished to Mr. Biddison the fundamental price data that he used in pricing out his inventory, did you not?

A. Yes, sir.

Q. And if you have furnished him the wrong prices, to that extent his appraisal would be off?

A. That is correct.

Q. Now, yesterday, in testifying on the various exhibits as to prices on pipe, and valves and fittings prices, you tried to leave with the jury the impression that the trend of those prices was definitely upward?

A. I endeavored to so do.

Q. Take your Exhibit 35, which is your exhibit on the price trend on Typical Valves and Fittings. Turn to page 1 in that exhibit. Now, as shown on that page, based on $100.00 list price, what is the present net cost f. o. b. destination, for Standard Globe and Angle Valves?

A. $60.53.

Q. What was it on the date of the quotation previous to the last quotation?

A. $62.00.

Q. The trend on these valves at the present time is downward instead of upward?

A. On April 1, 1934, as testified yesterday, they are allowing full freight; therefore, the trend on the price delivered is down to the extent of the freight. The trend of the [fol. 1200] price so far as the f. o. b. factory is concerned remains the same.

Q. It is the delivered price that you are particularly interested in, isn't it?

A. Not altogether on a price trend, no, sir.

Q. These valves are going to be used in Texas, aren't they?

A. That is right.

Q. It is the delivered price in Texas that we are particularly interested in?

A. Yes, sir.

Q. And the price delivered as of this date, when compared with the last date shows a downward trend?

A. That is true, but so far as price trend is concerned——

Q. Just answer that "yes" or "no". That is true, isn't it?

A. That is true, but this is a price trend we are testifying about.

Q. Turn to page 3. The next set of valves listed as shown on that page are Standard Wedge Disc Gate Valves, iron body, bronze mounted, non-rising stem, screw ends, 2 to 12 inches, based on $100.00 list price. What do you show for the net cost f. o. b. destination for these valves?

A. $53.58.

Q. What was it on the last quotation date previous?

A. $57.74.

Q. Doesn't that show a downward movement in price on these valves delivered?

[fol. 1201] A. It shows a downward movement delivered.

Q. Now, turn to page 5. There you show Standard Double Disc Gate Valves, iron body, bronze mounted, 200 pounds oil, water or gas working pressure, 2 to 8 inches, based on $100.00 list price, what is the net cost f. o. b. destination, or the cost delivered in Texas, as of today, as shown on that page?

A. $66.08.

Q. What was it on the previous quotation date?

A. $70.44.

Q. That also shows a downward slide in prices, don't it, delivered in Texas?

A. That is correct.

Q. On page 7, the next valves shown are Standard Double Disc Gate Valves, iron body, bronze mounted, 200 pounds oil, water or gas working pressure, 10 to 12 inches, based on $100.00 list price. What is the last quotation shown on that page, or the cost delivered as of this present time?

A. $58.39.

Q. What was it as of the previous quotation date?

A. $63.31.

Q. That likewise shows a downward trend, does it not?

A. Well, it shows a lower price delivered. So far as the trend of the commodity is concerned, it is not a downward trend.

Q. What is it you are interested in, Mr. Richey, so far as the trend or anything else is concerned, except to show [fol. 1202] whether prices are going up or down?

A. I am interested in showing that the trend of commodities is upward, and even though there is a full freight allowance the trend of prices is upward. For instance, we have three or four increases in prices in 1933.

Q. Does it make any difference to the builder of a property in Texas whether he gets the saving in the price of the materials or in the freight-rate on them?

A. Not so far as the building of property is concerned; but so far as the price trend is concerned there would be.

Q. So far as showing a price trend of a commodity delivered, is there any difference in dollars and cents?

A. So far as the delivered price is concerned there would not be.

Q. On page 9 where you show Double Disc Gate Valves, non-rising stem, iron body, bronze mounted, 500 pounds oil, water or gas working pressure, 2 inches to 6 inches, based on $100.00 list price, what is the price delivered for these valves as of this date?

A. $44.91.

Q. What was it as of the previous quotation date?

A. $47.47.

Q. That is likewise downward?

A. That is correct.

Q. Turn to page 11, where you show Double Disc Gate Valves, non-rising stem, iron body, bronze mounted, 500 [fol. 1203] pounds oil, water or gas working pressure, 8 inches, based on $100.00 list price, the trend of the cost delivered over the previous quotation date in that case is likewise downward?

A. That is right.

Q. The present quotation price being $36.38, against $39.49 the previous quotation date?

A. That is correct.

Q. The same thing is true for the Double Disc Gate Valves shown on page 13?

A. That is right.

Q. The price there being $41.18, as compared with $44.32?

A. That is right.

Q. The same is true on page 15 for Malleable Fittings, based on $100.00 list price?

A. It is.

Q. The present price being $82.29, as against the previous quotation price of $86.61?

A. That is right.

Q. On page 17, where you show Standard Cast Iron Fittings, based on $100.00 list price, the present quotation price is $63.84, as against the previous quotation price of $69.34; isn't that correct?

A. That is correct.

Q. Doesn't that complete that exhibit?

A. No, sir.

Q. Is there one other page in there?

A. Oh, this exhibit, yes.

[fol. 1204] Q. Was there a single page in that whole exhibit where you showed an upward quotation as of the present time over the previous quotation?

A. There was not.

Q. You introduced another exhibit, Exhibit 34, which attempted to show a trend in prices, did you not?

A. Did show a trend, I would say.

Q. What was that concerned with—pipe, was it not?

A. That is right.

Q. On page one, the first item appearing is Buttweld, Standard, Black—Single Random Lengths?

A. Right.

Q. As shown by the quotations appearing on that page what was the price shown for the last quotation?

A. For ⅛-inch size, $.0284.

Q. That is the prevailing price at the present, is it not?

A. It is.

Q. What was the prevailing price as of the last previous quotation date?

A. $.0288.

Q. Doesn't that show a downward movement in the price as between those two quotations?

A. It does.

Q. What is the next size of pipe?

A. One-quarter inch.

Q. That also shows a downward trend as between those [fol. 1205] two quotations, doesn't it, the present price being $.0299 as against $.0302?

A. That is correct. That is a matter of cash discount.

Q. That is true of every pipe listed as Buttweld, Standard, Black—Single Random Lengths?

A. That is correct. It is a matter of cash discount.

Q. The next classification you show on that pipe is Lapweld, Line, Black—Single Random Lengths?

A. That is right.

Q. The first item shown in that classification of pipe likewise shows a downward trend as between those two quotations?

A. It does.

Q. Is there any price anywhere in this whole classification that does not show a do-nward trend?

A. As between those two quotations?

Q. Yes.

A. That is correct.

Mr. Griffith: What does it show in respect of the other dates?

A. Shows a decided increase in price.

Q. As compared with what—the price back in 1925?

A. No, sir; as compared with the price on January 1, 1933, or the price on July 1, 1933, or the price on January 2, 1934.

Q. All right. Take the first item of Lapweld, Line, Black—Single Random Lengths, what was the price on January 1, 1933?

[fol. 1206] A. As testified yesterday, the price on 2⅜-inch O.D., and if I may say so, on up to 4-inch O.D. is down. That was my testimony yesterday.

Q. And it has been all the time, hasn't it?

A. No, sir.

Q. What date are you talking about now, 1925?

A. No, sir; I am talking about the dates in this exhibit.

Q. It has been continuously down since January 1, 1933, hasn't it?

A. Not continuously down—down, and up, and down.

Q. Well, let's see about it. What is the highest price this pipe is shown?

A. Well, the highest price for that size is January 1, 1933.

Q. Yes, sir; so it has been continuously down?

A. Yes, sir; that is right; my mistake.

Q. Now, on page 2, continuing the classification of Lapweld, Line, Black—Single Random Lengths as between the last quotations on every size of pipe listed there the trend has been down?

A. That is correct.

Mr. Griffith: For what?

A. Cash discount.

Q. Does it make any difference what causes the trend downward, just so whoever is building gets the benefit of it?

A. If I may say so, the appraisal date is January 1, 1933, [fol. 1207] and from that date until now the price is definitely upward. The price has been up and down.

Q. Does it make any difference to a builder in Texas who is using materials whether he saves money on the freight-

rates on the price of materials f. o. b. mill, or whether he gets it on preferential, base, or cash discounts?

A. So far as the trend is concerned it does make a difference.

Q. So far as the trend is concerned?

A. Yes, sir.

Q. What difference does the trend make? It is the cash cost of the product delivered in Texas that makes the cash cost of buildings or pipelines built in Texas; isn't that true?

A. No, sir.

Q. All right. For your next classification, Lapweld, Line, Black—Double Random Lengths, for the 12¾ inch 37.453 pounds, what is the price? quoted today?

A. $1.4736.

Q. What is the previous quoted price?

A. $1.4913.

Q. The same sort of downward trend as between those two quotation dates is shown by every sort of pipe in this classification, isn't that right?

A. That is right.

Q. That is likewise true of the Seamless, Line, Black—Single Random Lengths—the trend there as between the last two quotation dates on pipe delivered in Texas, on every [fol. 1208] size of pipe is downward, is it not?

A. The price is downward to the extent of the cash discount; but I cannot agree that the trend is down. The trend of steel pipe is definitely upward, not down.

Q. Well, the quoted price as of today is less in every case than the previous quoted price, isn't that true?

A. That is correct.

Q. What is the particular significance that you attach to this word "trend"?

A. I attach this significance in connection with the interest it might have to the builder of a pipe line, and that is what may be the price in the immediate future. Indications of the figures prepared and shown here show that the trend over a period of one year and a few months is definitely upward, and there is no indication anywhere that it will be down. I happen to know from contact with representatives of pipe mills that any immediate change in the immediate future will be up, and that is to the interest of the builder who proposes to construct a pipe line.

[fol. 1209] Q. Well, now, Mr. Richey, you are no more a prophet than the pipe line representatives themselves?

A. No, I am no more a prophet than they are, but I can make predictions.

Q. Well, whether it be the price of wheat or the price of cotton or the price of automobiles, cows or pipe, it is nothing more than a good guess?

A. It is more than a good guess, I would say, with reference to steel products. Any one that has become familiarized with matters pertaining to the steel industry lately realizes that they have had troubles in connection with labor and so forth, and we have received advices from those mills to expect an increase since this date.

Q. And you know, too, Mr. Richey, that if you really knew exactly what the price of any commodity is going to be, whether corn or cotton or pipe or what not, you would be a rich man from that knowledge?

A. Well, I might be. (Laughter.)

Q. Well, so far you have not shown that great ability?

A. No, sir; I certainly have not.

Q. All right. The next classification is Buttweld, Standard, Black, Single Random Lengths. What price would you have to pay for the largest size pipe there?

A. At the present time $.1152 per foot.

Q. How is the same size pipe quoted on the previous quotation sheets?

A. $.1166 per foot.

[fol. 1210] Q. You would not have to pay as much for this pipe now delivered in Texas as you would by the previous quotation, would you?

A. No, sir. It is fourteen ten thousandths of one cent lower per foot.

Q. All right. That is true, is it not?

A. All right, sir. I will check that.

Mr. Fitzhugh: Read that gratuitous statement just thrown in there, will you, please sir?

(Thereupon the Reporter read as follows: "Answer: No, sir. It is fourteen ten thousandths of one cent lower per foot.")

A. That is right.

Q. What is the percentage of drop?

A. I don't know.

Q. Well, it is a little over one and a half cents, isn't it—one and a half per cent?

A. It is the difference between two per cent and one-half of one per cent cash discount. That is correct.

Q. Applying a per cent drop of one and a half per cent to a purchase of twenty million dollars of pipe would be how much?

A. Oh, three hundred thousand dollars, possibly.

Q. That is hardly a negligible amount, is it?

A. Compared to twenty million dollars, it is not a great amount.

Q. Well, there is twenty million dollars' worth of pipe in the Lone Star system, isn't there?

A. I don't know.

Q. On page 4, where you show Buttweld standard galva-
[fol. 1211] nized single random lengths, Buttweld galvanized—Buttweld standard and Buttweld line are both galvanized—and single random lengths, Lapweld single random lengths, Buttweld extra strong, black, single random lengths, Buttweld extra strong, copperoid, and Lapweld extra strong, copperoid, single random length, in each case the price that you would have to pay today for this pipe delivered in Texas is less than you would have to pay according to the last quotation?

A. That is right.

Q. And where on the next page you show Republic electric weld, plain end, double lengths, Smithweld, plain end, and Smithweld, Bell and Spigot, the same thing is true, is it not?

A. That is correct.

Q. On page 6, where you show casing Lapweld, threaded and coupled, black, casing seamless, threaded and coupled, tubing, threaded and coupled, lapweld, black, the same condition prevails, does it not?

A. That is correct.

Q. Does that complete this exhibit?

A. It does.

Q. Now, is there a single item listed anywhere in this exhibit, Mr. Richey, where the price today delivered in Texas is not less than the previous quotation date?

A. No, sir.

Q. Notwithstanding that fact, you say that at this time the
[fol. 1212] trend of pipe is definitely upward?

A. I do.

Q. And you prophesy further to say that it will be further upward in the future?

A. No, sir; I don't prophesy that. I have had direct communications from pipe mills stating that that would probably be the case. That is not a prophesy.

Q. Oh, you don't prophesy—you are certain of that?

A. I am certain of the communications I received; yes, sir.

Q. If you are so sure of that, Mr. Richey, why don't you borrow you a little money and go out and buy some pipe and hold it for sixty days and make some money?

A. I don't know where to borrow the money.

Q. Isn't the real reason that you don't know definitely that the trend will be upward?

A. Naturally, I don't know it. I can only use normal intelligence and observe what the pipe mills say. They have a very good idea of the conditions in the steel industry, I think.

Q. Outside of pipe, what is the biggest item of property that appears in the company's appraisal?

A. I don't believe I can answer that. I don't believe I am qualified to.

Q. Well, you do know, do you not, that the compressors form a very sizable item in the appraisal?

A. I do.

Q. What has been the trend of prices on compressors?

A. The prices of compressors as of January 1, 1933, and as of January 1, 1934, have not changed. We are informed [fol. 1213] by the managers of the Cooper-Bessemer Corporation that their costs of manufactured——

Q. Well, now, wait. Is this something you know about?

A. I do know about it; yes, sir.

Q. Or is it another prophesy?

A. No, sir; it is a direct communication from the Vice-President of the Cooper Company, which states that any revision in their prices will certainly be upward. They can't contract for pig iron a year ahead as they once did.

Q. You got that information by letter, did you? We would like to see that letter.

A. I am not sure whether I have it or not. I got the information by letter. I don't know whether I have the letter with me or not, but if I don't, it can be produced.

Q. Well, we would appreciate very much seeing it.

The Court: I wonder if we could not go ahead with the examination and get the letter later.

A. I have the letter.

Q. All right. Will you read it?

A. (Reading.) "We are very glad indeed to enclose the price information as requested in your letter of December 18th. Any changes in prices to date have been noted, and while there is no doubt but what we will be compelled to revise our prices upward at an increase in costs of material and labor, we have no definite way of knowing when a price change of this kind will go into effect. In view of this, the best we can do is to give you the current prices as of today."

[fol. 1214] Mr. Griffith: What is the date of that?

A. January 8, 1934.

Q. What is the date of the letter?

A. January 8, 1934.

Mr. Griffith: Mr. Fitzhugh, you can, of course, examine any of those letters that you desire to see.

Q. Did the letter you have just read from have enclosed with it quotations on compressors?

A. It did.

Q. What was the date of the quotation—also January 8th?—Does the letter of January 8th give you prices as of January first?

A. 1934; yes, sir.

Q. Does it give you prices as of any other date?

A. It does not.

Q. Have you since had a letter from the same people?

A. No, sir.

Q. And the reason you say the price on compressors is still the same is because you would have been apprised of any change in prices had any taken place?

A. They have fifteen machines in stock, I happen to know, and until those are disposed of the prices probably will not be revised upward. Any new machines manufactured will no doubt be at a higher price.

Q. How long has the price quoted you as of January 1, 1934, or, for that matter, as of January 1, 1933—how long has that same price prevailed?

[fol. 1215] A. I don't know exactly how long it has prevailed.

Q. I believe you say you are connected with the Purchasing Department of the Lone Star Gas Company?

A. That is right.

Q. Don't you know as a matter of fact that their quotations show in that department that there has not been any change since about 1927 or 1928, back in there some place?

A. No, sir; I don't know that.

Q. Can you give the prices on compressors for any date prior to 1930?

A. No, sir.

Q. Well, you have prices scattered throughout these exhibits that go all the way back to 1924. Why is it you don't have any quotations on compressors?

A. I didn't prepare them or undertake to secure them.

Q. Well, wasn't that just as important as this trend?

A. Possibly so.

Q. It is a whole lot bigger item than the valves and fittings that you have given an exhibit on here, isn't it?

A. Yes, it is a bigger item, but they both happen to be derived from iron ore.

Q. Well, the only two dates you have that you do have compressor prices on are January 1, 1933, and January 1, 1934?

A. That is correct.

Q. What price do you show on a C. & G. Cooper Horizontal Twin Type 80, Four Cycle Gas Engine, 170 horsepower, 190 revolutions per minute, 18 by 20 inch cylinders, [fol. 1216] direct connected to 10 and 6½ by 20 inch compressor cylinders?

A. Type 80. You want the price as of January 1, 1933?

Q. Give the price for January 1, 1933—yes, sir.

A. I believe it was Type 75. However, I believe it was changed to Type 80.

Q. Well, it is listed in the inventory as Type 80. I am sure I don't know.

A. Well, that is it. I show Type 80, single acting, four cycle, 170 horse-power, 190 R. P. M., with ten and six and a half, did you say?

Q. Yes.

A. That is $7,940.00 f. o. b. the factory, $8,628.00 delivered at Breckenridge, Texas. It would be necessary that I have the station there, for these were all figured on carload shipments direct to their respective stations.

Q. What is the engine number of such machine that you have?

A. Well, I have a large number of them. This is in the Caddo station.

Q. Now, for that same engine what was the price January 1, 1934?

[fol. 1217] A. $7940.00, f. o. b. the factory—the same price.

Q. The same price?

A. Yes, sir.

Q. That is the same price, delivered?

A. $8619.0740, delivered.

Q. The same price, delivered?

A. About $9.00 lower, delivered. That is caused by a two-cent reduction in the freight rate.

Mr. Griffith: Two cents per 100 pounds?

A. Per 100 pounds. The machine weighs 51,334 pounds.

Q. Now, these machines are listed as Type 80 in the inventory. Did you apply a Type 80 price on that?

A. No, sir, I was in error in that connection. It is Type 80.

Q. All right.

A. Type 75 is now Type 80. The Company has some of both, however.

Q. Refer to your Exhibit 34, again—the exhibit on Valves and Fittings.

A. Valves and Fittings?

Q. Yes, sir.

A. That is 35.

Q. 34, isn't it?

Mr. Griffith: No, it is 35.

[fol. 1218] Mr. Fitzhugh: All right.

Q. On page 11, where you show Double Disk Gate Valves, Non-rising stem, Iron Body, Bronze Mounted, 500-pound Oil, Water or Gas Working Pressure, 8-inch, based on $100.00 list price,—the valves appearing on that page, along with the valves appearing on pages 9 and 13, are the valves that are most commonly to be found in the installations on the Company's properties, are they not?

A. Well, now, I would not feel qualified to answer that, altogether. I am not thoroughly familiar with the quantities involved.

Q. Well, when you——

A. I do know that they have a large number of other types of valves than those.

Q. Well, don't you know that from your experience in selling them valves when you were with the Oil Well Supply Company, and buying valves now as a member of the Purchasing Department of the Company?

A. No, sir, I don't know that. I have sold the Lone Star Gas Company a good many valves, but not so many of these valves. That was my personal experience.

Q. On page 11, the page first referred to, what is the basing discount as of to-day, which you show on that page?

A. Forty-five per cent.

[fol. 1219] Q. What was the source for that discount?

A. The Walworth Company.

Q. What was the discount shown for the previous quotation date?

A. Forty-five per cent. Now, I gave you the base discount as of April 1st there, and then December 28th.

Q. Now, you got that discount, did you not, from the discount sheets furnished you by the Walworth Company?

A. That is correct.

Q. Do you have those sheets with you?

A. Yes, sir.

Q. Now, find the sheet which shows this discount, and show it to us, please, sir. (Witness examines data.)

A. That base discount has been corrected to 45½ per cent.

Q. To forty-five and what?

A. One-half per cent.

Q. To forty-five and one-half per cent?

A. That is right.

Q. It is not corrected on your sheets, is it?

A. No, sir.

Q. When did you find out about the correction? When we started the cross examination?

A. I knew about the correction before now.

Q. Before you made out this exhibit?

A. Yes, sir; I have a letter from the Walworth Company, [fol. 1220] advising of some corrections a few days after the discount sheet was issued.

Q. Well, why didn't you put it in your exhibit?

A. These exhibits were prepared rather hurriedly when we decided to enter them here. It is one-half of one per cent. That is an error that I admit.

Q. Have you any other errors you would like to admit on this same page?

A. There may be some. I will be glad to admit them, if you will find them for me.

Q. Well, will you point out the ones you know about?

A. I don't know of any.

Q. You knew about this one.

A. I think they are correct.

Q. All right; on the same page where you show the price as of January 1, 1933, the date of Mr. Biddison's appraisal, what price do you show, based on a hundred dollar list price?

A. Show a base discount of 49 per cent.

Q. I know, but what price, delivered, for the valve?

A. $36.85.

Q. As compared—That $36.85 delivered price of the valve compares with the price to-day of $36.38?

A. That is correct.

Q. That is a slight decline in that valve?

A. Yes, sir. There are two or three items in this exhibit [fol. 1221] where the price as used in the appraisal and the present price show no appreciable change; there are other items that show an appreciable change upward.

Q. You don't know, do you, Mr. Richey, that this is one of the most common valves in the System?

A. No, sir, I don't know that it is, and I wouldn't say that it is not.

Q. Now, if the correct discount had been applied, what would have been the price as of to-day?

A. It would be $36.0518, as compared to $36.38.

Q. Now, some of these valves, you say, Mr. Richey, have gone up and some of them down. Now, I will ask you the question——

A. Did I say "down"? There is a slight—there is a fraction of a per cent there in that cost—probably of from one-half to two per cent in some, but not any appreciable amount down, as compared to the items that have gone up.

Q. Well, it is a fact, isn't it, that none of the items have gone up except the ones rarely to be seen in the Lone Star Gas Company's System?

A. No, I wouldn't say that at all. Malleable fittings have gone up, and they use a good many of them.

Q. Point out some that have gone up in an appreciable amount that is to be found in any sizable quantity in the Lone Star Gas Company's system installations.

[fol. 1222] A. On page 1, from the appraisal date until the present date, or rather, the appraisal date price, based on $100.00, was $57.04, compared to $60.53; on page 3, covering Standard Wedge Disc Gate Valves, which are common valves, it is $52.12, as compared to $53.58; on page——

Q. Now, you have available to you——

A. Just a minute. The Standard Double Disc Valves, on page 5, which is another valve commonly used, the price on the appraisal date, based on $100.00, was $65.55, as compared to $66.08.

Mr. Griffith: Upon what page, Mr. Richey?

The Witness: Page 5.

Q. Now, take, Mr. Richey, the appraisal submitted by Mr. Biddison, and point out some place in that appraisal where you can find one of the valves listed on page 1.

A. Take Mr. Biddison's appraisal?

Q. Yes, sir.

A. I am not qualified to do that. I have had no connection with the preparation of Mr. Biddison's appraisal.

Q. I understand that, but you can read, can't you?

A. Yes, I can read; certainly.

Q. I would like to see just what a hunt you would have to make for one of those valves.

A. What a hunch?

Q. Yes, a hunt—what a search you would have, to find [fol. 1223] one of those valves.

A. Oh.

Q. Is there any way we could get together on this, Mr. Richey? Can you confer with Mr. Biddison and find out what are the common valves in the system, so we can call attention to the ones that are really important, and weed out the ones that are not?

A. Yes, I can confer with him.

Q. Well, will you do that?

A. Yes, sir.

Q. Do it right now?
A. Yes, sir.

* * * * * * *

Q. Well, can you report back at some later time on that, then?
[fol. 1224] A. Yes.
Q. Now, on the last valve that you mentioned on page 5, what is the percentage increase in the price as between the present date and the price prevailing January 1st, 1933, on the delivered price?
A. Oh, approximately eight-tenths of one per cent. It is less than one per cent.
[fol. 1225] Q. On direct examination yesterday, Mr. Richey, I believe you said on casing that certain companies got a certain discount—of ten, ten and two per cent, I believe you said?
A. That's right.
Q. Instead of the ten, five and two used by Mr. Biddison?
A. That is correct.
Q. You mentioned the Standard Oil Company, I believe you said, of Indiana?
A. I didn't mention the Standard of Indiana. I believe they are on the list, however.
Q. Who are the ones you mentioned?
A. The Standard of New York, I believe, and its subsidiaries. There were some fifteen or more companies on the list. I don't remember who they were, but they were large operators in the oil fields, and not the gas fields.
Q. When was this list effective that you were talking about—as of what date?
A. I don't remember just when that particular list was effective. There had been preferential lists of various kinds in effect, to my personal knowledge, since 1924. Some of them were revised and cancelled and they came out with others. I don't remember just when it was effective. It was effective for quite some time, however.
Q. The one you are talking about is the one effective August 15, 1933, being List No. 24, wasn't it?
[fol. 1226] A. We are speaking of different things. You are speaking of pipe price lists, and I am speaking of a list of preferential customers.
Q. Are you familiar with the concerns on that list as of January 1, 1933?

A. To some extent I am, yes.

Q. Wasn't the United Gas Public Service Company on the list?

A. I believe they were not.

Q. Can you say?

A. I would not like to state definitely that they were not, but there were no gas utilities on that list for oil country goods that I can remember. I can get one of the lists, if necessary.

Q. How long would that take?

A. Well, I don't know.

Q. A day or so?

A. Yes, easily.

Q. Well, could we be furnished with that list?

A. Well, I could get one for myself, and let you look at it.

Q. Will you do that?

A. I will try to do so.

Q. Now, if a large purchase of casing, such as would be necessary if the Lone Star Gas Company's properties were all being reproduced as they are now, at a wholesale reproduction, it would necessitate the purchase of a very large amount of casing, wouldn't it?

A. Not within a twelve months period, no sir, as I understand the reproduction of the property. It would be [fol. 1227] over some three or four years. The number of wells they have would not constitute what the tube people consider large quantities of casing at the time those lists were put into effect, by any means. Some of those people drilled as many wells in twelve months as the Lone Star Gas Company has ever drilled.

Q. You are speaking of oil wells now?

A. Yes, but they are all wells in the ground, and they all take casing.

Q. At the present rate, the Lone Star Gas Company is only drilling about two or three wells per year, is it not?

A. I don't know.

Q. Under a reproduction of the whole properties, though, even though the reproduction or construction were spread over a three or four years period, it would be about one hundred wells or more per year?

A. I wouldn't think it would be that many.

Q. How many would it be?

A. I don't remember for sure how many wells the Lone Star Gas Company has, but I think they have less than three hundred wells, and over a period of four years, they might drill 70 wells per year, at that.

Q. Well, that would bring them up in the class of some of the companies that appear on your list?

A. No sir, not at the time those preferential prices were extended. It certainly would not.

Q. Mr. Richey, what is a reducing valve?

A. Reducing valve?

[fol. 1228] Q. Yes, sir.

A. Well, that would be a valve that would reduce from one size to another. If you are speaking of reducing size of line—If you are speaking of reducing pressure and getting into regulator equipment, that would be something else.

Q. Well, you understand the term, reducing valve, don't you?

A. So far as the matter of pricing is concerned, yes.

Q. Were you here when Mr. Biddison was testifying?

A. No, sir.

Q. Mr. Biddison mentioned a reducing valve. Do you know what he was talking about?

A. I have a good idea as to what he was talking about. I won't say that I do definitely, but I know about regulators and reducing valves to some extent although I am not a mechanical engineer and I am not thoroughly familiar with their construction.

Q. Well now, Mr. Biddison used a price which he said represented a price on a reducing valve. Will you take your catalogs and point us out some price that applies to a reducing valve—or better yet, show us a picture of a reducing valve?

A. That is one. There are several of them there—there are several pages of them. (Witness hands catalog to Mr. Fitzhugh.)

Q. Mr. Richey, would you mind stepping over here? I don't think the jury can see these pictures that far off, and I want them to understand what these valves are. Now will you explain on these pictures, where you show reducing valves, the main features of the valve, and what [fol. 1229] the reducing part of these reducing valves is?

A. I would prefer that Mr. Biddison do that, if it is necessary. I am somewhat familiar with it—there is a

diaphragm here that has a pressure that actuates on one side, and the pressure that would actuate on the other side, in case the pressure would go up or down, which would offset that. We might read the manufacturer's description of it—I am not a mechanical engineer.

Q. Just looking at this side of the valve, it is pretty well filled up with mechanical apparatus?

A. Yes, to some extent.

Q. And the reducing part of this means that the gas goes in at one pressure and comes out at another. Is that it?

A. That is correct.

Q. All right sir, but there is no doubt but what the center of the body of that valve is filled up with working parts.

A. Well no, not altogether. It has some parts in it, yes.

Q. You could not put a string of tools in that valve, could you, and drill through it?

A. A string of tools in that valve?

Q. Yes, in the sense you could in a drilling valve?

A. I wouldn't think so. I would hate to try to.

Q. Yes, sc would I.

The Court: Let's not get into an argument with the witness.

Q. Now then, what is the price you show in your book for gate valves, screw, Crane, 10 inch by 8¼ inch, drill-
[fol. 1230] ing, 1600 pounds test, double disc, lead ends, non-rising stem, and this valve is designed with a ten inch body and 8¼ inch threads. That is, it has a ten inch body to be attached to eight and a quarter inch casing.

A. I can state here that that particular valve, as no doubt determined heretofore in this case, was not listed in these price books.

Q. You mean the price that Mr. Biddison used in his appraisal was the wrong price?

A. Not necessarily. A substitution could have been made.

Q. You mean a substitution in the inventory or a substitution in your price book?

A. A substitution of a price on some other type of valve, similar to the one in the inventory.

Q. Well now, what is the correct price to apply for a valve of this designation?

A. Well, I don't know what substitution has been made. A reasonable substitution would be a price on——

Q. I am not talking about substitutions now, Mr. Richey. I am simply asking you what is the correct price to apply to this particular valve—and for any make of valve, whether it is Crane, Walworth, Westcott or what. And incidentally, all makes of these valves would be priced the same, wouldn't they?

A. Not necessarily.

Q. Well, I am just asking you for the price on this particular valve, Mr. Richey, without any substitutions made by anybody. And to get that, you are going to have to go [fol. 1231] somewhere out of your price book, aren't you?

A. That is what I had started to do.

Q. Yes. All right sir.

A. The method of pricing that valve would be a sixteen hundred pound test, iron body gate valve, so far as Crane is concerned, and it would be a ten inch valve, plus five per cent for casing threads. That is the method for pricing them.

Q. Well, have you in your price book there got any drilling valves listed at all.

A. Yes.

Q. Have you got any drilling valves that can be applied to eight and a quarter inch casing?

A. Yes.

Q. What is that?

A. Here is a valve—a Darling valve, for instance, at a price of $208.84.

Q. And what is the list price on that valve?

A. The list price, F. O. B. the factory, is $189.75 net, subject to two per cent cash discount.

Q. Now on the price sheet that you are reading from, what is the designation across the top of the page?

A. That is drilling gate valves, Darling, non-rising stem, screw end, iron body brass mounting.

Q. Now the price you just gave us was for application to eight and a quarter inch casing?

A. Yes.

[fol. 1232] Q. What is the size body on that valve?

A. Ten inch.

Q. What is the price delivered in Texas?

A. I just gave that—$208.84. There are a number of other substitutions, however, that might be made.

Q. Is that 1600 pounds pressure?

A. 1600 pound test.

Q. Which is ordinarily the more expensive valve—the Crane, or the Darling—or is there any difference?—is that a Crane valve you are looking up now?

A. Yes.

Q. A drilling valve?

A. No, sir; I merely wanted to get a little comparison here in order to properly answer your question.

Q. I want to know, now, Mr. Richey—maybe you didn't understand me. I want to know if a Darling drilling valve is more expensive than a Crane valve, or if there is any difference.

A. There is some difference, but not a great difference in those prices.

Q. Well, the per cent of difference there wouldn't hardly be over one or two per cent, would it?

A. I don't know, but *I* would not be a great amount.

Q. Now then, if $208.84 is the correct price, and there is not very much difference between the Darling and the Crane valves, how in the world could Mr. Biddison, with any justification whatever, have used the figure of $717.36 for the [fol. 1233] price of the valve he has put in his inventory, for the designation he first gave.

A. There are a very large number of valves involved in the Lone Star Gas Company's system, and in these price books and in the appraisal, and as we have mentioned before during this case, it is possible to make a misapplication, which is very possibly what has been done here.

Q. And that is what happened here in this case?

A. I would say yes.

Q. And this valve is over-stated in value by about $507.00, is it not?

* * * * * * *

[fol. 1234] Q. Now, Mr. Richery, a moment ago I asked you to show the jury a reducing type valve. Now, it is clear that that could not possibly be a drilling valve, isn't it?

A. That is correct.

Q. And any price that would apply a price on that reducing valve to a valve classified as a drilling valve would be an error, wouldn't it?

A. Yes, sir.

Q. Is there any such thing as a reducing type drilling valve, and if there is I wish you would look through your catalogs and find a picture of one?

A. No, sir; there is not.

Q. If Mr. Biddison said in his testimony that the difference in price from the one he applied—I believe he said this: That there might have been a substitution made, and that perhaps the wrong price was applied; but that if the wrong price were applied, instead of pricing the valve as a drilling valve it had been priced as a reducing type of drilling valve; could that have been correct?

A. He was referring to two sizes, 10 x 8¼ and 8¼ x 6⅝. Of course, that infers a reduction there by two sizes; but so far as what we know as a reducing type of fitting or valve, it is not a reducer.

[fol. 1235] There appears in the inventory, Mr. Richey, a large number of 8¼ inch Westcott or Crane Drilling Valves, and these valves are priced from $500 to $700. Now, can you give us the correct price that should be applied on any of those valves?

A. A 10 x 8¼ inch Westcott non-rising stem, solid wedge drilling gate valve, 1000 pound test, should be priced at $445.90.

Q. Now, that takes an 8¼ inch casing, does it not?

A. Yes, sir.

Q. And has a 10-inch body?

A. Ten-inch body, that is right.

Q. Do you have the valve catalog that applies to this valve with you?

A. No, sir; I merely have the quotations.

Q. Do you have that quotation?

A. Just a minute. I have a catalog. I will amend that statement.

Q. Now, the catalog description will show with certainty, will it not, the size casing that this valve can be applied to?

A. The catalog does not show the old types of valves, which were 10 x 8¼ and 8¼ x 6⅝.

Q. Do you have a description of the valve for which you just gave us this $445.90 price?

Mr. Griffith: I think he read the description into the [fol. 1236] record, Mr. Fitzhugh.

Q. I want the catalog.

A. No, sir; I have a discount sheet here.

Q. What is that sheet?

A. Continental Supply Company discount sheet.

Q. That valve is shown to have a $445.00 list price?

A. That is correct.

Q. As shown by the catalog, or the discount sheet rather, that valve takes a 10¾ inch outside diameter casing?

A. That is correct. The catalog does not show the old reducing type of valve. The appraisal lists a 10-inch body, and therefore that would be a proper price to apply in that case.

Q. Do you have a price to be applied to 8¼ inch casing on that discount sheet?

A. To 8¼ inch casing?

Q. A valve that takes an 8¼ inch casing?

A. That valve does not have a 10-inch body. The valve you refer to in the appraisal has a 10-inch body; and therefore, a valve with a 10-inch body would be the proper valve price to apply.

Q. All these valves weigh about 500 pounds, don't they—they are awfully heavy?

A. They weigh more than 500 pounds, I believe. Full freight is allowed and I don't have the weight set up in my price-book.

Q. What is the page of the discount sheet that you are referring to?

[fol. 1237] A. Page 104.

Q. What date is that discount sheet?

A. It is a discount sheet dated December 1, 1932.

Mr. Griffith: Giving the prices which are applicable as of January 1, 1933?

A. Yes, sir.

Q. All right. Now, get this matter straight, Mr. Fitzhugh, the valve that you have priced at $455.00 list price minus two per cent cash discount, is shown to have a 10-inch nominal size, capable of taking 10¾ inch outside diameter casing, and that is listed on page 1299 of the Continental Supply Company catalogue, isn't it?

A. It is.

Q. And it is your testimony further that that valve has a 10-inch body?

A. Yes, sir.

Q. And further that that valve can be made to take a 8¼ inch casing?

A. It can be, yes, sir.

Q. And you have, therefore, used this price because this valve can be made to take an 8¼ inch casing?

A. It could be manufactured to take an 8¼ inch casing, and having a 10-inch body, that would be a proper price to apply to that. They are no longer manufactured and are obsolete. It is not manufactured that way at the present time.

[fol. 1238] Q. When did they quit manufacturing these valves that have a 10-inch body and 8¼ inch casing connection?

A. I don't recall exactly. I would say around 1925, or before that.

Q. Now, Panhandle Field wells, a great number of them contain these valves as part of their equipment, and they have been brought in since 1925, haven't they?

A. That is correct. There are still some of those valves available today in supply company warehouses.

Q. Well, are they quoted?

A. They have prices on them, yes.

Q. Well, where are the quotations that apply to those valves then—those identical to the ones described in the inventory?

A. The valves I particularly refer to, because I am familiar with them, were what was known as Oil Well Supply Company valves, of which there are none in this inventory; however, they were manufactured at about the same time as the valves in the inventory were manufactured. Some of them are still available.

Q. Turn to the first page in your Exhibit 33. Where did you get the data that appears on page 1 of that exhibit, and which states there is a ten per cent discount on quantity lots of pipe up to a certain tonnage—or above a certain tonnage?

A. As I testified yesterday, it was published in the publica-
[fol. 1239] tion "Iron Age"; and I also obtained it from the National Tube Company.

Q. From the National Tube Company—did you obtain a letter from them?

A. Yes, sir.

Q. Do you have that letter?

A. Yes, sir.

Q. Let me see it, please, sir.

A. Yes, sir.

Q. Is your letter to them attached?
A. Yes, sir.

Mr. Griffith: You mean a copy of the letter, Mr. Fitzhugh?
Mr. Fitzhugh: Yes, sir.
Mr. Griffith: Rather, a copy of the letter written by the Lone Star Gas Company to the National Tube Company?

A. That is correct.
Q. What are the discounts available to the jobber, as shown by this letter?
A. Five per cent, I believe.
Q. Is that the extreme discount—the most the jobber could get?
A. The jobber gets five per cent beyond the discount shown.
Q. If all of the pipe needed for reconstruction work were furnished through the jobber, the jobber would get five per
[fol. 1240] cent below the quoted price, would he not?
A. I don't remember just how it reads. I am not interested in what the jobber gets. It states exactly what they get there.
Q. The statement appearing in this sheet is: "Prices to consumers for carloads are card discounts less five per cent, and when sold through a jobber we may allow five per cent as extreme commission on the basing point value of material."
A. I believe that is correct.
Q. Later on in the same sheet the following appears: "The prices for a large lot of lap weld line pipe are card discounts less five per cent and ten per cent, and when sold through a jobber we may allow three per cent as extreme commission on the basing point value of material."
A. I believe that is correct.
Q. What is a jobber?
A. A jobber is an organization or concern in the business of stocking merchandise for resale to certain classes of trade recognized as being legitimately in that kind of business. In a good many cases they extend credit facilities to their customers, and other facilities, and they, therefore, receive certain concessions in price, and rightfully so, for the representation they give the manufacturers of the various commodities they sell.

Q. Now, I believe your experience with the Purchasing [fol. 1241] Department of the Lone Star Gas Company extended over about eleven months?

A. Fifteen months.

Q. You were there then during most of 1933?

A. That is correct.

Q. Are you familiar with the prices that your Department actually secured?

A. I am.

Q. During the year 1933?

A. That is right, and for a number of years prior thereto I checked the records of the Purchasing Department, and compared the prices they then actually paid with any prices that might have been compiled in these pricebooks, in order to make any corrections I might have been able to, if I had a higher price.

Q. So you know just about as much about purchases as you do quoted prices?

A. No; I would not say so. I know there were no prices paid by the Company for material lower than are incorporated in these price-books, unless it might have been some obsolete material, or over-stock, or something of that kind.

Q. What are you talking about when you say "obsolete material"?

A. I mean that various concerns stocking commities, whether it be a supply company, or a clothing store, they may have some stock that becomes more or less obsolete, and they will offer a better price on it to move it, even though [fol. 1242] they lose money on it; and there are times when a concern can make use of those items.

Q. Did you make during 1933 any purchases of pipe of more than one carload,—that is for the same size of pipe?

A. I believe not; I am not positive.

Q. On purchases made during 1933, were the purchases the same as shown in your exhibit?

A. Not altogether.

Q. Were they for purchases made in carload lots?

A. Yes, sir.

Q. Now, in what particular items of pipe did your prices shown in this exhibit differ from the actual purchase price?

A. These prices are effective under the Steel Code, and they became effective, I believe, August 29, 1933. Prior to that time there were other prices.

Q. Where you did buy in carload lots you paid actually in every instance the price shown in your exhibit?

A. I am positive of that, after the Code prices became effective. There were some variations, I believe, in prices before the Code became effective.

Q. How substantial were the variations before the Code prices became effective?

A. Very small.

Q. Now, the Code went into effect when?

A. The prices became effective, I believe, August 29, 1933.

Q. But previous to that time you were paying the prices shown here, is that right?

A. Not in every case, no, sir.

[fol. 1243] Q. Now, why didn't you show that price?

A. The price we paid?

Q. Yes, sir.

A. The purchases were very small, only a very few carloads of pipe. There would be no way of determining the value of pipe involved in the Lone Star system by taking some one purchase of, say, ten cents a foot and applying it to twenty million dollars' worth of pipe.

Q. Well, if I understand you, Mr. Richey, you think you are not bound at all by what prices you actually paid for pipe in making out prices to be used in a reproduction cost new appraisal?

A. If it happens to be what is called distress material, a carload or two, that somebody wants to remove from their yards, and we can make use of it and can buy it at a low price, certainly we would not be bound by that.

Q. Mr. Richey, isn't it a fact that your company in appearing in these cases in the last few years has never said they bought anything in the last few years but distress pipe?

A. No, sir; it has not.

Q. Are you buying at the present time anything except distress pipe?

A. No, sir. The Code does not permit it.

Q. The Code is the only thing that keeps you from it?

A. Possibly so; yes, sir.

Q. Prior to the time the Code went into effect you were buying all sorts of pipe?

A. Not all sorts—probably a few carloads.

[fol. 1244] Q. Well, as much as you could use?

A. No, sir. Distress pipe would not be made to apply to any major project. It is a matter of pressure and well thickness and material that is required.

Q. In 1933 what was the biggest purchase of pipe the company made?

A. Forty-five and forty-five—I beg your pardon. Sixty-three hundred feet of 24 inch O.D., 71.25 pound, plain and seamless line pipe.

Q. How much did you say per foot for that pipe?

A. $2.0328 per foot, delivered.

Q. Is that double random length pipe?

A. I am not sure of that. I don't have that information.

Q. Is it seamless pipe?

A. Yes, sir.

Q. Seamless pipe costs more than lapweld pipe, does it not?

A. Yes, sir.

Q. And it costs more than electric welded pipe?

A. That is correct.

Q. There were eleven carloads of this pipe, were there not?

A. I don't know how many carloads there were.

Q. Well, can't you tell, Mr. Richey, from the size of the pipe and the amount of the pipe it takes to load a carload that there were about eleven carloads?

A. I could ascertain the amount in tonnage. I don't know how it was shipped. There was quite a lot of pipe.

[fol. 1245] Q. When was that pipe purchased?

A. It was purchased, I believe, during the month of March, 1933. The invoice was dated March 30th.

Q. In other words, this pipe was purchased just a few months after the date of Mr. Biddison's appraisal?

A. Yes, sir.

Q. Being in March after he made his appraisal as of January first. In your Exhibit 34, where you show pipe prices, where do you show your seamless pipe?—is that on page 2?

A. Yes, sir.

Q. The largest size that you show for seamless pipe is 18 inch 52.223 pounds, or 53.223 pounds. At what cost could that pipe be purchased as of January 1, 1933?

A. I don't have the price on it as of that date. I did not secure that quotation, and therefore I don't know.

Q. Well, why didn't you have the quotation for that date?
A. It was not requested at that time. It apparently did not appear on the inventory for some reason or other.
Q. Well, you do have a quotation for January 2nd, 1934?
A. I do.
Q. At what price?
A. $2.2461.
Q. Now, that is for 18 inch 53 pound pipe, isn't it?
A. Yes, sir.
Q. But this purchase that you made was 24 inch 71 pound?
A. Yes, sir—71.25 pounds.
Q. You don't show a quotation for that size pipe, do you?
A. No, sir.
fol. 1246] Q. But as an ordinary thing the larger the diameter and the heavier the weight of pipe the more the cost; isn't that right?
A. Yes, sir, the heavier the weight.
Q. As a matter of fact the price of pipe goes almost in direct proportion to the weight, does it not?
A. Almost, yes, sir.
Q. Can you tell us, Mr. Richey, what was the price of the 18 inch 53 pound available back in March, 1933?
A. No, sir; I haven't that.
Q. Was it substantially the same as the quoted price you have shown on January 2nd, 1934?
A. Substantially the same, I would say.
Q. Nevertheless, the price shown for the lighter weight pipe of 18 inch 53 pounds pressure—I mean 53 pounds—is substantially greater than the price actually paid on this purchase of 24 inch 71 pound pipe?
A. Yes, sir.
Q. You do show for seamless 16 inch 47 pound a quoted price as of July 1, 1933, of $2.1013, do you not?
A. That is correct.
Q. The same price quotation that would prevail in March was still in effect on July first, 1933; isn't that true?
A. There were some changes in price during the month of March. I don't know just what they were.
fol. 1247] Q. Well, there wasn't any change as between the date of the purchase of the pipe we are talking about now and July 1st, 1933, was there?
A. I don't believe there was.

Q. Nevertheless, you show a greater price on 16-inch 47 pound pipe than was actually paid on this 24-inch 71 pound pipe.

A. Certainly; it is evident. I admit that.

Q. All right, sir. Now, that was the only large purchase made during 1933, I believe you say?

A. No, sir, not the only large purchase; it is not so very large. I have 1500 feet of 16-inch O.D. 47.215 pound plain end, electric weld at $2.1476.

Q. How many carloads is that?

A. I don't know. That was a higher price than the seamless.

Q. Was it as much as a carload?

A. Yes, it is.

Q. How many carloads is it, then, approximately?

A. It would depend on the tonnage in the car. I could give you the amount of tons.

Q. Well, how many tons, then?

A. It would be 1500 feet times 47.215 pounds.

Q. Well, that would simply be one carload, of sixty to seventy thousand pounds, would it not?

A. Yes, but it was at a higher price than the seamless [fol. 1248] pipe to which you referred, and this is only electric welded, and one carload, as you mentioned.

Q. Well, just taking all your purchases, Mr. Richey, if you had actually tried to make out your pipe prices in any conformity at all to the prices actually being paid by your Company during 1933, you would have gotten much lower pipe prices throughout, would you not?

A. No, sir, we would not have.

Q. Well, you didn't make any effort to make any application of those prices, did you?

A. We bought a very small amount of pipe, and you couldn't make an effort to apply it with any reasonableness; there would be no way to apply it that would have any reasonableness to it.

Q. You didn't make any effort, did you, Mr. Richey, to find out the prices that other companies were actually paying on sizable purchases of pipe?

A. No, sir, there would be no way to determine that. That is private information of the other companies.

Q. You mean you couldn't get that information?

A. That other companies are paying?

Q. Yes, sir.

A. How could you?

Q. Why, don't all you gas companies get together on all such things as that? Your Company buys with Columbia [fol. 1249] Gas and Electric, don't they, and Northern Natural Gas Company, and all these other big gas systems?

A. Those are subsidiaries—those are subsidiaries.

Q. Yes, but you all buy together, don't you?

A. Sir?

Q. And swap information? Don't you swap information?

A. Those are subsidiary companies.

Q. Don't you swap information with the Cities Service Company?

A. No, sir.

Q. Don't you swap information with United Gas Public Service Company?

A. With reference to the prices being paid?

Q. Yes, sir.

A. No, sir, I never heard tell of any such thing myself.

Q. Well, there is no doubt that Mr. Simpson, who makes all your pipe purchases, buys for the whole outfit, is there?

A. He buys for those companies you mentioned, but that's not a whole bunch of companies.

Q. Yes, sir, your Company and the Columbia Gas and Electric and the Northern Natural Gas Company.

A. That's not a whole bunch of gas companies. The Cities Service is another gas company, possibly.

[fols. 1250-1251] Redirect examination.

Questions by Mr. Griffith:

* * * * * * *

[fol. 1252] Q. Now, you have been interrogated concerning the purchase of some 24-inch seamless pipe in an amount of approximately 6,000 feet during the month of March, 1933. That pipe being purchased in March, 1933, is not included in the inventory and appraisal known as Defendant's Exhibit 28 in this case?

A. It is not.

Q. Do you know anything about the purchase of that pipe—was it a purchase made at the market price or was it a distress sale?

A. It was a distress sale.

Q. Did it represent an odd lot of pipe which was left in the yards of the National Tube Company?

A. It did.

* * * * * * *

[fol. 1253] Q. The order of the Commission appears to have been entered on September 13, 1933. Now, what has been the trend of steel pipe prices, as reflected by this exhibit, since that time?

A. They have been definitely upward since that date.

Q. Now, Mr. Fitzhugh, in his examination of you, made no reference to prices prevailing as of a date certain, other [fol. 1254] than as shown of date May 1st, 1934, and of June 11th, 1934, in this exhibit?

A. That is correct.

Q. Now, what is the essential difference between the May 1st, 1934, prices and the June 11th, 1934, prices?

A. The difference between a one-half of one per cent cash discount for prompt invoice payment and a two per cent cash discount.

Q. In other words, effective as of June 11th, 1934, the discount for cash became two per cent, instead of the one-half of one per cent which had therefore prevailed at May 1st?

A. That is right.

Q. And with the exception of the change in the cash discount, Mr. Ridhey, is it true that the prices were generally higher on all sizes of pipe?

A. Yes, sir, they were higher.

Recross-examination.

Questions by Mr. Fitzhugh:

Q. In the instance just referred to a minute ago, where the discount prevailing as of the date of Mr. Biddison's appraisal was 49 per cent, whereas the present discount is 45½, you did not take into consideration freight rates, did [fol. 1255] you, as prevailing on that date?

* * * * * * *

[fol. 1256] Q. Now, Mr. Richey, just because there happened to be a great variety of valves in almost innumerable

combination, is no excuse for anybody to misprice it, is it?

A. I don't believe it would hardly be humanly possible for a number of men to get together and work up the price-books required for this appraisal and apply the prices, where the human element enters into it, without making a mistake or a number of mistakes. People make mistakes.

Q. Well, would you say, Mr. Richey, that just because there are a lot of variety of valves, which there undoubtedly are, and everybody admits, that that is an excuse for your applying a $700.00 price to a valve when it is only worth $200.00?

A. It is not a matter of excuse. If I make a mistake I admit it frankly.

Q. All right, sir.

A. There can be mistakes made, and the larger the number of people and the larger the number of articles to be handled, there is more chance for mistake.

Q. Now, some of these values have gone up and some have gone down. You are not able to say, are you, Mr. Richey, that the overall cost or price of all the valves would be different as of the present time than would it have been if the valves had been properly priced as of January 1st, 1933?

[fol. 1257] A. Why, I think I am in position to.

Q. Why, you don't know the number of each kind of valves in the system, do you?

A. I don't know the exact number, no, sir.

Q. Some of the valves that have gone down appreciable are in great quantity in the system, aren't they—isn't that true?

A. I don't know of any valves that have gone down appreciably since the date of the appraisal.

Q. Why, as a matter of fact, you don't know enough to say, do you?

A. Why, I certainly do.

Q. I am talking about the valves that are common valves in the System.

A. Common valves, regardless of the kind they may be, have not gone down appreciably since the date of the appraisal.

Q. Can you state the dollar difference, had the valves been properly priced as of January 1st, 1933,—what that difference would be if the valves were properly priced as of this date? You don't know the number in the System, do you?

A. No, sir, I don't.

Q. All right.

A. But I know that the valve prices are up, regardless of the kind and the number in the System, since the date of [fol. 1258] the appraisal.

Q. And so far as your prices of pipe are concerned—so far as those prices are concerned it is still your testimony, is it not, that you have not taken into consideration in your pipe prices any actual purchases made?

A. There were small quantities of pipe purchased. Any low prices were distress material that they were very glad to get rid of, and the Company could use by saving a little money.

Q. All right, sir.

A. But you couldn't purchase $20,000,000.00 worth of pipe and get the advantage of any little small amount of distress material.

Q. Just the same, you didn't take into consideration in your prices any of the prices actually being paid by you?

A. You couldn't take it into consideration.

* * * * * * *

[fol. 1259] Ed C. Connor, a witness for Defendant, resumed his testimony and testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. Referring to Volume 7 of Exhibit 28, Mr. Connor, it would appear that you have estimated certain costs by sections, in connection with your development of the preliminary and organization costs?

A. That is correct.

Q. Among other costs are included the preliminary geological investigation, and preliminary engineering investigation, and detailed geological studies and investigation. What is the factual basis for your estimate of these costs, if any?

A. A careful study of the territory which would have to be investigated geologically in order to determine whether or not in the first place it would be feasible to construct the Lone Star Gas Company's system, and from a careful study of the personnel that would be required to make such a study, both with reference to the preliminary geological

investigation, the preliminary engineering investigation and the detailed geological work.

Q. Now Mr. Connor, in arriving at an estimate of the costs of the preliminary geological investigation and the preliminary engineering investigation, I will ask you [fol. 1260] whether you have seen similar costs actually incurred in your own experience?

A. I most certainly have.

Q. In what connection?

A. In connection with the preliminary and organization period of the Houston Gulf Gas Company, and other natural gas pipe line companies which have been recently constructed.

Q. In other words, Mr. Connor, in your development of these preliminary and organization expenses and your estimates of cost, have you endeavored to parallel, in so far as you can, the actual experience of other companies operating in a substantially similar manner?

A. That is correct; and I have also made my determination upon the basis of my own experience in similar work.

Q. In connection with your identification with the Houston Gulf Gas Company, did you see costs similar in all substantial respects incurred for preliminary geological investigation and preliminary engineering investigation on the project, which costs are identical with the costs used in your Exhibit 28, Volume 7?

A. I did see those expenditures incurred, of course not in amounts which would be equal in the total sum to the amounts which would be required to do similar work in connection with the preliminary steps which would be required to reproduce the Lone Star Gas Company's system; the reason for that being that the Houston Gulf Gas Company was a much simpler engineering and geological problem, or at least it presented much simpler problems than would be encountered in the reproduction of the system of the Lone [fol. 1261] Star Gas Company, for the reason that the Houston Gulf Gas Company's system began at a single gas field at the time of its initiation and consisted of a single trunk line from the Refugio field into the City of Houston, while in the case of Lone Star Gas Company, should it be reproduced it would require intensive geological invest-ions of practically the entire state of Texas and a substantial part of the State of Oklahoma.

Q. Just relate to the jury in a general way your method

of approach in arriving at a determination of these costs and the respective steps which would be taken.

A. Do you refer now specifically to the geological investigation and the engineering investigation?

Q. And successively the other steps in the incurrence of preliminary and organization costs.

A. The first thing which would take place in the reproduction of the property and business of the Lone Star Gas Company would be the development of the idea of building such a property in the minds of men who understood the natural gas business and were capable of developing such a property. These men would of course require specific information with reference to several very important factors, the first of which would be: Is there a gas supply available to the markets which they would intend to reach, which would justify the expenditure of more than Fifty Million Dollars in pipe line and compressor facilities. The second step would be the determination on their part of whether, if such [fol. 1262] a pipe line would be constructed, would the market that it might reach support the investment after it had been made. These men would go about securing the information necessary to answer those two all-important questions, and in order to do that, they would put into the field an organization of trained geologists who would develop all of the necessary information relative to a preliminary determination of whether or not there would be a sufficient gas supply available, in order to justify the investment.

If that investigation should prove to their satisfaction that there was a sufficient gas supply, the next step would be a detailed geological investigation which would be much more complete and intensive than the preliminary geological investigation, because on the basis of the detailed geological investigation they would begin to acquire acreage, gas rights, gas purchase contracts, and make provision for the drilling of natural gas wells. An investigation of that sort would require a more complete organization, and would supplement the work done in connection with the preliminary geological information.

They would also put into the field a group of trained engineers, thoroughly familiar with the natural gas business, who would make a detailed analysis of all of the cities and towns which might be served by this natural gas pipe line company. This group of engineers would analyze the probable number of consumers which could be secured in the

more likely towns which would be reached by the pipe line system. They would make an analysis of the probable sales which could be secured for industrial purposes. They would [fol. 1263] also make a preliminary study of the cost of the system, a tentative layout of the system and an estimate of what it would cost to operate the system after it had been constructed.

Q. By a tentative layout of the system, do you mean a tentative design or a preliminary design of the general outline of the system?

A. That is correct. They would not make anything like a detailed engineering layout of the system, but they would go into the matter sufficiently to determine in a general way what the over-all costs of the projects would be.

With this information in hand, the men who were originating and developing a project of this sort, would then be in position to secure the necessary funds required to construct the property. Without that information no money could be secured to build any natural gas pipe line system.

Q. Now, having ascertained, in a preliminary way, the geological data that would be requisite and the engineering data that would be necessary to an approach to those who would furnish funds or put up funds for investment in such a project, what would be the next step which would logically follow?

A. They would then make contact with the sources of money which might be secured, in order to construct the project.

Q. Now it is not reasonable to assume, is it Mr. Connor, that any two or three men who would initiate a project such as the reproduction of the Lone Star Gas Company's property would involve, or its original construction, would have in the aggregate some Sixty or Seventy Million Dollars, [fol. 1264] that would be required for its construction?

A. It is not reasonable to assume that situation, and from a practical standpoint, a property of this magnitude has never been built in that way.

Q. That is, it has never been built with——

A. With direct contributions from a small group, such as would be responsible for the initiation of a project such as this is.

Q. What is the usual, if not the universal, method of financing such a project?

A. The universal method by which a project of this sort is

financed, is through the sale of securities, secured in part by a mortgage upon the property to be constructed; in part by issues of preferred stock and in part by contributions represented by the purchase of equity shares of stock, or what is usually called common stock.

Q. Well now, what is the method that is followed, Mr. Connor, in order, in the procuring of financing for such a project?

A. When a group of responsible men have secured the information such as I have previously outlined, and which would be secured by the investigations which would be made, they would take that information to people who are in the business of furnishing money for such enterprises.

Q. And who are those people?

A. They are usually termed investment bankers or security underwriters.

Q. Mr. Connor, having secured this preliminary data and [fol. 1265] having approached the underwriters or investment bankers who would finance or underwrite the financing of the construction work, what would be the requirements of such underwriters or investment bankers?

A. They would first scrutinize very carefully the information furnished by the initiators of the project. They would then stipulate that this information, both geological and engineering, must be checked and verified by representatives of their own selection.

Q. Is that ordinarily true of anybody who lends money on a large scale for any kind or character of industrial or like project?

A. That is always true.

Q. And are there expenses necessarily incurred, and which must be paid by the borrower in connection with such financing or proposed financing?

A. That is correct. These reports which are required by the people who will furnish the money are made by men who are selected by the men who furnish the money, but in every case the fees which must be paid to these individuals or firms is paid by the initiator of the project. These investigations on behalf of the people who must furnish the money to build such a system as the Lone Star Gas Company system are in all cases engineers or geologists whose standing is such that their approval of the findings of the initiators will be such as to command the respect of the investing public.

Q. Mr. Connor, in that connection I will ask you if municipalities and states and political subdivisions are likewise re-
[fol. 1266] quired to incur and pay somewhat similar expenses in connection with the floating of bond issues?

A. That is correct. Of course a natural gas project presents peculiar and specific difficulties and necessarily requires a larger amount of effort and expenditure in connection with its preliminary development period than any other form of public utility, and that is true by reason of the fact that the natural gas business is the only public utility business which is dependent upon the results of a mining venture, and the most hazardous of all mining ventures, for its supply of the commodity that it serves the public. An electrical plant or any other plant such as manufactured gas plant or any other type of public utility can be built anywhere. It is only necessary to make an estimate of what it will cost to build it. There is no question of it being able to keep running after it is built, but that is not true of a natural gas pipe line project. It is not only a matter of doubt from the very start, as to whether or not the supply of gas will be sufficient to justify its original investment, but throughout the life of the property there will always be a question or doubt as to how long it will last once it has gone into operation, and for that reason investors in natural gas securities and the people putting their money in natural gas projects require more detailed and more definite information relative to the project before it is begun than is the case in any other public utility enterprise.

Q. Now the Lone Star Gas Company is a corporation incorporated under the laws of the State of Texas, is it not, Mr. Connor?

[fol. 1267] A. That is correct, yes.

Q. It is qualified to do business in the State of Oklahoma and does operate in the State of Oklahoma?

A. That is correct.

Q. Would it be necessary that expenses be incurred in connection with the organization of the corporation and the getting of the corporation under way, preliminary or prior to the commencement of actual construction?

A. That is correct. The corporation could not be created without certain definite out-of-pocket expenditures, and other costs which have not been enumerated would be incurred in connection with the incorporation of the property

or the business, once it had been determined that the money could be secured.

In order to make a venture of this kind feasible, a certain amount of visible gas supply would necessarily have to be available. No underwriting syndicate would put a dime into a natural gas project without the assurance of a natural gas supply at the very beginning of the project. That means that a large number of leases would have to be secured; that a number of gas purchase contracts would have to be secured; that a number of wells would have to be drilled and held in readiness for the time that the plant was finally put into operation. That would mean the examination of a large number of titles, because it is important and necessary for the success of the business to know that the company has a good title to its gas leases and its gas rights and its gas purchase contracts. All of these titles [fol. 1268] would have to be examined, of course, by the attorneys employed by the men who are going to build the property, and also would have to be examined by the attorneys of the men who were going to furnish a substantial part of the money which would go into the property.

Q. Is that the invariable practice, Mr. Connor?

A. Yes, that is an invariable practice. And I had in mind, in connection with your questions as to municipal or state bonds that there is the fact that those bonds can never be sold until those bonds have been passed upon, as to the question of their validity, by some attorney outside of the municipality or political subdivision which is issuing the bonds, an attorney selected by the people who will buy the bonds. That fee has to be paid by the corporation making the issue.

Q. On page 8 of Volume 7 of Exhibit 28, Mr. Connor, you list organization and corporate expenses, and your estimate of such expenses is $141,769.00?

A. That is correct.

Q. In round figures, without going into any detail, Mr. Connor, how did you arrive at your estimate?

A. That is shown on a recapitulation on page 50, Volume 7, Exhibit 28, and consists of the following items: The attorneys' fees for the fiscal agents, or the people who would be required probably to put up Thirty-five or Forty Million Dollars, $30,000.00. The fees which the company itself would pay to its own attorneys for the examination of its titles, the preparation of its contracts and other legal work

[fol. 1269] in connection with the incorporation of the company, is estimated at $15,000.00. The charter and qualification fees for the State of Texas, at $2,500.00.

Q. And is that based upon the actual fees that would be payable under the law?

A. That is correct. And in the state of Oklahoma, $7,500.00. The execution of the mortgage and the issuance of the securities is covered by the items previously mentioned in connection with the attorneys fees: that is, a mortgage would have to be prepared, and the preparation of that mortgage and the issuance of such securities and those costs have been covered in the estimate for attorneys fees. A federal capital stock tax of $18,000.00.

Q. Now, is that predicated upon current rates covering the federal capital stock tax?

A. That is correct.

Q. Or the tax which is imposed by the United States Government upon the issuance of securities?

A. That is correct. Then the engraving of the stock certificates themselves, $744.00. The listing of the securities.

Q. What do you mean by the listing of the securities?

A. Placing the securities on a stock exchange, where such securities are usually bought and sold, and that would be a necessary thing to be done. The printing of the mortgage would cost $500.00. The recording of the mortgage in about sixty-four counties in the States of Texas and Oklahoma, would be the sum of $3,800. The cost of engraving the bonds [fol. 1270] would be $21,000.00. Federal taxes on bonds, $19,000.00. And trustee's fees, $21,000.00, which if totalled, will give you the sum of $141,769.00.

* * * * * * *

[fol. 1271] Q. Appearing next in the general summary of the Preliminary Development and Organization Costs on page 8, Volume 7, of Defendant's Exhibit 28, appears Marketing Cost First Mortgage Bonds and Marketing Cost Preferred Stock. Will you please relate to the jury, Mr. Connor, what you mean by these costs and how they were determined?

[fol. 1272] A. I think that I previously explained that in the reproduction of the property and business of Lone Star Gas Company it would be necessary to secure a substantial proportion of the total money required by means of the marketing of what is generally termed senior securities,

or mortgage bonds and by the marketing of preferred stock. It is impossible to market securities of this nature without the incurrence of substantial costs. That is true, whether the Company itself, through its own organization, attempts to market these securities, or whether the Company engages the services of some organization especially equipped to render that service. The service rendered by a concern which specializes in the marketing of securities is usually termed brokerage. That is merely an out-of-pocket cost for services rendered. These agencies who are in position to market securities of this kind have their own organizations who are in contact with people who purchase securities of this kind. They maintain offices and an organization for the purpose of doing this very thing. They are better equipped to render this service than would be a company attempting to use its own organization for the same purpose. Now, Lone Star Gas Company, as I explained early in my testimony, at the time of its organization was a very small concern compared to what it is today, and compared to the property which would have to be reproduced today; and, and I previously explained, for [fol. 1273] that reason, the experience of the Company, in its early stages, does not afford a basis for the estimate of the costs we are now discussing. Certain costs of this character were incurred, but the amount of money involved in the transaction was comparatively small as compared to the amount of money to be required to reproduce the Lone Star Gas Company as of January 1, 1933. Now, Lone Star Gas Corporation has within very recent years actually marketed through the agencies which I have discussed,—which are firms especially equipped to market securities,—the Lone Star Gas Corporation has actually marketed fifteen million dollars worth of debenture bonds, and, I believe, $8,500,000.00 worth of six and a half per cent preferred stock. Now, I have taken as a basis for my estimate the actual costs to Lone Star Gas Company involved——

Mr. Griffith: The Lone Star Gas Corporation.

A. To Lone Star Gas Corporation, for the marketing of these two issues. To that proportionate part of the money which I estimate would be required to reproduce Lone Star Gas Company, represented by first mortgage bonds, I have applied the costs to Lone Star Gas Corporation of marketing its debenture bonds; and to that pro-

portionate part of the money which would be required to reproduce Lone Star Gas Company represented by preferred stock, I have based my estimate upon the actual cost to Lone Star Gas Corporation of issuing its preferred stock. [fol. 1274] Q. Now, Mr. Connor, please explain the mechanics of operation involved in the matter of a company obtaining money in connection with the sale or marketing of its securities.

A. All of the steps which I have previously explained with reference to investigations and checks would have to be made. Then, the organizers of the company, and the people who would be called in to assist in the securing of the funds, would determine upon what is called a financial structure; that is, the relative amount of money which should be represented by mortgages, or a mortgage issue; the relative amount of money which would be secured through the disposition of preferred stock; and that proportion of the total cost which the owners themselves would be expected to put up in the form of subscriptions to common shares.

Q. Now, is that the usual and ordinary method which has prevailed for a number of years in the matter of financing projects of this sort?

A. That is correct. I don't know of a single company, except one, that has been financed in any other way; and that would be the way in which the least expense would be incurred in connection with this part of the program, because the cheapest money that a company can get is the money secured by a mortgage on its property. The second cheapest money that a company can get is that which is preferred with reference to the payment of dividends, and [fol. 1275] that is commonly called preferred shares or preferred stock. If the company would attempt to secure all of its money by means of the sale of what is called common shares, the cost incident to that method of financing would be much greater than the method which I have used in this estimate. The set-up which I have used in this estimate is predicated upon the assumption that fifty per cent of the money required would be secured by a first mortgage on the property and business of Lone Star Gas Company; that twenty-five per cent would be secured through the issuance of preferred stock; and that twenty-five per cent would be furnished by the originators of the project.

Q. On pages 57 and 58 of Volume 7, of Defendant's Exhibit 28, do you set forth the factual basis for your determination of the marketing costs of securities?

A. That is correct. I show that there would be necessarily issued under this set-up 380,000 units of $100 par value, which would cost $3.00 per unit to market.

Q. That is for the first mortgage bonds?

A. That is correct; and 190,000 units of $100 par value, which would cost $4.50 each to market, and that is the cost which the Lone Star Gas Corporation actually incurred in the marketing of securities similar to the ones which I have set out in this estimate.

Q. Now, the cost of marketing, which you have determined to be $4.50 per $100 unit, is in relation to the cost of [fol. 1276] marketing the preferred stock?

A. That is correct.

Q. And the cost of marketing the first mortgage bonds is determined to be $3.00 per $100 unit, or $30.00 per $1000 face value bond?

A. That is correct.

Q. Now, Mr. Connor, if all of these costs were not historically incurred in connection with the actual construction of the property, is it your testimony that they would necessarily be incurred in the reproduction of the property?

A. That is correct. I think in this connection that a distinction should be made between the cost which I have included in this estimate and an expense which would also be incurred, but which I have not included in the estimate. Securities of this nature, yielding the coupon rates which I have used in this estimate——

Q. What do you mean by coupon rates?

A. That is the rate of interest which the par value of the bond will yield to the purchaser. I have used an interest rate of six and a half per cent for the bonds and eight per cent for the preferred stock. Now, in marketing these securities the company would not receive $100 for each dollar of the issue. They would be sold at what is termed a discount, necessarily so at this time and at the date of this appraisal. Now, that discount must not be confused with what I have used in connection with this [fol. 1277] estimate: The discount on a security would be the difference between the par value or face value of the certificate and the amount that the public, or the investor, or anyone interested in a natural gas property would pay

for that security when issued. That amount of money, or the discount, would depend upon several features: one, of which, would be the interest rate of the bond, or the preferred stock; the other would be the credit or the financial standing of the people operating the project. So those costs have no proper place in the estimate of the cost of reproducing the property; but the costs which would actually be paid out as an out-of-pocket expense for a service rendered is just exactly like the money that would be paid out to the laborer who was laying the pipe in the ditch; and is, therefore, a proper item to include in the reproduction of the property and business of the Lone Star Gas Company.

Q. In other words, in determining the marketing cost of bonds and preferred stock you are not attempting to capitalize discount?

A. I am not.

Q. You are merely attempting to evaluate the cost of estimating this amount of capital?

A. That is correct.

Q. And as reflected by the summary on page 8, of Volume 7, of Exhibit 28, applying the yardstick of measurement of marketing cost to the first mortgage bonds, you would deter- [fol. 1278] mine that the cost of marketing those bonds to the company would be $1,140,000.00?

A. That is correct.

Q. Covering what amount of bonds in total amount, Mr. Connor?

A. $38,000,000.00.

Q. That is of face value bonds?

A. That is correct.

Q. And you have likewise determined and set forth on page 8, Volume 7, of Defendant's Exhibit 28, that the actual cost to the Company of marketing its preferred stock would be $855,000.00?

A. Based on the experience of the Lone Star Gas Corporation in marketing identical securities.

Q. Now, Mr. Connor, in marketing costs of $855,000.00 covering the preferred stock, that would cover in principal amount how much preferred stock?

A. $19,000,000.00.

Q. So your total costs of marketing securities would be $1,985,000.00; is that correct?

A. $1,995,000.00.

Q. Covering the marketing costs of securities in the principal amount of fifty-six million dollars?

A. That is correct.

Q. Now, Mr. Connor, at the close of the summary, on the bottom of page 8, of Volume 7, of Defendant's Exhibit 28, appears an item of $2,000,000, Remuneration for the Originating Group. Is that a cash item?

[fol. 1279] A. It would be a cash item, or its equivalent; but I have estimated that the originating group would be remunerated by means of commons shares.

Q. In other words, any remuneration that the originators of the enterprise obtain would be solely in the common shares, rather than cash payment?

A. That is correct. I think that is exactly the way the transaction would be handled if the property should be reproduced.

Q. Is that the way the remuneration to the originating group is ordinarily handled?

A. Yes; of course, the originating group of any project of this kind has been remunerated in cash for their out-of-pocket expenses, which represent capital and assets to the company at the date of its incorporation.

Q. Commencing on page 59 of Volume 7, of Defendant's Exhibit 28, do you give a detail of the services which would be rendered and performed by the originating group?

A. I do.

Q. Will you please summarize the services that would be performed by the originating group, and describe what you mean by the originating group?

A. By the originating group I mean those individuals who would necessarily be required to put a project like the Lone Star Gas Company into being. It is perfectly obvious [fol.1280] that a thing of this kind could not just spring up out of the air. It would have to be planned, conceived, and worked out in the manner in which I have described before it could be a property under construction.

Q. Mr. Connor, I will ask you this question: Would that be true of any venture, such as the opening of a coal mine, or the opening of a gravel pit after it had first been determined that gravel underlay the soil, or any other enterprise on either a smaller or a larger scale?

A. That is correct. Those charges would be incurred in varying amounts depending upon the size of the project and the complexity of the project.

Q. Now, what would be the factors which would determine the remuneration that an originating group would probably receive and should properly receive?

A. First, I would say that the type of men who would be capable of initiating a project as large and as comprehensive in its activities as the Lone Star Gas Company, these men would have to be men who commanded the respect of the people who would put their money into the business, because it would be upon their judgment that the investment would be made. Another factor which would enter into the determination of the amount of remuneration that these men should receive for their services would be the amount of time they put in in working up all of the preliminary steps which would be required before this property could be constructed.

[fol. 1281] Q. Pardon me, a moment, Mr. Connor. You have stated that the men who would originate such a project would need to be men who were experienced in that particular line of business and who commanded the confidence of bankers and investors. I will ask you if it is similarly true that a bank or a trust company or a mortgage loan company would not want to lend money to a man in connection with a farm which that man was going to operate, unless he were an experienced farmer and they had confidence in him personally?

A. I think that is true in any line of business, that the character of the individual or the individuals originating the business would be scrutinized very closely by anyone who intended to advance funds for the business that these gentlemen were attempting to initiate.

Q. Now, what other factors would enter into the determination of the remuneration to be paid to the originating group?

A. The total cost and the extent of the project, the amount of money that a group of men who would originate a project of this kind should receive, should be measured, I think, in terms of the size of the project and the amount of money which would necessarily be involved in the completion of the project.

Q. Are there any other factors?

[fol. 1282] A. I think one of the most important factors is the risk which would be involved in the initiation of the

project. In order to bring a project such as Lone Star Gas Company up to the point where construction could begin would be attended by the probability of substantial financial loss on the part of those who were originating or initiating the project. They would be required to advance several millions of dollars, and in this exhibit I made an estimate of the amount of money that this group of men would be required to advance out of their own pockets. They would advance that money without a definite assurance that the project would ever be successfully consummated. That is true in the initial stages of every large natural gas project that I know anything about. Aside from all of those things, the men who originate a project of this kind would do specific things which would be of a great value to the company after its organization was perfected.

Q. And would those things be necessary to be done by somebody, if not by the originating group?

A. They would certainly have to be done. Illustrative of that point, these men, as I have made my estimate, would be responsible for the negotiating for the closing of gas sales contracts; they would have to make contact with men who might be persuaded to build distribution systems in the various towns and cities that the company would ulti- [fol. 1283] mately serve. They would have to arrange with the owners of properties in such cities as Dallas and Fort Worth to begin the extension of their mains to accommodate the increased demand for gas which would follow the construction of a natural gas pipe line.

Q. And all of those things have historically happened, have they, Mr. Connor?

A. In every case they have actually happened. They would also have to do all of the negotiating for the money; they would have to take a chance on whether or not the leases and gas purchase contracts and gas rights which they had secured in order to make this project feasible would be acceptable to the people who are going to put up the money to build it; they would have to be responsible for the organization of the company. Now, I have estimated that of the total money required, twenty-five per cent of it would be furnished by this originating group. That would mean that the corporation, when organized, would be relieved of any marketing costs, or any incidental costs in connection with the furnishing of twenty-five per cent of the total cost of this project. Finally, I think the

remuneration should be based upon what men usually and commonly receive for services of a similar character involving similar risks and involving the skill and ability [fol. 1284] which would be required of men who could successfully bring a business of this kind into being. I have in my experience seen just exactly what men doing this character of work actually receive for their services.

Q. And is your estimate of the remuneration for the originating group, in the amount of $2,000,000.00, based upon the experience which you have had?

A. That is correct.

Q. Now, Mr. Connor, on page 8 of Volume 7 of Defendant's Exhibit 28 you have summarized the total of Preliminary Development and Organization Costs in the amount of $4,474,272.00.

A. That is correct.

Q. And this includes all of the costs which you have previously testified about?

A. That is correct; and the exhibit itself sets out in detail each and every step and each and every cost which I have estimated.

Q. And do you incorporate in Volume 7 of Defendant's Exhibit 28, at pages 9 to 70, inclusive, a detailed explanation of your development and estimate of each and every one of these costs?

A. I do.

Q. I believe, Mr. Connor, that in going through these individual costs you did not explain what you meant and intended by Undistributed Production Expenses, estimated by you to be $39,944.00.

[fol. 1285] A. It will be noted, Mr. Griffith, on page 8, that I have made, as you suggest, an inclusion of $39,944.00 for what is termed Undistributed Production Expenses. Now, that item of cost included in this part of the appraisal could very well have been included in the *the* section which Mr. Biddison discussed and testified concerning. It represents the proportionate part of the Undistributed Drilling Costs—that is, the supervision—general supervision of drilling which would be done during the preliminary and development period. It is then deducted in a subsequent section of the report from the estimate of the general and undistributed charges to drilling costs which are included in that portion of the report testified to by Mr. Biddison.

In the initial steps of this business it would be necessary for the originators to drill a number of gas wells in order to demonstrate to their own satisfaction and to anyone else's, who might be interested in the project, that there was a sufficient gas supply; and the inclusion of that item of expense at this particular point in the exhibit is merely to locate the time at which the expenditure would be made. It will be necessary, as my testimony continues, for me to point out that one of the important things in making a [fol. 1286] reproduction cost estimate is to determine at what time various expenditures would be made, for the reason that the date at which those expenditures would be made as the construction of the project progresses would determine the time at which money must be secured to provide for those expenses, and provides a basis for the determination of a charge which will be termed Interest during Construction.

Q. Mr. Connor, at no place in connection with your estimate of Preliminary and Organization Expenses have you made any allowance for the compliance with what is known as the Federal Securities Act of 1933?

A. I have not.

Q. I believe this appraisal and estimate of costs was made as of January 1, 1933?

A. That is correct.

Q. The Federal Securities Act of 1933 was not in effect as of the date of the appraisal?

A. That is correct.

Q. But since that time it has come into effect?

A. That is correct.

Q. And by virtue of that Act would additional costs be imposed upon the Company in connection with the issuance of securities?

A. That is correct.

Q. And over and above the costs which you have estimated?

[fol. 1287] A. That is correct; and in substantial amount.

Q. Mr. Connor, on page 71 of Volume 7, Exhibit 28, appear Undistributed General Costs, summarized in the amount of $9,241,074.00. What do you mean and intend and understand by the term Undistributed General Costs, in a general way, and as used by you specifically, in connection with your estimate?

A. Mr. Biddison, when he presented the estimate of costs of reproducing the physical property of Lone Star Gas Company, based his estimate upon what is termed direct structural costs—that is, those costs which could be definitely allocated to specific items of property. He also limited that estimate to certain very definite points in connection with the costs of construction, to which he added certain general costs which would be allocated to specific items of property which I have prepared and included in this portion of the appraisal. Mr. Biddison, also based his estimate upon the assumption that the Company would construct this property with its own forces, without the services of a general contractor—general engineering contractor. That assumption on the part of Mr. Biddison, or that estimate made by Mr. Biddison upon that basis eliminated the item of a contractor's profit and the cost of a contractor's general organization. Now, as of January 1, 1933, Lone Star Gas Company not only had a system of pipe [fol. 1288] lines, gas wells, gathering lines, field lines, compressor stations, measuring stations, and other items of physical property; it had also a complete record on its books of the book cost of each and every item of property entering into that appraisal described by Mr. Biddison; it also had complete engineering records, and complete geological records, which had been accumulated over a period of more than twenty years; it had complete records of its land and leases, which represented items of value just as real and just as necessary for the operation of the property as the pipe lines and the compressor stations. In addition to that, Mr. Biddison's estimate stopped with those costs, as I have said before, which had to do with building that property on the ground. Any one knows that in building a property consisting of four thousand miles or more of pipe lines, gathering lines, of many thousand horse-power compressor stations, and gas wells distributed over the States of Texas and Oklahoma, that no property of that kind could be constructed unless there was a certain definite direction given to those expenditures by an organization which would be required to plan the program of keeping the records, to purchase the material, to keep track of every piece of material that goes into the project, to account for every penny of money that would be expended in the [fol. 1289] project, that would keep a definite, accurate record of all of the company's interests in land and real

estate. There would also be necessary expenditures in connection with the examination of titles, the drawing of contracts, the defense of law suits, and innumerable other things which contribute to the cost of building a property, but which can not be definitely allocated to this piece of pipe line or to that piece of pipe line. It is those things and those expenses which I have estimated in this portion of the appraisal.

Q. Now, Mr. Connor, do the books of the Company reflect historically all of the undistributed and general costs which have actually been incurred by the Company over a period of twenty-five years, or the period of its corporate existence.

A. They do not.

Q. Do you know that of your own personal knowledge?

A. I do.

Q. And in your estimate as set forth in Volume 7 of Defendant's Exhibit 28 have you endeavored to determine the nature of those costs and the expense which would be incurred in replacing on a wholesale basis the entire property and business of Lone Star Gas Company?

A. That is what I have endeavored to do, and if the Company had been able or had, during the entire history of its operations, set up on its books definitely and precisely [fol. 1290] the amount of these so-called general and undistributed charges which would be attributable to what we call capital account as distinguished from an operating account, that accurate record would still fail to reflect what those costs would be in the reproduction of this property.

Q. Why is that true, Mr. Connor?

A. Because as an operating company, starting out on a small scale, increases its property account from year to year by the addition of a pipe line here and a compressor station there, it has during that time a perfected operating organization. Now, a perfected operating organization can absorb a large amount of the details in connection with the construction of a property built in that way; in other words, Lone Star Gas Company, as an operating company, has a Purchasing Department with a General Purchasing Agent and all of his assistants—price clerks, invoice clerks, order clerks; it has a well-organized Stores Department, with a Supervisor of Stores and the storekeepers in the field, and the clerks in the office, who keep track of all the materials in the property of Lone Star Gas Company.

Those departments are necessary for the operation of the property. Now, when you come to build a pipe line these men can absorb the duties which would be solely chargeable to construction, if that property was only being constructed [fol. 1291] and not being operated, because you would have to have your Purchasing Agent, your Stores Supervisor, and your administrative officers during the period of construction if there wasn't one bit of operation taking place. Therefore, an estimate of the reproduction of Lone Star Gas Company constructed within a period of three and one-half years would not reflect what might be historically ascribed to those costs during the piecemeal development of the property.

Q. Now, Mr. Connor, is there any duplication in your estimate of the Undistributed General Costs and Mr. Biddison's appraisal of the direct structural costs?

A. Absolutely none.

Q. Into what main classifications might your Undistributed General Costs be subdivided?

A. I have subdivided them in exact accordance with the organization structure of Lone Star Gas Company, because I believe that that would be the logical way to handle the General and Undistributed Costs of a company in construction, when it was being constructed by its own forces. These groups are the Executive Section, the Legal Section, the Accounting Section, the Treasury Section, the Land Section, the Geological Section, and the Purchasing Section. [fol. 1292] Now, I have also included an item for what I have termed Other General Costs; and those costs, in so far as this estimate is concerned, represent certain very general costs which would be applicable to each of the departmental or sectional costs which I have just enumerated; in other words, the office building where these organizations would have to be housed during the period of construction.

Q. Now, Mr. Connor, all of the costs in connection with the Executive, Legal, Accounting, Treasury, Land, Geological, and Purchasing Sections, might they be characterized as being included under the term of Administration and Legal Costs?

A. Those particular sections which I have enumerated are generally described as Administration and Legal Costs.

Q. And which Administration and Legal Costs are summarized on page 79 of Volume 7 of Defendant's Exhibit 28?

A. That is correct.

Q. Now, Mr. Connor, will you please explain to the jury what you mean by Executive Section Costs, and what would be included thereunder?

* * * * * * *

The Executive Section, as used in this exhibit, is that sec-
[fol. 1293] tion of the General Costs which would be responsible for the general policies of the company, the procuring of funds for the construction of the property, the initiating and making of contracts, and the employment of Department heads; and through the individuals in responsible positions in the Executive Section would the entire work of the other Departments of the Company be directed.

[fol. 1294] Q. Now, as the basis for the estimate of the cost of the men who are in the Executive Section and their time and labor that would be devoted to the work, have you in your development of the estimate of costs followed closely the exact organization of the Lone Star Gas Company?

A. I have, almost precisely.

Q. In other words, the company has certain executive officers?

A. That is correct.

Q. And had them as of January 1, 1933?

A. That is correct.

Q. They are paid salaries?

A. That is correct.

Q. They are reimbursed for their expenses?

A. That is correct.

Q. They are compelled to have stenographers and clerks and maintain offices and in the carrying on of their work they necessarily incur costs for stationery, typewriters, telephones, etc.?

A. That is correct.

Q. Have you endeavored to make a rational estimate of the costs of the Executive Session by taking into consideration all of those factors?

A. That is correct. Now, in answer to your question as to whether or not I have used the present set-up of Lone Star Gas Company I said "yes". I did that, however, because I feel that if the property were reproduced it would be necessary to have each of the executives in assuming the
[fol. 1295] responsibilities that I have set out in this esti-

mate; in other words, I was not controlled merely by the fact that Lone Star Gas Company had these executives as an operating company, but I was controlled by my belief that each of the individuals that I have set out in this estimate would be necessary in the reproduction of this property.

Q. Mr. Connor, will you refer, please, to page 72 of Volume 7 of Exhibit 28? On that page have you set forth in graphic form or chart form the general construction organization which would be involved in the reproduction of the Lone Star Gas Company property?

A. I have.

Q. Now, at the top of the page it appears that the construction organization was set up for the year 1932?

A. That is correct.

Q. Was it in being as of January 1, 1933?

A. That year designation would really have no effect upon the chart. The chart is simply a graphic delineation of the organization which would be required to reproduce Lone Star Gas Company in 1932, 1933, or 1934, for that matter.

Q. Or as of any date——

A. Any date as of which time the property was as large and complex as it was of the date of the appraisal.

Q. Now, Mr. Connor, relate in a general way the personnel of the Executive Section and the duties that would devolve upon that personnel in the construction of the property.

[fol. 1296] A. The company would have a President, who would be the responsible officer of the company. He would select and negotiate the services of the other men who would be a part of the executive organization; he would be responsible for the direction of these officers, once they have been employed. He would determine the policy of the company; he would conduct all negotiations with owners of distributing plants in cities proposed to be served by the company; he would conduct all negotiations with people who own gas distributing plants—artificial gas distributing plants—to whom the company would expect to make delivery; he would also direct the negotiations with the large industrial consumers of natural gas relative to the purchase of gas for industrial purposes; he would be responsible for the negotiations with governmental and regulatory authorities; he would check and approve all estimate-

929

of cash required for construction, the drilling of wells, the purchase of leases, and all other costs which the company would incur during its construction; he would make reports monthly to the Fiscal Agent, the trustee under the mortgage, relative to the amount of money that had been expended and the progress that had been made. It would be necessary to have a man whom I have designated as the Assistant to the President, who would correlate all of the statistical information which the President of the company would require. He would be really the President's eyes and ears, because it would be necessary that the President [fol. 1297] of a large construction program of this kind be relieved of all the details possible during the period of construction.

Q. What would require the services of such a man as Mr. Huley, who has testified here in this case?

A. Mr. Huley is the man I had in mind as representing the type of man on whom such a responsibility would fall and the type of man who would be capable of performing those duties. One of the most important men connected with the executive group during the construction of a property such as Lone Star Gas Company would be the Vice-President and General Manager. He would be responsible for the design of the system; he would be responsible for the organization of certain departmental groups, such as the Engineering Department, the Department of General Supervision of Construction, the Geological Department, and the Purchasing Department; he would be responsible for the final selection of gas acreage; he would be finally responsible for the location of all wells to be drilled; he would be finally responsible for the making of gas purchase contracts, and he would be finally responsible for the costs of all construction. A man of this type would of necessity be a man with wide experience in the natural gas business; he would probably be an engineer, trained, because he would be called upon to make decisions which could only be made by a man who had had such experience. The company would also require the services of a General [fol. 1298] Counsel, who would be responsible for the organization and direction of the Legal Department of the company, and he would be responsible for the selection of the personnel of the Legal Department; he would be responsible for the preparation of all contracts and the conduct

of all litigation arising out of the progress of the construction of property; he would be responsible for all corporate matters and all legal matters growing out of the mortgage and the provisions of the mortgage; he would advise all other executives of the company relative to their work and actions with reference to the legal phases of the business; he would be finally responsible for all titles of lands owned by the company and leases, and he would be finally responsible for the settlement of all claims against the company, and he would be required to assist the President in negotiating with governmental agencies and regulatory authorities, such as the Railroad Commissions of the State of Texas and the State of Oklahoma, and he would be generally responsible for the supervision of the Land, Lease and Right of Way Department. It would be necessary to have a Secretary and Treasurer, who would be directly responsible for the organization of the Accounting Department, that section of the company's organization which would keep a record of all expenditures that were made during the construction of the company; he would also be responsible for the organization of the Treasury Department, which would be responsible for paying all employees, the preparation of payrolls, the checking of expense accounts, the keep-[fol. 1299] ing of currently correct bank balances of the company; he would be responsible for the adoption of a classification of accounts by the company; he would be responsible for the type of accounting system installed by the company, and he would be responsible for the initiation of all tax and insurance records; he would have to select the insurance companies and handle all the details with the insurance agents, because there would be a mass of insurance matters arising in connection with the construction of a property such as the Lone Star Gas Company; he would be responsible for the contracts with the tax authorities in the various districts, counties and subdivisions of the State wherein Lone Star Gas Company would be constructed; he would be responsible for the filing of all corporate reports required by county, State and Federal authorities; he would be responsible for all cash receipts and disbursements, and he would be responsible for the stock records of the company and transfers and for the listing of the stock of the company on a stock exchange.

Q. He would need the assistance of many men, but, as set forth on page 89 of Volume 7 of Defendant's Exhibit 28,

he would need an immediate assistant who would perform and be capable of performing the duties of Secretary-Treasurer?

A. That is correct. The mere details in connection with taxes and insurance would require the services of an efficient assistant, who would keep a record of all matters pertaining to taxes and insurance during the period of construction.

Q. Mr. Conner, commencing at page 86 and concluding [fol. 1300] at page 93 of Volume 7 of Defendant's Exhibit 28, have you endeavored to set forth the men who would constitute the Executive Section or department of the company, together with a schedule of salaries and expenses which would be paid?

A. That is correct. Now, in connection with the estimate that I have made of the Executive Section, I would like to make this explanation, because it will be applicable in a measure to each of the subsequent sections; that is, I have estimated these expenses by periods. For instance, I have estimated that the preliminary and organization period would consume a year and a half and that it would take six months from the time that the corporate organization was perfected to get the project ready to begin the actual construction of the property. That six months period I have called the preliminary construction period. You can readily understand that during that time all of the men in the executive and other sections of the company's organization would be pressed to the limit in order to get the materials on hand, prepare the plans, and get the organization perfected and out in the field and build this property. Now, I have estimated these expenses by years therefor, dividing them into the first construction year, second construction year, and third construction year.

Q. In order to illustrate the development of the property of the Lone Star Gas Company have you prepared for introduction in evidence here a chart showing the progress of the stages of development in connection with the construc- [fol. 1301] tion of the properties and the acquisition of the business?

A. I have.

Q. Is this the chart to which you refer?

A. It is.

Mr. Griffith: We offer the chart so identified by the witness in evidence.

(Thereupon the chart above referred to was marked as Defendant's Exhibit No. 36.)

Q. Mr. Connor, the jury have been furnished with copies of the chart which has just been introduced in evidence styled Defendant's Exhibit No. 36. I wish you would explain the basis upon which the chart was prepared.

A. I will give a general explanation, Mr. Griffith, at this time, and as the explanation of the exhibit develops the detailed application of the chart to the particular thing under discussion I will again refer to the chart. Will that be satisfactory?

Q. It will.

A. It will be noted from the top and the bottom of the page that there are nine years accounted for. With particular reference to the bottom of the page it will be noted that on the first and second years one and one-half years is absorbed by the preliminary development organization period and that one-half of a year, or six months, is absorbed by what is designated the pre-construction period. Following that, we have the construction period, which absorbs the first [fol. 1302] year, the second year, the third year, and the post-construction period of six months. Now, the post-construction period, in so far as I have used that term in connection with my estimate, refers to the costs which would be incurred after the construction of the property had been completed, by certain departments; for instance, the Accounting Department; it would take the Accounting Department six months after this property was completed to finally get a complete record of the physical property of the company on the investment ledger of the company. It would take The Purchasing Department and the Stores Department six months at least to wind up all of the construction details which would be left over after the completion on the ground of the pipe lines and compressor stations, and as we come into the various departmental discussions it will be noted that certain other departments would be required to do work after the property had actually been completed in the field, and that is the reason why the post-construction period has been included. It will be noted that at the end of the third construction year, following the black lines which stairsteps up—the heavy black lines which stairstep

up, that we have assumed that the cost of reproduction, exclusive of the cost of business development, will have been complete at that point, because, as will be noted on the right hand of the graph, the percentage is indicated to be one hundred per cent for a point corresponding to the expenditures made during the three construction periods and the preliminary development period. Now, as I started to [fol. 1303] explain before, I have estimated the costs of these various departments by years, because I wanted to know the expenditures which would be made by years in order to make an estimate of what the cost of interest during construction and the cost of taxes during construction would be. Now, I have not only made an estimate as to what will be subsequently developed by years of the cost of these general and undistributed expenses, but I have also made an estimate—a very careful estimate—of the actual physical property which would be constructed during each of the three years construction program which I have used. At the proper time the details of that estimate will be developed. Now, I have also assumed that as this property progresses during the construction period a portion of the responsibilities of the Executive Section, the Purchasing Section, the Treasury Section, and the other departments will be transferred from the construction of the property to the operation of the property, for the reason that I have assumed—and properly so—that in the construction of a property such as the Lone Star Gas Company within a three year period, that at times during the construction of the property a certain proportion of the total property constructed would pass into operation, and I have, therefore, reduced by successive exhibits the amount of money which I have estimated would be chargeable to the construction of this property for the various departmental groups, assigning the rest of the cost [fol. 1304] for offices and salaries and expenses to the cost of operation, which of course is not included in the reproduction cost estimate.

Q. Make a very simple illustration, Mr. Connor, a clerk in the office was paid one hundred dollars a month and whose time during the construction period was devoted fifty per cent to construction work and fifty per cent to operating work, what amount would be charged against cost of construction in your estimate of the undistributed and general costs?

A. Fifty dollars a month for that period of time. Now, I have specific reference to the Executive Section. I have assumed that during the second construction year twenty-five per cent of their activities would be directed to the operation of the property and not to the construction of the property.

Q. And, therefore, twenty-five per cent of their salaries and expenses would not be included as a part of the cost of construction?

A. That is correct, and for the third construction year I have assumed that fifty per cent of their activities and interest would be wholly devoted to the operation of the property.

Q. What you have said in that connection with reference to the Executive Department or executive officers, their assistants and clerks, would be similarly true in respect of the other departments, such as the Stores Department, Purchasing Department, Accounting Department, etc.?

A. In some of the departments, Mr. Griffith, I have gone so far as to analyze the individual employes who, I think [fol. 1305] would be transferred from one phase—that is, from construction of the property to the operation of the property, rather than employing a separate percentage, which I did in the case of the Executive Department.

Q. Mr. Connor, commencing at page 95 of Volume 7 of Defendant's Exhibit 28 and running through page 115, have you given a development of the costs that would be incurred in connection with the Legal Section and which costs would be a part of your general and undistributed costs.

A. I have made such an estimate, and it is set out in detail on pages 95 to 116, inclusive.

Q. Now, what would be in a general way the work of the Legal Department, summarizing it as briefly as you can?

A. The Legal Department would be responsible for the examination approval and drawing up in proper form of all contracts, franchises, easements, deeds, abstracts of title, insurance policies, notes, bonds, mortgages, leases and governmental reports of all kinds and character. They would render legal advise to all the departments, and they would defend the interests of the company in its litigation, a great amount of which would necessarily arise in connection with the reproduction of the property and business of the Lone Star Gas Company.

Q. Now, does the company actually have at this time, and did it have as of January 1, 1933, and all periods mentioned in connection with your appraisal, a Legal Department of substantially the same size as detailed by you in connection [fol. 1306] with Volume 7 of Defendant's Exhibit 28?

A. That is correct. They did. My estimate of the legal costs in reproduction of Lone Star Gas Company property and business includes an organization which is almost identical with the organization which the company now has in the operation of its property.

Q. Now, in addition to the attorneys and the organization which the company presently has in its Legal Department, has it been necessary and is it necessary for the company to retain outside attorneys at various places on its pipe line system?

A. It would most certainly be necessary during the progress of the construction of this property during the three year period, and I have made a conservative allowance for retainer fees for counsel whose places of residence would be strategically located with reference to the construction of the property.

Q. If we refer to page 105 of Volume 7 of Defendant's Exhibit 28, have you there detailed local attorneys that would be retained by the company in the various towns and cities on its pipe line system?

A. I have.

[fol. 1307]. Q. Please refer to page 105 of Volume 7, Defendant's Exhibit 28, have you there detailed the local attorneys who would be retained by the Company in the various towns and cities on its pipe line system?

A. I have.

Q. And does that detail conform almost exactly to the local attorneys who are retained by the Company at the present time, and who were retained as of January 1, 1933?

A. They do.

Q. Mr. Connor, on pages 108 and subsequent pages, have you endeavored to detail the costs other than salary costs which would be incurred by the Legal Department in connection with its operation during the construction period?

A. I have.

Q. And is that estimate of cost based upon a very careful study of the experience of the Company?

A. That is correct. It is in connection with the estimate of the costs which would be incurred in connection with the

defense of lawsuits. I conferred with Mr. Roy Coffee very extensively, and in connection with him worked up estimates based upon the actual experience of the Company as to what it would cost and what it had cost to defend these suits and what percentage of these suits were appealed from one court to another, and what the costs were in each of the trials involved. The Stationery costs in each of the sections [fol. 1308] was based upon a careful analysis of how much stationery a man uses in a year, and based upon the actual expense of stationery and supplies for each individual in a very large department.

Q. Now, you mentioned Mr. Roy Coffee. Who is Mr. Coffee?

A. Mr. Roy Coffee is the first counsel of the Legal Department of Lone Star Gas Company.

Q. On page 115, of Volume 7, have you made an estimate of costs covering the housing of the Legal Department and the expenses in connection with the office furniture and fixtures which would be utilized by that department?

A. I have made no specific study of the costs of housing the department, other than to suggest the amount of floor space which would be required. As I testified a while ago I have made a separate estimate, which I have described as "Other General Costs," of what I estimate would be the cost of rent or its equivalent during the construction period. I have included, however, a detailed inventory of the office furniture, fixtures, and library equipment of the Legal Department, which I have only included as a part of the costs that part represented by the depreciation on this equipment during the construction period.

Q. And is that estimate based upon the actual equipment the Legal Department now has?

A. That is correct; together with such current publications and services as the Legal Department actually subscribes to.

[fol. 1309] Q. Mr. Connor, there next appears under your estimate of Administration and Legal Costs the costs which the Company would have in connection with the Accounting Section?

A. That is correct.

Q. Do you set forth on page 120, of Volume 7, of Defendant's Exhibit 28, an organization chart, showing at the top

of the Chart the Secretary and Treasurer and the various individual officers and employes in the Accounting Section who are responsible to the Secretary and Treasurer?

A. That is correct; I do.

Q. Now, what would be the general function of the Accounting Section, and what would be its duties in connection with the construction of the Lone Star Gas Company property?

A. It would keep proper records of all monies disbursed, and properly distribute and allocate all charges as prescribed by the Standard Classification of Accounts for natural gas utilties. That general statement, of course, could be amplified by a description of the various things which the individual person of that organization would be required to do in order to keep a record of the Company's property and the expenditure of its money.

Q. Now, refer please to page 120, of Volume 7, of Defendant's Exhibit 28, and just relate to the jury in a general way the personnel that would be involved in the Accounting Section?

A. The Secretary and Treasurer, who would be really the [fol. 1310] head of the Accounting Section, has already been discussed in connection with the Executive Section. He is shown on the chart merely for the purpose of showing the ultimate responsibility of the Accounting Section, which would be, as I have previously testified, the Secretary and Treasurer of the Company. The active individual, who would be in charge of the Accounting Section, would be the Comptroller, and under him would be a general auditor, who would in turn be responsible for what is termed the General Book Section, the Distribution Section, and the Plant Equipment Section. In connection with the Accounting Department there would also be a traveling auditor, who would go into the field and check up the accounts and disbursements of the various superintendents, who would necessarily make emergency purchases and expenditures in the field. Now, this section that I have here—this Accounting Section 9ss is one that would be absolutely required in order to keep a record of where the money went, and to maintain a check on the expenditure of the money of Lone Star Gas Company during its construction. In order to familiarize myself with the duties of individuals that are set out in this section I have sat at the desk of every man that I have included in

this estimate and familiarized myself with exactly everything he would have to do if this property were under construction. I have followed a job from the time it was authorized by the executive officers of the Lone Star Gas Company [fol.1311] straight through each department, which I am going to explain in connection with this estimate, and have sat at the desk of each of the individuals that I have set out as part of the organization that would be required in connection with this work.

Q. Does the organization chart appearing on page 120, of Volume 7, of Defendant's Exhibit 28, conform to the actual personnel of the Accounting organization of Lone Star Gas Company as now established and as established at January 1, 1933?

A. The general plan is identical with the present organization, but the distribution of employes and the assignment of responsibility to the various employes is somewhat different, for the reason that the Lone Star Gas Company is at the present time almost entirely operative.

Q. In other words, the Company has very little construction under way at the present time?

A. That is correct.

Q. And that is true, and has been true for a period of a couple of years?

A. That is correct.

* * * * * * *

[fol. 1312] Q. Mr. Connor, commencing at page 121, and ending at page 140, have you attempted to set forth a detail of the work which would be done by the Accounting Section, together with your estimate covering salaries to be paid and expenses?

A. That is correct. I have set out in detail just exactly what each individual included in the estimate would be required to do; and as in the case of the Executive Section, I have successively reduced the amount of time and money ascribed to the Accounting Section as the construction progressed and as the Accounting Section's responsibilities would be shifted from one hundred per cent construction to a property in partial operation and in construction at the same time.

Q. Appearing at page 142 of the same volume, same exhibit, and under the heading of Administration and Legal

Costs, there next appears a general summary of salaries and expenses of the Treasury Section?

A. That is correct.

Q. And on page 144 of the same volume appears an Organization Chart of the Treasury Section. Now, Mr. Connor, please explain, in a general way, what would be the work of the Treasury Section, and how you arrived at your estimates of costs covering the Treasury Section.

A. The Treasury Section, like the Accounting Section, would be directly responsible to the Secretary and Treasurer of the Company, who, as I have previously explained, would [fol. 1313] be a member of the Executive group. The Treasury Section would be directly responsible for the receipt and disbursement of all funds, the preparation of budgets and estimates, the reconciliation of bank balances, and of payrolls and expense accounts covering the salaries and expenses of all employes engaged in the construction of the plant, and that refers to the employes in the field as well as the employes who would be in the general office.

Q. Mr. Connor, would the work of the payroll division of the Treasury Section be a very sizable job in itself?

A. It certainly would, together with the checking of expense accounts and payrolls, that item alone would involve the work of a number of employes whose duties and the details of whose work I have set out in detail in the exhibit.

Q. The nature of the duties performed by the Treasury Section, and your estimate of salary costs and other expenses, is contained in pages 145 to 153, inclusive, of the Exhibit?

A. That is correct.

Q. Does the Organization Chart set forth at page 144 conform very closely to the actual Treasury Section organization which the Company now has, and which it had as of January 1, 1933?

A. It conforms almost exactly with that organization, it being understood, of course, that the duties—the specific duties of the organization as set out would be almost directly to items attributable to construction during the first [fol. 1314] construction year; and I have estimated that 25 per cent of the personnel of the Treasury Section would be attributable to operation during the second year; and that fifty per cent would be attributable to operation during the third construction year.

Q. What have you set forth on page 155, as well as on page 157?

A. On page 155 I have set out a general summary of the estimate of the costs of the Land Section during construction; and on page 157, I have set out a graphical analysis of the individuals who would be employed and their relative responsibilities in the organization.

Q. Does the Land Section which you have charted on page 157 of this Exhibit conform almost exactly to the actual land department or Land Section which the Company had as of January 1, 1933, and which it now has?

A. It does.

Q. What would be the general duties of the Land Department or the Land Section?

A. Upon the Land Section would devolve the work in connection with the acquisition of fees lands, surface leases, mineral leases, gas purchase contracts, rights-of-way, easements, leases and road grants, and all miscellaneous contractual relations in any manner affecting lands, or interest in lands, of the Lone Star Gas Company.

Q. Mr. Connor, Mr. Biddison testified here in detail in connection with the acquisition by the Company of lands, [fol. 1315] rights-of-way, and leaseholds, and in connection with the evaluation of certain lands and rights-of-way he made allowances for costs of acquisition. Is there any duplication in the allowances for costs of acquisition as made by Mr. Biddison and testified to by him in connection with Volumes 1 to 6, Defendant's Exhibit 28, and the costs which you have evaluated?

A. There is no duplication. Mr. Biddison and myself conferred throughout the preparation of this estimate and checked each and every detail of this portion of the exhibit against the portion of the exhibit for which he was primarily responsible in order to eliminate any possible duplication of costs.

Q. What would be the general differentiation or distinction between the costs which Mr. Biddison evaluated in connection with the acquisition of lands and leaseholds and the costs of the Land Section as estimated by you?

A. Very much like the general difference between the phases of the property that he made an estimate of and the estimate of costs which I have made. That is, Mr. Biddison confined himself to those charges which would

be directly attributable to an individual property item which could be identified and inventoried. These charges which I estimate the cost of are charges which are so general that they could not possibly be ascribed to an individual item of property; and that is true of the land and [fol. 1316] lease division, as well as all other divisions or sections concerning which I have testified.

Q. It would appear from the organization chart appearing on page 157 of this exhibit that a part of the costs evaluated are for the purpose of keeping the records of the Land Department. I will ask you if the Land Department has full and complete records in respect of every leasehold or right-of-way, or other interest in the land which the Company has?

A. It has. These records are complete. They represent the accumulated work which has extended over a period of more than twenty years. In this estimate of the cost of the Land and Lease Department I have attempted to make an estimate of what it would cost in connection with that phase of the Company's property to reproduce those records within a period of three and a half years. The Land and Lease Department not only keeps a record of the lands owned by the Company, but it maintains records of all drilling operations in the areas in which Lone Star Gas Company owns leases and gas rights, and also maintains records of all drilling operations in the areas adjacent to these lands. It also has to prepare by the use of clerical help all vouchers and drafts, and agreements, executory contracts, division orders with reference to the payment of royalties, and it keeps a record of all gas purchase contracts, leases, and mineral deeds. It would also be responsible for the direct operation of pur- [fol. 1317] chasing leases. The members of this organization would be the ones that would contact the owners of gas lands and gas wells and gas production. They would initiate the negotiations for the securing of the gas supply of the Lone Star Gas Company.

Q. And that is what the organization actually does in practice?

A. That is correct, and they would also advise the officials of the Company with reference to the advisability of abandoning acreage, rather than maintaining the payment of delay rentals on such acreage.

Q. Commencing at page 158 and ending on page 167 of this exhibit, Mr. Connor, have you attempted to outline the general organization plan and duties of the Land and Lease Department or Section, and give in detail your estimate of the costs and expenses which would be required in connection with that section or department?

A. That is correct. I have set out in detail not only the designation of the individual who would be employed in that department, but also a detail of exactly what he would have to do after he was employed. This department would also examine and check the abstracts of all lands and leases owned by Lone Star Gas Company. It would be responsible for the acquisition from the general standpoint of all rights-of-way, and it would also handle all claims into the Legal Department.

[fol. 1318] Q. Mr. Connor, what appears on page 169 of this exhibit?

A. Just one word in connection with the Land and Lease Section. I have stated in connection with the other departments that as the progress of the work advanced that a certain proportionate part of the expenses of these various departments would be made against the operation of *of* the Company, and not included in this estimate as a part of the reproduction cost of the general property. Now, in connection with the Land and Lease Department, I have made no such differentiation between the expenses for the various years, for the reason that during this period of construction the Land and Lease Department, as I have set it out would be entirely and wholly involved in matters pertaining to the construction of the property and to its operation, and in the development and acquisition of the records now in possession of the Lone Star Gas Company.

Q. Now, Mr. Connor, coming to page 169 of the Exhibit, what is disclosed on that page?

A. On page 169 there is a general summary setting out my estimate of the costs of reproducing the geological records and information now in possession of Lone Star Gas Company.

Q. And do you carry through a detail of that development of costs from pages 169 to 176 of this exhibit?

A. That is correct.

Q. Mr. Connor, does the Company have a geological department?

[fol. 1319] A. It does.

Q. Does the Geological Department have very complete data and information regarding all gas fields wherein the Company operates, and of other fields in this general territory which are now or which are potentially available to the Company's pipe line system?

A. It does have such records, and these records have been accumulated and developed over a period of more than twenty years. They are a valuable capital asset of the Company, and the estimate which I have set out is prepared for the purpose of making a calculation of what it would actually cost did those records not exist to secure them; and in that connection, the work of the Geological Department, as set out by years in this section of the estimate, is identical with the estimate which I have included for one year as a part of the detail geological estimate which would be made prior to the beginning of construction. In other words, I have estimated that the geological records of this Company would be begun to be acquired prior to the beginning of the construction of the property, and that, I think, is a logical assumption, because it would be necessary to secure a substantial amount of detailed geological information before it would be feasible or logical to make large expenditures in pipe lines and compressor stations.

Q. Mr. Connor, please refer to pages 178 and 184 of this [fol. 1320] exhibit. What have you set forth on those two pages?

A. I have set out on page 178 a general summary of the estimate of the costs which would be involved in maintaining what I have termed the Purchasing Section of Lone Star Gas Company during the construction of its property.

Q. Does the Purchasing Section include men who would be engaged in any work other than the purchase of materials?

A. The Purchasing Section, as I have set it out, includes two other departments other than the Purchasing Department itself, the work of which departments is so closely allied and connected with the Purchasing Department that I thought that it was logical and proper to incorporate all of those charges in the general summary of the Purchasing Section. As a matter of fact, in the Lone Star Gas Company's own organization, the head of the Purchasing Department is the head of the Stores Department, the Sta-

tionery Department, and the Traffic Department, and this estimate which is set out in summary form on page 178 includes the estimate for the Purchasing Department, the Stores Department, the Stationery Department, and the Traffic Department.

[fol. 1321] Q. Does the organization chart appearing at page 184 of the exhibit conform almost exactly to the actual organization which the Company now has in connection with Purchasing Stores and Traffic?

A. That is correct. It is an exact picture of the present organization of the Lone Star Gas Company, and is an exact picture of the organization which would be required should the property be reproduced.

Q. What would be the general work of the Purchasing Department proper, Mr. Connor?

A. The Purchasing Department of a company, such as Lone Star Gas Company, during the period of construction would be extremely important. Not less than thirty million dollars worth of material, of all kinds and classes and description would be required in the property which would remain and be ready for service after the construction was completed, and there would be many hundreds of thousands of dollars of other material which would be purchased and used and currently consumed in actually constructing this property—paper, pencils, erasers, ink, stationery, supplies, forms—things which would wear out, tools and equipment, gasoline, oil—all such things as that. In addition to the compressors, the valves, the pipe, the fittings, and the permanent capital items of property, all of those things would have to be purchased, and one man would have re-[fol. 1322] sponsible charge of that purchasing; and that would be true in any well-organized program of construction. The Purchasing Department would get its first intimation of what was required of it, by means of a requisition for the purchase of material which would be submitted to the Purchasing Agent. This requisition itself would first have to be prepared by the Engineering Department for the purchase of material involved in anything, let us say, like a pipe line or a compressor station. The Engineering Department, in turn, would get its idea and its instruction as to what it should design, from the General Manager and the Executive Department of the organization. But once having made a plan of a pipe line or a structure, the various individuals in the Engineering Department who would be re-

sponsible for making a detailed summary and set up detailed specifications of these various items, would prepare a requisition, which would then be submitted to the Purchasing Department, in order that the Purchasing Department might initiate the steps toward securing this material. Now, the Purchasing Department, as I have said before, would have as a subsidiary department one of the most important parts of the whole organization, which is designated the Stores Department. Now, Mr. Biddison has testified in connection with his part of this estimate that the stores expense on certain classes of material included in the in- [fol. 1323] ventory would be, I think, approximately four per cent of the cost of those materials. Now, the stores expenses that Mr. Biddison was talking about are those stores expenses which would be incurred in the field; and, when I get a little further along in my explanation of the duties and functions of the Stores Department and the Purchasing Department, I think I will make it very clear as to why there is no duplication in this estimate and in the estimate prepared by Mr. Biddison. Now, the requisition comes to the Purchasing Agent; a large amount of material has already been purchased and delivered, we will say, delivered to warehouses located at convenient points throughout Texas and Oklahoma in order to facilitate the construction of this project. Once that material is delivered—once a shipment of that material is made, the Stores Department becomes responsible for it until it gets on the investment ledger of the Company. The Stores Department is responsible for every piece of property which would go into this plant, from the time it is shipped until it is accounted for, as I said before, on the investment ledger of the Company. Now, having these warehouses and having materials stores in these warehouses, the Purchasing Department or the Purchasing Agent refers his requisition to the store keeper. And why does he do that? It would not be good business to purchase a valve or a fitting or a piece of pipe or any piece of equip- [fol. 1324] ment until you found out first whether or not you had some surplus supply of such equipment on hand, and where it was located. The Purchasing Agent then turns that requisition over to the Supervisor of Stores. The Supervisor of Stores of the Lone Star Gas Company knows every day where every piece of equipment in the possession of the Lone Star Gas Company is located and what the current price on that equipment is; whether that material is

located at the Petrolia warehouse or the Ranger warehouse or the north Fort Worth warehouse, or wherever any warehouse may be, the Purchasing Agent of the Lone Star Gas Company knows tonight what material he could furnish out of stock upon a requisition made upon the Purchasing Agent. So the Supervisor of Stores receives that requisition from the Purchasing Agent and encircles the items which he can furnish out of stock; then the Purchasing Agent goes through the process of placing orders for the material, securing prices for it, contacting the vendors who can furnish the particular class of material included in the requisition once those orders are placed. A careful record has to be maintained of each and every order, and think just what that would mean in buying thirty million dollars worth of material to construct a plant of this kind. The invoices are checked, that material must be delivered and accounted for; those records come to the Purchasing Agent; [fol. 1325] his files are never closed on an item that he places a purchase order for until he is sure that that material has been received, that the material received conforms to the specifications of the material ordered, that it is in good order, not damaged in transit, and that the invoice and prices are correct. In the meanwhile, the Stores Department goes through a similar process with reference to materials which are available in the stores. If there are certain valves in the Petrolia warehouse which can be used in the construction of Line B, or some other line, a material transfer order is made out, which is nothing more nor less than a purchase order, assuming that the Company itself is the vendor and not the valve manufacturer; and the same process is followed in the transfer of material from a warehouse to a job, or from one job to another, and an accurate record is kept of each and every transfer. The Stores Department is finally responsible after the receipt of material, the checking of material in the job and the checking of the invoices turned over by the Purchasing Department. It makes up the vouchers which are in turn transferred to the Accounting Department, thereby giving the Accounting Department the basic data upon which it can make its final entry into the investment ledger of the Company. Now, those steps that I have illustrated are the very things which take place on each requisition for a [fol. 1326] bunch of material which comes from the Engineering Department to the Purchasing Department, and

those are the exact steps which would be followed in the reproduction of this property if the property records were going to be kept, so there would not be a vast amount of unused material left over at the end of construction, or if the records were kept so that the Company could put on its investment ledger an accurate and careful record of what and where each and every piece of material was and went; and the Lone Star Gas Company has at this time and had as of January 1, 1933 an accurate record of where each and every item of material which has entered into its plant is located and those records are on the investment ledger of the Company.

Q. Now, Mr. Connor, commencing at page 185 and going through page 201, have you on this exhibit—that is, Volume Seven, Defendant's Exhibit 28, have you set forth the organization plan of the Purchasing Section, the duties of the Section, and a detailed estimate of the costs in connection with the Purchasing Section?

A. I have. If anyone takes the exhibits they can follow the steps that I have attempted to explain and they can recognize the individual employees who would be responsible for keeping track of each of these steps, and they would also be able to follow the summary of the estimate shown on page 178.

Q. Commencing on page 201 of the same volume—same [fol. 1327] exhibit, and going through page 213, have you set forth the organization plan of the Stores Department, and a detailed estimate of your costs in connection with the Stores Department?

A. I have. The detail also sets out, Mr. Griffith, the amount of expenditures which would be made during each of the construction years and during the post-construction period.

Q. Mr. Connor, refer please to page 215, same volume, same exhibit. What appears on that page?

A. That is a summary of the salaries and expenses which would be involved in maintaining the Stationery Department of the Lone Star Gas Company during the period of construction.

Q. And commencing at page 215 and going through page 220, have you detailed the nature of the duties that would be performed by the Stationery Department, and shown your estimate of the cost of expense of the Stationery Department?

A. That is correct, I have.

Q. Now, what would be the general duties of the Stationery Department?

A. The Stationery Department would be a subdivision of the Purchasing Department, and the head of the Stationery Department would be, as he is in the actual organization of the Lone Star Gas Company, an assistant Purchasing Agent. He would be responsible and his department would be responsible for the maintenance of supplies [fol. 1328] and stationery, the preparation of forms, the purchase of furniture and office equipment. The construction records and bookkeeping records which would be involved in maintaining a record of all construction costs of the Lone Star Gas Company run into the thousands, and it would be necessary, in order to provide currently the forms necessary to prepare all reports and keep all records, a Stationery Department, multigraph operators, mimeograph operators, and substantial supplies of stationery stock. The Stationery Department would be the department which would be responsible for that phase of the general expenses.

Q. And the organization which you have set up for the Stationery Department conforms very closely to the Stationery Department which the Company actually has as of this time and had as of January 1, 1933?

A. The personnel of all the Purchasing Sections conforms almost exactly with the present set-up of the Purchasing Stores, Stationery and Traffic Departments of the Lone Star Gas Company.

Q. Commencing at page 222 of this volume of Exhibit 28, Mr. Connor, and going through pages 224, it appears that you have detailed the duties of the Traffic Department and your estimate of costs of the operation of that Department which would be ascribable to construction in connection with the reproduction of the Company's property?

[fol. 1329] A. That is correct; I have.

Q. Please state to the jury, in a general way, what would be the duties of the Traffic Department.

A. The Traffic Manager and his assistants would be responsible for the securing of the best rates for the transportation of all of the material which would be required to be transported in the construction of Lone Star Gas Company. He would be a man who would be familiar with railroad tariffs, and he would be directly responsible from the

date of entry of the purchase order, for the routing and transportation of the material ordered.

Q. In connection with a great deal of the property or materials which would be purchased for the reproduction of Lone Star Gas Company, I will ask you if those materials would have to be transported over a considerable mileage?

A. They would. A very large part of the materials of construction which would enter into the property of Lone Star Gas Company would originate either in Ohio or in the Pennsylvania-Pittsburgh area.

Q. That would be true in relation to steel pipes and compressors?

A. That is correct.

Q. Constituting a major portion of the physical property of the Company?

A. That is correct.

[fol. 1330] Q. And would the Traffic Manager not only direct the route of shipments but as well be responsible for any claim against the railroads for damages in connection with such shipments?

A. He would handle all claims for damages on information furnished primarily by the Stores Department.

Q. That is, if the Stores Department reported that a car load of pipe was received in bad order, he would be responsible for the presentation of that claim to the railroads?

A. That is correct.

Q. And would he have a multiplicity of other duties in connection with the shipment of materials?

A. He would have to keep in constant contact with all vendors relative to the prompt delivery of the material ordered through the Purchasing Department. There is nothing that could create more confusion or bring about costs substantially in excess of those estimated by Mr. Biddison, than would a situation which would arise by reason of delay in the delivery of pipe or coupling or fittings on a large construction project; and the Traffic Department which I have outlined in this estimate would be that Department which would be responsible for the elimination of such added costs.

Q. Does the Company have a Traffic Department as of this time, and did it have as of January 1, 1933, which conforms, in a general way, to the organization set-up which [fol. 1331] you have detailed in this exhibit?

A. It does.

Q. Mr. Connor, commencing at page 225, of Volume Seven Defendant's Exhibit 28, there appears a General Summary of Other General Costs, in the amount of $201,574.00. Please relate to the jury, in a general way, what would be the items which would enter into and comprise these General Costs aggregated the amount stated?

A. The first item is what I have designated the Office Building Costs. It is certain that an organization which would be required to do the many things which would be required in connection with the reproduction of this property, would have to be housed in some suitable place to do their work. The cost of such accommodations might very well be rent in some office building during the period of construction. I have conceived that if this property should be reproduced, the Lone Star Gas Company would do just what it has done in the operation of its business, and that is build an office building suitable for the purpose of housing the various Departments which would be required during the construction period.

Q. In fact, build the office building which the Company actually has in Dallas?

A. That is correct, and I think there is no question but what the entire floor space of such an office building would be required during the construction period, to provide for [fol. 1332] the personnel which would be necessary during that time. Now, in order to make an estimate of what that cost would be, I have taken the actual cost of the Lone Star Gas Company office building—that is, the operating cost—the cost which would be currently occurring for the years 1929 and 1930, and averaged those costs. Now the reason that I did that was because after 1930 the Lone Star Gas Company was operated jointly—I mean the building of the Lone Star Gas Company, was operated jointly with the building of the Dallas Gas Company, and it is almost impossible to make a definite segregation of the operating expense since the time that that change has been made. So I took the last two years in which the building was operated as an entity and have used the average of those two years as my estimate of what the housing costs would be.

Q. Now, what entered into those costs? Just give the jury a general idea of the cost of the operation of the Lone Star Gas Company building.

A. The largest item is the janitor service, and the next largest item is the ad valorem taxes, repairs to machinery,

repairs to building, light and power constituted a sizable item, an average of $4607.00 for each of the two years; water $3788.00; fuel——

Q. Are you not mistaken about that water cost?

A. I am. I have got to get this line straightened out [fol. 1333] here. (Witness adjusts ruler.) Light and power is $4607.00; building engineer and help was $3786.00; water, $358.00; fuel $1725.00.

Q. Well, those are just a few of the typical——

A. Those are illustrative of the charges and of course the largest is $8765.00 janitor service, and $6851.00 for ad valorem taxes on the office building and site; but the average for the two year period was $39,960.00 per annum from which I took certain rentals which Lone Star Gas Company receives for certain offices which they lease and which are not used. They are ground floor stores area. Another item which I have included as a general cost is the compensation insurance which the Company would be required to pay on the individual employes in the general office building and some of the field engineers who would be engaged in making a survey, and who subsequently will be discussed in connection with engineer costs. The compensation insurance for men engaged in this class of work is relatively small compared to the compensation insurance for men who are engaged in outside pipe line construction. There are certain expenses in connection with handling the mail and distributing the mail to the various departments which would be located in the building, and I have made what I consider a proper estimate of the handling and distribution of the mail. I have also made an estimate for [fol. 1334] the certification of expenses. In explanation of that allowance, I will state that where money is furnished under a mortgage for improvements of this kind, or construction of this kind, it would be necessary, and the trustees under the mortgage would require that these expenditures be certified to by an engineer of national reputation and by an accounting firm acceptable to the trustees. In other words, the people who furnish the money would want to know that the advances made for the construction from time to time actually represented the money which was put into the property of the Company.

[fol. 1335] Q. And is that the unvarying rule, that such certification is incurred in connection with advances made

for construction purposes where financing has been made by bankers or trust companies or other investors?

A. That is correct, and I think that the same thing would hold true if the funds had been provided by a group of individuals; I think that the executive officers of the company would want that protection and that the people who had furnished the money would require the same.

Q. The next item appearing under Other General Costs appears to be fidelity bonding expense in the amount of $10,717.00. For what is that expense incurred?

A. That is expense which would be incurred in order to insure the company against fidelity losses, and it would be a blanket policy which would embrace all the company's bonded employes. I have based this estimate upon the charges made for blanket fidelity bonds issued against the type of employes who would be engaged in this work.

Q. Well, by "fidelity bond" do you mean the same kind of bond that the County Clerk and Sheriff of Travis County are required to give for the faithful performance of their duties and the proper handling of all county funds that come into their possession?

A. That is correct.

Q. The Lone Star Gas Company did as of January 1, 1933, and now carries fidelity bonds on all employes engaged in the handling of materials or money?

[fol. 1336] A. That is correct.

Q. That is not only true of Lone Star Gas Company, but of other organizations, whether they be State, county, city or private corporations?

A. That is correct.

Q. Mr. Connor, have you set forth in detail on pages 226 to 232 your estimate of what you have styled Other General Costs?

A. I have.

Q. And which costs are summarized on page 225 of this exhibit?

A. I have.

Q. What is the next item of general and undistributed costs which you have evaluated and set forth in Volume 7 of Exhibit 28?

A. Engineering costs.

Q. Please relate to the jury in a general way, Mr. Connor, what is designed to be included in your evaluation of engineering costs?

A. Before setting out specifically what is included in that estimate I will call attention to the fact that the engineering costs as set out in this estimate are divided into two sections, the first being what I have described as General Engineering Costs, the second being the cost of the final engineering records now in possession of Lone Star Gas Company, and when I say "cost" I mean the cost of reproducing the final engineering records now in possession of Lone Star Gas Company. It will be recalled that Mr. Biddison in his discussion or testimony relative to the part of the [fol. 1337] estimate prepared largely by him called attention to the fact that there was included as a part of the direct structural cost a sum of money which represented the cost of reproducing the final engineering records of Lone Star Gas Company. The reason that that division was made in making this estimate was this: Lone Star Gas Company has as of this date and had as of January 1, 1933, certain concrete, specific, real, tangible engineering records which could be inventoried and counted and classified just exactly as Mr. Biddison and Mr. Steinberger inventoried and classified the physical property of the company.

Q. Such as pipe?

A. Pipe, fittings, valves, and anything else. So, with that thought in mind, I thought it was better to treat those records which could be inventoried specifically as an item of cost separate and distinct from the general engineering which can be attributable to the property as a whole and which could not be inventoried and measured because it represented services and expenses which had gone into the construction of the property as a whole, and so with that in mind I divided the engineering costs into two sections. The estimate for the proportionate part of the total which Mr. Biddison used in his part of the appraisal is developed in detail in Volume 7, concerning which I am now testifying.

Q. You first evaluated General Engineering Costs, have you, without reference to the engineering records?

A. That is correct.

[fol. 1338] Q. Well, what do you mean and understand by the term "General Engineering Costs"?

A. This estimate is intended to include the fees and expenses of any consulting engineers, who might be required —and they would be required—in connection with the reproduction of Lone Star Gas Company, the salaries and expenses of the Chief Engineer, Office Engineer, Assistant Engineer, draftsmen, designers, photostat and blueprint operators, clerks and stenographers, from the date of the incorporation of the company until such time as the permanent engineering records in possession of Lone Star Gas Company as of January 1, 1933, would be completed. Now, that statement covers both the general and final engineering records. In addition to that, we have to provide for the cost of all supplies of office men, which, as I have previously testified, has been taken care of in the item of Other General Costs, such as telephones, long distance tolls, telegrams, automobile insurance; bonding expenses on the group of engineers not covered by the previous estimate of bonding expenses, furniture and fixtures, tools and equipment which would be used in the engineering work. All of those are items which have to be taken into consideration and have been taken into consideration in making an estimate of General Engineering Costs. This estimate does not include, however, engineering costs which would be incurred prior to the incorporation of the company: I testified previously that the originators of a project such as Lone Star Gas Company would of necessity be required to have an engineering report before they could proceed. [fol. 1339] This report would be made during the preliminary and organization period and would merely represent an estimate, as I testified previously, of the General Engineering Costs and of the market which could be served by the company. Now, there is no duplication between the inclusion of that expense as a part of the preliminary and organization expenses and the estimate which I have made relative to the General Engineering Costs. There is no inclusion in this estimate of special fees which would be paid for certain structures, such as the building itself, the office building, which would include an architect's fee. I have made no inclusion of that cost nor of certain fees for the design of certain structures, exemplified by the suspension bridges, which expense has been included in Mr. Biddison's estimate.

Q. Now, Mr. Connor, it would appear that the total of your estimate of General Engineering Costs, as summarized on page 233, and the total of your reproduction cost of final engineering records, is approximately one million nine hundred thousand dollars?

A. You mean the sum we paid?

Q. Yes.

A. That is correct.

Q. What would be the sum as applied to the total of the direct structural costs as determined by Mr. Biddison—that is, what would be the percentage relation?—would it be somewhat less than four per cent?

A. I don't recall just at this time what Mr. Biddison's [fol. 1340] final figures were on that.

Q. Approximately fifty million dollars.

A. It would be less than four per cent. That includes final engineering records as well as General Engineering Costs.

Q. Now, Mr. Connor, from your experience as an engineer, what is the usual engineering fee paid to competent engineering firms for general engineering costs and final records in connection with projects of this character?

A. The general fee charged for such work is five per cent of the direct structural cost.

Q. And do engineers and engineering firms who are competent to do work of this character generally expect, demand and receive a fee of at least five per cent covering the direct structural cost of the enterprise?

A. That is correct.

Q. Your evaluation of the General Engineering Costs, including cost of final engineering records, is somewhat less than four per cent?

A. That is correct.

Q. On page 235 of Volume 7 of Defendant's Exhibit 28 have you set forth an estimate organization chart?

A. I have.

Q. Showing the personnel of the men who would be engaged in engineering work?

A. Setting out the men by title as to their respective duties and the relative responsibility of the various groups of men who would be employed in this work.

[fol. 1341] Q. Did the Lone Star Gas Company have as of January 1, 1933, and does it now have an engineering

organization which corresponds in all essential particulars to the organization which you have charted on page 235?

A. That is correct.

Q. I believe you have stated in a general way, Mr. Connor, what would be the work of the Engineering Department in respect of the general engineering. I will ask you if you set forth the organization plan and duties of the section and an analysis of the work done by the several men, commencing at the bottom of page 239 of this exhibit?

A. That is right. I do.

Q. Now, Mr. Connor, in what manner have you proceeded to make an estimate of the General Engineering Costs which would be incurred from year to year during the construction of the Lone Star Gas Company property?

A. The first thing I did was to determine what would be a logical construction program in order to reproduce the property of Lone Star Gas Company; in other words, I took the markets that Lone Star Gas Company now has; I took the gas fields from which Lone Star Gas Company now secures its supply of gas; I determined that amount of construction could reasonably be done within one year, and then I applied this construction to the construction of such lines as a man experienced in the natural gas business would construct during the first year of the reproduction of this property, having in mind that it would be important and [fol. 1342] reasonable to reach the larger markets of the company as quickly as possible.

Q. What do you mean by "larger" or "major" markets of the company?

A. I mean the cities of Dallas, Fort Worth, Wichita Falls, Abilene and Waco. I conferred with the construction organization of Lone Star Gas Company and Mr. Biddison and Mr. Elmer Schmidt, Superintendent of Lone Star Gas Company, and with Mr. F. L. Chase, General Manager of Lone Star Gas Company, and tested my judgment against theirs with reference to what would be a logical program of construction for each of the three years which I have ascribed to the construction program and upon which I base my estimate, and I have set forth on page 246 of this exhibit an outline of the program which, in my opinion, would be constructed during the first year after construction started. On page 340 of Volume 7 of Exhibit 28 I show a map similar to the one shown on page 346.

Q. 246?

A. 246, which outlines the development of the construction program at the end of the second construction year. On page 412 of Volume 7 of Exhibit 28 I show the completed plan, which represents the situation which, in my opinion, would exist at the end of the third construction year. Having then set out the various items of property which would be constructed during each of the construction years, I then went to the Engineering Department of Lone Star Gas Company and made a detailed estimate of the time that [fol. 1343] would be required on the part of computers, inventory men, designers, draftsmen, photostat operators, and other men who would be employed in the designing of these various items of property, by years. These estimates were made with great detail. The basis for the estimates was the actual performance of men in these departments doing that particular kind of work. Records have been kept of how long it takes a man to do certain classes of drafting; records have been kept of how long it takes a computer or inventory man or a designer to do certain classes of designing. If the Petrolia compressor station appeared in the first year's construction program, a detailed estimate was made of the amount of time which would be required to design that station and prepare the preliminary plans necessary for the construction of the station and to prepare final plans after that station had been completed. That was done with every single item of property in the Lone Star Gas Company system. Now, it was estimated that the engineering work would take four years; six months of it would be in advance of the actual construction period. It is perfectly obvious that plans and designs would have to be made of this property before any orders could be placed for any of the material with which to build it. Therefore, three years of engineering would be concurrent with the construction of the property itself, and there would be a lag of six months after the completion of the property in order that the final engineering checks [fol. 1344] and records might be made complete. Now, that schedule which I have attempted to describe is shown graphically on page 236 of Volume 7 of Exhibit 28, and it is shown that the preliminary engineering would last three years, but that the final engineering and preliminary engineering would coincide only during two years; in other

words, the last year of engineering would be the third year of the final engineering, and the first year of the engineering would be the first year of the preliminary engineering. When I say "preliminary engineering" I mean the engineering which would be required to furnish the information necessary to construct this property and to supervise this construction from an engineering standpoint. The final engineering that I refer to is the information and costs which would be necessary in order to prepare the final engineering records of the company. Now, when it came to the question of the final engineering records of the company, there was something that existed as a matter of record. Those final engineering records were checked in detail, and they are set out in detail in this book, from engineering records which Lone Star Gas Company now has in its possession, and a detailed study was made of the time required to reproduce those records, and the basis for it was the actual time incurred in making engineering and similar records. Now, there is a distinct difference between the preliminary records and the final records. Sometimes the preliminary records and the records necessary for the construction of the property are more elaborate and more in detail than the final records, and in some cases the con- [fol. 1345] trary is true, the final records being more elaborate than the preliminary records. As an example, if I should have here at this time a detail of the final plans of the Joshua compressor station, among the number of sheets of intricate drawings detailing every single item which is in that compressor station drawn to large scale and to small scale, I would have one page which set out a plan of the cottages at the Joshua compressor station. Now, it is probable that the plan of these cottages—there are five of them—would be on a couple of sheets in these final records, because it would merely show the floor plan and front and side elevations of the cottages. Now, the preliminary record of the Joshua station might require a complete set of plans and specifications; and that is true of a great many of the structures and buildings and equipment and so forth of Lone Star Gas Company, that a large amount of detail work and large scale drawings and a number of prints were required for the preliminary engineering and that a lesser amount of detail was required for the final record; but in each case each individual station was studied for the pur-

pose of determin-g the amount of time required for the design, preparation of the inventory, and every other step which would be involved in preparing the engineering for the company's property.

Q. Mr. Connor, do we find set forth, commencing with page 233 and ending with page 531 of Volume 7 of Defendant's Exhibit 28, your detailed estimates of General En-
[fol. 1346] gineering Costs evaluated by you at $1,127,-661.00, and your detail of the reproduction cost of final engineering records at $765,690.35?

A. I didn't get that page, Mr. Griffith, that you said ends that detailed study.

Q. Page 531—going through page 531, and commencing at page 232.

A. Yes, sir.

Q. Now, as stated in the footnote at the bottom of page 234, the reproduction cost of the final engineering records evaluated by you at $765,690.35 has been included as a part of the structural costs and is included in Volume 1 of Defendant's Exhibit 28?

A. That is correct.

* * * * * * *

[fol. 1347] Q. Mr. Connor, please refer to page 532 of Volume 7 of Defendant's Exhibit 28. What appears on that page?

A. That is a general summary of the estimate of the costs of General Supervision During Construction.

Q. Now, what are these General Supervisions Costs which you have summarized on page 532?

A. They consist of the salaries and expenses of the General Superintendent and his office organization; the expenses of the Superintendent of Plant and Equipment and his organization; and the expenses of the Supervisor of Safety and Medical Examination. These supervisory charges have been segregated from the other supervisory charges for which I have made an estimate. They are general in their nature, and do not permit of allocation to specific property accounts, and for that reason have been treated as general items of supervisory costs. There are certain other super-
[fol. 1348] visory costs, the summary of which is shown on page 537 of Volume 7, Exhibit 28. These supervisory costs can be allocated to specific property accounts; for instance,

the general supervision of construction applicable to pipe lines; the general supervision of construction applicable to compressor stations; the general supervision of construction applicable to telephone lines and equipment; the general supervision of construction applicable to the drilling of wells. Those supervisory costs are capable of being allocated to specific property accounts, and I have, therefore, set them up, and they have been used by Mr. Biddison in connection with his reproduction costs of the physical property of Lone Star Gas Company. They are set out in summary form and in detail in this section of the report of the exhibit; but they are not included in any of the figures which I have used as general and undistributed costs.

Q. Now, several times—in fact, numerous times during the testimony of Mr. Biddison, in his development of unit costs of construction, and in his breakdown of those unit costs, Mr. Biddison made allowances, sometimes expressed as a percentage, covering supervision. Is there any duplication in the unit costs developed by Mr. Biddison, which embraces an allowance for supervision, and the supervision costs which you have set forth commencing at page 532, of Volume 7, of Exhibit 28?

[fol. 1349] A. No, there is not; nor is there any duplication with reference to expenses or costs of supervision set out on page 537, of Volume 7, of Exhibit 28. That is true for this reason: Mr. Biddison, in making his estimate of the direct structural costs of the various items of physical property, included in his inventory, stopped those estimates of cost with what is termed the job foreman. In other words, the foreman directly responsible on the job for the construction of the work was the last individual included by Mr. Biddison in his estimate of direct structural costs. Necessarily, in the construction of a property of this type, and as would be found in the reproduction of the Lone Star Gas Company's property, general supervision would be required. That is, a man of wide experience and training would be in charge of the entire work of constructing the pipe lines. He, in turn, would have to have assistants in his office, for in his office would be kept the records of the progress of the work, and other matters that would require clerical help. In addition to this general superintendent of construction, be it for pipe lines, compressor stations, or telephone lines, division superintendents would be required. These divisional super-

intendents would remain in the field and have responsible charge of certain sections of the work which would be under construction at any given time. Now, Mr. Biddison made no provisions for either the salaries, expenses, or help, or any [fol. 1350] of the costs which would be assignable to those particular men; and it is those men, and their expenses—their traveling expenses, their automobile expenses, their office expenses, such as telephones, telegrams, and so forth, supplies, and stationery, and things of that sort—which I have included in this estimate. As I stated before, having determined those figures for the supervisory costs which could be specifically allocated, Mr. Biddison accepted those estimates and incorporated them into his appraisal of the physical property.

Q. Now, Mr. Connor, this general supervisory organization, the costs of which you have evaluated, was that the type and character of organization which the Lone Star Gas Company actually had when carrying on a considerable amount of construction work?

A. It was.

Q. Comparable in all essential respects to the general supervisory organization which you have outlined, and for which you have made estimates of costs, as set forth in Volume 7 of Exhibit 28?

A. That is true, with this difference: That during the time the Lone Star Gas Company was engaged in a construction program, each of these men who had responsible charge of the construction of those lines was also responsible for the operation of the property. For instance, Mr. Vandercook, Superintendent of pipe line construction. Mr. Van- [fol. 1351] dercook still holds that position in the Lone Star Gas Company's organization, even though there is no pipe line construction under way. It is necessary that he be there, and it will always be necessary for such an individual to be a part of the organization.

Q. He is an actual construction engineer, as well as operating man?

A. Yes; in connection with the pipe line. The same is true with Mr. Rogers, in connection with the compressor stations of the Company. Yet, if the property were in construction only, and not in operation as well, these men would be required just as truly, and all of their time would be required for the supervision of construction.

Q. What is included under your description of Safety and Medical Department work, or Department of Safety and Medical Examination?

A. That is a division of the Company's organization which functions for the purpose of reducing casualties and accidents; and is also responsible for the selection of men who are sound in body. Such an organization would be essential in the reproduction of the Lone Star Gas Company, and such an organization is actually maintained by the Lone Star Gas Company.

Q. At this time?

A. At this time, yes.

Q. And has been maintained for a number of years?

[fol. 1352] A. That is correct.

Q. Now, Mr. Connor, do we find set forth at pages 532 to 574 a complete detail of your evaluation of the general supervision costs which are either allocated to the physical property in connection with the direct costs, or which continue to exist in the appraisal as undistributed general costs?

A. That is correct. The report from page 532 to and including page 574 sets out every detail necessary in order to determine each step that I have taken in making this estimate. The responsibility of each man is clearly set out; the number of men that would be required is clearly set out; and the incidental expenses in connection with their work are also clearly set out.

Q. Now, Mr. Connor, throughout your development of the undistributed and general costs in connection with Volume 7 of Defendant's Exhibit 28, and also in reference to Preliminary and Organization Expense therein set out, you have used certain allowances for salaries and wages for particular individuals performing particular work?

A. That is correct.

Q. And have you endeavored to use salaries and wages paid by the Lone Star Gas Company as of January 1, 1933, or as of the present time, or as of any recent period?

A. In a great many cases—I would say in most cases, the wages and salaries which have been assigned to the various [fol. 1353] individuals included in the estimate are the actual salaries and wages which Lone Star Gas Company has been and is now paying its regularly employed men. In some cases I have given consideration to the fact that the men who would be engaged in this work of reproducing this property

would only be employed temporarily and would not be permanently employed. I have also given consideration throughout to the tremendous responsibility which would be imposed on certain individuals during a three or a three and a half year program which involved the expenditure of approximately sixty or sixty-five million dollars.

Q. And to that extent has there been some departure from salaries actually paid?

A. That is correct. Now, in connection with a number of the estimates of the time required to do certain things, particularly in connection with the estimate of the time required to prepare engineering records, make designs, and make computations, no consideration has been given, and of course, no consideration could have been given at the time the estimate was prepared to the effect to the Lone Star Gas Company's compliance with the terms of the National Recovery Act.

Q. Mr. Connor, please refer to Volume 8, of Exhibit 28. Prior to page 1 in that volume there appears a heading: "The Relation Between Interest and Taxes During Construction and Fixed Charges on Inactive Plant (In Opera- [fol. 1354] tion) During the Construction and Development Periods." What do you mean and intend and understand by that phrasing?

A. I mean by that, that there is a close definite relation between the capital costs of interest during construction and the capital cost of taxes during construction, and the capital cost represented by fixed charges on a property which passes from what is called "construction" into "operation," and at which time the proportionate part of the plant which would actually be operated will be relatively small to that portion of the plant which will ultimately be operated. I have set out on pages 1 to 15, inclusive, a discussion of that relation, in order that the subsequent sections of the estimate may be more readily understood.

Q. Mr. Connor, take a private structure, such as a building, or any construction project which would be built over a three-year period, would taxes paid to city, county, and state authorities on that building during the course of construction, and would interest paid on the money invested or used up or expended for labor and materials during the period of construction, be a proper part of the ultimate cost of that structure?

A. That is true; they would. Those expenditures are recognized as part of the costs of constructing the particular property under consideration; and that is true of interest during construction, whether that interest cost represents an out-of-pocket expenditure on the part of the one constructing [fol. 1355] the property, or whether it represents a deprivation of earnings on the money of the builder tied up in the construction and for the construction period.

Q. At pages 16, 17, and 18, of Volume 8, Defendant's Exhibit 28, have you set forth a map showing the development of the construction work at the end of each of the three construction years?

A. I do.

Q. And are these the same maps, Mr. Connor, which are set forth in connection with your undistributed general costs estimates in Volume 7 of Exhibit 28?

A. They are identical. They are repeated—are included, rather, in this volume, for the reason that they give the basis for the determination which I have made of the money which would be expended during each of the construction periods. I think I stated early in my testimony that it would be necessary in order to make a rational estimate of what the cost of interest and taxes during construction would be to make a determination of when and in what amount money for construction and other costs would be required. That was the reason, in the development of the general and undistributed costs, I divided those costs into annual expenditures, so that, in addition to the costs of the physical property which would be involved in any one construction year, I would also have a definite idea as to how much money would be required each year for the general and undistributed costs. Now, the con- [fol. 1356] struction involved in each of the years shown by the three maps on pages 16, 17, and 18, of Volume 8, Exhibit 28, reflects certain items of property for which Mr. Biddison made estimates of costs in his portion of this reproduction cost estimate. Now, in order to ascertain just how much money would be spent during the first construction year, I have analyzed in detail the items included in the maps showing each construction year, and have determined from that analysis the amount of money which Mr. Biddison estimates those particular items would cost. I also went a step further, and in addition to making an estimate of what monies would be required for the work which would be done in each of the

construction years, as well as the six months period prior to construction, I made a classification of these expenditures by investment accounts, for the purpose of making an estimate of taxes during construction, because taxes will be levied on property in a manner somewhat different from the way in which interest will accrue on expenditures. Interest will accrue on money tied up in every phase of the construction, whether it be general undistributed charges or direct structural charges; but in the case of taxes, which would accrue during the construction period, taxes would be largely confined to the physical property, as distinguished from the general and undistributed charges.

Q. Have you set forth, Mr. Connor, at pages 28 to 51, in- [fol. 1357] clusive, a detail of the reproduction costs by construction periods covering transmission, tap, and gathering lines, and compressor stations?

A. I have, for each year of the first, second, and third construction years. If the exhibit is examined, it will be found that the line designations used by Mr. Biddison, which are reflected by the construction work indicated by the maps on pages 16, 17, and 18,—that the actual cost of those items as reflected by Mr. Biddison's exhibit is set out in detail.

Q. Referring specifically to the map on page 16, Mr. Connor, do we find that Line B, extending from Petrolia to the northern part of the City of Fort Worth, is shown to have been constructed during your first construction year?

A. Yes; Line B is.

Q. And if we refer to page 33, of Volume 8, Defendant's Exhibit 28, do you show the total costs of construction of that line, as far as direct structural costs are concerned, in the amount of $1,366,347.97?

A. The total shown on my copy is $1,381,217.39.

Q. At what page, Mr. Connor?

A. Page 33—Line B and B taps.

Q. Line B and B taps; but Line B proper is shown to be $1,366,347.97.

A. No; I think that would include certain taps, and would be what we call the B System as distinguished from Line B. [fol. 1358] Q. But all of which would be constructed in the first construction year?

A. Yes, sir; or at least that portion of such tap lines as I have set out would be constructed are included in that figure. If you will notice, Mr. Griffith, as the pages progress

from 16 to 18, that the number of taps which are constructed on Line B increase from year to year. In other words, it is not contemplated that all of the towns on Line B would be connected at the end of the first construction year; but with that modification, what you say is correct.

Q. On page 24, of Volume 8, Exhibit 28, do you show a schedule of Distribution of Expenditures by Periods?

A. That is correct. That schedule, which extends from page 24 to and including page 27, accounts for the expenditures I have included in the Direct Structural costs, General and Undistributed Costs, Taxes During Construction, for each of the construction periods which I have used—that is, the pre-construction period, the first construction year, the second construction year, and the third construction year. Pages 24 and 25 take into consideration the Direct Structural Costs; for instance, on page 24, is shown that the Transmission System, the direct Structural Costs of which were estimated by Mr. Biddison to be $34,096,799.00, are distributed as follows: The first construction year, $13,436,305; the second construction year, $13,690,145; the third construction year, $6,970,349.00. Now, if those yearly [fol. 1359] amounts were checked back against the lines shown to be constructed in each of the three years, it would be found that they would check exactly with Mr. Biddison's estimate for the cost of reproducing those lines. Now, certain items have been assigned to the pre-construction period.

[fol. 1360] Q. That is, before there was any construction work actually started?

A. That is correct. I have taken a part of the gas reserves as shown on page 25. The gas reserves are shown as $2,681,689.00. I show that half of those gas reserves would be acquired prior to or during the pre-construction period; and that is explained by the testimony which I have previously given, that the men who originated this project would be required to show in hand at least one-half of the gas reserves of Lone Star Gas Company at the incorporation of the Company. The balance of the gas reserves, I have estimated, would be acquired uniformly during each of the three succeeding years. All of the items which I estimate as part of the preliminary and organization expenses of the Company are ascribed to the pre-construction period, because all of those expenditures would be made

prior to the incorporation of the Company. The Administrative and Legal Expenses, which I have explained this morning, Executive Section, Legal Section, Accounting Section, Treasury Section, Land Section, Geological Section, Purchasing Section, are placed in their respective year in the amount previously determined in Volume 7 of Exhibit 28; and we now reach the point in my exhibit which indicates the necessity for having made that breakdown of [fol. 1361] expenditure by years in each of those administrative groups. The engineering cost by years was based upon the actual estimate of the engineering work which would be required by reason of the program set out each year on the maps which I have previously discussed. Now, the question of Taxes during Construction and the question of Interest during Construction require a certain step which is not disclosed by the tabulation shown on pages 24 to 27, inclusive, but is described fully, beginning on page 19.

Q. Please proceed with that development of your construction expenditures by years to the determination of Taxes during Construction and Interest during Construction.

A. Page 21, Volume 8, Exhibit 28, shows under the heading Taxes during Construction, that the taxable expenditures by years were $3,049,057.00 during the pre-construction period, or prior to the pre-construction period, a substantial proportion of that figure being the cost of Leaseholds Developed and Undeveloped, of $20,519,270.00 for the first construction year, $17,485,239.00 for the second construction year, and $9,128,368.00 for the third construction year,—showing a total of $50,181,934.00. Now, those are the items or amounts of property which I have used in the estimate of Taxes during Construction. They represent [fol. 1362] the outlay for physical property, as distinguished from Expenditures for General and Undistributed Costs. Now, when you make the calculation of what your interest costs will be during the construction of this property, all expenditures are necessarily included, and that means that the General and Undistributed Costs, which I have allocated to each year, must be added to the physical costs which are subject to taxation during construction. That is shown on page 22 of Volume 8 of Exhibit 28, and the total is $59,512,984.00.

Q. Did you then make calculations of the amount of property that would pass from construction, or being completed,

as far as construction is concerned, would pass into service at the end of the first and second construction years?

A. That is true. I first wanted to determine what proportionate part of the expenditure during the pre-construction period should be allocated to the property passing into service at the end of each construction year, and I made a calculation which gave me the ratio of the property cost for each construction year, to the total property constructed in the three construction years, and having determined the ratio of the total property which was constructed in each of the construction periods, I applied that ratio to the total expenditures in the pre-construction period and thereby de-
[fol. 1363] termined the amount of expenditures in the pre-construction period which would be attributable to the first construction year, the second construction year, and the third construction year.

Q. Showing what percentages for the respective years?

A. 43.09 per cent for the first year; 36.73 for the second year; and 20.18 per cent for the third year. Now, those percentages would then apply to the $6,895,832.00 which represented the pre-construction costs, and the resultant sum then added to the actual construction costs and general undistributed costs incurred during each of the construction years.

Q. Now, Mr. Connor, the matter of these percentages is, of course, difficult to follow.

A. That is correct.

Q. But may we do this as illustrative of your method—let's assume a property that was going to be built over a period of three actual construction years, and all of the work was going to be done within those three years, that would involve any preliminary work, as well as post-construction work, and the property was to cost $60,000,000.00, and $20,000,000.00 would be expended in each of the three years. Would it then be true that you would have a percentage relationship of 33 1/3 per cent for each of the three years?

A. That is correct. Now, the reason that I took the step
[fol. 1364] which I have attempted to explain, is that at the end of the first construction year I estimated that all of the property which was constructed during the first construction year will cease to be property under construction, but will pass into operation. Now, some part—some propor-

tionate part of the money which is expended in the preliminary development period will be attributable to that part of the property; in other words, that part of the property which goes into operation at the end of the first construction year should carry with it into operation some proportionate part of the expenditures made prior to the beginning of construction, and it was this determination which I have made and which I have attempted to explain.

Q. That, then, Mr. Connor, constituted the basis for your determination of taxes during construction and interest during construction, in so far as the percentage relationship was concerned to the amount of expenditures in the total of the years?

A. That is correct; except that in the matter of taxes during construction it was not necessary to make any such calculation, for the reason that a substantial part of the expenditures made prior to the beginning of construction would not be property and generally considered subject to taxation.

Q. Now, Mr. Connor, did you use any factual basis for [fol. 1365] the determination of taxes during construction?

A. I first made a determination of the actual ad valorem taxes which Lone Star Gas Company had paid during the year 1932. Now, such taxes as would be incurred in the reproduction of Lone Star Gas Company would include all State, County, Township, City, School, Road, Annual Franchise Tax, and all other taxes that would be levied and paid on the property of the Company during construction, except special benefit assessments and such taxes as would grow out of the operation of the property.

Q. By "taxes growing out of the operation of the property" do you refer to gross receipts taxes——

A. Gross receipts taxes.

Q. Or gross production taxes.

A. That is right. Of course, the property under construction would have no gross receipts, nor would it have to pay gross production taxes on gas that was not delivered. Lone Star Gas Company paid or accrued in the year 1932, $299,676.00 of ad valorem taxes; it paid corporation license fees of $3,395.00 in the State of Oklahoma, and franchise taxes of $17,784.00 in the State of Texas. These amounts, as I have stated before, include the ad valorem taxes and the license fees and franchise taxes paid altogether by Lone Star Gas Company. Now, Lone Star Gas Company——

Q. That totals what amount?

[fol. 1366] A. Well, I haven't the total of it, Mr. Griffith. It totals something in excess of $320,000.00. Now, Lone Star Gas Company owns and operates certain items of physical property which may not be defined as public service property, and for that reason the taxes paid—the proportionate part of total taxes paid by Lone Star Gas Company on the property which is not public service property should not be included in this estimate. I made a study of the proportionate part of the property of Lone Star Gas Company representing non-public service property to the property included in the inventory, and it was found that of the property included in the inventory, that that property was 96.4 per cent of the total property, or that the taxes which Lone Star Gas Company paid or accrued, attributable to public service property, was 96.4 per cent of the amounts which I have heretofore set out. I then applied that 96.4 per cent to the taxes actually paid for the specific purposes that I have enumerated, and found that the ad valorem taxes were then $288,888.00, franchise taxes paid, Texas, $17,144.00; corporation license fees, Oklahoma, $3,273.00, or a total of $309,305.00. Now, included in this tax payment is $6,851.00 for taxes on the general office structure, $288.00 for taxes on other land owned and used by the Company in connection with its general office structure, and on the furniture and fixtures of the [fol. 1367] Company, $346.00. Now, these items of expense —these taxes I have just mentioned, have already been included in Volume 7, as part of Other General Costs.

Q. In other words, they were a part of the cost of the operation of the office building?

A. That is correct, and they have already been included in this estimate. So it is proper, then, to deduct from $309,305.00 the sum of $7485.00, which is the sum of the three items which I have just explained, which leaves a total of $301,820.00 as the annual tax factor which I have used in the calculation of taxes during construction.

Q. Now, Mr. Connor, having determined that $301,820.00 was the proper annual taxes which the Company had been paying in connection with its public service property, exclusive of the general office structure and the land on which it is located, and the adjoining land, and also furniture and fixtures—how did you proceed to make your estimate of taxes during construction?

A. There were four factors to which I gave consideration, one of which I have just explained, and that is the total taxes attributable to the property which have been paid on the completed plant at this time, which are, of course, the taxes now paid by Lone Star Gas Company; the second item is the rate at which the property subject to taxation [fol. 1368] would be constructed; the third item is the date at which the construction is estimated to have been started; the fourth item is the rate at which the property subject to taxation in construction would pass into service during the construction period.

* * * * * * *

Q. You are referring now to Defendant's Exhibit 36, Mr. Connor?

A. That is correct. It will be noted that on the top of each of the stairstep lines, which correspond to the fourth year and the fifth year and the sixth year, that 43.31 per cent of the plant is estimated to have passed into service; and, of course, no taxes during construction would accrue on that part of the property which has passed into service.

Q. That is, taxes which would be a proper capital item?

A. As taxes during construction.

Q. Yes, sir. The taxes would be paid, but on the portion that had passed into service that would be a charge against the operations?

A. That is correct. No, sir; I don't think so, altogether. It will be noted at the fifth year that 79.96 per cent of the plant is estimated to have passed into service, and that at [fol. 1369] the sixth year 100 per cent. Well, now, that fourth, fifth, and sixth years there correspond to the second and third construction years—that is, the fourth and fifth years. So it will be noted that I have estimated that a very substantial part of this property, as it is being built, will go into operation or into service, and taxes during construction will then cease on that proportionate part of the total reproduction cost which has passed into service. I have already explained how I arrived at the taxes actually paid by Lone Star Gas Company, in the sum of $301,820.00. I have also explained how the physical property would be constructed, and how the many expenditures would be made during the pre-construction and first construction, second construction, and third construction years.

If reference is made to page 55, Volume 8, Exhibit 28, it will be noted that of the expenditures subject to taxation, 6.08 per cent are attributable to the pre-construction year, 40.89 per cent to the first construction year, and 34.84 per cent to the second construction year, and 18.89 per cent to the third construction year.

Q. 18.19, isn't it?

A. 18.19 to the third construction year. Now, I have estimated that this property will be started in the middle of the year. It would be possible by juggling the time you [fol. 1370] have assumed to have started this plant to materially affect what the taxes during construction would be. I have taken what I think is the fair and reasonable position, and that is that the property would be started in the middle of the year.

Q. By "the middle of the year", do you mean July 1st, Mr. Connor?

A. That is correct. On page 57 there is shown the method by which I finally made my calculation of taxes during construction. The pre-construction period, which I assume to last six months, is begun on January 1st, bringing the beginning of construction up to July 1st. Now, the property which would be subject to taxation as of July 1st, which would be the beginning of the first construction year, has been estimated to be $3,049,057.00; during the first year physical property to the extent of $20,519,270.00 would be constructed, bringing the total expenditures, including the pre-construction expenditures to $23,568,327.00. From that I deduct one-half of the expenditures for the first construction year, for the reason that those expenditures will be made subsequent to January 1st of the first construction year.

[fol. 1371] Q. And, of course, the property is taxable as of January first?

A. That is correct. That leaves the amount taxable as of January first, which would be in the middle of the first construction year, of $13,308,692.00, or 26.52 per cent of the total taxable property. Now, the steps which follow are similar, with this difference: Consideration is given during the next period to the amount of property which passed from construction to operation. We found that the taxable expenditures in the pre-construction period were $3,049,057.00. The taxable expenditures for the first construction year were found to be $20,519,270.00, and for the second

construction year $17,485,239.00, or a total of $41,053,566.00. Now, from that should be deducted, for the reasons previously explained, one-half of the expenditures during that period of construction year, because, just as in the previous year, January first would come in the middle of the construction period. Now, of that property, $23,568,327.00 worth is estimated to have passed into operation. Therefore, it must be added to the eight million plus which I have just mentioned, making $32,310,947.00, which, deducted from $41,053,566.00, leaves $8,742,619.00 as representing the reproduction cost of the property subject to taxation during the second construction year, and that represents 17.42 per cent of the total taxable property. The steps which follow simply determine the percentage of the total taxable property which will be under construction during each of the years of the construction period. The total of those percentages is then applied to $301,820.00, which is the taxes [fol. 1372] actually paid by Lone Star Gas Company on one hundred per cent of its property in order to make an estimate of what the taxes during construction would be. The first construction year percentage was 26.52 which, applied to the amount actually paid by Lone Star Gas Company, would result in $80,042.00. The percentage for the second construction year was 17.42 per cent, which, applied to $301,820.00, resulted in an estimated cost of taxes of $52,577.00. The percentage for the third construction year was 9.10 per cent, which, applied to $301,820.00, resulted in $27,466.00. The estimated tax during construction which would accrue and would be paid subsequent to the completion of construction is 4.55 per cent, which, applied to $301,820.00, resulted in $13,733.00. The sum of those figures is $173,818.00, which is my estimate of what taxes—ad valorem, franchise, and corporation license fees—would be paid by Lone Star Gas Company if the property should be reproduced as of January 1st, 1933.

Q. And if we look at page 71 of Volume 7 of Exhibit 28, Mr. Connor, do we find that you have carried over in the general summary of the undistributed general cost the amount so determined for taxes during construction of $173,818.00?

A. That is correct. Now, it will be noted that I have made an estimate of what those taxes would be during each of the construction years. Now, the reason for that is that it would be necessary, just as it was necessary to find out

how much money you spent for everything else during each of the years, in order that you might make an estimate [fol. 1373] of the sum of money upon which interest during construction would accrue, because you would have to pay or you would be out of pocket the interest, of course, on the money which you paid for your taxes attributable to construction.

Q. And does the item of interest during construction, evaluated by you at $4,975,933.00, appear as the last item under Undistributed General Cost on page 71 of Volume 7 of Defendant's Exhibit 28?

A. That is correct. That is substantially the largest item included under the heading Undistributed General Cost.

Q. Mr. Connor, as used in your estimate, what do you mean, intend and understand by the term "interest during construction"?

A. As used in this estimate of the reproduction cost of the property and business of Lone Star Gas Company, interest during construction is intended to cover the cost of interest on all expenditures which would be made in connection with the reproduction of the corporate entity and the physical property, together with the expenditures for Undistributed General Cost from the date of the incorporation of the company until such time as the property items represented by these expenditures would pass from construction into operation.

Q. Is that the generally accepted engineering and accounting definition for "interest during construction"?

A. It conforms in every particular to the generally accepted definition of that term. The generally accepted definition of the capital item "interest during construction" [fol. 1374] is set out in the classification of investment in road equipment on some roads prescribed by the Interstate Commerce Commission. This definition has been followed in practically all uniform classifications of accounts prescribed by regularly bodies.

Q. Now, what were the factors which you took into consideration, Mr. Connor, in the determination of your estimate of interest during construction?

A. The first factor is, of course, the factor of time—that is, the time assigned to the pre-construction, the construction, and post-construction periods, because, of course, interest is controlled both by the rate and by the time at which the money draws or is deprived of the use of in-

terest. The second factor after time is the rate of interest itself, and it would be necessary in order to make this estimate to first develop the period of time; second, the rate of interest which would be fair and reasonable in the premises. The third item is the requirement which would be made of the people who are using the money with reference to the manner in which the money would be advanced at stated intervals.

Q. You said "the people using the money". Did you mean the people lending the money? That is apparently [fol. 1375] my error, Mr. Connor. That is, the requirements of the users of the money by the people who were advancing the money?

A. Yes, sir; that is correct. My answer was correct, but it was somewhat awkward; but that is the purpose and intent of my answer—that is, requirements imposed by the people who would furnish the money as to the manner and rate at which the money must be taken by the people using it. The fourth item would be the amount which would be allowed on the unexpended balances.

Q. That is what we commonly know as interest on bank balances?

A. That is correct.

Q. Is that somewhat rare today, Mr. Connor?

A. Yes. The fifth item is the time at which expenditures would be made from the date of incorporation until such time as the expenditures would not be attributable to construction, but would be passed from construction into operation. That statement and the necessity for knowing the things set out in the statement is the reason for the great care and the large amount of work which I did in order to determine the amount of money which would be expended during certain periods of time and also the amount of property which would pass from construction into operation.

Q. And were you also concerned with the period when the property represented by those funds had passed from construction into operation?

A. That is correct.

[fol. 1376] Q. According to service?

A. Yes, sir, because immediately a piece of property passed from construction into operation the capital charge interest during construction ceases.

Q. Now, Mr. Connor, will you please state the respective considerations which you gave to those several factors in determining your estimate of interest during construction?

A. I have previously stated that the time at which interest during construction would accrue would be during the pre-construction period, the first construction year, the second construction year, and the third construction year. I have made no attempt to estimate the interest during construction which might be accrued during the post-construction period, for I assumed—and I think my assumption is exactly in line with what would happen—that the money required for post-construction expenditures would be secured during the third construction year.

Q. Now, you have assumed a three year period of construction?

A. That is correct.

Q. In the computation of your interest during construction, in the computation of Other General and Undistributed Costs, and particularly in connection with the determination of the amount of interest during construction?

A. That is correct.

Q. Would any variation of the construction period also serve to vary, either to lessen or increase, the amount of estimated interest during construction?

[fol. 1377] A. Yes.

Q. Have you ever seen any true reproduction cost appraisal, Mr. Connor, which does other than assume some fixed and definite wholesale construction period for that reproduction of property?

A. No, I have not.

* * * * * * *

Q. Mr. Connor, as engineers understand the term, does the term "estimate of reproduction cost" mean the use of a definite or fixed wholesale construction period?

A. That is my understanding of the intent and meaning of the term "reproduction cost new", and I believe that it conforms with the rule usually, if not always, used by engineers in making such an estimate. The result of using some different method can readily be understood by a simple illustration: Let us assume that we were going to make a reproduction cost estimate of the property of the Austin Gas Company. I think that an engineer would come in and reasonably estimate how long it would take to build the

Austin Gas Company, which would probably be a year and a half, or something of that sort. Now, the Austin Gas Company was actually built by little additions to its property very largely; in other words, I would say that, on the [fol. 1378] average, the length of time required in the actual historical building up of this property, to build any one of those items, would be probably two or three days. Then we would be confronted, if we took that avenue of approach to the problem of assuming a construction period of two or three days to build the Austin Gas plant, I think that it does not conform to or conform with what is intended by the term "reproduction new".

Q. Mr. Connor, you have described the six factors which you took into consideration in the computation of your estimate of interest during construction, and the first was the time assigned to the pre-construction, the construction, and post-construction periods?

A. That is correct.

Q. Now, what did you ascribe to the pre-construction, the construction, and the post-construction periods?

A. I assigned six months to the pre-construction period, three years to the construction period, and six months to the post-construction period.

Q. Well, that is in exact accord with your determination of general undistributed costs?

A. Yes, sir; that is correct. But in my estimate of interest during construction I did not give consideration to any interest that might accrue on expenditures made in the [fol. 1379] post-construction period. I simply included those expenditures in the money requirements for the third construction year.

Q. In connection with the second factor—that is, the interest rate to be paid—I will ask you if there has not been a considerable variation of interest rates over the period of the last five years?

A. That is true. The cost of money to natural gas companies has changed considerably in the last five years.

Q. Has the trend of money been upward or downward within the last five year period?

A. The trend of money—the trend of the cost of money for a project such as the reproduction of Lone Star Gas Company has been definitely upward.

Q. Did you give consideration to the actual conditions prevailing as of January 1, 1933, on interest rates for

money for natural gas plant construction in your adoption of the interest rate used?

A. I gave only a limited consideration to that factor. I believe that in reproduction cost estimates the cost of material prevailing at the time of the inquiry and for a reasonable period of time in the future, if such cost can be properly estimated, should be the determining factor in estimating the cost of reproducing physical property. If that is the proper rule—and I think it is generally conceded that it is the proper rule—it would seem that the cost of money at the time of the inquiry for the purpose for [fol. 1380] which this money would be used in reproducing the property under consideration should be given equal weight. I have not done so, however.

Q. Had you done so, what would have been the effect upon the rate of interest ultimately adopted by you for the computation of interest during construction?

A. It would have been higher than that which I have used.

Q. Did you give consideration to the financial structure of the company as estimated by you in your study, that fifty per cent of the money would be raised by first mortgage bond sales, twenty-five per cent by preferred stock sales, and the balance of the money to be raised by common stock sales?

A. I did give consideration to that financial structure, and for the reason that I believe that such a financial structure as you have just outlined would result in getting money at the lowest possible interest rates.

[fol. 1381] Q. Now, any other financial structi*on* would have, in your opinion, served to have increased the cost of money to the company?

A. That is correct.

Q. At the top of page 66 of Volume 8 of Exhibit 28, do you set forth the costs of money to the company for the various types of security issued?

A. That is correct, I do. Now, in estimating the cost of interest to the company, I have taken into consideration, and I think properly so, the amount which the company would secure from the sale of these securities. In other words, the discount which necessarily would be applied to the securities when issued. Now, in estimating the cost of financing, I think any consideration of that factor would have been improper, but in determining the interest rate

which you would have to pay for your money actually, you must take into account what you received on the face value of the security issued. If you issue a security which has a par value of $100.00 and the coupon rate on that security is six and one-half per cent, and of necessity you must sell that security at $90, then you will not be paying 6½ per cent for that money, but you are paying 7.22 per cent for that money.

Q. And may it properly be said that the discount is a function of the interest rate paid by the company?

A. To a large extent that is true.

Q. By determining the net cost of money to the company as applied to the sale of first mortgage bonds, preferred [fol. 1382] stock and common stock, did you finally determine that that net cost would be at the rate of 8.33 per cent per annum?

A. I did, and that is shown in the tabulation at the top of page 66, Volume 8, Exhibit 28.

Q. Did you adopt that for the computation of your interest during construction?

A. No, I used a flat rate of eight per cent per annum.

Q. Or .33 per cent less than the computed rate?

A. That is correct.

Q. Do you believe, Mr. Connor, that as of the date of this evaluation, that is January 1, 1933, or now, it would be possible to secure money for a new natural gas construction project at a figure of less than eight per cent per annum?

A. I do not believe the money could be secured at any less than that figure.

Q. And that holds true as of today?

A. That is correct.

Q. Now, in taking into consideration the several factors which entered into your computation of interest during construction, you mentioned the requirements of fiscal agents, or the underwriters of the financing. What would be the general nature of those requirements, which would impose a financial burden upon the company?

A. I think it would be a stipulation of the fiscal agents that the company assume the obligation of the entire issue at the time that the first money was required. However, I have not based my calculations upon this assumption, but [fol. 1383] I have estimated that the money requirements for any period which I have set out—that is, for one year—would be required for that entire time by the fiscal agents.

In other words, the company would be required to assume the obligation to take the amount of money which would be required for a one year construction period.

Q. In other words, say at the beginning of the construction year, if the company needed $20,000,000.00 for the ensuing year of construction, it would have to obligate itself to take that money and pay interest thereon from the commencement of the construction period, even though some of the money would not be used until the latter part of the construction year?

A. That is correct, and it would also be necessary that the provision for the entire amount be definitely arranged for prior to the beginning of construction, for the reason that an enterprise of this character, incomplete, would not be worth what it cost to build that much property. In other words, the people who would put money into a natural gas proposition of this kind, would want to know before it was started that the funds were on hand with which to finish it.

Q. In other words, to complete the entire plant?

A. That is correct.

Q. You say that you also gave consideration to interest on unexpended bank balances. Would that serve to reduce the interest rate paid?

A. It would.

Q. What consideration did you give to unexpended bank [fol. 1384] balances, and how would that affect the interest rate paid?

A. I estimated that seventy-five per cent of the total sum advanced at the beginning of any construction period would remain as an unexpended balance for three months; that fifty per cent would remain as an unexpended balance for three months and that twenty-five per cent would remain as an unexpended balance for three months. I have further estimated that interest would be earned at the rate of two per cent per annum on the amounts represented by these unexpended balances, and that such interest as would accrue from this source would be credited to the cost of interest during construction.

Q. And if the entire sum of money procured at the commencement of the construction period were carried in the bank balances upon which two per cent interest would be paid, the net cost of that money would be only six per cent per annum rather than eight per cent per annum?

A. During that particular period, for that particular proportionate part of the money.

Q. Now were there any exceptions, Mr. Connor, in your computation of the interest on unexpended bank balances, to the method which you have outlined?

A. Yes, one exception—and that is, for the money advanced during what I have termed the pre-construction period, because most of the expenditures which I have estimated would be incurred by the company during the pre-construction period were really expenditures made during the preliminary development and organization period, and [fol. 1385] therefore the company when it was organized would be required to immediately liquidate the cost of those expenditures, and in the amounts represented by the estimate of preliminary and organization expenses, and for that reason there would be no credit balances during the pre-construction period.

Q. Now what did you do with reference to the computation of interest during construction on those construction expenditures which were incurred in what might be called the post-construction period?

A. I included those expenditures, as I have stated before, in the expenditures for the last construction year.

Q. Now, Mr. Connor, with these factors in mind, how did you go about the method of the calculation of interest during construction?

A. The total sum upon which I estimated that interest during construction would accrue has been shown to be $59,512,984.00. This sum of money is divided by periods as follows: Pre-construction period, $6,895,832.00. Construction period, first year, $22,673,380.00. Construction period, second year, $19,326,719.00. Construction period, third year, $10,617,053.00. Now, if we take the expenditures made in the pre-construction period, and allocate them to the various construction years in proportion to the ratio of the expenditures for each construction year, to the total expenditures, we would find of the $6,895,832.00 which covers the expenditures during the pre-construction period, that $2,971,414.00 would be allocated to the first construc- [fol. 1386] tion year; $2,532,839.00 to the second construction year, and $1,391,579.00 to the third construction year. Now, the purpose of making those allocations is simply this: That *in* want to know the total over-all cost of the

property which passes into operation at the end of the first, second and third construction years, and I therefore want to know what portion or proportionate part of the preliminary and organization expense should be attributable to the property passing into operation at the end of each of those years. The calculation of interest during construction is as follows:

For the pre-construction period, which is six months, there is $6,895,832.00 at eight percent for six months, or $275,833.00. For the first year, we have $6,895,832.00 which has previously been explained, plus the expenditures for the first year, which is $22,673,380.00 or $29,569,212.00. That sum of $29,569,212.00 which is the sum of the expenditures for the pre-construction period and the first construction year, at eight percent for one year is $2,365,537.00. If we assume that there is a credit balance of 75 percent of this amount on hand for three months, and we credit the interest during construction charge with two percent on this money for this period, we have a credit of $110,885.00 for this item; and if we assume there is a credit balance of 50 percent of the $29,569,212.00 for the three months at two percent, we have a further credit of $73,923.00; and for the 25 percent, at two percent, for a three months period, we have still a further credit in the amount of $36,962.00 [fol. 1387] or a total credit of the sum of $221,770.00.

Q. Now, that represents the interest earned on unexpended bank balances?

A. That is correct, and that leaves a total net interest charge for the first construction year on the funds which would be required during the first construction year, plus the funds which had been previously expended, of $2,143,767.00.

Q. Now, in a similar manner, Mr. Connor, on page 69 of Volume 8 of Defendant's Exhibit 28, did you make a calculation of the net amount of interest during construction covering the second construction year and the third construction year?

A. Yes, with this difference: I made an allowance, or rather, a deduction for the value or the reproduction cost, rather, of the property constructed during the first construction year, plus the proportionate amount of the moneys expended during the preconstruction period, which amounted to $25,644,794.00 and which represented that

proportion of the total reproduction cost of the physical property, plus the general undistributed overheads and taxes, which I estimate would pass into operation from construction at the end of the first construction year. The total expenditures up to and including the second construction year are estimated to be $48,895,931.00, but as I stated before, the $25,644,794.00 which represents the reproduction cost of the property which would pass out of construction at the end of the first construction year, leaves a balance of $23,251,137.00, and on that basis, I have proceeded with the calculation exactly like the one which I made for the [fol. 1388] first construction year: That is, I multiplied that net amount of $23,251,137.00 by eight percent for one year, which resulted in an interest charge of $1,860,091.00. I then credited that total charge with two percent on the unexpended balances, determined in exactly the same way as I made the determination for the first construction year, which resulted in a credit of $174,384.00, and leaving a net charge for the second construction year, to interest during construction, of $1,685,707.00.

Q. Now, Mr. Connor, in a substantially similar manner did you compute the interest during construction for the construction period represented by the third year?

A. I did. And I found by following the same method —that is, deducting the property which passed into operation at the end of the first construction year, together with the property which passed into operation at the end of the second construction year, and similarly arriving at a credit to interest during construction by reason of two percent on unexpended balances, and I found the interest during construction charge for the third construction year to be $870,626.00.

Q. Mr. Connor, do we find a complete detail of your calculations of interest during construction and the basis upon which they are made, commencing at page 62 of Volume 8, Defendant's Exhibit 28, and going through page 69 thereof?

A. That is correct, and on page 70 of the same volume of the same Exhibit I show graphically the manner in which —or rather not the manner, but I show graphically the [fol. 1389] total expenditures for each year of the three and one-half years, which are attributed to the charge of interest during construction.

Q. Now, Mr. Connor, you have been compelled to use various percentages in the determination of interest during construction and taxes during construction, in the estimates which you have made and set forth in Volume 8, of Defendant's Exhibit 28?

A. That is correct.

Q. Was that due to the fact that the property was assumed to be constructed over a period of several years?

A. That is correct.

Q. And it was necessary to determine the amount of construction which would be done in any particular year?

A. Yes, that is true. You would have to know, as I see it, how much money you would — going to expend in each year, in order to make an estimate of what your charges for interest during construction would be. In order to do that, you would have to make a rational estimate of what work would actually be done during each of these years, because it would be by that method only that you could arrive at how much money you would have to spend.

Q. Mr. Connor, if we refer to page 71 of Volume 7, Defendant's Exhibit 28, do we find at the bottom of the general summary of undistributed general costs, your computation of interest during construction in the amount of $4,975,933.00?

A. That is correct, and that figure of course is simply carried forward from the determinations set out in detail on page 61 of Volume 8 of the same Exhibit.

[fol. 1390] Q. Now, Mr. Connor, I wish you would give to the jury a very simple illustration of the computation of taxes during construction and interest during construction as a part of the capital cost of the structure—the direct structural costs of which would be $100,000.00. Let's assume, Mr. Connor, that as of February first of this year a building is to be erected in the city of Austin, the direct structural costs of which will be $100,000.00. That that building will be completed on January 2, 1935. Assume some definite tax rate and some definite rate of interest, and then explain to the jury what would be the direct structural costs of that building, plus taxes and interest during construction.

A. The construction period that you have outlined for the building would be, I believe, eleven months, and I presume

from your question that you mean that eleven months from the date of the beginning of the construction—that is, when you started to digging in the ground to build the building—that eleven months from that date, the building would be completed and ready for occupancy?

Q. Assume further, Mr. Connor, that all of the money used was secured at the commencement of the construction period, and that for easy figuring that no interest was earned on unexpended bank balances?

A. I would say that the assumption you have asked me to make is not a rational assumption because it would be impractical for anybody to arrange for $100,000.00 to build a building, and just get that money on the date that he was [fol. 1391] going to start to build the building.

Q. He would have to have it before that—is that correct?

A. He certain- would, or he wouldn't even have a set of plans drawn up, and I don't think he would attempt to let a contract for the work. He wuold have to arrange somewhat in advance for the construction of that period, and I would say the minimum time would be one month, which would then give him a one year period for which he would be obligated for that money. Now, he might secure that money under some conditions other than the obligation to pay interest from the date he got the commitment to get it, but I don't believe that he could. If the rate of interest was six percent, then the charges for interest during construction on this property would be $6,000; that would be a minimum, and if it were eight percent, it would be $8,000.00. It would be an out of pocket expense, just exactly like money that he paid for the bricks or the mortar or roofing or anything else that went into the building. If he put up his own money, he would also be out the interest.

Now, with reference to the taxes during construction, that building would be partially completed but assessible as of January first, and he would have to pay taxes during the next year for that year, and that would be taxes which had accrued during the construction of that building, and if the taxes or the tax rate was two and one-half percent on a $50,000.00 valuation, he would pay $1250.00 taxes during construction.

[fol. 1392] Q. And would that item of $1,250.00 which he paid for taxes on the property under construction, constitute a part of the cost of the building just as much as the bricks and the lime and the mortar of which you spoke?

A. That is correct.

Q. Is there any essential difference between that determination of taxes during construction and interest during construction and the computation of taxes and interest during construction as used in your estimate of those items in connection with the reproduction of the Lone Star Gas Company's public service property?

A. No, except that the problem is somewhat complicated by the fact that it was necessary and right to assume that a portion of the property would pass into operation during the construction period. It would not be reasonable to assume that a property such as the Lone Star Gas Company would remain inoperative for three years. The people that would build a plant of that kind would have too much sense to sit around and let the plant lie idle, or such parts as they could put into operation during the progress of the construction of the plant, and I have made what I consider a reasonable estimate of the time at which certain proportionate parts of the total plant would pass into operation. For instance, I would estimate that more than 75 per cent of it would be in operation at the end of the second construction year. Now, it would be impossible and there is no way in the world to set down and figure out just how each [fol. 1393] item of the Lone Star Gas Company, if reproduced at this time, would pass from construction into operation. I have done what I think is the only logical thing which could be done in connection with making an estimate of that kind, and that is to set it off into sections, and assume at a given time that a proportionate amount of the plant would pass from construction into operation. It could be estimated that certain cumulative amounts, or certain amounts would go into operation at certain times, but in the end the over-all answer would be the same as determined by the method which I have used.

Q. Now Mr. Connor, with the completion of the description of the method used by you in your determination of interest during construction, have you fully identified and explained each and every item of the preliminary and organization costs and the undistributed general costs which are included in and made a part of Defendant's Exhibit 28?

A. That is correct. Those expenditures which I have attempted to explain and for which I have made an estimate, which is set out in detail in the parts of the two volumes

which I have heretofore explained, together with the estimates of the physical costs set up by Mr. Biddison, constitute what in my opinion it would cost to reproduce the Lone Star Gas Company as of this time, and put it in readiness to do business.

Q. That is, ready to commence the supply of gas to distributing companies and to customers receiving gas from that company?

A. That is correct. Every one of those expenditures [fol. 1394] which I have set out would be necessary, if Lone Star Gas Company did not have one single customer attached to its line.

Q. Mr. Connor, what do you mean, intend and understand by the phrase "Going Value", or "Going Concern Value", as used in your estimate of the reproduction cost of that item, as appearing in Volume 8 of Defendant's Exhibit 28?

A. As I just stated this minute, all of the costs which I have heretofore explained, together with those costs which Mr. Biddison has testified concerning, would be costs which would be incurred in the reproduction of Lone Star Gas Company if it did not have a single customer attached to its system. Those costs would be required to make it ready to take on business. Now, I think Lone Star Gas Company has a certain value, over and above what it would cost merely to get it in readiness to do business, for the reason, first:

That approximately 230,000 domestic consumers receive their supply of natural gas from the facilities afforded by the property of Lone Star Gas Company. That these domestic consumers by the purchase of equipment and appliances representing an investment of more than Forty Million Dollars, and by a knowledge of the value of natural gas, and gas service, acquired over a period of years, have developed an average annual consumption of approximately 80,000 cubic feet per domestic meter installed. That approximately 1400 industrial consumers with diversified requirements receive their fuel supply from the facilities afforded by the property of the Lone Star Gas Company, and that in addition to these particular consumers which [fol. 1395] are now using gas—and that is, industrial users—that there are other industrial users who have discontinued the use of gas but who are equipped to use gas and who have learned the benefits which they may secure from

the use of gas. That the company by the purchase and development of leaseholds and the consummation of advantageous gas purchase contracts, has available to its pipe line system a large supply of natural gas, sufficient to meet the maximum demands of its markets. I think the company has added value by reason of the fact that over a period of twenty years or more it has acquired an operating personnel which is highly trained, capable, efficient and peculiarly equipped to carry on the business of Lone Star Gas Company, and for the further reason that over a period of twenty years and more, the company has developed operating routines; it has smoothed out the rough places in its operating organization; the plant has become well consolidated and its operating efficiency is high. And finally, I believe that it has a value above and beyond that which would be required to merely reproduce it and place it in readiness for business, because of having these customers and having this business and having these efficient operators and efficient routines. It is in position to earn a fair return upon a proper valuation of its property at reasonable rates.

Q. And have you given consideration to those factors in your estimate of the value represented by the business development of the company?

A. I have given consideration to those factors that I have [fol. 1396] enumerated in ascribing going concern value to the Lone Star Gas Company, but I have made no separate allowance for any one of those items which I have specifically enumerated.

Q. Now, Mr. Connor, if we refer to page 71 of Volume 8 of Exhibit 28, it would appear that you have evaluated the going value or the cost of business development of the company at a total net figure of $7,792,888.00?

A. That is correct.

Q. What method did you pursue in arriving at that determination of net value?

A. I pursued the simple process of estimating the reproduction cost of a capital asset in possession of Lone Star Gas Company, just as Mr. Biddison made a reproduction cost estimate of a capital asset in possession of Lone Star Gas Company as represented by its pipe lines, its compressor stations, and just as I in turn made a reproduction cost estimate of capital costs represented by interest and taxes during construction.

Q. Mr. Connor, does it cost time and money to develop and acquire the business which the Lone Star Gas Company had as of January 1, 1933, and now has?

A. It does.

Q. Does it represent an item which would get or be given consideration in a sale made by a willing seller to a willing buyer?

A. It certainly does. The situation would not be at all unlike that of a newspaper plant set up and ready to do business. It might cost money to buy the printing equipment, to purchase the land in which to house the plant, and [fol. 1397] it would cost taxes during construction; it would cost interest during construction; it would cost supervision during construction; it would cost administration during construction; and all of those items would be included in the cost of setting up that plant ready to do business, but if that plant cost a million dollars and didn't have a single subscriber, but was getting ready as at the date of inquiry to take on subscribers, it would not be worth nearly as much money as an identical plant which had 200.000 subscribers to its publication.

Q. And have you endeavored in your appraisal of the cost of business development, as set forth in Volume 8 of Defendant's Exhibit 28, to make a rational estimate of the costs of acquiring the business which the company had as of January 1, 1933, and which the Lone Star Gas Company has as of the date of this inquiry?

A. I have so estimated it or attempted to do so, and I would like to say in that connection that there is nothing mysterious or complex about the manner in which I proceeded to make this estimate, and I think a simple illustration, which is almost identical with the manner in which I have proceeded, will make this matter clear.

We might take as an example two apartment hotels, identical in every respect, and similarly located in the same city. It can be assumed that each hotel cost a million dollars and that these costs included the architects fees, the costs of underwriting the securities, the cost of legal expenses during construction, the cost of administrative expenses [fol. 1398] during construction; the cost of interest during construction and the cost of taxes during construction. In other words, that million dollars included all of the items which may be ascribed to general and undistributed costs and direct structural costs. Now, it may be further assumed,

in order to make my example clear, that it was an inevitable situation that during the first year that such building was put on the market in the community in which it was built, that 30 per cent of the rentable area of the building could be rented; that in the second year, 50 per cent of the rentable area of the building could be rented; that during the third year, 75 per cent of the rentable area could be rented; and in the fourth year 85 per cent of the rentable area could be rented; and that the building would be fully occupied only after it had been available to the public for a period of five years. There we have 30 per cent, 50 per cent, 75 per cent, 85 per cent occupancy in four successive years.

Now, let it be assumed that one of these apartment hotels was built at such a time that at January 1, 1934, it had reached the point to where it was fully occupied; that would mean that it was placed into service January 1, 1930, and when fully occupied it would pay the owner of the hotel eight per cent on the million dollars, plus the cost of taxes and plus the cost of insurance, in addition to a depreciation accrual, and only when 100 per cent occupied. Now let us assume then on January 1, 1934, that another apartment hotel, just exactly like the apartment which I have just de- [fol. 1399] scribed which is fully occupied because it has been in service five years, is just completed. There they stand, just exactly alike. One of them is fully occupied, with tenants whose rentals pay to that owner an eight per cent return, taxes, depreciation and his operating expenses. Now the man who has just finished the second apartment is confronted with going through a period of five years, and in the first year he will only get 30 per cent of the revenue that the gentleman who owns the other apartment is receiving, and in the second year 50 per cent; in the third year he will get 75 per cent and in the fourth year 85 per cent. If he knows that to be a fact and that he must be confronted with that loss each year below what the other man is receiving for the rent of his apartment, he then has a measure of the difference in the present worth between those two buildings.

* * * * * * *

[fol. 1400] That is the method which I have used in estimating the cost of reproducing the business of Lone Star Gas Company—the same method that the owner of the

empty apartment hotel would estimate the difference between the worth of his building vacant and the building fully occupied.

Q. Now, Mr. Connor, as a matter of fact, in the natural gas business, is the business developed immediately upon the turning into service of the completed plant, or such portions as are completed from time to time?

A. It is not.

Q. Is that true of all natural gas pipe line enterprises, such as the Lone Star Gas Company?

A. It is.

Q. Now, as a measure or yardstick for the determination of the costs of reproducing the business of Lone Star Gas Company, have you taken into consideration certain factors?

A. I have.

Q. What are those factors?

A. I have assumed in connection with this estimate that the physical property of this company was non-existent at the date of the reproduction cost estimate. In other words, in order to make an estimate of what it would cost to reproduce the property it is necessary to assume that it does not exist, and that you have got to build it. And as a corrollary to that general proposition, I have also assumed that the business of the Lone Star Gas Company which has [fol. 1401] been developed by reason of the fact that the Lone Star Gas Company has operated over a twenty-year period would be non-existent at the date of the completion of the property in the reproduction of the property.

Q. Now, having made those basic assumption-, what measures did you apply to determine the worth or the cost of arriving at the cost of business developed?

A. When a property passes from construction into operation, the cost of interest on the value of that property, the cost of taxes on the value of the property, and the cost of the necessary reserve accruals which should be set up to protect that property will accrue on the total value of that property, irrespective of the amount of business done by the property. In other words, if a property costs fifty million dollars, and the interest charges are 8 per cent, the fixed charges for interest on that property for the first year will be four million dollars, whether it is fully operated or only partially operated; and the same is true for the accrual for taxes and for depreciation. In other words, these

charges, as distinguished from operating expenses, which will vary with the amount of business which may be done, will accrue uniformly throughout the life of the property.

Q. And have you used those charges for the purpose of determining the amount of money involved in the cost of reproducing the company's business?

[fol. 1402] A. I have, for the reason that these charges would accrue during a period of time in which the Lone Star Gas Company would reproduce its business—that is, secure the business it now has.

Q. Did you take into consideration the business which the Company actually had as of January 1, 1933, and which it now has, and the rate at which that business has attached in the several communities in which the Company operates?

A. I took into consideration the business which the Company now has. I also took into consideration the rate at which that business was actually attached historically, and then modified the historical rate of the attachment of the business of the Lone Star Gas Company in order to limit that period of business attachment to the very shortest period of time possible.

Q. Mr. Connor, does it take a number of years to develop to the extent that the Lone Star Gas Company has its business developed the business which the Company had as of January 1, 1933, and which it has as of this time?

A. It takes time. I pointed out, I think, that it would require an investment on the part of the people who consumed natural gas of around forty or more millions of dollars to reproduce the equipment that they now use for the purpose of consuming the gas supplied by the Lone Star Gas Company. Now, it would take a considerable period of [fol. 1403] time for a group of people to be able to expend that money in order to provide the facilities for using the service of Lone Star Gas Company to the extent to which they are now used. It is the experience of every natural gas company when it introduces its service into a community that has not had natural gas before that there will be a gradual increase in the ratio of the number of customers per thousand inhabitants and a gradual increase in the actual amount of gas used by each individual consumer. Now, in making this estimate, I made a very careful study of the various cities and towns which have been served by Lone Star Gas Company, in order to determine the rate of which this business was actually attached to the system.

I also made studies of individual lines, attached to which were a large number of individual cities and towns; and I secured from that study the information which gave me an opportunity to develop an estimate of the time which would be required under the most favorable conditions to reproduce this business, as distinguished from the property.

Q. In your study of the historical development of the business of the Lone Star Gas Company, did you first make a study of the metropolitan area of Dallas and Fort Worth, which constitute two of the major markets of the Lone Star Gas Company?

A. I did. I made a study of both the Fort Worth plant [fol. 1404] and the city of Dallas. I have incorporated in that study, however, only the data which are applicable to the Dallas plant. The information concerning the Fort Worth plant is practically identical with that shown for the Dallas plant.

* * * * * * *

Q. Mr. Connor, refer to page 84 of Volume 8, of Defendant's Exhibit 28. Have you plotted on that page the historical development of the domestic business of the Dallas Gas Company for the years 1908 to 1930?

A. I have, yes, sir.

Q. And does that represent the actual historical development of the domestic business of the Dallas Gas Company?

A. The Dallas Gas Company and the County Gas Company, as well.

Q. And the County Gas Company as well. Both companies do business in the metropolitan district of Dallas?

A. Yes, sir.

Q. And the Lone Star Gas Company continuously since 1910 has supplied natural gas at wholesale at the City Gate to the Dallas Gas Company and the County Gas Company for resale in the city of Dallas?

A. That is correct. However, in explanation of the curve shown on page 84, there was a period between 1914 and 1920 [fol. 1405] which was not normal with reference to the experience of the Company. In part that was attributable to conditions existing during the War with reference to the restriction on the extension of public utility service; and in part due to the inability of the Lone Star Gas Company during the years 1918, '19, and '20 to adequately supply the

demands of the domestic consumers in the cities of Dallas and Fort Worth and other communities attached to its system. For that reason, the domestic meter consumption was somewhat down; and for the other reasons I have explained, the meter saturation was not normal. Immediately following the year 1921, the increase was very rapid in the matter of meter consumption and meter saturation.

Q. Please explain to the jury what you mean by per meter consumption and per meter saturation?

A. The meter saturation is usually expressed in the—is an expression of the number of meters into the number of inhabitants. If, in a city like the City of Dallas, and the City of Fort Worth, there was approximately 4½ or 4.2 meters—I am expressing that wrong—if the number of meters in service divided into the number of inhabitants will result in a ratio of approximately 4½, then you have reached what we would consider meter saturation in a city such as Dallas or Fort Worth.

Q. In other words, is it something like this, Mr. Connor? [fol. 1406] It is estimated that you can almost obtain the population of a metropolitan territory by estimating that there will be one gas meter for each 4½ persons who are inhabitants of that territory?

A. That is correct.

Q. And that is what is meant by meter saturation?

A. That is correct.

Q. Now, what is customer's saturation?

A. Customer's saturation and meters saturation are synonymous; they mean the same thing. Now, customer's use is the amount of gas which you may normally expect a customer of a given locality to ultimately consume under a given annual temperature condition.

Q. At the bottom of page 85, and on page 86, have you set forth the historical data relative to the development of the business of the Dallas Gas Company and the County Gas Company, both in relation to the meter saturation and the customer use saturation?

A. That is correct; and the meter use has been modified to give effect to the difference in the heat value of the gas furnished at different periods of time. The heat value of the gas served in the city of Dallas has increased from the time that gas was originally served by the Lone Star Gas Company, for the reason that the gas that was originally delivered to the city of Dallas came only from the Petrolia

Field, and the heat value of that gas was only approxi-
[fol. 1407] mately seventy-five per cent of the heat value of the gas which is now delivered; and for that reason it is necessary to make an adjustment in the actual amounts which the customer uses, by giving effect to the difference in that gas; and that adjustment has been made.

Q. If we look at the ratio of meters to population, or what you have designated as Meter Saturation, in the year 1910, which was the year of the introduction of natural gas into the city of Dallas, do we find that the ratio of meters to population was 10.5?

A. That is correct. You would have to multiply the number of meters in service by 10½ to arrive at the population.

Q. Whereas in the year 1930 the ratio of meters to population had become 4.5 or 4½?

A. That is correct; and that same historical situation occurred in Fort Worth, as well as Dallas and the surrounding territory.

Q. Now, if we look at the sales per capita at Dallas and Fort Worth following the introduction of natural gas in the year 1911, what do we find as compared with the use of natural gas in the year 1930?

A. Expressed in terms of use of domestic gas—Now, all of this we are talking about now is domestic gas, as distinguished from what might be termed industrial gas—
[fol. 1408] the individual domestic consumer on the average, in the first year in which Dallas had natural gas for one entire year, only used 33 per cent of the volume of gas which the average domestic consumer used in the year 1930.

Q. Now, in addition to a study of the development of the business which the Company enjoys by reason of wholesale sales at the cities of Fort Worth and Dallas, did you make an analysis and study of the development of the business in relation to other towns and cities in the Lone Star Gas Company system?

A. I did. I have made a study of practically every one of the cities and towns served by Lone Star Gas Company. I have included in this study in this exhibit a group of small towns up in the state of Oklahoma, which are typical of the small towns served by the Lone Star Gas Company; and we find that in these towns that the business is acquired much more quickly than it is in the larger cities. The reason for that is that in a small community—and the Lone

Star Gas Company, I believe, serves more small towns than perhaps any other natural gas system in the United States, and the history of that is readily available to anyone who wishes to make a study of this subject—it has been found that by reason of the fact that you can go into these towns and make a complete solicitation of the small towns and reach practically all of the possible consumers, that you acquire customer use saturation—I mean customer satura-
[fol. 1409] tion,—much more quickly in the small towns than you do in the large towns; and the same thing holds true with reference to customer use; they reach their maximum use and customer saturation in a small town much more rapidly than they do in a large city. I have here made a study of individual lines in the Lone Star Gas Company system. Take, for instance, Line E, which is the line that goes from Gainesville, Texas, to Paris, Texas. I made a study of the rate at which the total business of domestic gas annually has been acquired since that line was constructed. The line was first put into operation in the year 1925, and it was in service for a very short period of time, and the amount of gas delivered expressed as a percentage of the maximum amount delivered for any one year through this line was .39 of one per cent; the next year 38.88 per cent; the next year 55.54 per cent of the maximum; in 1928, 72.8 per cent of the maximum; and in 1929, 93.65 of the maximum; the maximum occurred in 1930, and we represent that by 100 per cent; and in 1932, the deliveries through Line E were 99.71 per cent. That shows the effect of the rate of growth and the acquisition of business, and how the business gradually increases from year to year on a line which has a very large number of small towns, and some somewhat larger. Line L—or rather take Line O, which
[fol. 1410] extends from a point near Lisbon, Texas, to Greenville, and takes in all of the small towns that the Lone Star Gas Company serves in that section of the state. The line was put into service in 1926, and during that year it delivered only 5.81 per cent of the amount of gas that was delivered in 1932; in 1927, 42.66 per cent of the domestic gas which was delivered in 1932; in 1928, 72.57 per cent; in 1929, 86.94 per cent; in 1930, 83.03 per cent; in 1931, 94.4 per cent. In other words there was a period of one, two, three, four, five, six, seven years, in which that business on that line gradually increased until it reached the

100 per cent which is indicated by the gas delivered for domestic purposes during the year 1932. Now, all of the time that situation was going on, Line O was just exactly the same line that it is today. It was no smaller, and the interest on its cost and the taxes on its cost, and the depreciation on that line were just the same each year that I have read into this record despite the fact that in varying years the percentage of business done was considerably below the maximum. Those studies of lines, which include [fol. 1411] a large number of small towns, merely confirm the conclusions which are set out in Exhibit 28. Now, having studied these various individual instances of the rate at which business could normally be attached to a line, I was in position, I think, to make a rational estimate of the period of time under the most favorable conditions during which the business of Lone Star Gas Company, as represented by the business in existence as of 1934-1933, could be acquired, and that is what I have attempted to do; and having determined that the rate of business acquisition was different in various groups of towns, I divided the system of Lone Star Gas Company into three groups, each group having peculiar characteristics. The first group are the two large metropolitan areas—Fort Worth and Dallas. These particular communities stand in a class by themselves, and they are treated in that way. Now, from the history of the business development in Dallas, shown on page 84 of Volume 8, of Exhibit 28, I compress that period of twenty years business development into a six-year period for the cities of Waco, Abilene, and one or two other cities of that type, which are large enough to have artificial gas plants, or at least would have artificial gas plants before natural gas was introduced.

Q. As a matter of fact, historically, did they not have [fol. 1412] manufactured gas plants?

A. They did. I used a five-year period, and modified slightly the historical experience which I had already modified in connection with the Dallas metropolitan area. In other words, I assumed that it would be possible under the most favorable conditions to fully develop the business in Waco, Paris, Abilene, Wichita Falls, and cities of that type, within a five-year period from the first day that they got natural gas. In the small towns which I studied, individually and collectively, as indicated by the history of

these lines which I have read into the record, I gave a three-year development period, despite the fact that the evidence clearly disclosed that on Line O, which serves nothing but a group of smaller towns, that they took seven years to acquire the business which Lone Star Gas Company now enjoys on that line. Now, I also made a study of Line F, which is a typical line, from Joshua Station to Waco, Texas. That line was built in 1920—fourteen years ago. It never got its saturation until 1930.

Q. In other words, on that line it took ten years to develop the business which the Company actually has?

A. That is correct. And take a great trunk line from West Texas—Line K, an eighteen-inch line: that line was constructed in the year 1920, and during that year its total deliveries were 475,000,000 feet of gas, in 1921 only 1,-[fol. 1413] 673,000,000; in 1922 only 1,236,000,000; in 1923 only 2,191,000,000; and yet in the year 1931 that line delivered 13,754,000,000 cubic feet, and in the year 1925, 16,179,000,000 cubic feet,—showing that that line for a period of five years delivered nothing like its ultimate capacity to deliver gas. There is every historical proof that it takes time to acquire a business such as that enjoyed by Lone Star Gas Company, and I have attempted to modify that and limit it to the absolute minimum time which would be required to reproduce this business.

Q. Mr. Connor, if we refer to pages 94 and 95, do we find on those pages a computation of the percentage of the total domestic business of the Lone Star Gas Company which is represented by the group of towns and cities receiving gas at the end of the first construction year, and which towns and cities are shown on the map on page 16 of Volume 8 of Defendant's Exhibit 28?

A. That is correct. I have assumed that the pipe lines shown on page 16 of this exhibit—Volume 8, Exhibit 28, that all of the towns which could be served by that construction would be receiving gas at the end of the first construction year.

Q. I believe, Mr. Connor, I was in error in stating that all of the towns appeared on that map. All of the smaller towns do not appear on that map.

[fol. 1414] A. No, that is correct. The map is too small and the scale too small to write in all of the minute towns. However, it was obvious by the location of the mains as

shown by that map that the towns which I have estimated would receive their gas at the end of the first construction year could be served from that construction.

Q. And have you similarly determined on pages 94 and 95, by reason of the total of Lone Star's domestic sales, which are represented by the sales made at Dallas and Fort Worth, and by the Group B towns, including Abilene, Cleburne, Denison, Sherman, Abilene, Wichita Falls, and by the Group C towns, representing the smaller towns and communities?

A. That is correct. And when I say Group A towns I refer specifically to the metropolitan area of the city of Dallas and the metropolitan area of the city of Fort Worth; when I refer to Group B towns I refer to the second larger group of towns—the group of the second larger towns; and when I refer to Group C towns I refer to the small towns which I have previously testified would secure their meter saturation or use saturation very quickly. Bearing in mind that it is estimated that the satursation of meters and sales which it has taken twenty years to secure in the city of Dallas would be secured in six years, in the second [fol. 1415] group of cities I have estimated that that business could be acquired in five years, and in the third group of cities and towns in three years, and this six-year group is Group A, the five-year group is Group B, and the three-year group is Group C.

Q. Now, Mr. Connor, as you have previously testified that estimate is even more favorable than the historical experience of the Company in connection with the acquisition of business in those several cities, towns and communities of Groups A, B and C?

A. It is true from a study of the individual towns and it is demonstrated to be true from a study of lines which would include a group of towns.

Q. Now, Mr. Connor, is there anything peculiar about the time required to develop the business which the Lone Star Gas Company has—has it been historically demonstrated that it takes a similar amount of time to develop the business which any natural gas company enjoys?

A. Certain conditions might modify that. Where a city, say, like Chicago, or a city of that type which was highly developed from a manufactured gas business, it might be possible to go into that city and acquire a very large amount

of business initially; but in cities such as we have in Texas, I don't think that would be true.

Q. If we refer to pages 95 and 96, have you determined on those pages the percentage of the total domestic business [fol. 1416] of the Lone Star Gas Company represented by the group of cities and towns receiving gas at the end of the second construction year?

A. That is true, and in doing that I took the map which represents the construction which would be accomplished during the second construction year and determined the number of towns which would initially be attached to the system of the Lone Star Gas Company by means of that construction; and then I went to the records of the Company and ascertained what percentage of the total domestic gas sales was represented by the business of these towns; I did that in every case. In other words, I determined what percentage of the total domestic business of Lone Star Gas Company was represented by the sales in the towns which would be attached the first year, the second year, and the third year.

Q. And, similarly on pages 97 to 101, inclusive, of Volume 8, of Defendant's Exhibit 28, have you shown the percentage of the total domestic business of Lone Star Gas Company represented by the groups of cities and towns receiving service at the end of the third constructive year?

A. That extends to page 101.

Q. Now, from all of that data, Mr. Connor, or did you use all of that data as a basis of your computations in [fol. 1417] respect of the over-all attachment of the business which the Company had as of January 1, 1933, and now has?

A. I did; and to show that there was in this method an effort to follow the method which an intelligent organization would follow with reference to securing this business, I show on page 101 that the estimate that I used is based upon the fact that the property turn-over for business development at the end of the construction year would attach to its mains 69.65 per cent of all of the domestic business which Lone Star Gas Company now has.

Q. And, similarly, what would be the percentage at the end of the second construction year and the third construction year?

A. 15.03 per cent would be attached at the end of the second construction year and 15.32 per cent at the end of the third construction year, which added to 69.65 gives one hundred per cent or the total domestic business enjoyed by Lone Star Gas Company.

Q. Now, Mr. Connor, following that determination, how did you use the data derived in order to approach an estimate of the cost of the business developed?

A. The first step in that determination is shown on page 102, Volume 8, Exhibit 28, and there is shown Group A 51.15 per cent of the total domestic sales, Group B 15.56 per cent of the total domestic sales and Group C 2.94 per [fol. 1418] cent of the total domestic sales; that is the relative percentage of the total domestic sales represented by the Group A towns which would be attached to the system at the end of the first construction year. Now, from the data which have been previously analyzed and discussed and which are shown in graphic form, it was determined that upon the basis of an estimate 22 per cent of the total saturation would be secured in the Group A towns during the first year, 22 per cent of the Group B towns during the first year, and 34.60 per cent of the Group C towns during the first year after gas had been introduced; that is when you multiply that per cent by the total domestic sales expressed as a percentage represented by the Group towns which would be attached during the first year, you get 15.69 per cent of the total business of Lone Star Gas Company which would be represented by the sales which would be made to those towns during the first year after they had been attached to the system. Now, if reference is made to Exhibit 36, which is this chart which I have in my hand, it will be noted that in graphical form that same figure is clearly shown—that is, that during the first year after the property has gone into operation that approximately 15.7 per cent of the total domestic business would be secured. Now, that method of calculation is followed for each successive year.

[fol. 1419] Q. Up to the time that the company has its business fully developed?

A. Fully developed; that is correct; and the Group A and Group B and Group C towns which would be attached by reason of the construction done in each of the construction years, is put in the proper place in the computation and

the proper percentage of the total domestic business represented by these towns is set out, and also the percent of saturation, both use and customer saturation, applicable for that year, as taken from the curves, is applied to that and from that application is developed an estimate of the percent of the total domestic sales of Lone Star Gas Company which would be secured in each of those successive years.

Q. By determining the percent of the total plant which was active and deducting that from the plant as actually constructed, did you determine the unused portion of the plant, or the percent of the total plant which might be called idle, as of the end of any construction year?

A. That was a very simple matter to do. It was estimated that at the end of the first construction year 43.31 percent of the total cost of the property would pass from construction into operation, but of that 15.69 percent of the total plant was active as compared to the total business which you might expect from the plant, and therefore 27.62 percent of the total plant had just as well not been built, so far as the amount of business that was during during that first year. It might as well have been under [fol. 1420] construction, so far as the revenues which it would secure for the company were concerned.

In the second year, by the same process, the percent of plant which was not in use was 42.33 percent, based upon the manner in which I have made this estimate. In the third year it was 37.94 percent; in the fourth year it was 19.71 percent; in the fifth year it was 8.82 percent, and in the sixth year it was 2.28 percent.

Q. And at the end of that year you have arrived at the point where the company had the business which it actually had attached as of January 1, 1933, and as of now?

A. That is based upon the manner in which I have made this estimate. Now, that is an inescapable process, and represents the manner in which I finally made my estimate of the cost of securing the business which the Lone Star Gas Company now enjoys.

Q. All details in connection with the computation of the amount of idle or inactive plant, and the percent of plant in use, are set forth, at least in summary form, at pages 102 to 104, inclusive, of Volume 8 of Exhibit 28?

A. They are set out in detail on those pages, and also expressed in graphical form in Exhibit 36. In other words,

a substantial amount of the figures shown on the graph, Exhibit 36, are derived entirely from the calculations made on pages 102, 103 and 104.

Q. Now Mr. Connor, having determined the portions of Lone Star Gas Company's public service plant which were put into active service following the completion of construc- [fol. 1421] tion, and therefore having determined the amount of plant which was idle or inactive following the completion of that part of the constructed property, how did you make use of that data in determining the cost of reproduction of the company's business?

A. As I previously stated, the items of interest, taxes and depreciation accrue on a property irrespective of the amount of business done by that property. I applied what constituted a fair interest charge for the use of natural gas property in the public service; the tax rate approximating the actual tax rate of Lone Star Gas Company, and a charge for depreciation reserve accruals against the cumulative percentages of plant which would necessarily be inactive during the period of business development in reproduction.

Q. Now, in using fixed charges on idle plant as a yardstick or a measure of the determination of the cost of business development and the determination of going value of the company as of January 1, 1933, or now, do you in any sense intend or contemplate the capitalization of operating losses?

A. Absolutely not.

Q. Or losses arising by reason of the inadequacy of revenues to meet operating expenses?

A. I do not. In fact, there is no operating losses estimated in the set up. It is presumed on the face of it that all operating expenses are met. Furthermore, to assume that the method which I have used is an attempt to capitalize historical operating losses can not bear analysis. A [fol. 1422] property, or the historical operating losses of a property would be a summation of actual out of pocket losses which a property might have incurred over a period of years through bad management, inadequate rates or any other causes which might be suggested, and I do not believe that anyone could construe that the summation of a lot of losses, whether due to bad management, inadequate

rates, or the uneconomical layout of the business, could contribute to the value of that business at any given time.

Q. And regardless of any historical losses, would that serve to increase or decrease your estimate of going concern value or cost of reproduction of business of the company?

A. No, because I have given no consideration to losses of any kind, either estimated or historical. I have attempted to estimate costs. There is a distinction, I think, between losses and costs. It costs money to buy the property which went into the Lone Star Gas Company system. I do not think that could be defined as a loss. That is a cost and is represented by the worth of the commodity purchased by this money. Interest during construction on property wholly under construction is a cost; it is not a loss. It is one of those things which a man necessarily makes provision for when he builds his building. It is just as much a part of the cost of the building as the brick and the mortar and he makes provision for that cost. It is not an operating loss.

[fol. 1423] Now it costs money normally and inevitably to secure the business of such a concern as Lone Star Gas Company. There are certain costs involved in the securing of that business. These costs can not be construed, as I understand it, as losses. They are simply a part of the cost of reproducing a part of that business, just as the estimate Mr. Biddison made in connection with the laying of that pipe was an estimate of the cost of laying that pipe.

Q. Now, Mr. Connor, you have stated that you took into consideration three factors in measuring the charges on idle plant, and that those three factors were interest, depreciation and taxes?

A. That is correct.

Q. What interest rate did you use?

A. I used what I construed to be a fair return for the use of a natural gas pipe line property.

Q. And what rate of interest was that?

A. Ten percent per annum.

Q. Did you apply ten percent throughout in your estimate of the cost of business development?

A. No, sir, not during the time when the property was under construction.

Q. For the last four development years you did use ten percent?

A. That is correct.

Q. Now what depreciation reserve accrual or charge did you use in the computation of these fixed charges on idle plant?

A. Three percent for the first development year, three and one-half percent for the second development year; four [fol. 1424] percent for the third development year; four and one-half percent for the fourth development year; five percent for the fifth development year and five and one-half percent for the sixth development year.

Q. And are those computations in respect of the annual rate of reserve accruals fully explained on pages 105 and 106 of Volume 8 of Defendant's Exhibit 28?

A. That is correct.

Q. What did you use for taxes in connection with the computation of fixed charges on idle plant?

A. I took the actual taxes paid by Lone Star Gas Company.

Q. In other words, the taxes to which you have referred previously today in the amount of $301,820.00 per annum?

A. That is correct. That is the actual amount paid by Lone Star Gas Company, and I applied them to the percentage or to the proportionate amount of the property which would be in service but inoperative during the period of business development of the company.

Q. You therefore now have determined and explained your method of determination of the factors to be applied in measuring the fixed charges on idle plant, those factors being interest, depreciation and taxes?

A. That is correct, and those fixed charges upon the idle plant, as I have previously explained, were determined upon the basis of domestic customer saturation and domestic use.

Q. You contemplated, Mr. Connor, that there will be cer- [fol. 1425] tain industrial business that the company had, as each unit of the company's property goes into operation at the end of any construction year?

A. That is correct.

Q. And how have you subsequently handled that in your appraisal?

A. I have set out in detail an estimate of the rate at which I believe industrial business could be secured. Now as the industrial business is taken on, the company would of course make a net revenue from the sale of this industrial gas. I have then applied the net revenue which the company would

secure from the sale of its industrial gas to the calculations previously made relative to the fixed charges on the idle plant developed by the domestic business. In other words, I have credited back against the estimate of the fixed charges, the idle plant developed by the history of the domestic business, such net industrial revenue as the company might reasonably expect during the period of its business development.

Q. In other words, Mr. Connor, you have credited the net industrial revenues back against these fixed charges to the extent or in the same manner as you credited back upon the interest rate the earnings on unexpended bank balances?

A. That is correct.

* * * * * * *

[fol. 1426] Q. Mr. Connor, at pages 107 to 111 inclusive, of Volume 8, Defendant's Exhibit 28, do you set out the detail of your calculations of fixed charges on idle plant?

A. Pages 107 to 111, inclusive.

Q. Now, Mr. Connor, please explain to the jury, in a general way, how those calculations were made?

A. As I testified yesterday, I made a careful determination of the amount of property which would pass into service at stated intervals during the construction period. By the analysis of the rate at which the domestic consumers would be attached to the various classes of towns which would be attached, and from the estimate of the rate at which these consumers would use gas, I determined what proportionate part of that plant which went into service would be unused in comparison with the use to which that [fol. 1427] property is now put in connection with the domestic sales of Lone Star Gas Company. Having made that determination, I arrived at the sum of money which would be represented by the reproduction costs of that portion of the property which would not be used during the period of time in which I have estimated would be required to secure the present business of Lone Star Gas Company. To that sum of money I applied the annual percentage for interest and return, the annual sum of money for taxes, and the annual percentage for reserve accrual. The application of those percentages to the various sums of money resulted in a total sum which expressed my estimate of the cost of reproducing the domestic business of Lone Star

Gas Company. As I explained very briefly yesterday afternoon, the Company would, of course, secure industrial business, and make industrial sales concurrently, or at the same time, during that period of business development. Such profits as would accrue on these sales of industrial gas would necessarily represent a credit to those costs which I have previously estimated. I made an estimate of the rate at which that industrial business would be attached, and in making that estimate I used the actual experience of the Lone Star Gas Company from the year 1921 to the year 1927, during which period of time it actually secured its industrial business, because as of the year 1921 the total sales of industrial gas on the part of the Lone Star Gas [fol. 1428] Company were less than two and a half billion cubic feet; while in the year 1927 they had increased to twenty-four billion cubic feet. I took that actual experience of the Company in developing its industrial sales during that period of time as the basis for my estimate of the rate at which industrial gas sales could be secured in the reproduction of the property. That, in my opinion, is a liberal estimate; or at least, it reduces the period of time below that which I actually believed would be experienced, for the reason that from the year 1921 to the year 1927 the price of fuel oil was very high, and for that reason it was not at all difficult to sell industrial gas to prospective industrial consumers. That situation does not exist at the present time. However, I have predicated my estimate of the rate at which that industrial gas would be secured upon that history.

Q. Mr. Connor, in order to attach this industrial business has it been necessary for the company to maintain an industrial gas department?

A. That is correct. The Company now maintains an industrial gas organization, which does nothing but contact industrial consumers, prospective and attached. It renders services in the matter of the design of installations, and every other thing necessary to interest an industrial consumer in the use of natural gas.

Q. In the acquisition of the industrial gas business which [fol. 1429] the Company had as of January 1, 1933, and which it now has, have you contemplated that the services of an industrial gas organization would be necessary?

A. I have. I have made an estimate similar in all respects to the estimate which I made of the various adminis-

trative departments to cover the cost of attaching this industrial business. In order to secure this industrial business at this time and within the period of time which I have assigned to its acquisition, it would be necessary to make a very intensive campaign by means of a highly trained industrial gas sales organization, and I have estimated what that cost would be, and properly, I think, have deducted the cost of securing that business from the net profits which I estimate would accrue to the Company each year.

Q. What did you determine the total of the net industrial revenue to be which would be applied as a credit on the fixed charges on idle plant based on domestic sales?

A. $3,996,180.00.

Q. If we refer to page 71, of Volume 8, Defendant's Exhibit 28, do we find there applied a credit for the net industrial revenues in the amount which you have just stated?

A. You do.

Q. And if we refer to pages 133 to 136 inclusive, do we find set forth the calculations respecting the net credits on account of industrial gas sales?

A. You do; and in making the calculation I made my [fol. 1430] estimate just as I did with reference to domestic gas sales upon the towns upon the basis of the industrial gas in the particular towns which I estimated would be attached to the system during each of the years following the initiation of natural gas service.

Q. Mr. Connor, one other item appearing on page 71, of Volume 8, Exhibit 28, which is included in connection with your cost of business development is Personnel Costs. What do you mean by Personnel Costs?

A. I mean the actual cost which would be incurred in the reproduction of Lone Star Gas Company in the matter of bringing together and securing the trained and competent personnel which I believe would be necessary for the construction of this property.

Q. Does the Company actually have as a construction and operating force a personnel consisting of men skilled and experience- in all of the ramifications of the Company's operations?

A. It does. These men are not only skilled in matters pertaining to the operation of a natural gas property and the construction of a natural gas property, but they are peculiarly fitted to operate and construct the Lone Star

Gas Company property, for the reason that they have an intimate familiarity with that property which has been brought about by, in many cases, continuous service extending over a long number of years.

[fol. 1431] Q. And you estimate those Personnel Costs to be $200,000.00?

A. That is correct.

Q. In connection with your experience with other natural gas projects and enterprises, have you seen incurred substantially similar costs in the matter of assembling and training an organization for construction and operating purposes?

A. I have. I have seen men taken from one organization wherein they had become trained and experienced in the natural gas business and transfrred to another organization at salaries, in many cases more than double what they were receiving in the organization in which they had previously been employed. It is difficult to go out and secure men who are trained and experienced in the natural gas business, for the reason that the natural gas business is not a universal business, but it is limited to specific locations where natural gas is found. You could go all over the continent of Europe and you would not find a single man who was trained and experienced in the operation of a natural gas property, and you could go over a substantial part of the United States and not find a single man who had had any experience whatever in the operation of a natural gas property. Now, that is not true of electrical properties, and you can more readily assemble a trained and skilled organization to operate an electrical utility than you can to operate a natural gas utility.

[fol. 1432] Q. Is the same true of the water and telephone utilities?

A. It is true of a water utility; but I would hardly say it is true of a telephone utility.

Q. If you refer to page 71, of Volume 8, of Defendant's Exhibit 28, do you finally arrive at the cost of going value, or cost of business development, in the amount of $7,792,888.00?

A. That is correct.

Q. After applying the net credits for industrial revenue?

A. That is correct.

Q. And if we refer to page 6, of Volume 1, of Exhibit 28, do we find that figure carried forward on the Recapitulation Sheet?

A. You do.

Q. Now, Mr. Connor, do you mean to use the term "Fixed Charges on Idle Plant" as synonymous with the term "Going Value", or "Going Concern Value", or "Cost of Business Development"?

A. I mean to imply that the estimate which I have made is an estimate of what it would cost to reproduce the business which Lone Star Gas Company now has, if the property should be reproduced as of this time. That cost which would necessarily be incurred in the reproduction of this property and business is to my mind a fair measure of what the going value of this property is.

Q. Do you use the term as synonymous with going value?

A. No, sir.

Q. Mr. Connor, refer, please, to page 141, of Volume 8, [fol. 1433] of Defendant's Exhibit 28. You set forth on that page a General Summary of Working Capital?

A. That is correct.

Q. Please explain to the jury what you mean, intend, and understand by the term "Working Capital."

A. When any business becomes entirely operative, or partially operative, certain sums of money will be continually tied up in the operation of the property. They will be represented in part by the actual cash which is paid out in operating expenses before the company receives the money for the commodity which it has sold. It is represented in part by the necessary materials and supplies which must be currently kept on hand to properly maintain and operate the property. In the case of Lone Star Gas Company in particular, and natural gas companies in general, there is usually a substantial sum of money tied up in advances which are made on gas purchase contracts or drilling arrangements. This money is advanced and the company is out of the use of it until some future period of time, and that sum of money remains fairly constant from day to day. A company such as the Lone Star Gas Company makes certain pre-payments of expenses, and they are, therefore, out of pocket and out of use of the money represented by these pre-payments.

Q. What is the nature of those pre-payments?

[fol. 1434] A. Insurance and rentals cover the item fairly completely. There is always some incomplete construction in progress which is not ready to operate. The money, of course, which is tied up in the normal amount of incomplete construction in any period of time would represent a sum of

money upon which the company was not in position to earn. The company, in order to properly conduct its business and to secure accom-odations from commercial banks, finds it necessary to maintain cash balances above the last penny that would be required to operate the property, and Lone Star Gas Company does so maintain these cash balances. A fair and reasonable allowance should be made for the sum of money which a company feels is necessary for the proper conduct of its business, represented by cash balances. Lone Star Gas Company also has its system full of gas, and will always have its system full of gas. That gas in the system will never be paid for,—or at least, an equivalent amount of gas will always be in the system. That gas must be paid for by Lone Star Gas Company, and I have made an estimate of the value, or rather the cost, of that volume of gas which is continually in the system.

[fol. 1435] Q. Does that really constitute part of the company's stock in trade, or might it be referred to as a part of the materials and supplies currently on hand at all times?

A. That is correct.

Q. At the bottom of page 143 of Volume 8 of Defendant's Exhibit 28, Mr. Connor, is the figure of 156,425 cubic feet correct?

A. No, sir. The exhibit should be corrected, page 143, Volume 8, Exhibit 28, by the inclusion of a capital "M" after the figure 156,425; in other words, instead of 156,425 cubic feet it should read 156,425-M cubic feet, which, in the natural gas business, means thousands of cubic feet.

Q. At pages 142 and 143 of Volume 8 of Defendant's Exhibit 28 have you set forth in detail the various allowances which you think are properly made for working capital of the company?

A. I have.

Q. And are those allowances based upon the company's actual requirements, in your opinion?

A. That is correct. The figures, however, were furnished me by Mr. Huley in part as being the current expenses which would properly be used in connection with a determination of working capital.

Q. But you have made a verification in so far as materials and supplies are concerned, advances on gas purchase contracts and other items?

A. That is correct. Now, it must be borne in mind that these items will vary from time to time, and I have taken [fol. 1436] even, round figures as representing what might be considered, I believe, a normal, average allowance for working capital.

Q. As indicated on page 141 of Volume 8 of Defendant's Exhibit 28, what is your total allowance for working capital?

A. $1,701,600.00.

Q. And if we refer to the recapitulation or summary sheet on page 6, Volume 1 of Defendant's Exhibit 28, do we find that that figure is carried forward to that page?

A. We do.

Q. Now, Mr. Connor, adding to the direct structural costs of the Lone Star Gas Company property as computed and estimated by Mr. Biddison the preliminary and organization costs developed by you and the general and undistributed costs developed by you, as well as your estimates of going concern or going value, the cost of reproduction of the company's business, and also the allowance for working capital, what is the reproduction cost new of Lone Star Gas Company's public service plant, property and business as of January 1, 1933?

A. $73,983,405.57.

Mr. Griffith: Now, if Your Honor please, that concludes the Direct Examination of this witness in so far as Exhibit 28 is concerned. We shall expect to recall the witness at some subsequent time on other matters and other phases of the case.

[fol. 1437] Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Connor, in giving your qualifications I believe you stated that you at one time worked for the City of San Antonio?

A. That is correct.

Q. In what capacity?

A. As a consulting Engineer.

Q. Were you the City Engineer?

A. No, sir.

Q. Were you Consulting Engineer only in public utility matters?

A. That is correct.

Q. While you were working for the City of San Antonio, did you have occasion to make appraisals of some public utility concerns serving that city?

A. I did not.

Q. What did you do?

A. I made a report for the City of San Antonio in connection with what I considered would be proper rates for the sale of domestic gas in the City of San Antonio, and also represented the City of San Antonio in a hearing before the Texas Railroad Commission.

Q. In the hearing before the Texas Railroad Commission did you testify as to the value of any public service property?

A. I don't recall, Mr. Fitzhugh, that I testified as to the values of any public service properties, because I made no estimate of the value of any public service property in connection with that case.

Q. Did you testify as to what would be the proper over-[fol. 1438] heads to include?

A. I don't recall.

Q. Besides representing the City of San Antonio you have served various times on the public's side of rate questions, have you not?

A. Yes.

Q. Now, during the time that you represented clients other than public service corporations you had different ideas as to the proper overheads to include, did you not?

A. I may have had, Mr. Fitzhugh.

Q. At different times when you testified in connection with such matters during that period in your engineering experience you testified consistently that taxes during construction were not a proper overhead to include in an appraisal, did you not.

A. I may have, and I may not have. I do not recall.

Q. The same is true of your views at that time regarding going value or going-concern value; isn't that true?

A. I would have to see specifically or know specifically the particular circumstances surrounding the manner in which the determination was made. I will state frankly that since 1920, or thereabouts, my opinion in those matters has substantially changed.

Q. Yes, sir. And prior to the time that you started representing public service concerns it was also your opinion, was

it not, Mr. Connor, that the cost of financing or that cost as it might become a part of preliminary or organization overheads was also properly excluded for the purpose of making [fol. 1439] a rate valuation?

A. I don't know that it extended, Mr. Fitzhugh, to the cost of brokerage. I still think, as I stated in my direct testimony, that any inclusion of discount of securities, would certainly be an improper inclusion in a rate matter.

Q. And the same is also true of promoter's fees, is it not?

A. Well, I think my experience in the matter of the actual incurrence of fees and remunerations to originators of a natural gas project was acquired subsequent to the time that I represented the City of San Antonio, and in connection with that representation of the City of San Antonio at that same time I was also retained as Consulting Engineer by Lone Star Gas Company and by the Palmer Corporation of Shreveport, Louisiana.

Q. At any rate, Mr. Connor, since you have given over your services almost exclusively to public service corporations you have radically changed your idea as to proper overheads to include in a rate-making appraisal, have you not?

A. Well, I think a great many of the views that people have are sometimes changed by experience, by added knowledge, and by factors which are beyond their control.

Q. But you will grant, will you not, that you have had a change of heart since you changed sides?

A. Well, I have not changed sides, Mr. Fitzhugh. I am at this time engaged to represent the City of Corpus Christi just as soon as the case is tried.

Q. The City of Corpus Christi?

A. Yes, sir.

[fol. 1440] Q. Against whom?

A. Against the gas company.

Q. Against what gas company?

A. The old artificial gas company that originally had a plant in Corpus Christi.

Q. Isn't that a municipally-owned system today?

A. The one that the City of Corpus Christi operates is a municipally-owned plant, yes.

Q. And likewise the gas supply, do they not?

A. Yes, sir. I designed the plant and helped the City of Corpus Christi put that plant in.

Q. All right. But there is no doubt, is there, Mr. Connor, but what you have about-faced on several of these overheads since about the year 1920?

A. It would depend very largely, I think, as to whether or not the San Antonio Public Service Company, for instance, in their current operating charges——

Q. Excuse me, Mr. Connor. Answer that question "yes" or "no", and then explain.

A. I think I have answered the question already.

Q. Well, I am asking you now isn't it a fact that after about the year 1920 you have about-faced your views on some overheads? Now, answer that question and then make whatever explanation you feel called upon to make.

A. That is correct.

Q. Now, when Mr. Biddison testified heretofore as to the total cost of what he called reproductions of the company's [fol. 1441] properties as that cost applied to the direct structural cost, as I believe he termed the cost, he arrived at a value of forty-nine million five hundred thousand dollars plus, did he not?

A. I don't recall the exact figures, Mr. Fitzhugh. I presume that is correct. I don't know.

Q. That figure included, did it not, Mr. Connor, all the job overheads?

A. Mr. Biddison's estimate included, as I conceive his estimate, all expenses which would be incurred on the job.

Q. Including job overheads?

A. That included such job overheads as would be properly assignable to a particular piece of construction; that is correct.

Q. Now, you come along and add to Mr. Biddison's findings approximately fifty per cent of the amount that he found?

A. For what?

Q. For the general properties?

A. No, sir.

Q. Well, that amount is twenty-four million four hundred thousand and something, isn't it?

A. Yes, but you are not specific. That does not represent my estimate of the general and undistributed costs of constructing the property.

Q. Well, that represents your estimate of the general and undistributed costs, at least, your intangibles?

A. Well, it represents interest during construction, taxes during construction, the cost of reproducing the business, [fol. 1442] and the preliminary and development costs.

Q. Well, to make it plain, your costs include the general overheads, including interest and taxes during construction?

A. That is correct.

Q. In addition to the going value?

A. That is right.

Q. Working capital?

A. That is right.

Q. And engineering records, all that sort of thing?

A. Well, I think Mr. Biddison included in his estimate, Mr. Fitzhugh, the engineering records—final engineering records.

Q. But you include in yours the preliminary engineering records, do you not?

A. Not any preliminary engineering records. I have included in my estimate what I term general engineering, which would be engineering required for the construction of the property, as distinguished from the preparation of the final engineering records.

Q. Well, anyway, your final amount for those things is twenty-four million plus; isn't that right?

A. $23,209,834.00.

Q. Who was it that was responsible for the estimated cost of final engineering records?

A. I was responsible for it.

Q. That is in the amount of $765,690.35, is it not?

A. That is correct.

[fol. 1443] Q. So, all in all, you have contributed to this Exhibit 28 findings covering property and overheads worth $23,209,834.00; isn't that correct?

A. That is the sum shown on page 1 of Volume 7, Exhibit 28. The analysis of that sum discloses the fact that of the so-called undistributed overheads attributable to the construction of this property that I have estimated them at an amount not to exceed four and one-half million dollars.

* * * * * * *

Q. You mean twenty-four and a half million, don't you?

A. No, sir; I mean exactly what I said.

[fol. 1444] Q. You estimated, did you not, Mr. Connor, that Preliminary and Organization Expenses for the repro-

duction of the Company's properties alone would be $4,474,272.00?

A. Yes; but that is not a general undistributed overhead during construction; it has nothing to do with the construction of the property except to get the situation ready to start construction.

Q. Now, as I understood you just a minute ago, I thought you said four and one-half million represented the total overhead you found on the Company's construction.

A. No, I didn't say that, Mr. Fitzhugh. I said that represented undistributed general costs which I estimated would be attributable to the construction of this property. Now, I do not construe that the cost of interest can be construed in the same sense as the salaries and expenses of men engaged in the supervision of a property under construction. That is a cost which is incurred by reason of the use of money in construction. Of course, it is a part of the over-all cost of the property, but it is not represented by salaries and expenses of men engaged in the general supervision of the property during construction. I think a clear-cut distinction can be drawn there.

Q. All right. Now, Mr. Connor, the things that you have evaluated in Volume 7 and Volume 8 and which you have been testifying to these last few days, aggregate a [fol. 1445] total amount of twenty-four million dollars, do they not—plus?

A. Well, now, Mr. Fitzhugh, let's understand each other. The estimate which I show on page 10 of Volume 7 is $23,209,834.00.

Q. Well, now if you add the final engineering records of $765,000.00, plus, we will know then just exactly what part you played in making this appraisal, won't we?

A. That is correct; but that is not an overhead cost; that is a reproduction cost of a piece of the physical property.

Q. All right, call it what you will. Now, you and Mr. Steinberger and Mr. Biddison have collaborated in producing what is known in this case now as Exhibit 28, have you not?

A. Yes, Mr. Biddison and I and Mr. Steinberger have collaborated throughout the preparation of this report.

Q. The whole purpose of this exhibit is to find the present value of the Company's property by a measure of its reproduction value at the present time at present prices, is it not?

A. So far as I am concerned, it is not an attempt to find the present value of the property; that is for somebody else to determine. So far as I am concerned, I am simply here and have been engaged in an effort to determine what it would cost to reproduce this property.

[fol. 1446] Q. You know what purpose is going to be made of this appraisal, don't you? You have been in rate cases before. You realize that this exhibit is going to be used as a basis for seeing what the present value of the Company's properties are as of the date of this hearing?

A. I think the exhibit, Mr. Fitzhugh, speaks for itself. It says that it is a cost—an estimate of the cost of reproducing the property.

Q. Yes; but, Mr. Connor, I am asking you if you don't know what the purpose of this thing is.

A. Yes, I know the purpose of it——

Q. All right, sir.

A. —because the reproduction cost is one of the measures of value, and it is offered, I presume, by the Company for the purpose of showing what that measure of value, along with other measures of value, is.

Q. And it is supporsed to be applied, is it not, Mr. Connor, as a measure of the value of the properties as they actually are to-day, and not of some other and different properties?

A. That is correct.

Q. Now, you make certain basic assumptions before you start finding value by the reproduction method, do you not?

A. I think you have to, Mr. Fitzhugh, and I did, yes, sir.

Q. One of the assumptions you make is that the property [fol. 1447] does not exist?

A. That is correct.

Q. That is, you assume that none of the lines of the Company that are in existence to-day are in existence at all, do you not?

A. That is correct.

Q. Do you assume, Mr. Connor, that none of the gas fields or gas wells from which the Company now takes gas, are in existence?

A. I have assumed that in so far as the development of gas fields has been brought about by the drilling of wells by Lone Star Gas Company or for the supplying of gas to

Lone Star Gas Company, that that development would be non-existent; that is correct.

Q. That is, you assume that all the Company-developed wells do not exist?

A. That is correct.

Q. All the wells built by other owners do exist?

A. Not all of them. Those wells which would be—which have come into existence by reason of the fact that Lone Star Gas Company has been there as an agency to deliver gas, I have assumed that that development does not exist.

Q. Do you assume that the Company has been in possession of any of the geological investigations that it has made as of the present date, as those apply to its own wells [fol. 1448] or those of other owners of wells?

A. No, sir, I do not.

Q. Has no geological records whatsoever?

A. No, sir.

Q. Has no engineering records?

A. No, sir.

Q. Has no accounting records?

A. Absolutely not.

Q. In fact, it hasn't a scrap of paper of any description or kind?

A. That is correct.

Q. All right. You assume also, Mr. Connor, that it has no personnel and not a single person of the present operating organization?

A. That is correct.

Q. There is no Mr. Griffith, no Mr. Dunn, no Mr. Crawford, no Mr. Hulcy, no Mr. Connor?

A. That is correct.

Q. You assume, do you not, that none of the distributing companies to which the Company now sells gas at the city gates of various towns and citites of Texas and Oklahoma —that none of those companies' distributing systems exist?

A. That is exactly correct.

Q. You assume, do you not, that there are——

A. Except with this exception,—I have assumed that [fol. 1449] wherever a city is sufficiently large to justify the existence of an artificial gas plant prior to the introduction of natural gas, I have assumed that such plants would be in existence and in operation.

Q. Well, now, what towns are those?

A. They are the towns which I have designated in Volume 8 as the towns in Class A and Class B.

Q. On about what page is that? Is that on page 95—pages 94 and 95? The towns shown on those pages in Group A and Group B are Dallas, Fort Worth, Abilene, Cleburne, Denison, Sherman, Waco, and Wichita Falls.

A. No; add to that Corsicana, Greenville, Paris, and Temple.

Q. All right. You assume as of January 1, 1933, that these towns had artificial gas systems, do you not?

A. That is correct; I would have normally, yes.

Q. Now, you say that the Company has as of the date of this appraisal 230 domestic consumers attached to the Company's lines?

A. Approximately 230,000.

Q. Yes, 230,000.

A. Yes, that is correct.

Q. Now, for the purpose of making your appraisal, you assume that none of those consumers are attached except as are attached to the artificial distributing companies in the towns just named?

[fol. 1450] A. That is correct.

Q. Now, in the towns where you assume artificial gas is being furnished for domestic consumption, at what price do you assume that the artificial gas is being delivered?

A. I made no assumption of that rate.

Q. Well, it is a matter of common knowledge that artificial gas is more expensive than natural gas, isn't it?

A. Very much so.

Q. So you assume that even in those towns there is a less number of soncumers attached to the Company lines than would be if they were served as of this date with natural gas?

A. That is correct. That is always the case.

Q. Now, you assume, do you not, Mr. Connor, that in order to get ready, as you say, to build this enormous gas system, people would have to go out and find where the gas is?

A. That is correct—convince themselves that it was there, and convince other people that it was there.

Q. There would be considerable doubt *at* it, wouldn't there?

A. There would be if you would eliminate all of the de-

velopment which has been brought about by reason of the existence of Lone Star Gas Company.

Q. They would have to go and find, would they not, what [fol. 1451] the geology of the fields is where the Company now is buying gas and where it has extensive geological records?

A. That is correct.

Q. They would have to go out and find, even, if customers would attach to the Company's lines, would they not?

* * * * * * *

A. They would have to go out? I presume that you mean the men that were proposing to build this property?

Q. Yes sir.

A. They would make definite, complete studies of each and every town which is now attached to Lone Star Gas Company's system, together with other towns which are not attached to Lone Star Gas Company's system.

Q. In these towns where no artificial gas systems exist, what do you conceive of the people there as using for fuel as of the date when the preliminary investigation starts?

A. I think that in these small towns the fuel is largely wood, coal, and oil; some little electricity.

Q. Now, in those instances, of course, you assume that when natural gas comes into those towns there will be a [fol. 1452] great fight with all these other fuels to try to get them on the gas system?

A. No, sir, I assume just exactly what actually happens.

Q. Well, you do assume, do you not, for the purpose of finding your general overheads, and the cost of getting customers attached, and going value, and so forth, that gas—that the use of gas will have to be taught to those people—you will have to drag them away from their coal and their wood and their other fuels, in order to make them attach to your gas system,—isn't that correct?

A. I made no such assumption; I simply took the actual experience of the Company on the rate at which these customers would be attached and at the rate at which they would increase their use of gas.

Q. Well, whether you make your assumption or not for finding your cost, Mr. Connor——

A. But I didn't make any such assumption as you are attempting to put in my mouth.

Q. I am conceding you didn't. I say conceding, for the purpose of my question that you have not included any of the costs of taking consumers away from other fuels, nevertheless if your towns actually do have consumers using nothing but coal and wood and other fuels, you would have that cost, would you not, when gas came in and started competing with the other fuels?

[fol. 1453] A. Now, just what costs—to just what costs do you refer, Mr. Fitzhugh?

Q. The cost of educating the public to use gas, the cost of teaching people that gas is cheaper than other fuels, of convincing them that they must buy gas appliances, and so forth. You understand all those things as well as I do.

A. Yes; but I have made no inclusion of anything of that sort in this estimate of mine.

Q. I understand, but if you were going to be reasonable about it, oughtn't you to include that cost, if you are going to assume for the purposes of your appraisal that all of those people of those towns, except those which have artificial systems, are actually using no gas but instead are using competitive fuels, such as wood, coal, and oil, and so forth?

A. No; I concede that that is an operating expense of the Company, Mr. Fitzhugh, and I am not concerned and have not been concerned, as I view it, with operating expenses of any kind; in fact, I very studiously avoided giving any consideration to anything except expenses or costs which I would construe to be capital costs; and that is an operating cost, pure and simple.

Q. All right sir. Now, Mr. Connor, in the towns where you conceive of the towns having an artificial gas system, but where you say the consumers would be less than as of [fol. 1454] the date of your appraisal, of course, the owners that you conceive as being actually attached to the artificial system would have gas appliances, would they not?

A. Yes; but the estimate which I have made in connection with towns situated as you have described, is based upon the actual experience of the Company in attaching business in the town where such a situation existed.

Q. I understand that, but I am trying to get back to your basic assumptions now, Mr. Connor. You assume that the persons that are attached to those artificial systems do have gas appliances, don't you?

A. Yes, they would have gas appliances.

Q. Now, this number that you say is actually attached as of this date, but who would not be attached to the artificial system, does not even have gas stoves, does it?

A. No, they would not even have gas stoves.

Q. In towns where there are no artificial gas systems—the smaller towns, you conceive of those consumers having no gas appliances, do you not?

A. That is correct. Why should they have them if there wasn't any pipe line in there?

Q. Of course, you have to make that assumption to be consistent; I grant that. You assume further, do you not, that in all towns except those having artificial gas systems, [fol. 1455] or those which you assume have artificial gas systems, that there would be no company affiliated with your company or any other, having a franchise to sell gas to domestic consumers within these towns?

A. I assume, as is clearly set out in the exhibit, that coincident with the construction of the lines by Lone Star Gas Company into the territory in which these towns are located that natural gas distributing systems would be built.

Q. I understand that, but now answer my question,—did you assume, before you did anything in getting a starting point, that in towns where there were none of these assumed artificial systems, that there was no company affiliated with your proposed company that had a franchise to sell gas to domestic consumers?

A. That is correct. I assumed, and I think properly so, that before Lone Star Gas Company was built, that there would be no isolated, unattached natural gas distribution systems located in towns like Midlothian, Round Rock, Hutto, and so forth.

Q. All right, sir. Now, to really get into your exhibit, the first item is Preliminary Development and Organization costs, in a total amount of $4,474,272.00. Now, you have on your summary sheet, page 8, Volume 7, a number of items which you say make up the Preliminary Development and Organization Costs. Have any of these items [fol. 1456] of expense actually been incurred by the Company in building its properties?

A. You mean Lone Star Gas Company?

Q. Yes, sir.

A. I would say that a number of those expenses have actually been incurred.

Q. Which ones?

A. Well, I think that the originating group of Lone Star Gas Company perhaps received a very substantial remuneration.

Q. What was the amount?

A. I don't know.

Q. How do you know it was actually incurred, if you can not state the amount?

A. Well, I know that the originating group of Lone Star Gas Company transferred leases to the Company at the date of its organization which gave these originators of of the project a substantial profit. The leases that they transferred to Lone Star Gas Company and subsequently developed would be very much more valuable than the price at which they were transferred; but, nevertheless, the men that originated Lone Star Gas Company received a substantial remuneration for the exploration services which they had rendered in connection with the development and securing of the gas supply.

[fol. 1457] Q. Can you give——

A. Now, each and every one of these expenses was incurred perhaps in a much less degree than I have estimated here, and I think I have made it as clear as a person could make it that in making a reproduction cost of Lone Star Gas Company as of January 1st, 1933, a company with 4,000 miles of pipe line, 35,000 horse-power compressor stations, taking gas from twenty-five or thirty gas fields scattered over the States of Texas and Oklahoma, was not comparable to those expenses which would be incurred in the initiation of the original Lone Star Gas Company, which was simply one pipe line from the Petrolia Field to the City of Fort Worth.

[fol. 1458] Q. Mr. Connor, you would not expect to find value at the present time by a reproduction method that was inconsistent with the company's historical past, would you?

A. Why certainly; I do not think what has historically occurred in the matter of costs or expenditures necessarily has anything to do with present value, any more than reproduction cost necessarily has anything to do with present value. You can go right out here to the University of

Texas and see a perfect example of that. The University of Texas built Four Million Dollars worth of buildings out there on the campus two years ago, and today to reproduce those identical buildings it would cost you a least Five and a Half Million Dollars. On the other hand, they have a building out there now that they are tearing down, and that building isn't worth anything, but it would cost a lot of money to reproduce it.

Q. Mr. Connor, I don't object to you using and including in your appraisal those items where you have actually had some cost in the past for such items, but my objection is here to you using or including a value for some item as to which the company has had no cost whatever at any time in the past, and where they never incurred any such a cost, and the analogy would be to appraise a building at the University of Texas where the building had never even been built.

A. I don't agree with you.

Q. Well now, has the company ever had any cost of marketing any first mortgage bonds, at any time in the [fol. 1459] past, as you have shown it here?

A. I don't know. They issued some bonds back in the early days of the company, but I don't know what happened back then.

Q. Well, we are trying to take the company as it exists today, are we not Mr. Connor?

A. Yes.

Q. All right then. Now does the company have any first mortgage bonds now?

A. No.

Q. Not a one, does it?

A. No, that's right.

Q. And still you have included in your appraisal here a cost of $1,430,000.00 for the marketing of first mortgage bonds which the company doesn't even have.

A. That is correct, and if the company today was to reproduced and went out and attempted to secure the funds which would be necessary to reproduce this property, by the sale of common shares, the costs would be substantially in excess of the estimate which I have made for the marketing of first mortgage bonds.

Q. That's your guess?

A. No, sir.

Q. And you have also included in here the costs of marketing preferred stock?

A. Yes, sir.

Q. And does the Lone Star Gas Company at this time have outstanding any shares of preferred stock?

[fol. 1460] A. No sir.

Q. But you have included in here $855,000.00 for the cost of marketing of a security that it does not even have at this time, have you not?

A. That is correct.

Q. It has no preferred stock at all.

A. That is correct. What the Lone Star Gas Company does have at this time is money invested in pipe lines and equipment sufficient to build this property; it does have that, and that money has been accumulated and gathered together. Now if this property were to be reproduced, that money would have to be secured somewhere, and I picked out the cheapest way to get that money.

Q. Mr. Connor, suppose we had insisted on evaluating some other pipe lines than the ones which the company actually has. You would not think that would be a proper method, would you?

A. What do you mean, Mr. Fitzhugh?

Q. In finding value here, suppose we had tried to evaluate a substitute plant, or the pipe lines of another company, which were 4,000 miles long, rather than to take the actual plant which the Lone Star Gas Company has.

A. I don't think the analogy is correct.

Q. You wouldn't think that is a proper method, would you?

A. No, I would not.

Q. Then why do you insist on taking some other capital structure, which might be applicable to some other company [fol. 1461] than the Lone Star Gas Company as it exists today?

A. Why, for the reason that I have just stated, Mr. Fitzhugh—that I think that would be the cheapest way the Lone Star Gas Company could gather together and secure, for the purposes of constructing its property, the amount of money that would be required to do it.

Q. Just what is the capital structure of the Lone Star Gas Company at this time?

A. I don't know, Mr. Fitzhugh, except that it consists entirely of common shares.

Q. The shares are no-par shares, are they not?

A. I think that is correct.

Q. Do you know how much has actually been paid in?

A. How do you mean—actually paid in?

Q. As representing those common shares, in money or in property?

A. No, I do not.

Q. Haven't you made an investigation of the books on that particular point, Mr. Connor?

A. No, sir; I do not see what that would have to do with the cost of reproducing the property.

Q. You do know that the amount is around $12,500,000.00 for the amount actually paid in, do you not?

A. No sir, I do not.

Q. Of this total of $4,474,272.00, what proportion actually shows on the books of the company?

A. I don't know. In amplifying my answer to your question, I would say that an engineer making a reproduction [fol. 1462] cost estimate of a property of this kind, would be hard put to make an estimate, if something had happened to the books of the company, according to your theory as expressed by your questions to me.

Q. Yes, but nothing has happened to your books, has there, except what you have done to them? Isn't that right? Your books are in good shape, aren't they?

A. I presume that the books and records of the Lone Star Gas Company are in good shape. I know the engineering records of the company are in good shape.

Q. But you have not seen fit to avail yourself of the books, to assist you in computing any of the costs?

A. No sir, because I do not believe the costs of the Lone Star Gas Company as reflected by its books would be the manner in which—or an inspection of those costs or the analysis of those costs, would be the rational manner in which to proceed with an engineering estimate of what it would cost to reproduce the property.

Q. All right. Take up your first item now, preliminary geological investigation, which you show in the amount of $114,444. The time required for this investigation, you say, would be six months, or 180 days. Isn't that right?

A. Yes.

Q. Now, you assume that you would have three parties or rather, four parties, out making that preliminary investigation. Is that correct?

A. That is correct, as is shown on page 20 of Volume 7.

Q. You would have a chief geologist in each group? [fol. 1463] A. No, just one chief geologist.

Q. Well, you would have one geologist in each group, with a chief geologist over the whole; is that right?

A. That is correct.

Q. And the chief geologist would draw $100.00 per day and expenses; is that right?

A. That is correct.

Q. And a geologist in each of the parties, who would draw $35.00 a day and expenses?

A. That's right.

Q. And an assistant geologist in each of the four parties would draw $25.00 a day and expenses?

A. That is correct.

Q. And an instrument man in each party would draw $20.00 a day and expenses?

A. That is correct.

Q. Now, where would these men be during the 180 days that you have figured would be consumed in doing this work?

A. They would be—or they would cover the territory in Southern half of the state of Oklahoma, and practically all of the State of Texas, and a part of the state of southeast New Mexico.

Q. Well, you don't have any wells in New Mexico do you?

A. No sir.

Q. But they would be out there looking for gas, just the same?

A. They would make an investigation of the entire territory; that is correct.

Q. Now these parties working in Texas—that is, the one [fol. 1464] assigned to the Texas Panhandle, and West Texas and Northern Mexico, and all other areas, would cover practically the entire state, wouldn't they?

A. Except the Gulf Coast section.

Q. Why not the Gulf Coast—is that too far away?

A. Too far away from the markets.

Q. Now, you assume that this field party going to the Texas Panhandle would not know a thing about the company wells that have already been drilled in the Panhandle?

A. No, not if the property of the company is going to be reproduced; they wouldn't be there.

Q. Would they be right sure that there was a gas field there, even?

A. They might, but they would want to find out a good deal about that gas field.

Q. To what extent would they know of the geological investigations of other companies?

A. Why, they would necessarily inform themselves with reference to all information which was available, and I have assumed that all of that information would be available, except as to the development which has taken place by reason of the Lone Star Gas Company's historical operations.

Q. Now your company operates in the Leeray field, in West Texas, practically exclusively, taking care of that field, does it not?

A. What do you mean, Mr. Fitzhugh, practically exclusively?

Q. Well, there are no other pipe lines except yours running into that field, are there?

[fol. 1465] A. No; no major transportation line.

Q. Practically all the wells drilled there are company wells, are they not?

A. Yes, a very large per cent of them.

Q. I suppose you would assume as to that field that nobody knew that field existed, would you not?

A. My assumption is as I have stated it; that so far as the development has been the result of the operations of Lone Star Gas Company, I think I have been consistent in assuming that such development did not exist, because the company does not exist if it is to be reproduced.

Q. But the company was responsible for the development of the Leeray field, wasn't it?

A. Yes, it has developed the geology of the Leeray field, and I think it is entitled to credit for that work.

Q. So, in that case you would not assume anything at all was known about the Leeray field, would you?

A. Very little, from the gas standpoint.

Q. Would you assume they knew anything?

A. Yes, there would be some geological information, because quite a bit of oil has been developed in that territory.

Q. But so far as gas is concerned, where the company has done all of the gas development—all of that, you assume, would be absolutely unknown?

A. That is correct.

Q. Now Mr. Connor, you testified on direct examination in giving your qualifications that you are not a geologist?

[fol. 1466] A. That is correct.

Q. And that you have had very little experience with drilling?

A. That is correct.

Q. Now, how do you know what the costs incurred in doing geological work would be?

A. Well, in the first place, I have seen these costs actually incurred by reason of my connection with other companies, going through exactly the period for which I have made an estimate for Lone Star Gas Company.

Q. Didn't you testify in the hearing before the Commission, Mr. Connor, that for finding similar expenses for this particular work, that you consulted with somebody?

A. Certainly, and I have not finished my answer yet, either. I am going to repeat that same thing here.

Q. All right.

A. In my work in connection with the preparation of certain portions of this exhibit, I consulted with men connected with the Lone Star Gas Company who were best qualified to give me definite information relative to what I wanted to know, and in connection with the geological work, I conferred and consulted and worked with Mr. Frank Kendrick, the chief geologist of the Lone Star Gas Company, who is perhaps more familiar with the Leeray territory and the Shamrock territory than any other natural gas geologist in the state of Texas.

Q. In picking out the type of man that you would have working as a chief geologist, I suppose you took a man of about Mr. Kendrick's caliber, didn't you?

[fol. 1467] A. I don't know that under the conditions which would be met with in the making of a preliminary geological investigation of this kind, that you would be so fortunate as to get a man as well qualified as is Mr. Frank Kendrick; but the estimate of the rates of pay which I have used in this estimate, is based upon the per diem fees which are charged by reputable, nationally known geological organizations, who put their man into the field and do specific work for their clients, as distinguished from a regularly employed geologist connected with the company. Just like Mr. Freese, in representing his engineering firm on an investigation, would charge a per diem for his services which would be higher than the rate of salary which would be paid to a regularly employed engineer of some company.

Q. Well, is there any reason, Mr. Connor, why this geologist should not be regularly employed?

A. Yes.

Q. He will not only do this investigating work, but any other geological work from the time he starts, and which you say is necessary on through the operation of the company, after the properties are constructed?

A. Well, that is not the way those things are done, Mr. Fitzhugh, and that is not the way it would be done.

Q. Well, Mr. Kendrick at this time does not get any Hundred Dollars a day and expenses for his work for the company, does he Mr. Connor?

A. Absolutely not, and neither does the geologist which I estimate would be regularly retained by the company get [fol. 1468] any such fee, but here are some men who want some specific information before they organize the corporation. What would they do? They would go to a geological firm which is equipped to render those services; those men don't work every day in the year at that price, but that is the regular cost of a high class geologist working under the conditions under which he would have to work in reproducing Lone Star Gas Company in connection with the preliminary geological investigation.

Q. Did Mr. Kendrick also give you the 180 days working time for those four field parties?

A. Mr. Kendrick outlined what he considered would be the time required to do this work, and the personnel which he thought would be necessary to develop the information that I have outlined.

Q. Did he give you the 180 days working time?

A. I just said that he did?

Q. You say he did?

A. He did.

Q. Mr. Connor, did Mr. Kendrick also give you the firm fee of ten per cent, or a cost in the amount of $10,404.00, which is included as part of your estimate?

A. No, sir.

Q. Where did you get that?

A. I got that as a result of my experience in matters of this kind.

Q. Where a per diem and expenses are the mode of pay on investigations of this sort, Mr. Connor, have you ever [fol. 1469] heard of an addition being made for profit.

A. I have never heard of anyone yet who did not include a firm fee.

Q. Isn't that usually included as part of the per diem?

A. No sir, it is not.

Q. Your next item, I believe is preliminary engineering investigation, in the amount of $46,695.00. In this set up you include a chief engineer in charge, ninety days at $100.00 per day and expenses, do you not?

A. Yes.

Q. Four office engineers, at 360 days each, at $35.00 a day and expenses?

A. That is correct.

Q. In field expenses, you have a field engineer at sixty days, $50.00 a day, and another field engineer 45 days at $50.00 per day?

A. Yes.

Q. And field engineers, 325 days at $25.00 per day, and that is plus expenses in all cases?

A. That is correct.

Q. Now Mr. Connor, who gave you the number of days and the per diems to apply to the labors of these men?

A. No body.

Q. Where did you get it?

A. From my own experience in doing this exact type of work.

Q. Where you worked as a chief engineer in charge, Mr. Connor, do you get a per diem of $100.00 per day and expenses?

A. For the last ten years, I don't think I have ever [fol. 1470] worked for any less than that, on work of this character.

Q. Well now, just to summarize the work done by these people, they go out, do they not, Mr. Connor, and just look over the general topography of the country, and make an estimate of what pipe lines will be necessary to connect up with the gas fields as found by the geological parties, to get to the markets?

A. That is correct. So far as their estimate or design or layout of the system, that is preliminary altogether, and it is only gotten up in sufficient detail to give the people who are interested in the project an approximate idea of what the total ultimate cost of the construction will be. I have made numbers of estimates of that character, and they are in every case preliminary in their nature. Now the studies with reference to the towns and the probable

sales which can be secured from the towns, would be more in detail than the estimate of the pipe line construction.

Q. You did not attempt to check this item of expense back against the actual cost records of the company, any more than you did the preliminary geological, did you?

A. No.

Q. You have also included detailed geological work for one year, in an amount of $78,420.00?

A. That is correct.

Q. Where you have included in your detail on page 31 office rent, what is the source of your figures on that?

[fol. 1471] A. That is merely an estimate of the rental of the space which would be required to house the chief geologist and the men that he would have in the Dallas office.

Q. Where you include telephone and telegraph at $50.00 a month, and supplies at $100.00 per month, is that likewise simply an estimate?

A. That is an estimate, yes.

Q. You don't have any facts to apply back to that or fall back on to verify those figures, have you?

A. No, other than that I think they are reasonable.

Q. You don't have any idea of what telephone calls or telephoning would be done, or what the average number of long distance calls would be, have you?

A. No, but there would be quite a number of long distance telephone calls.

Q. Now, just to generalize, Mr. Connor, what does this group do?

A. This group is the engineering organization which would be necessary in order to reproduce the geological records now in possession of Lone Star Gas Company, and as developed in the subsequent sections of the estimate, this organization is continued through the construction period, for it is estimated that such an organization would be required during the preliminary and organization period as well as the construction period, in order to reproduce the geological records and information in possession of the Lone Star Gas Company as of January 1, 1933.

Q. It is not the purpose of this organization, is it Mr. [fol. 1472] Connor, to take any other data found by the people working and already included by you as a part of the preliminary geological investigation?

A. Oh, yes.

Q. And work from those records?

A. They would have possession of all the information developed by the other parties.

Q. In addition to that, what else would they have?

A. They would have available such geological information as would be or as could be secured by them from sources other than that information which has been developed and secured by reason of the existence of the Lone Star Gas Company.

Q. This is the same sort of work that is now still being done by the company, is it not—keeping up the geological records of the company?

A. Yes, they have a small organization now, in the office, which is engaged in doing current geological work which is necessary for the operation of the company.

Q. Are you aware of the fact, Mr. Connor, that Mr. Hulcy in his accounting exhibits already introduced, has included as an operating expense, the cost of currently keeping up the geological records?

A. I presume that Mr. Hulcy has included as a part of his operating expenses, such part of Mr. Kendrick's time and his assistant's time, as are properly chargeable to operating expenses.

Q. And further more, do you not know it to be a fact, Mr. Connor, that the cost of doing this sort of work has in [fol. 1473] the past been charged to operating expenses, and not capitalized on the books of the company?

A. I don't know to what extent the past history of the Lone Star Gas Company's operations would disclose the capitalization of geological expenses. I doubt very seriously if any of that expense has been capitalized during the past year.

Q. Now, if that is correct, Mr. Connor, that there has been no capitalization of this type of expense on the books of the company, but that in the past it has been charged entirely to operating expenses, if the same was to be done in the future wouldn't the inclusion of the operating expenses in Mr. Hulcy's exhibit and the inclusion of the same type of thing in your appraisal be a duplication?

A. No, not if the expenses and work which Mr. Kendrick and his assistants have done during the period covered by Mr. Hulcy's operating analysis are properly charg-able to

operating expenses. Now, if they were properly charge-able to capital account, and then had been included as an operating expense, I would say that the operating records of the company should be adjusted to that extent, but in making a reproduction cost estimate of the property and business of Lone Star Gas Company as it existed as of January 1, 1933, I was in no way controlled or influenced by the manner or means by which Lone Star Gas Company came into possession of the property which I appraised. They might have charged the office building to operating expense, for all I know, but in making a reproduction cost estimate of the property and business of the company, I think an engi-
[fol. 1474] neer would be required to place the reproduction cost *g*value, or cost estimate, upon that structure no matter how it had been acquired.

Q. You have included in this estimate all the costs necessary to reproduce the geological records of the company that were acquired during 1931 and 1932, have you not?

A. Well, I don't know just what geological records were acquired or what portion of the total of such records were acquired in that period of time, Mr. Fitzhugh. I included in this estimate, of course, the geological records in possession of the Lone Star Gas Company as of January 1, 1933.

Q. One Hundred Per Cent?

A. That is correct.

* * * * * * *

[fol. 1475] Q. Now, Mr. Connor, the next three things appearing in your Preliminary Development and Organization Costs are Fiscal Agents geological checking, Fiscal Agents Engineering checking, and Fiscal Agents title certification. All these items are in addition to the ones we have been talking about heretofore, are they not?

A. Yes.

Q. As a matter of historical fact, Mr. Connor, the Company has never had the need of a fiscal agent, have they?

A. Yes, I think they have.

Q. Who was the fiscal agent?

A. I think the Lone Star Gas Corporation——

Q. I am talking about the Lone Star Gas Company.

A. I am talking about the Lone Star Gas Company, too.

Q. All right; what about it?

A. They have availed themselves of the credit extended by Lone Star Gas Corporation.

Q. Well, do you mean by that that the Lone Star Gas Corporation is the Lone Star Gas Company's fiscal agent?

A. It has acted historically in that capacity.

Q. You have not assumed here that the payments would be made by the Lone Star Gas Company on this organization to the Corporation, have you?

A. No, sir;. You simply asked me what happened historically,——

Q. Yes, sir.

A. —and I gave you what I thought.

[fol. 1476] Q. Why didn't you assume, Mr. Connor, that the company would be organized just as it is organized, as a subsidiary of Lone Star Gas Corporation?

A. Because I think it is proper to make the estimate upon the basis of the reproduction of this particular property without reference to its connection or affiliation with any other property or properties. I don't know that that relation would affect the cost of its reproduction in any particular.

Q. You would not hardly expect if you had anticipated the organization to be exactly as it is now, with the Lone Star Gas Corporation the holding company for the Lone Star Gas Company, that there would have been any charges under those conditions for the Corporation acting as a fiscal agent, would you?

A. You are asking me now to make an assumption, in connection with using the Lone Star Gas Corporation as the fiscal agent for Lone Star Gas Company in the reproduction of this property; is that the idea?

A. If they actually do, as a matter of historical fact, act as the Lone Star Gas Company's fiscal agent, yes, sir?

A. Well, in that case, we would simply have an intermediary between the Lone Star Gas Company and some other concern which would have to furnish the money, and I don't see where a situation of that kind would tend to reduce the estimated cost of reproduction.

[fol. 1477] Maybe I can get at it this way. Have you ever had any cost for fiscal agent title certification?

A. The Lone Star Gas Corporation has.

Q. Well, has the Lone Star Gas Company?

A. I couldn't tell you.

Q. You say the Lone Star Gas Corporation has. What was the amount of that?

A. I don't know.

Q. Did you attempt to find out?

A. No; I didn't even include in my estimate of the cost of marketing these securities the incidental expenses to which Lone Star Gas Company would be put when it marketed its debentures or its preferred stock.

Mr. Griffith: You mean Lone Star Gas Corporation?

A. Yes; Lone Star Gas Corporation. Now, Lone Star Gas Corporation incurred substantial costs in connection with the marketing and issuance of those securities, which I have not included, and which were in addition to the direct brokerage expenses which I have included.

Q. Now, in your item, Undistributed Production Expenses, you have on page 46 a cost of wells in the Leeray Field; for example, you estimate the cost per well of wells in the Leeray Field to be $25,382.00 per well?

A. That is right.

Q. And there are fifteen wells?

[fol. 1478] A. That is correct.

Q. Where did you get the number of wells?

A. The number of wells which I have used was given to me by Mr. Frank Kendrick. The cost of the average well in the Leeray Field was taken from Mr. Biddison's estimate.

Q. Mr. Biddison's?

A. Yes. In order the cost of wells, which I have estimated on page 46, may not be misinterpreted, you understand, I am sure, Mr. Fitzhugh, that none of this cost has been included in my estimate as a part of the Preliminary Development and Organization Expenses.

Q. Yes; I understand there has been a deduction of this in Mr. Hulcy's Exhibit?

A. No; that has no relation to that, Mr. Fitzhugh.

Q. Where was the deduction made?

A. This has never been included in my estimate as a part of the Preliminary and Development Costs. I merely set it out at this point in the appraisal to indicate what out-of-pocket expenses the originators of a project of this kind would be put to before they were assured that those expenses would be reimbursed. Now, Mr. Biddison has included in his estimate the reproduction cost of these wells,

and they are merely inserted at this point in my estimate to indicate certain expenses which would be incurred by the originating group, and they are not included as a part of the expenses of organization and preliminary costs.

[fol. 1479] Q. I understand that, but, Mr. Connor, you took the total for the cost of these wells and applied to that a percentage which you carried forward to your summary sheet on page 8 and included as a part of your Preliminary Development and Organization Costs in the amount of $39,944, did you not?

A. Yes; I did; and I think that Mr. Biddison, likewise, deducted that amount from the estimate of the general and undistributed costs applicable to gas well construction and equipment, which I furnished him. In other words, Mr. Biddison eliminated that amount from his gas well construction and equipment which I furnished him, in order that there might be no duplication on that item.

Q. Well, anyway, this thirty-nine thousand dollar amount —practically forty thousand dollars—is based on the computation shown on page 46, and which computation includes these Leeray wells, fifteen of them, at $25,382.00 a well?

A. That is correct. The way that figure was arrived at, Mr. Fitzhugh, was simply to determine what proportionate part of the reproduction costs of gas well construction and equipment was represented by the costs of general supervision which I estimated for Mr. Biddison. Having made that determination I applied that percentage to this $1,079,555.00. Mr. Biddison's figures on page 5, of Volume 1, specifically excluded that item of thirty-nine thousand dollars.

[fol. 1480] Q. All right. Now, the next item is Organization and Corporate Expenses, one hundred and forty-one thousand dollars plus. Now, that is based upon a capitalization of thirty-eight million dollars worth of bonds, nineteen million dollars worth of preferred stock, and common shares in the amount of seventeen million dollars?

A. That is correct.

Q. The total capitalization then would be seventy-four million dollars?

A. No; I don't think the bonds would be included in the capitalization.

Q. Well, the total amount raised by those issues would be seventy-four million dollars?

A. That is correct, yes, sir.

Q. On page 50 you assume that the attorneys' fees for the fiscal agents and the originating group would be forty-five thousand dollars?

A. Combined, yes, sir.

Q. Now, where do you get that?

A. I base my estimate for the charge made by the attorneys for the fiscal agents upon expenses that I had seen incurred under similar conditions, and involving amounts considerably less than the issue contemplated in this estimate.

Q. Further down in your recapitulation on page 50 you show items for printing mortgage, recording mortgage, and [fol. 1481] engraving bonds. Those items together are around twenty-five thousand dollars, are they not?

A. Yes.

Q. And in addition there is Federal Tax on Bonds, $19,000.00?

A. That is correct.

Q. And Trustee's fees in connection with the bond issue also, are there not?

A. Yes; the Trustee's fees would be in connection with the issue of the bonds.

Q. Now, all those fees you included, notwithstanding the fact the Company at this time has no bonds outstanding?

A. That is correct.

Q. Now, your last item is remuneration for the originating group in the amount of two million dollars. Another name for that would be promoter's fees; is that right?

A. It is so described by the Interstate Commerce Commission in its definition of what constitutes a proper capital item covering organization and preliminary expenses, yes.

Q. Whom did you assume would be the promoters of this company to be organized?

A. Of course, I did not arrange a cast of characters as the basis for this estimate; but I would naturally have in mind that men of the type and ability and experience, such as Mr. George Crawford of Pittsburg, and Mr. L. B. Denning of Dallas, men of that type and that standing in the [fol. 1482] natural gas industry, would be the type of men who would be required to originate and bring into being an enterprise such as the Lone Star Gas Company.

Q. This two million dollars is just a sort of lump sum proposition, then?

A. That is correct.

Q. What instances can you refer to, Mr. Connor, of actual organization of a company where promoter's fees were paid in an amount as large as this—for the organization of a public service corporation similar to the Lone Star Gas Company?

A. I don't know, Mr. Fitzhugh, of a company organized as the Lone Star Gas Company would be organized in reproduction,——

Q. Mr. Connor, would you mind stepping over where you can see this blackboard?

Mr. Griffith: Had you finished your answer, Mr. Connor?

Mr. Connor: No, sir.

A. I was going to state that I had seen fees and remuneration substantially in excess of the amount set out in this estimate when the size of the property was taken into consideration.

Q. Now, have you finished?

A. Yes.

Q. Now, Mr. Connor, the first mortgage bonds are to be [fol. 1483] in what amount under the capitalization, as you imagine it?

A. Thirty-eight million dollars par value.

Q. Thirty-eight million?

A. Yes, sir.

Q. The preferred stock is in what amount?

A. Nineteen million dollars par value.

Q. And the common in what amount?

A. Well, they would have to secure seventeen million dollars approximately from the sale of common shares.

Q. Now, the total capitalization of that is how much—or the total that would raise?

A. The total capitalization would be thirty-six million dollars.

Q. Well, you are organizing a company where you would get thirty-eight million dollars for first mortgage bonds?

A. That is correct.

Q. And nineteen million dollars from preferred stock?

A. That is correct.

Q. And seventeen million dollars from common stock?

A. That is correct.

Q. In other words, your company, after you got all those amounts, would have seventy-four million dollars in it?

A. No; it would not.

Q. How much would it have?

A. It would depend upon the discount at which those [fol. 1484] securities would have to be offered in order to secure their sale.

Q. Well, if there is any discount you figure that is going into the rate base when you find the rate base on a reproduction cost new basis?

A. Absolutely not.

Q. Aren't you suggesting to the jury that they find that the amount of discount in connection with the sale of bonds, preferred stock, and so forth, be included in the rate base as found by the reproduction cost new method?

A. Absolutely not. If reference is made to page 55, Volume 7, Defendant's Exhibit 28, the following language is found: "Discounts on security issues, however, unlike the direct costs of assembling capital, do not represent out-of-pocket expenditures. Furthermore, discount to a greater degree than marketing costs reflects the credit rating of the organizers of the issuing companies, and the coupon rates of the securities issued. In the final analysis, discount is simply an increment above coupon rates of interest, and as such, reflects the cost of money as measured by interest charges. For these reasons, discount on security issues is not a proper element in a rate-base and it is, therefore, omitted in this appraisal as an element of the reproduction cost of Lone Star Gas Company as of January 1, 1933."

[fol. 1485] Q. All right; then, how much money would the Company actually get in its pockets from the sale of its thirty-eight million dollars par value of bonds?

A. It would depend, as I said before, Mr. Fitzhugh, on the discount which would be necessary in order to secure the sale of those securities.

Q. Well, assume, Mr. Connor, that they sold the bonds at par, then they would get the full amount?

A. That is correct, but I don't believe the bonds could possibly be sold at par.

Q. Well, what do you assume they would be sold at?

A. I think they would be luck- to get 90 for those bonds.

Q. To get 90?

A. Absolutely.

Q. How much do you figure the company would raise then by the sale of these thirty-eight million dollars worth of bonds?

A. If you wish to make the calculation, you have the chalk; you can multiply 38 by 90.

* * * * * * *

[fol. 1486] Q. Mr. Connor, you figure that the sale of those securities will be sufficient to build the property, do you not?

A. Not necessarily.

Q. What would be the purpose of selling them, then?

A. I think that that amount of securities would be issued in the first place based upon the information which would be in the possession of the originating group at that time.

Q. Well, wouldn't the sale—suppose that you obtained thirty-eight million dollars represented by the first mortgage bonds, nineteen million represented by the preferred stock, and seventeen million represented by the common; that would be plenty to build the property, wouldn't it?

A. I don't know. I think the practical and actual thing, of course, which would take place would be that the two senior issues would go out in just about that amount and whatever difference was required would be secured and provided by the people who were constructing the property.

Q. Mr. Connor, the grand total for your whole appraisal as found by yourself and Mr. Biddison is only $73,983,405.51, while this amount totals up to seventy-four million. Doesn't that show that if you got all the cash for these securities in the amounts that you have named that you would have enough to build your properties?

A. If you got par value for all of them, you would; yes.

[fol. 1487] Q. All right. Now, taken them as you found them—I'll draw that line across here to show I don't mean that to be an addition. Now, you have testified heretofore before the Commission and other places that the return allowed a public service corporation, after deducting all necessary amounts for operating expenses and depreciation, should be at least ten per cent, have you not?

A. I said that for a natural gas pipe line, yes; not for all public service corporations, no.

Q. All right, sir. On this particular property you figure they ought to get at least ten per cent, do you not, as return?

A. I don't think that Lone Star Gas Company or any other natural gas company could earn ten per cent at this time. I think that, in view of the nature of the business and the hazards involved, a return of ten per cent to the investors in a natural gas property is a reasonable return.

Q. All right. Now, if you earn on this amount ten per cent, what does that figure out to be?

A. $7,398,000 plus.

Q. Now, then, Mr. Connor, what is the interest rate on these bonds?

A. 6.5 divided by .9.

Q. Divided by what—6.5?

A. 6.5 divided by .9.

Q. Why do you say that?

A. Because that is what the money would actually cost.

Q. I see. You are adding to the price at which they would [fol. 1488] sell the price which they would be paid when the end of the term comes?

A. No; I am estimating what I think would be the actual out-of-pocket interest cost in connection with a sale of this kind.

Q. All right. How much would it be, then?

A. 7.22 per cent per annum.

Q. Now, this group of first mortgage bonds has a six and a half per cent coupon?

A. Yes, but that is not the measure of what the interest rate would be to the people who issued it.

Q. Well, that is what the interest rate will be, so far as the people who will have to pay per annum are concerned?

A. Absolutely.

Q. Well, Lone Star Gas Company won't have to pay but six and a half per cent on thirty-eight million per annum?

A. No, but you are asking what the interest rate would be, and I was telling you it would be 7.22 per cent.

Q. I am talking about the coupon interest rate now?

A. That is correct.

Q. Six and a half. How much would that amount be?

. . . . . .

A. $2,470,000.00.

Q. Now, the preferred stock bears eight per cent interest rate, does it not?

A. Yes, that is correct.

[fol. 1489] Q. How much would it require per annum to take care of that?

A. $1,520,000.00.

Q. Now, then, if a return be had by the company of this amount at ten per cent per annum, and $7,398,340.00 be the return after deduction of depreciation and operating expenses, what is the amount left for the common?

A. The difference between the sum of those two top figures and the total that you have at the bottom, assuming that the company was earning ten per cent on the valuation.

Q. How much is that?

A. Somebody calculate that.

Mr. Freese: $3,408,000.00.

Q. Now, do those add up right? Is that right?

A. I presume that it is.

Q. Now, then, if this amount should be left for the common, Mr. Connor, for the common stock, earnings per annum, what would be the per cent the common would be earning on the amount of seventeen million?

A. Approximately twenty per cent.

Q. Twenty per cent plus, isn't it?

A. That is correct.

Q. All right. Now, that completes the picture. In other words, if you have thirty-eight million dollars' worth of mortgage bonds at six and a half per cent, the interest requirements on that per annum will be $2,470,000.00; preferred stock of nineteen million dollars at eight per cent, the requirements for that will be $1,520,000.00. Then, if ten per [fol. 1490] cent be assumed as the rate of return upon the value of seventy-three million dollars as found by you in Exhibit 28, the total amount left for the common stock would give it a twenty per cent return per annum?

A. That is correct, assuming that the rate base was undepreciated and the company earned ten per cent per annum. Now, let me ask you, Mr. Fitzhugh, to make a calculation in which the company might earn six per cent instead of ten per cent on the rate base which you set out there and make a determination of what the earnings of the company on the common stock would be.

1045

Q. You have not testified that any six per cent return would be proper?

A. No, sir.

Q. You want to fix up a rate that will make twenty per cent on the capital and common, don't you?

A. No, sir. And I don't think anybody else I have ever heard of has attempted to make an application of a rate of return except on the over-all value of the property. I have never heard in any case, reported or otherwise, where an attempt has been made to segregate issues of the financial structure of a company and determine what rate of return is being earned on proportionate parts of it.

Q. On this set-up, Mr. Connor, you assume that the thirty-eight million will be sold to the public?

A. Sold to somebody.

[fol. 1491] Q. I am talking about the thirty-eight million dollars represented by the first mortgage bonds, that they will be sold to and held by the public?

A. Sold to and held by people who invest in securities of that kind.

Q. And that the nineteen million represented by the eight per cent preferred stock will be sold to and held by the public?

A. Yes.

Q. And under that set-up only seventeen million dollars would be the amount represented by the company's interest?

A. That is correct.

Q. So for only seventeen million dollars in your hypothetical set-up you fix the thing up so they would get a twenty per cent return on it per annum?

A. If they could earn it.

Q. Yes, sir. Well, they are earning it, aren't they?

A. Who?

[fol. 1492] Q. A company on this sort of a set-up.

A. Well, Lone Star Gas Company is not earning enough to pay the fixed charges on these bonds that you have shown there.

Q. Well, what is the use of fixing up a hypothetical set-up that has no basis in reality, Mr. Connor?

A. Well, because Lone Star Gas Company is not under its present rates earning any money, is that any reason it should not earn any money?

Q. No; but where your company has no bonds and no preferred stock, is that any reason why you should set up a hypothetical company that assumes false conditions?

A. I set up, Mr. Fitzhugh, a method of securing the money which would be required to construct the property and business of Lone Star Gas Company at the cheapest—upon the basis of the cheapest method which could be devised, just exactly like Mr. Biddison, in making his estimate of the reproduction cost of the physical property, used the equipment which would result in the cheapest possible construction costs; Mr. Biddison did not go back to the history of this company and find out what those pipe lines cost; if he had, his estimate of the reproduction cost of the physical property of Lone Star Gas Company would have been substantially increased.

Q. Now, Mr. Connor, in your set-up here for some of these [fol. 1493] first mortgage bonds—which you admit do not exist at all——

A. That is correct.

Q. —you have put in here $1,140,000.00, have you not?

A. Yes, sir.

Q. And that, along with the $855,000.00 for the preferred stock, which have been included in your total values——

A. In my estimate of the cost of reproducing this property.

Q. Yes, sir. Well, those two have been included at the hundred per cent amount in your value as found by Exhibit 28, have they not?

A. In my estimate of the cost of reproducing the property and business of Lone Star Gas Company.

Q. Yes, sir, in the total value as found in your summary on page 8 of this exhibit?

A. If this sheet which I have before me properly reflects what is found on the summary sheet, page 1, the text or the language of that summary is Cost of Reproducing New Public Service Plant, Property, and Business.

Q. All right. Does that total cost, now, for that include this million and however many thousand dollars for the sale of the first mortgage bonds and the $855,000.00 for the preferred stock?

A. That is correct.

Q. Now, your next section shown on your Summary Sheet, page 71, Volume 7, are the Undistributed General Costs.

[fol. 1494] A. Which page is that?

Q. Page 71, Volume 7, Exhibit 28.

A. That is correct.

Q. $503,487.00 represents the total for your Administrative and Legal Costs, Executive Section.

A. That is correct.

Q. The salaries are substantially over half of the total amount, being $397,925.00.

A. That is correct.

Q. How did you find these salaries, Mr. Connor?

A. I estimated those salaries upon the basis of what I thought it would take to secure the type of men who would be capable of administering the affairs of Lone Star Gas Company during the period of its reproduction.

Q. Under that set-up the President would receive $40,000.00 per annum.

A. That is correct.

Q. The Vice-President and General Manager, $30,000.00 per annum.

A. That is correct.

Q. The Vice-President and General Counsel, $20,000.00 per annum.

A. Correct.

Q. The Secretary and Treasurer and the Assistant to the President, $18,000.00 and $12,000.00, respectively.

A. Correct.

[fol. 1495] Q. Mr. Connor, don't you think those salaries are unreasonably high?

A. No, sir, I do not.

Q. Has the Executive Section during this period of depression been earning any prices like that per annum?

A. I am not acquainted with the salaries of the gentlemen in the Executive Section of Lone Star Gas Company.

Q. Did you make any investigation at all as to the prevailing salaries?

A. I didn't think that that was particularly a matter of my business.

Q. Well, how do you know, Mr. Connor, without making investigation of this company or some other company what the prevailing salaries for executives of the type you say the Company has, actually are at the present time?

A. I have a pretty good idea of what it takes to secure men capable of doing the things which would necessarily be required of the executives of a company similar in all respects to Lone Star Gas Company in the process of reproduction. I believe that in a matter of this kind the most expensive and

extravagant thing that could be done would be to secure men whose ability did not measure up to the responsibilities which would be placed upon them. I am perfectly aware that it would have been perhaps much easier for me to sit at this [fol. 1496] table and explain salaries which I do not believe would secure those men; but I was not going to put into this estimate anything except what I thought was reasonable and right and which would actually be paid in connection with work of this character.

Q. On the next page—page 92, you have included the expenses of running four Packard cars, with two chauffeurs at $100.00 per month each, and expenses, for the use of the Executive Section. What makes you think, Mr. Connor, that four cars would be necessary for the use of the Executive Section?

A. Well, the executive officers of this company during the period of construction would be required to be all over this State at various times.

Q. Why would they have to be in Packard cars?

A. Well, because I think that that is the type of equipment that the president of a company of this kind should have.

Q. And why would they have to have two chauffeurs, Mr. Connor?

A. Because men who have reached the point where they are able to administer the affairs of a company as large as this would be, are not, as a rule, young men, and it would be an extravagance of the worst kind to assume that these men engaged in directing the affairs of this company during its construction period would be called upon to drive their own [fol. 1497] automobiles, and diminish their efficiency to that extent.

Q. Why do you assume, Mr. Connor, that the first Packard listed would depreciate 25 per cent per annum—per year, and that the next one would depreciate 33 per cent?

A. Because the two cars would be used somewhat in different classes of work.

Q. You mean one would travel rougher roads than the other?

A. That is correct. The car which would be largely used by the Vice-President and General Manager would receive considerably heavier treatment than the other car.

Q. Aren't you mixed up on that, Mr. Connor; isn't the difference in the per cent on the mileage—based on the mileage?

A. Well, that is true, and the General Manager's car would be used more extensively than the other car.

Q. And that is the reason you have got the 33 per cent on it?

A. Perhaps that is correct.

Q. All right. Now, in addition to the President receiving, under your set-up, $40,000.00 a year pay, he gets $750.00 a month for expenses, does he not?

A. No, he doesn't get that for his expenses; certainly not.

Q. Well, the traveling expenses.

[fol. 1498] A. It is estimated that he would incur expenses in that amount.

Q. And they would be paid for by the company?

A. Most certainly.

Q. At the rate of $750.00 a month?

A. No, not necessarily. That is an estimate of what those expenses would be.

Q. Well, that is what you show in your schedule on page 92, isn't it?

A. Yes, but I don't want you to misinterpret the intent and purpose of that schedule. It is not an additional remuneration for the President of the company, and if I had left your question stand as it was asked, that impression would have been left.

Q. Well, call it what you will, you have included $750.00 per month for the President for his expenses——

A. That is correct.

Q. —as a part of the total that you put into the appraisal?

A. That is correct.

Q. And for the Vice-President, $300.00; the Vice-President and General Counsel, $200.00; the Secretary and Treasurer, $150.00; the Assistant to the President, $200.00; and the Assistant Secretary, $150.00 a month, all for expenses?

A. That is correct.

[fol. 1499] Q. How do you figure, Mr. Connor, that the President is going to spend any such amount as $750.00 a month for nothing but expenses—just traveling expenses?

A. The President of Lone Star Gas Company during the period of construction would be called upon to travel to Pittsburgh, to New York, to Chicago, frequently; in fact,

he would be almost continuously engaged in that sort of work during the earlier part of the construction of this property.

Q. Well, Mr. Connor, the President isn't any more a traveling man than the other executive officers, is he?

A. Yes, I think he is.

Q. Would he have to travel any more than the Assistant to the President, which you show at $200.00 a month?

A. Yes, he would make trips that the Assistant to the President would not make.

Q. He would leave the Assistant behind sometimes?

A. Yes, to look after his duties when he left.

[fol. 1500] Q. All right now, the total time covered by this sort of this- is a six months pre-construction period, a construction period the first year, construction period the second year, and construction period the third year. Is that all?

A. All of what?

Q. All of the time periods that would be covered by this sort of expense.

A. Do you mean for the executive section?

Q. Yes.

A. That is correct, and as I explained yesterday, the proportionate amounts charged to the actual reproduction of the property are reduced each successive year.

Q. Why is it that you assume there wouldn't be some costs for this section during the post-construction period of six months following your third construction year?

A. For the reason, as I explained yesterday Mr. Fitzhugh, that the post-construction period and such costs as would be involved during that period would be confined very largely to the engineering department, concluding its work of bringing up the final records of the company; the purchasing department, the stores department and the accounting department. After the property had passed 100 percent into operation, which I have estimated that it would do at the end of the third construction year, I have assumed that all executive costs would be attributable to the operation of the property, and that fifty percent of these costs would be attributable to the operation of the property during the third construction year and only seventy-five per-
[fol. 1501] cent attributable to construction, during the second construction year.

Q. The next item that appears is the legal section portion of the administrative and legal costs. This amount is shown to be $490,576.00?

A. That is correct.

Q. The same time periods are used in finding these costs, are they not—that is, a pre-construction period of six months, and three periods of one year each representing the construction years?

A. And in the case of the legal department, a charge for the post-construction period, which is brought about by reason of the fact that the legal department would be engaged, after the completion of construction, in settling claims and various other things which would arise in connection with the legal department's work.

Q. On page 106 you show the schedule of salaries which you have assumed for the attorneys making up the legal section?

A. That is correct.

Q. You have listed first attorney, second attorney, and so on up to the seventh attorney?

A. Yes, that is correct.

Q. And then you have first secretary and so on up to the seventh secretary?

A. Yes.

Q. That is, you assume that each attorney has a secretary; is that right?

[fol. 1502] A. During the period of construction of Lone Star Gas Company, yes.

Q. How did you determine the first attorney's salary of $750.00 per month?

A. I determined that that would be a reasonable compensation for a man who would be required to do the work and assume the responsibilities that the first attorney under this schedule would be required to perform.

Q. Isn't this set up, Mr. Connor, similar to the one which the company now has?

A. In some respects, yes.

Q. The first attorney of the company at the present time is not paid any $750.00 a month salary, is he?

A. I do not know what he is paid, but the first attorney of the Lone Star Gas Company now would not be doing the work that this gentleman would be doing in Lone Star Gas Company if it were to be reproduced in a three year period.

Q. Do you mean to say that this would require a more experienced and more competent attorney?

A. No, I don't think it would, but I think he would be called upon to do more work and to handle more work.

Q. I understood you on direct examination, Mr. Connor, that you said the man you had in mind when you picked out the set up here and put in a first attorney, was Mr. Roy Coffee, who is now with the company?

A. Yes, I had a man of that type in mind, yes.

Q. Well now, Mr. Connor, you know as a matter of fact [fol. 1503] that Mr. Roy Coffee does not get any such salary, don't you?

A. I don't know what Mr. Roy Coffee gets.

Q. Well, who did you consult with to get this $750.00 per month, then? You had to ask some attorney what his services were worth, didn't you?

A. I talked to Mr. Coffee about it, and his opinion was that all of those salaries I have estimated there were reasonable and right, in connection with the work which would have to be done, and furthermore, I had at that time in my possession the exact legal costs of a natural gas pipe line company which had been constructed wholesale during practically the very time that I was making this estimate, and I checked my estimate of costs against the actual expenditures capitalized and paid by this company. This company had a property which cost Thirty-Six Million Dollars; their legal expense during construction amounted to $409,438.21.

Q. And notwithstanding you had all of that data from your conversation with Mr. Coffee you concluded that Mr. Coffee was entitled to about a $250 a month raise, didn't you?

A. If you know what Mr. Coffee receives for his services, Mr. Fitzhugh, then you have made inquiries that I have not made.

Q. All right sir; the books of the company contain that information and they are open to you, are they not?

A. Yes.

Q. And you could have found out that from the books themselves?

A. Yes but that is a matter I never investigate.

Q. But you don't consider there is anything reprehensible [fol. 1504] about looking at the books of the company, do you?

A. Well, I think there are certain matters that are personal to a gentleman, yes.

Q. All right; now you have included in here, in addition to the attorneys in your legal section, a whole parcel of attorneys spread all over the map?

A. I would not so designate it.

Q. Well, you have one at Duncan, Oklahoma, haven't you?

A. Yes, and you would have one at Duncan, Oklahoma?

Q. And you have one at Oklahoma City?

A. And you would have one at Oklahoma City.

Q. And one at Wichita Falls?

A. You would need one at Wichita Falls.

Q. And one at Fort Worth, Texas?

A. You would have one at Fort Worth.

Q. And one at Eastland?

A. You would have one at Eastland.

Q. And at Abilene?

A. You would have one at Abilene.

Q. And Waco?

A. And at Waco.

Q. And Sherman?

A. You would have one at Sherman.

Q. And at Austin?

A. And also one at Austin.

Q. And the one at Austin costs you $20,000.00 a year, I see?

A. What is that?

[fol. 1505] Q. No, I read that wrong.

A. Yes, sir.

Q. It says $20,000.00 for fees. Where did you get that $20,000, Mr. Connor?

A. That is an estimate which Mr. Coffee furnished me, as to what the fees in addition to the retainers would be.

Q. Well, that doesn't mean fees at Austin alone, then, does it?

A. No.

Q. Fees on the whole outfit?

A. Fees on the whole outfit.

Mr. Griffith: May I ask a question?

Mr. Fitzhugh: Yes.

Mr. Griffith: Mr. Connor, on page 105 of Volume VII of

Defendant's Exhibit 28, what do you have set out as the per annum cost of an attorney at Austin?

A. $1,000.00.

Mr. Griffith: One thousand dollars.

Mr. Fitzhugh:

Q. Well, that is just the retainer, isn't it?

A. That is the retainer, yes.

Q. And he gets that if he doesn't do anything, doesn't he?

A. Well, I wouldn't say that.

Q. And then if he does any work, he gets fees in addition to his $1,000.00, doesn't he?

A. He would be entitled to it, yes.

Q. That is, under your hypothetical set up, isn't it?

A. Well, it is not only hypothetical in that particular instance, but it is a matter of historical facts.

[fol. 1506] Q. On pages 108, 109, 110, 111 and 112 you show the costs you have computed for court costs and expenses in suits you say the company might have; is that right?

A. That is correct, and that estimate was prepared for me by Mr. Roy C. Coffee, attorney for the Lone Star Gas Company.

Q. In order to get those costs, you had to assume, did you not, that there would be 200 suits per annum?

A. Mr. Coffee gave me those figures, which in turn were based upon Mr. Coffee's actual experience as to the number of suits in which Lone Star Gas Company participated during a period of time in which a substantial amount of construction was actually in progress.

Q. And in addition to those two hundred suits, there would be other suits in addition to the two hundred, growing out of the condemnation of rights of way. Isn't that correct?

A. That is correct.

Q. Now in order for your company to incur court costs, you would have to lose every one of those suits, wouldn't you?

A. No, I don't think so. I am not familiar, Mr. Fitzhugh, with the items which would go to make up the total costs of litigation.

Q. Well, you have got it in your exhibit, Mr. Connor, and you are vouching for it?

A. Yes, upon the natural reliance which I place upon a man of Mr. Coffee's experience in these matters.

Q. All right now, for your costs to be correct as you have figured them, regardless of what your source of information is, Mr. Connor, don't you have to assume that [fol. 1507] you will lose every suit that is brought against you or that you bring yourself?

A. I don't know.

Q. You mean you don't know how you figured your own figures?

A. In so far as these court costs are concerned, I am not a lawyer, no.

Q. Well, you know how to figure, don't you, and you made the computations, didn't you?

A. Yes, but these figures were given to me by Mr. Coffee, who knows matters of this kind, and concerning which I am not particularly well informed.

Q. All right, sir; just the same, you have included approximately $160,000.00 for such expenses, and taken it forward into your total?

A. That is correct, and I think those expenses would be incurred in the reproduction of this property, and otherwise I would not have put them in this estimate.

* * * * * * *

[fol. 1507a] Reporter's certificate to foregoing transcript omitted in printing.

* * * * * * *

[fol. 1508] Q. Throughout the entire undistributed general costs section, Mr. Connor, you have applied to the furniture or fixtures used by the different sections—that is executive, legal, accounting, treasury, and so on—a depreciation rate applied to furniture and fixtures, have you not?

A. That is correct; as part of the costs of those departments during that period of time.

Q. The depreciation rate you used was 8 per cent of the total value per annum, was it not?

A. I think that was the rate which I used.

Q. How did you decide for each of these sections the amount of furniture and fixtures?

A. That is based very largely on the actual furniture and fixtures in the various departmental sections as of the date of the inventory. The number of men who would be engaged during the construction period does not differ ma-
[fol. 1509] terially in some of the departments, or most of the departments, from the number of men who are currently engaged in the operation of the property.

Q. Now, go back to the Legal Section, you have included within the costs for the Legal Section the room rent, have you not, for that section?

A. Not that I know of.

Q. Haven't you figured in the cost of office space?

A. No; I treated that as an independent estimate under the heading "Other General Costs."

Q. Well now, the statement appears in here: "The Legal Section will require one floor of the office structure of the Lone Star Gas Company."

A. That is *ture*. I make that statement.

Q. How is that floor paid for—who pays for it?

A. That estimate, Mr. Fitzhugh, is shown on page 229, I believe, wherein I estimate the operating costs of the Lone Star Gas Company's office building, and estimate that that building, or a similar structure, would be required during the construction of the property.

Q. Well, you do figure in the rent of this floor used, and the floor space used by the Legal Section, on page 229?

A. The proportionate part of the Lone Star Gas Company's office building which would be used by the Legal Section is included in the total amount set out, along with each of the other sections. In other words, there is no attempt
[fol. 1510] to segregate the building costs or the equivalent of office rent.

Q. On page 115 you also have all of the furniture and fixtures for the offices of the legal section figured in, don't you?

A. Yes; but when the estimate of cost is developed, depreciation only is applied as a part of the cost.

Q. Eight per cent of this amount?

A. Yes. In other words, the total cost of the library, furniture and offices is not included, but merely the depreciation on that equipment.

Q. What is "A. L. R." on page 111?

A That is a service which is actually paid for by the Legal Section of Lone Star Gas Company, and is a service

which they would require in the construction of the property. As to what the details of the service are, I don't know.

Q. Do you know what the A. L. R. is?

A. I imagine that would be an abbreviation for American Law Reports or American Law Review.

Q. So this is a service, to keep up a set of books—the American Law Reports?

A. I presume that is what it is.

Q. You figured in here the cost of the American Law Reports set of books?

A. There was an inventory made of the books in the law library, and the result of that inventory is shown on [fol. 1511] page 115. Now, if they have that set in their library it is included in their inventory; if not, it is not included.

Q. You mean that is included in the office of librarian and file clerk?

A. That is correct, if the Company actually has that compilation; otherwise, it is not there.

Q. You have also included the Oklahoma Digest and Statutes Service for 1933. What would be the purpose of that?

A. I couldn't tell you, except that it is a service which the Company subscribes for, and which I was informed would be required in connection with the reproduction of the property.

Q. Now, you include in here several Blue Books—Federal and Supreme Court Blue Book, National Reporter Blue Book, Texas and Southwestern Reporter Blue Book, and Pacific Reporter Blue Books—what is the purpose of those books?

A. I don't know.

Q. Those Blue Books are not law books, are they?

A. I told you I don't know what they are. They are services which the Company at this time and in the past has paid for and maintained.

Q. Are all of the books and services that you have listed here items that were given you by Mr. Coffee?

A. That is correct.

[fol. 1512] Q. And for which you yourself wish to assume no personal responsibility?

A. None other than that I have the utmost confidence in the correctness of Mr. Coffee's figures.

Q. You don't know what they stand for and what they are used for?

A. Except that they are used currently, and are subscribed for, and would be used in the reproduction of the property.

Q. Just to sum up the whole thing, Mr. Connor, you have here a system where you will provide lawyers with an elaborate library, and keep the thing up, and pay the room rent, furnish all of the furniture and fixtures, and pay them a very substantial salary besides; is that it?

A. I think that any lawyers who are regularly employed by the Lone Star Gas Company in the reproduction of their property would necessarily be furnished with a place to tend to their business and also be furnished with the law books with which to provide themselves with the necessary means of the defense of the company's interest.

Q. When lawyers are usually employed, Mr. Connor, on a retainer basis, they supply their own office, books, furniture, and fixtures, and pay their own rent?

A. That is correct.

Q. Don't you think that at the amounts you have in-
[fol. 1513] cluded in your appraisal for the services of attorneys, that if those sums are to be paid, at least they ought to supply their own books and office space and fixtures?

A. No; I don't. I have made this estimate upon the assumption that the C[illegible]mpany would employ its legal organization, with the exception of such attorneys as would necessarily be retained at strategic points throughout the system. I find on checking the actual costs of legal expense in the case of the Northern Natural Gas Company, where that Company adopted a different method, that the estimated costs which I have used are proportionately lower, and substantially so, than the actual costs incurred in the construction of the Northern Natural Gas Company. Therefore, I think, that this estimate is conservative.

Q. What do you mean when you say that company employed a different method?

A. They used the services of outside attorneys and paid them fees and retainers and expenses, rather than employ their own legal staff.

Q. Well, isn't that what is generally done, Mr. Connor? Did you ever hear of a company that had a setup like this in actual construction?

A. I think that if the Lone Star Gas Company were to be reproduced, that this is the method which would be followed.

[fol. 1514] Q. All right. Where you have got Communication Expenses by period, for the Pre-Construction Period, for the Legal Section, you have figured 11 phones at $6.60 per month for six months; 4 phones at $6.60 per month for three months; telephones and tolls at the rate of $15.00 a day for 150 days; where did you get those amounts?

A. Those phones are the actual phones in the Legal Section of Lone Star Gas Company at the present time, and the estimate of the number and expenses in connection with the telephones and tolls which would be incurred during the three year construction program was made by Mr. Coffee.

Q. You don't mean to say that you have used the actual working expenses of the Legal Section in your exhibit?

A. In so far as telephones are concerned, that is true. In so far as tolls are concerned, that is not true.

Q. Yes, sir. And for that reason: That if the Lone Star Gas Company were to be reproduced within a three and a half year period there would be concentrated within that three and a half year period a very substantial amount of the total litigation in which that company has been engaged since the year 1909.

Q. Telegrams and tolls at fifty dollars a day make up the major item of expense, do they not?

A. Fifty dollars a day—I don't see any such figure.

Q. Fifteen dollars a day.

A. That is correct; and that is what would actually happen.

[fol. 1515] Q. Now, for the next three construction years you figure 12 phones at $6.60 per month for twelve months; telegrams and tolls at $20.00 per day for 300 days; what is the basis for the telegrams and tolls there?

A. That estimate was made by Mr. Coffee based upon an analysis that he made of what, in his opinion, would actually be required for that purpose.

Q. And so you assume no responsibility as to that figure?

A. No; not for that particular figure, other than the fact that in the preparation of this estimate Mr. Coffee spent the time which he put on it in my office, and we went over each of these items carefully, and I outlined to him the amount of work that would be done, and the program of construc-

tion which had been adopted, and with that information in hand, Mr. Coffee, based upon his experience, was enabled to make an intelligent estimate of those costs.

Q. All right. Now, your next section is the Accounting Section. Here again the salaries are the biggest part of the total, are they not?

A. That is correct, and that would be the case in every organization of this kind.

Q. On page 133, you show various salaries for the different people working in this department?

A. That is correct.

Q. Did you have any particular basis for selecting these salaries?

[fol. 1516] A. Yes.

Q. Explain how you picked out these salaries?

A. Those salaries were checked over and analyzed by Mr. D. A. Hulcy and myself. We attempted to estimate as closely as we could the volume of work which would pass through the Accounting Section within the period of time ascribed to the reproduction of the property. It would be a volume of accounting which has never been passed through the Accounting Section up to this time. The salaries which have been assigned to the various individuals included in the section are almost identical with the salaries actually paid for men in positions of similar responsibility.

Q. Does the Comptroller of your Company at the present time get $750.00, that you have used as the monthly salary in this exhibit?

A I don't know, Mr. Fitzhugh, just what the Comptroller of Lone Star Gas Company does receive.

Q. The Chief Clerks of the various divisions get $225.00, that you have used in most cases in the different divisions of this section?

A. I think that perhaps they do even at this time, and without anything like the same responsibility and the same amount of work that they would be called upon to do in case this property should be reproduced.

[fol. 1517] Q. You have included also in this estimate a post-construction period of six months, have you not?

A. That is correct.

Q. Now, passing to the Treasury Section, out of the $997,509.00 total for these costs, salaries represent $87,-925.00, do they not?

A. That is correct, and it is exactly what you would expect in a department in which none of the individuals would ever leave the offices of Lone Star Gas Company.

Q. Where you have an Assistant Treasurer at a rate of $750.00 a month, where did you obtain that salary?

A. All of the salaries which have to do with men who would be engaged in clerical work or administrative work over clerical employes were obtain- by Mr. Hulcy and myself jointly as the rate of pay which would be commensurate with the responsibilities and duties of the individuals who would be employed in the work.

Q. And you also include in your charges for this section the same sort of computations for telephone and telegraph equipment and tolls as you have in the previous sections; is that true?

A. Yes; I have made an allowance for telephones and telegrams because they have to pay for telephones and telegrams.

Q. And the same sort of allowance as to office furniture and fixtures?

A Wait a minute. That is correct. Office furniture and fixture cost has been confined to the determination on the [fol. 1518] equipment which would be required to operate the department.

Q. Next we come to the Land Section. Of the total of $277,138.00, $184,200.00 of that amount is salaries, is it not?

A. That is correct.

Q. Now then, the Land Section, according to your exhibit, would do all work in connection with the acquisition of fee lands, surface leases, mineral leases, gas purchase contracts, rights of way, easements, leases and road grants, and all miscellaneous contractural relations in any manner affecting lands or interest in lands?

A. They would also maintain records and make vouchers for the payment of all costs in connection with land leases and so forth.

Q. Are you familiar with the way Mr. Biddison evaluated the fees lands of the company?

A. I went over practically every portion of the inventory and reproduction cost estimate made by Mr. Steinberger and Mr. Biddison for the specific purpose of eliminating any duplication of cost which might be included in his estimate and might through inadvertence ne includeed in mine, and I do not believe that there is any duplication.

Q. All right. Now, answer the question.

A: That included Mr. Biddison's determination of the cost of fee land, because I think Mr. Biddison confined his cost to the book cost plus the record fee.

[fol. 1519] Q. The book cost plus fifteen per cent for acquisition cost, wasn't it?

A. I don't recall. I think that he limited his cost to recording fees.

Q. All right. Now, suppose you are in error about that, Mr. Connor, and that Mr. Biddison actually used the book cost plus fifteen per cent or a twenty-five dollar minimum for the cost of acquisition?

A. Of fee land?

Q. Yes, sir. Then, if that is true and you come along here in this last section and include what you say would be the cost of acquisition of fee lands, that is a duplication, isn't it?

A. I would have to know specifically just what Mr. Biddison included in that item to find out the extent of the duplication, if any. If there is any duplication, why, most assuredly I would be the first to suggest that the duplication be eliminated.

Q. Well, just what does the cost of acquisition of fee lands that you have included include?

A. I have included that portion of the land organization outlined in the personnel set-up included in this estimate, and such costs do not include certain direct costs which Mr. Biddison could very properly include in his reproduction cost estimate without duplication. The Right of Way and Claims Division, for instance, has no costs for field expense.

Q. Well, the men that go out and buy fee lands or that [fol. 1520] get the rights of way in connection with their duties in the Land Section do everything in connection with the actual obtaining of the rights of way and the fee; isn't that right?

A. Yes, but there would be a man in the general office who would be responsible for the work of those men.

Q. Are you familiar with the way Mr. Biddison found the value of rights of way, for a gathering line, for example?

A. Yes; I know that Mr. Biddison took the cost per rod actually paid the land owner, plus a recording fee, I believe, and multiplied that by three in order to provide for the costs of damages paid to the land owner.

Q. And after he had multiplied his base cost by three, that was also to include every cost of every nature whatsoever for acquisition, was it not?

A. I don't think so.

Mr. Griffith: That was as to gathering lines rights of way only, wasn't it, Mr. Connor?

A. You mean with reference to the multiplication by three? That is correct. I think that the cost of the main transmission line on rights of way was determined from an analysis of the actual cost as reflected by the books of the company, and I do not believe that the actual costs of right of way reflected by the books include the costs which are set up as a part of the Land and Lease Department or Section of Lone Star Gas Company as set out in this estimate.

Q. Well, now, Mr. Biddison's method of finding the costs [fol. 1521] of right of way for transmission lines was pretty close to multiplication by four of his base costs, was it not?

A. I don't recall exactly, Mr. Fitzhugh. It has been some little time since I conferred with Mr. Biddison about those details, and I can't remember just exactly how he proceeded.

Q. You state here in your reading matter in connection with the Land Section——

A. Which page, please, Mr. Fitzhugh?

Q. Page 158. "The Section would negotiate through brokers and with land owners for the acquisition of desirable developed and undeveloped acreage". Then you list a lot of other things they do, too. Beginning at the list of different kinds of contracts and lands that this section would negotiate for, you say: "Upon the Land Section would devolve all work in connection with the acquisition of—" and then you list the different kinds. Now, don't you mean by this explanation you put in here, Mr. Connor, that this Section would do everything of whatsoever nature connected with the acquisition of the things listed on page 158?

A. They would do everything connected with that listing in so far as the personnel set out in this estimate would do that work. It is obvious from the personnel set out on the Right of Way and Claims Division that the superintendent in the office in charge of that section would not do all of the work in connection with rights of way and claims,

[fol. 1522] so there would be other costs in connection with that item which are not included in this estimate.

Q. What are the costs of acquisition that are not included in your Land Section estimate?

A. There are no filing costs or amounts paid land owners or damages.

Q. At page 169 you list the Geological Section. Of the amount of $255,929.00 total, $160,050.00 is for salaries; is that correct?

A. That is correct.

Q. Now, this Geological Section is entirely different and separate and in addition to the preliminary geological investigation and detailed geological work for one year listed on page 8 of this same book, is it not?— The amounts there are $114,444.00 and $78,420.00, respectively.

A. No; it is identical for the first and second construction years and with the estimate of the detailed geological work which would be done subsequent to the completion of the preliminary geological report, and I think I have previously testified to that fact.

Q. Well, the amounts just referred to of $114,444.00 for preliminary geological investigation and $78,420.00 for detailed geological work, and in addition $15,000.00 for fiscal agent's geological check, are all in addition to the amount shown for the Geological Section under the Undistributed General Costs, general summary section, page 71, in the amount of $255,929.99?

[fol. 1523] A. That is correct. I can not conceive of what connection a geological report and investigation made for the fiscal agent would have to do with reproducing the geological records of Lone Star Gas Company.

Q. No, but you have broken up all these geological charges into different sections?

A. I have, Mr. Fitzhugh, and as I have explained before and will explain again, the estimate of the reproduction of the geological records of Lone Star Gas Company is based upon a four year period, one year of which has already been discussed as a part of the preliminary and organization expenses, and that portion of the geological costs or the estimate of reproducing the geological records for the necessary work in connection with reproducing Lone Star Gas Company is set out on page 169 and covers a similar

expense for three years. Both of the first two years are identical with the estimate set out in the preliminary and development period. The last year shows a reduction in the personnel for the reason that a substantial part of the work would be completed prior to the end of the third construction year.

Q. On page 175, where you show a list of equipment consisting of five automobiles, five altimeters, four alidades, four plane tables, five Brunton compasses, five stadia hand levels, four stadia rods, four portable typewriters, five brief cases, one Petrographic microscope, and so on, where did you get the prices for that equipment?

[fol. 1524] A. The prices on those items were furnished by the Geological Department.

Q. Well, how did you get them—did you make them a list or did they give you a list?

A. Mr. Kendrick, Chief Geologist of Lone Star Gas Company, set out the equipment which would be required to do the work set forth in this estimate, and those figures represent the cost of that equipment.

Q. So that you are not responsible personally for the correctness of this list, as you don't know yourself whether it is right or wrong?

A. No; those figures were given to me as the cost of that equipment by Mr. Frank Kendrick, Chief Geologist of Lone Star Gas Company.

[fol. 1525] Did he also give you the estimate of the expenses of the party in the field, listed under your Field Expense item?

A. Mr. Kendrick and I worked out this estimate together. I relied very largely upon his technical skill and his intimate knowledge of the business and his experience in this kind of work. It was necessarily true because it was a highly specialized piece of work which was involved in the estimate. However, every figure that was put down was compiled in my office by Mr. Kendrick and in consultation with me in the course of the preparation of it.

Q. Well, does it represent your judgment or Mr. Kendrick's?

A. It represents my judgment, based upon the advice of Mr. Kendrick very largely.

Q. Well, isn't it a fact, Mr. Connor, that you just took his word for it?

A. No; it was not a question of taking his word for anything; we sat down and discussed the thing. I had worked out the program upon which this estimate was to be based, and of necessity Mr. Kendrick had to confer with me to ascertain the manner in which I proposed that this work should proceed.

Q. Well, on page 178, Mr. Connor, where you show the Purchase Section Cost, I suppose you talked with somebody about these costs, too, didn't you?

[fol. 1526] A. Yes, sir; it so happens that my familiarity with the Purchase Section and the Accounting Section, and a great many other Sections included in this estimate, is much more extensive than my knowledge of geology. There is not a single routine in the Purchasing Department, the Stores Department, or the Accounting Department, or the Traffic Department, or the Engineering Department of Lone Star Gas Company, which is included in this estimate with which I am not personally familiar.

Q. Why was it necessary for you to go talk with all these gentlemen, then?

A. Well, even with my familiarity and my knowledge of the routines of these departments and the responsibility of the individual men in those departments, I could certainly go to no better source of information than the man who was actually the Purchasing Agent for Lone Star Gas Company, the man who was actually the Stores Manager of Lone Star Gas Company, the man who actually checked the records of the men making the maps of Lone Star Gas Company; and that is where I got additional information above that which I acquired from my own study of those departments and their routines.

Q. Who was the man in the Purchasing Section you talked to?

A. I talked to Mr. Newberry about the routines and operations of the Purchasing Department practically every day [fol. 1527] in the year twice a day, because I go down with him in the morning and come home with him in the afternoon.

Q. All right. Mr. Connor, I don't know whether it is clear to me and to the jury or not, just exactly how you different men got together on your estimates. Did you sit down in your office and prepare what you thought was the correct costs for the Purchasing Section, and then take the thing in to Mr. Newberry and talk it over with him, making such cor-

rections as he suggested; or did you go to Mr. Newberry first and talk to him? Just how did you handle those matters?

A. Well, I will tell you, Mr. Fitzhugh, exactly how we handled the Stores and the Purchasing Sections, and the Accounting Section and the Traffic Section. We took a job where Lone Star Gas Company was going to—had built a substantial piece of work; we followed that job from the original requisition for out by the Engineering Department, and I have in my possession and now before me every step which was taken by the Stores Department, the Purchasing Department, the Traffic Department and the Accounting Department in taking that job from the requisition stage and putting it on the investment ledgers of Lone Star Gas Company; and I followed that job to such an extent that I went to the individual members of each organization and saw the very work that he did in connection with handling that [fol. 1528] routine.

Q. Now, what job are you talking about?

A. I am talking about the construction of the Hastings Tap Line in Oklahoma.

Q. What was the total cost of that piece of construction?

A. I don't know, Mr. Fitzhugh, that I have the total cost of it, because I have simply here with me sample sheets of the various sections of the work.

Q. Well, can you give me approximately the total cost?

A. No, I can't.

Q. Do you know what the total cost for the Purchasing Section was?

A. No; that is not the point, Mr. Fitzhugh, as to what the total cost of the job was. The important fact, as I see it, was to determine the inter-departmental re*al*tions and the duties of the individuals in these various departments, when a piece of work started through the proper course; and that is what I did.

Q. Well, if you took the percentage of all these different costs and the total cost, wouldn't you have something that would be comparable with the total cost of this whole appraisal and the total cost of your Purchasing Section?

A. Oh, no. What you do in a situation of that kind, Mr. Fitzhugh, is to determine what men are necessary in order [fol. 1529] to carry out the routines of a department, what their work is, what it consists of, what their duties are, what paper work they will handle, what forms they are to make

out, to whom they are responsible; and that is exactly what I did.

Q. Well, if I understand you correctly, Mr. Connor, even if you had known the total cost of the Hastings Tap construction job, and the total amount spent for the Purchasing Department, and the per cent of that amount to the total construction job, you still would not try to check that back against this appraisal to find out if you had made the same sort of an application?

A. Good gracious, no.

Q. Well, that is what I thought. Now, what use did you make of the data that you got from the Hastings Tap construction job?

A. To note that certain men were required to do certain things, and what they did. That, of course, isn't the only piece of work that I followed through these various departments.

Q. Well, just explain how you did about this Hastings Tap proposition.

A. I want you to understand, Mr. Fitzhugh, that in so far as the work in connection with the development of the routines of constructed line has nothing to do with the final determination of the estimate made for the Purchasing and [fol. 1530] Stores and Accounting Sections; it merely sets out in detail the various and sundry duties and things which would be required of individuals in connection with taking care of a piece of work of that kind. Now, that would be merely one of maybe a thousand jobs, some much larger. Now, if you want me to read into this record every step that would be taken in connection with handling a job from the time the requisition is made out until the time it is put on the investment record, I will be glad to do it, but it will take me all afternoon to do it.

Q. I want you to read into the record, Mr. Connor, anything about this Hastings Tap study that you made that was actually used and applied in finding your present valuation.

A. The first step in connection with a job of this kind—and I think for the purpose of the record that it would be better to make this statement, which I am going to make, general and applicable to the Accounting, the Purchasing, the Stores Section and the Traffic Section, rather than applicable to a specific piece of property, because on the whole it will develop exactly what takes place and would take place in the

reproduction of this property, and shows the relative work done by the individuals in each Department. If it is decided to build a piece of pipe line or a compressor station, that [fol. 1531] decision will come from the Executive Section. The Executive Section would then confer with the Engineering Section relative to the preparation of plans for the project. The contact in that case would be between the Vice-President and General Manager and the Chief Engineer of the Company. An ER number—that is, an expenditure requisition number would be assigned to this particular project, whether it was the Hastings Tap, or Line K, or Line O, or the Petrolia Compressor Station. If it is a line going to a certain town or to a number of towns, the Engineering Department would make house accounts——

Q. Well, now, pardon me, Mr. Connor. All that information is information that you had in general before you studied the Hastings Tap proposition at all, isn't it?

A. Yes, it was—this merely outlines in a general way some of the details which actually take place in a small line such as the Hastings Tap.

Q. Well, will you kindly just tell the things that you found from your Hastings Tap study that you didn't know before, and that you made special application of in preparing your present exhibit?

A. I don't know that I made any special application of the routines which took place on the building of a specific line in the making of my estimate——

Q. All right, sir.

[fol. 1532] A. —because I knew everything that these men did before I analyzed that Hastings Tap job.

Q. Well, what was the use of analyzing it, then, if you already knew all about it?

A. Well, I thought I might sometime be asked about it.

Q. After making the analysis of it, you made no application of it, did you?

A. No specific application because no specific application was necessary.

Q. All right, sir. Now, in your Stores Department, your total there is $225,690.00, of which $149,200.00 is salaries?

A. What page is that, Mr. Fitzhugh?

Q. 203.

A. $149,200.00 salaries, yes, sir.

Q. Now, Mr. Connor, Mr. Biddison throughout his ap-

praisal time and time again applied four per cent of Material Cost for Stores Expense. Are you familiar with the method which he used in doing that?

A. Yes, sir.

Q. Now, what is there different about your Stores Expense, from the Stores Expense that he applied throughout his appraisal?

A. There is a great deal of difference. Mr. Biddison's Stores Expense estimate is based upon what is termed Direct Stores Expense, and consists of the expense of the [fol. 1533] stores organization located in the field. There isn't a single individual set out in this estimate of mine who has anything to do with the organization that Mr. Biddison has used as a basis of his estimate, except to keep all of the records and supervise the work of the field organization. Now, the Stores Department, in the construction of a property such as Lone Star Gas Company, would be one of the most important sections of the entire organization, for this organization would be responsible for every piece of material purchased by Lone Star Gas Company for the construction of its property from the time it left the factory until that material was accounted for on the permanent investment ledgers of the Company, with the exception of the step which would be taken by the Accounting Section. In putting those property items on the investment ledger the Stores Department would actually voucher every invoice for material, setting out the location at which that material was used, in order that the Accounting Section might make a proper allocation and distribution of that material cost. There is a very definite line of demarcation between the Field Stores Expense and the General Stores Expense. I have made an estimate solely of the expense of the General Stores Organization, which would not only keep a record of all of the mate- [fol. 1534] rial which went into the property and was received by the Company during the progress of construction, but would also keep daily a record of every piece of material on hand as of that date.

[fol. 1535] Q. On page 205, Mr. Connor, from the top of that page down through the tabulation up to and including the number 14, those are all the things that were included by Mr. Biddison in his field stores expense; is that correct?

A. Those are some of the things. I presume that that fairly well covers what might be termed the field stores ex-

pense. Now, if you will notice on page 204, Mr. Fitzhugh, that this specific exception is made, and I am quoting from the text:

"While not a part of the general cost of stores, to which this estimate has been confined, a knowledge of the activities of the field stores division of the department, the cost of which is included in the estimate of direct structural costs, is necessary to a clear concept of the part that the stores department would play in the reproduction program".

In other words, I set out in plain language that Mr. Biddison made an estimate of one division of the stores department, and I made an estimate of the other.

Q. Well now, we will assume, Mr. Connor, for the purpose of making this clear, that your company makes a purchase of pipe. Now just what would be handled by the general stores department and what by the field stores?

A. The supervisor of stores would be responsible for the information furnished the traffic department, as to where that pipe should be delivered—we are talking about carload lots of pipe. The requisition for the pipe would come to the purchasing agent. If there was no pipe available which would be sufficient in amount or suitable with [fol. 1536] regard to specifications for the work, then the purchasing agent would enter an order for this pipe, and the stores department would then have no particular contact with that pipe until the responsibility for unloading it arose. The general store keeper would make all contracts for the hauling of pipe and the stringing of pipe, and would be finally responsible for the delivery of pipe to the job. The actual handling of the pipe on the job would be done by a contractor or someone that he delegated to do that work. The field organization of the stores department would be responsible for the receipt of that pipe, the checking of that pipe and for furnishing information to the purchasing department that the pipe had been received; that the number of feet of pipe corresponded to the invoice furnished by the vendor, and that information on what would be termed a "material received report" would be sent to the purchasing agent as a check against the invoice of the vendor. That invoice would then be passed by the purchasing department to the stores department, and it would there be vouchered by the voucher clerks in the stores

department, with the location at which the pipe was delivered clearly set out; the job to which the material charge should be made clearly set out, and pass that voucher on to the accounting section to be properly entered upon the investment ledger of the company.

Now in the matter of material which might be on hand, the functions of the stores department would be more complex, for the reason that every requisition for material [fol. 1537] received by the purchasing department is first passed to the stores department to the supervisor of stores or his assistant, in order to ascertain if there is available in the warehouses of the company any part of the requisition submitted by the engineering department. If that material is available and in stores, any part of the requisition, that particular item is then circled with a red circle and the requisition passed back to the purchasing agent to notify him that it is not necessary to take up with the vendors the purchase of that particular item because the material is on hand. The stores department, in handling an item of material which is on hand, handles that transaction just exactly like the purchasing department handles a transaction with an outside vendor. In other words, the warehouse which has that particular item of material is credited with it, the job is charged with it, the material transfer is made out and that material transfer is in effect an invoice between two separate sections of the company's organization. In other words, the warehouse acts as the vendor and the other warehouseman who receives it acts as a vendee and the transaction is kept in a definite and accurate way, and the books of the company are able to reflect the location of each and every piece of material which has been purchased at any time or which has been put in the store house or warehouse.

Q. Well now, Mr. Connor, at what point in this transaction did the work of the general stores department stop and the functions of the field stores department start?

A. Well, it starts with the personnel. The warehouse [fol. 1538] men in the field send in their information to the general office, Mr. Fitzhugh. That is done every day; every warehouse on the system of Lone Star Gas Company sends in a report to the office, setting out in detail every item of property in that warehouse. The warehouseman in charge does that every day. He also pays off freight

bills, whether it is a return shipment or an original consignment, and I am speaking now of the field men. The office force of the stores department is largely engaged in maintaining the records currently of materials on hand, seeing that those materials on hand are properly priced and seeing that the material transfers are properly transferred to the accounting section for entry on the investment ledger, and for the vouchering of invoices.

* * * * * * *

Q. Mr. Connor, the general stores department does not actually keep any materials on hand; does it, any pipe or fittings or valves or anything of that sort?

A. Oh no; the general stores department is altogether responsible for the records of material and the handling of the details in connection with the location and price of the material on hand and it is also directly responsible for the stringing of pipe and the providing of material to keep jobs moving. The direct handling of the material and the [fol. 1539] warehousing of the material and the uncrating and placing of materials in bins and classifying it and charging it in and out of the warehouse—that is all a field stores warehouse operation.

Q. Well what is it that the general stores department does, then, except get the notices from the field stores warehouse keepers as to items on which they may be running low, and pass that information to the purchasing department?

A. It keeps a current inventory of all material received, whether that material is in place or in the warehouses. It keeps a current record of all material in the warehouse. It vouchers all invoices and checks all invoices against the material received reports, and really provides the final information for the accounting section with reference to the placing of the materials of construction into the proper construction account. It also handles or originates all claims for shortages and damages, whether visible damage or concealed damage or concealed shortage.

Mr. Griffith: In materials?

A. In materials, yes.

Q. All right. Pass on to the stationery department, page 215, Mr. Connor. Of the $61,482.00 total, $52,360.00 of that is salaries; is that correct?

A. That is correct.

Q. What is it that this department does?

A. It is responsible for the purchase, preparation and distribution of all stationery and office supplies, including [fol. 1540] office furniture and fixtures.

Q. How much stationery do you figure would be used during the pre-construction period, the three construction years, and the post construction period?

A. I would have to make an estimate of that, Mr. Fitzhugh. I mean rather, to take out of this estimate the items which I have set out against the individual departments, because I have made an estimate of the stationery which the various departments would use, and that was based on a study of the actual stationery used in the stores department during one year.

Q. How could you make an estimate of the number of people required in the stationery department, and the cost of operating that department, without knowing how much stationery they would have to handle?

A. Well we do know and we did know.

Q. Well, how much?

A. That estimate was based upon the number of employes used in the various departments, with the exception of the engineering department, and for that department a detailed inventory was made of the actual supplies used. The office stationery and supplies used by the purchasing department during the year 1931——

Q. Well now, wait just a minute, Mr. Connor; I don't believe you got my question. I want to know how much stationery this department is going to have to handle for the pre-construction period, the construction period, and [for. 1541] the post-construction period that you have assumed.

A. I was going to try to tell you how I made that estimate.

Q. Well, can't you just give me a figure?

A. No. That would take me some time, for me to go into each one of these departments that I have made the estimate for, and pull out that particular item. I was going to tell you the manner in which I arrived at the basis for making the estimate.

[fol. 1542] Q. All right; go ahead.

A. The year 1931 the actual materials used in the Purchasing Department amounted to $130.42 per employe. Mr.

Hillyer and myself then, checked up the volume of business which had passed through the Purchasing Department during that year. The year 1931 was one of the most inactive years in the Company's operation, from the standpoint of paper work handled through the Purchasing Department. Based upon our estimate of the volume of business which would be required of the Purchasing Department during this reproduction program in three years, we estimated that the total stationery requirements would be increased from $130.00 per employe to $169.00 per employe. The actual volume of work was considerably more than double; but in analyzing the forms and stationery used, it was estimated that an increase from approximately $130.00 per employe to $169.00 per employe would be a fair estimate. That was applied to most of the departments. There were some exceptions made with reference to the Executive Section, and I think the Land and Lease Section, and I think, perhaps, the Legal Section; but it costs between $150.00 and $175.00 on the average to supply forms and office supplies required by each and every employe.

Q. Did you say that you changed back to $150.00 per employe?

A. No; I used $169.54 per employe.

Q. Well, do you mean by that, Mr. Connor, that the Stationery Department would handle $169.00 times the [fol. 1543] number of employes in the department?

A. Per year.

Q. Per year?

A. Or approximately that figure. It is impossible, of course, Mr. Fitzhugh, to make an exact estimate, on anything of that kind, because there are some departments that use more stationery than others, and others use less stationery but more expensive forms of stationery than others; but we attempted to arrive at what was a reasonable figure for that cost during the construction period. The Stationery Department would also bind reports, furnish covers for reports, set up mimeograph and multigraph forms, and turn out a considerable amount of printing forms for the various departments.

Q. The lowest paid person that you have working in the Stationery Department is a shipping clerk at $75.00 per month; the highest paid is Supervisor at $350.00 a month?

A. He is the Assistant Purchasing Agent.

Q. Now, you don't mean that just the employes of this department would be paid salaries between this high salary and this low salary for only handling $169.54 worth of stationery here, do you?

A. I said $169.00 per year per individual,—every individual included in this estimate.

Q. Do you mean just the individuals in the Stationery Department?

[fol. 1544] A. No, no, no; all departments.

Q. All right.

A. The Stationery Department has currently on hand, even at a time as quiet as this, when practically no construction is taking place, they have stocks of stationery on hand which I would say amount to twenty-five or thirty thousand dollars, and there is a very rapid turn-over of that stationery.

Q. But you are still not able to give us any idea at all of how much work has to be done for which you have included here $52,360.00?

A. No; I don't think anybody could sit down and tell you how much work a group of men supplying the necessary forms, purchasing the necessary stationery, setting up the necessary mimeograph and mimeograph forms, would do during a period of three and a half years during which a property as large as the Lone Star Gas Company would be constructed. We know that these employes which have been used in this estimate are actually employed now to handle the routine operations of the Stationery Department. There is nothing imaginative about that organization; they are right there now this afternoon in Dallas, doing in much less strenuous degree the very things I have estimated they would do in the reproduction of this property.

[fol. 1545] Q. Just the same, Mr. Connor, the way you have set it up, you have an amount in here included for the salaries of people doing some work the exact amount of which you do not know; isn't that true?

A. I am perfectly frank to admit that I do not know the exact amount of work those men would be doing.

Q. All right. Now, in your Traffic Department, on page 222, of the $25,546.00 total, $23,775 is taken up in salaries, is it not?

A. That is correct.

Q. The only other amounts besides salaries are the allowances you made for stationery and office supplies in the

amount of $511.50; transportation and traveling expenses, $1,000.00; and communication, $180.00?

A. That is correct. The Traffic Department would be the smallest individual department in the organization. It would, however, be a very important and responsible department.

* * * * * * *

Q. The first item in your "Other General Cost" section is [fol. 1546] Office Building Costs, $134,820.00. How did you find that amount, Mr. Connor?

A. I took the operating expenses of the Office Building, including taxes, for the years 1929 and 1930, and averaged those costs for the two-year period, with the exception of taxes, which were based on the actual advalorem taxes paid on the Office Building, and site, and parking lot, and furniture and fixtures, for the year 1932; and in addition to that, depreciation on the Office Building in the amount of three per cent on the estimated reproduction cost. From those costs I deducted the rentals which Lone Star Gas Company receives for some stores on the first floor of the building, and which would not be used by the organization during the reproduction of the property. I assumed that one-half of that amount would be charged during the preconstruction period, and the full amount for each of the three succeeding years. I used the years 1929 and 1930 on certain operating costs for the reason that since the year 1930 the operating expenses of the Lone Star Gas Company building are merged in part with the operating expenses of the Dallas Gas Company building, and I found it rather difficult to make an allocation in view of that fact.

Q. Did you take a percentage of some amount to get this $134,820.00 that appears in your general summary [fol. 1547] for the Office Building costs?

A. No; I just got through explaining how I got that.

Q. Is that the sum of the amounts that you show on page 229 for the Pre-Construction Period, Construction Period-First Year, Construction Period-Second Year, and Construction Period-Third Year?

A. That is correct.

Q. Now, to get those amounts you included for each year ad valorem taxes, did you not?

A. Yes, sir—no, I used the ad valorem taxes for the year

1932 because that was not an expense; it was confused with the operating expenses for the Dallas Gas Company building; that is the actual ad valorem taxes.

Q. Well, that figure is used by you in all three construction period years, isn't it—the 1932 taxes is a part of the $38,520.00 used by you for the Construction Period-First Year, Construction Period-Second Year, and Construction Period-Third Year?

A. That is right; you pay your taxes every year, Mr. Fitzhugh.

[fol. 1548] Q. Yes. Now, you included this building when you were computing taxes during construction, did you not?

A. Reference is made to page 54, Volume 8, Exhibit 28, the following language will be found: "Included in the estimate of Other General Costs were the following ad valorem taxes: General Office and General Office Structure, $6,851.00; Other General Land (Parking Lot) $288.00; Furniture and Fixtures, $346.00; Total, $7,485.00. Deducting this total from $309,305.00 there remains $301,820.00 as the annual tax factor to be used in the calculation of Taxes During Construction." In other words, I have specifically deducted that.

Q. That is all right, then. Now, then, on your depreciation three per cent, $9,643.00, you included that amount in the general office building for the pre-construction period and three construction years and post-construction period in computing your going value, did you not?

A. I made an application of my depreciation to every item of property in the system. Included in that system, of course, was the office building.

Q. To that extent, then, this amount would be a duplication, would it not?

A. It might be considered that in the proportionate amount, because only a proportion of the total property is calculated to be in service but inactive during each of the development years, and of course after the end of the construction period that item would cease to be even a theoretical duplication.

[fol. 1549] Q. Well, there would be at least a part of about $33,000.00, wouldn't there, Mr. Connor, that would be a duplication; that would be $9,643.00 for three years and a part of the post-construction period?

A. No, I would not say that, Mr. Fitzhugh, because in setting up my estimate of the depreciation allowance I did

not attempt to make a segregation of the various items of property to which the reserve accruals were applied, and I don't think that I would change my figure even after the matter to which my attention has been called *has been called* has been called to my attention.

Q. Even though there is bound to be a duplication of some amount?

A. You might say that that is true, but in view of the manner, in which the estimate was made I don't believe that it could be construed as representing a duplication.

Q. The next section is Engineering Costs.

A. That is correct.

Q. The total is $1,127,661.18?

A. That is for the General Engineering.

Q. Whom did you talk with in working out these figures, Mr. Connor?

A. Well, Mr. Fitzhugh, in making up this estimate of the cost of engineering and engineering records I spent a good part of a year, or at least some part of my time for almost every day for a year was given to the preparation of this estimate. The estimate made of Engineering Costs was done directly under my supervision. The manner in [fol. 1550] which the estimate was made was outlined and set out by me. The details of the various steps which are involved in this estimate were delegated to men who were particularly equipped by training and experience to do the particular things to which they were assigned.

Q. Have you finished?

A. Yes, if that answers your question.

Q. On page 247 you show Draftsmen, 49.75 at $2,040.00. Just what does that mean?

A. That means for the work which would be done by draftsmen during the first year of engineering in connection with the General Engineering Costs, that the hours that the draftsmen would work on the items which are set out in detail in this estimate would require one man 49.76 years to perform and that the average rate of pay for those men who would be doing this work would be $2,040.00 per year.

Q. What did you depend upon for your rates of pay in this section?

A. Rates of pay are based on the pay at which the draftsmen were being paid during the year 1931, I believe.

Q. Well, take the salary of the Chief Engineer, for example. Does that represent the actual salary of the man now serving as Chief Engineer of the company?

A. I don't know, but if it did it would be a mere coincidence, for the work which would be involved and being responsible for on the engineering work required to repro- [fol. 1551] duce the Lone Star Gas Company and the permanent records of the company would in no way conform to the present duties of the man who is the Chief Engineer of Lone Star Gas Company. It would be another job; it would not be the same job at all.

Q. You show that the Chief Engineer draws an annual salary of $12,000.00. Isn't that more than the Chief Engineer of the company at the present time gets?

A. I don't know, but I don't think what the Chief Engineer of Lone Star Gas Company now gets, an operating company one hundred per cent, would have any relation to what the Chief Engineer, responsible for the engineering work of reproducing Lone Star Gas Company, would receive.

Q. On page 256, where you show Maps, Plans, and Drawings for the first year, labor, Draftsmen only, on Line K you show nineteen alignment sheets, size fifteen and a half by 36, preliminary hours 855, final hours 956. What do those maps show, Mr. Connor?

A. They show every detail, including land lines and property owners, of the line which is designated "K" in the system of Lone Star Gas Company.

Q. Where did you get the number of preliminary hours, 855, that you have used for these alignment sheets?

A. All of the estimates of the time required to prepare the preliminary drawings and the final drawings shown in this estimate were made by Mr. J. H. Love, Chief Draftsman of Lone Star Gas Company.

Q. Now, those alignments sheets, Mr. Connor, show only [fol. 1552] the property lines and the lines of the company supposed to be constructed, do they not?

A. They show a great deal more than that, Mr. Fitzhugh,

Q. Is there any special construction, now, shown on those sheets?

A. All of them show all the special construction, every gate, every gate valve, every drip, every river crossing,

every detail down to a quarter inch nipple, is drawn and indicated on the alignment sheet.

Q. The nineteen sheets, with 855 preliminary hours and 956 final hours, show that there is about one hundred hours per sheet total time; is that right?

A. That is correct.

Q. Isn't that an awful lot of time for just making a drawing of a pipe line system?

A. I would not say so, Mr. Fitzhugh, and I don't think you would say so if you should see those maps.

Q. Well, I have seen them, haven't I? Aren't these alignment sheets that you are talking about here the very identical sheets we had at Fort Worth before the Railroad Commission?

A. Some of them, no doubt, were.

Q. Yes, sir.

A. As a matter of fact, Mr. Fitzhugh, the man who made the estimate of the time required to turn out these sheets in most cases had the actual time that they did have to turn out the very sheets on which he was making his estimate, because for the past seven years he has kept a record of the time of every draftsman on every piece of work turned [fol. 1553] out in the Lone Star Gas Company's General Engineering office.

Q. You don't mean to say, though, do you, that the number of hours, preliminary and final hours, in here is based on the actual time spent on those sheets?

A. In a great many cases that is absolutely true.

Q. In how many cases?

A. I could not tell you, but in a large number of instances.

Q. On page 267, where you show drawings, Mineral Wells General Layout, 9.55 acres, Mineral wells Structure Layout, and so on, Mineral Wells Garage Plans, Water Tank, Pump House, and so on——

A. What page is that, Mr. Fitzhugh?

Q. Pages 267 and 268, bottom of page 267 and top of page 268. The inventory does not show that your company has any property at Mineral Wells, does it?

A. I think, Mr. Fitzhugh, that the designation has to do with a field location and a field designation, rather than the town of Mineral Wells.

Q. You don't know what these drawings apply to—what they are for, do you?

A. Oh, yes. These drawings where final hours are shown are actual drawings in the files of Lone Star Gas Company.

Q. Well, what would they be for—you don't have any property at Mineral Wells, do you?

A. I said I thought that the property you speak of there is not located in the city of Mineral Wells, but refers to the [fol. 1554] warehouse and camp site in that district. The Lone Star Gas Company has a pipe line that goes up close to the town of Mineral Wells, and I think that that section of the company's system is designated by that name.

Q. Well, there isn't any such thing as the Mineral Wells field, is there?

A. Yes; there has been what is known as the Mineral Wells gas field, and it has been here for a number of years.

Q. Does the company take any gas from any such field?

A. It used to take quite a bit of gas from there, through Line K-A.

Q. Well, there is no camp site there now, is there?

A. I could not tell you, but if the drawing shows in this inventory, that drawing is in the records of Lone Star Gas Company.

Q. On page 268, where you show well lines and the maps for well lines, what part of those maps apply to wells that have already been abandoned?

A. I could not tell you, Mr. Fitzhugh. The Engineering Department more than any other department in the organization attempts to keep its records absolutely current; in other words, immediately there is a change made on any structure, whether it is a change in the pipe or in a ventilator or a change in the oil piping at a compressor station or a change in the header line or the intake, all those changes are immediately detailed in the field by a representative of the Engineering Department; those details [fol. 1555] are brought into the Engineering Department and the changes recorded on the final or office maps. Now, when a well line is abandoned, periodically the Engineering Department eliminates that well line from its records of gas well construction, and of course there is a certain lag between the time that a well line might be abandoned and the time the Engineering Department could finally correct its records, but that would be the only possible manner in which abandoned or unused or discarded property could appear in this inventory.

Q. Now, how much do you charge per hour for making these plans—what is the cost per hour?

A. How do you mean, how much do I charge per hour?

Q. I mean what is the cost per hour of making such plans as you have detailed in here?

A. The wage scale, average draftsman, is $2,040.00 per annum. I am going to take, Mr. Fitzhugh, the first year as an illustration. I will give you the first year, and I think from that you can get the idea.

[fol. 1556] Well, get it approximately, Mr. Connor, without taking too much time.

A. No, I will get it exactly for you.

Q. All right.

A. From page 256 to page 321 there is set out in detail the estimate of the Preliminary Hours for Draftsmen, which is 99,873. The hours applicable to each item are shown in detail. If reference is made to page 249 it will be found that draftsmen as shown in detail at 99,783 hours, plus ten per cent for omissions and contingencies, to cover work which would have to be drawn over, paper which would be spoiled, tracings which would be injured, added to 99,783 hours gives a total of 109,761 hours. An estimate has been kept in the Engineering Department for a number of years of the hours—of the effective hours which men are able to perform during a year. There are 365 days in the average year, and from that I have deducted 52 Sundays, 26 days to cover Saturdays, which are half-holidays, holidays 7 days; and in 1930 and 1931 experience of time lost by illness, which is 4.25 days, the total of those days on which men would not work was 89.25, which subtracted from 365 results in 275.75 effective working days per draftsman, which multiplied by eight hours per day results in 2206 hours per year, which divided into 109,761 [fol. 1557] hours results in 79.76 years, which is the figure which is shown on page 247; which, when multiplied by $2040.00, equals $101,510.00, as shown on page 247.

Q. Well, that would make it work out, then, that the plans cost about a dollar an hour?

A. They cost just exactly what that estimate shows they would cost.

Q. Well, to make it exact, you got 99,000 hours of work for $101,000.00.

A. That is correct.

Q. Or a little over a dollar an hour?

A. It will cost you more than that now, Mr. Fitzhugh.

Q. All right. Now, on page 299 you show a chicken house, 20 hours. Does that mean that it cost you $20.00 to prepare the plans for that chicken house?

A. What page is that?

Q. 299, at the bottom of the page.

A. 299?

Q. Yes, sir.

A. That is correct.

Q. In other words, the plans probably cost more than the chicken house, didn't they?

A. I don't know. I wouldn't say that because these plans, which are preliminary plans, are the plans which are prepared for the construction of the structure, and not the [fol. 1558] final plans which would be kept in the record. Now, you will note that beside that 20 hours for the preliminary plans are the construction plans for that. There are no final plans at all.

Q. Does that mean anything?

A. Yes.

Q. What does it mean—that it never was finished?

A. No, it means they made no final record of that structure.

Q. All right. Look on page——

The Court: I didn't understand what kind of a house that was you were talking about.

The Witness: A chicken house.

The Court: A chicken house?

Mr. Fitzhugh: A chicken house, yes, sir.

The Witness: Yes, sir. Your honor, if I may be permitted to explain that.

The Court: Yes, I am interested, and it is not from idle curiosity. I want to know what a Gas Company would want with a chicken house.

The Witness: Well, I will tell you. The Lone Star Gas Company operates in a great many rather remote localities, and in connection with its operations it is necessary for the Company to house a substantial number of its [fol. 1559] employes, together with their families. That is particularly true with reference to the large compressor stations. They provide livable, comfortable cottages, well-planned, well-ventilated, well-equipped with plumbing facil-

ities, for their employes on their compressor sites. Now, in a number of cases these employe villages are rather substantial in size; the Petrolia and——

The Court: What did you say was rather substantial?

The Witness: Rather substantial in size.

The Court: What is it that is substantial?

The Witness: These villages.

The Court: Oh, the villages.

The Witness: Now, at Petrolia, Texas, where this particular structure is located, the number of houses of the employes is so large that it resembles a small village or town; and in connection with these community establishments certain community facilities are sometimes provided, and they are substantial and well-constructed. Now, I don't know—I have no way of telling, but I notice that this particular item is located at Petrolia, Texas. The number of employes of the Lone Star Gas Company at Petrolia, Texas, is sufficiently large to justify the maintenance of a small-sized hotel, in order to feed them and provide for their comfort.

The Court: The purpose of the chicken house, then, is [fol. 1560] to take care of the employes out there at that place, where they wouldn't otherwise have facilities of that sort?

The Witness: That is correct.

The Court: All right; I just didn't understand it.

The Witness: I will be glad, if you wish, to try to find out something about that in more detail.

The Court: No, that is all right.

The Witness: But it is entirely possible that that is a rather substantial structure, which requires a set of plans for the carpenter to get a bill of materials, foundation layout, and so forth. I don't know.

Q. How long has it been since the hotel there at Petrolia was abandoned?

A. I don't know. I didn't know it had been abandoned, Mr. Fitzhugh.

Q. How long has it been since you have been at Petrolia?

A. I don't know. I think I was up there last winter.

Q. You didn't stay at the hotel?

A. No; I didn't pay any attention to the hotel.

Q. Now, then, on page 298 there is a 20 by 30 cattle guard. The preliminary hours for the maps for this cattle guard

were 33, the final hours were 30, or a 66—63 hours. Now, [fol. 1561] isn't it a fact, Mr. Connor, that if your figures are right on these maps, they cost more than the cattle guard cost?

[fol. 1561] A. I wouldn't say so, Mr. Fitzhugh. I think in every case that you would have to see the individual drawing to get an idea of what that description intended to cover, and from my inspection of the records of Lone Star Gas Company I have never failed to be impressed with the completeness of these engineering records.

Q. On page 301, Mr. Connor, where another cattle guard is shown—what type of cattle guard is that?

A. I don't know.

Q. There are 22 preliminary hours and 18 final hours on that, for a total of 40 hours. Now, Mr. Connor, you know the type of cattle guard that the Company is putting in. Isn't it true that they don't put any forty dollar cattle guards in?

A. I wouldn't say that; and in this connection I will say this, that in view of the manner in which, and the standards which Lone Star Gas Company maintains in the matter of keeping an accurate graphic record of its property, that it is entirely probable that on certain small items the actual delineation and preparation and drawing of those items might cost as much as the items themselves; yet, on the [fol. 1562] other hand, when we reach a situation where the great mass of detail which is required to be turned out in connection with a large compressor station, such as Petrolia or Joshua, I think that the over-all cost on those records is very reasonable.

Q. Now, besides these cattle guards there are quite a number of these chicken houses, incidentally, aren't there?

A. I would imagine there is a chicken house, probably, at each of the major compressor stations.

Q. There are a number of other small structures, are there not, like pipe sheds and—well, various little sheds of different kinds throughout this list; for instance, on page 305 there is a plan for a water faucet—26 hours on that; and various other little items like that where a substantial amount appears for the plans?

A. Have you in every case, Mr. Fitzhugh, noticed that there are a number of these items? They are not all just one item.

Q. Yes, sir.

A. Well, you didn't say so.

Q. Well, there are a number of chicken houses, I mean, aren't there?

A. Well, I know, but in front of these items you enumerated, there are in some cases more than one.

[fol. 1563] Q. Well, in the case I just enumerated—in the case of the water faucet there are two of those.

A. Yes, but I wouldn't have got that impression from your interrogation.

Q. Well, the total hours is 26 hours——

A. Yes, and I would have to see the drawing, before the relation between that description and those hours would mean anything.

Q. Well, the whole water faucet, no matter how the plans are drawn, oughtn't to cost but about a dollar and a half, did it?

A. I don't know what that detail would show.

Q. Two of them would make it thirteen dollars for a plan?

A. I say I don't know what that detail shows.

Q. Well, you do know what the plans show, don't you?

A. No, sir, I don't. I would have to have the plan before me to see what it means.

Q. I mean as to the plans.

A. Yes, sir.

Q. It would be thirteen dollars per plan?

A. Mr. Love made that estimate, and I think Mr. Love would know just about how long it would take to make that drawing, too.

Q. Now, on page 207 you show a Detailed Layout of Main Units at the Ranger Compressor Station—275 preliminary hours and 230 final hours. What all does that detail——

[fol. 1564] A. Where is that, Mr. Fitzhugh?

Q. Page 307, about the middle of the page.

A. Well, that is a large drawing—one large drawing of the main compressor units at the Ranger Station No. 4.

Q. Well, does that show in detail the units themselves?

A. Yes.

Q. Well, why in the same station, on page 306, do you show one—two plans for Cooper Compressor No. 2, and two plans for Cooper Compressor No. 1, and two plans for Cooper Compressor No. 3?

A. Well, those are entirely different.

Q. Amounting to about $1200.00 of draftsmen's hours.

A. Well, because those are individual drawings of those individual compressors, and the other is a layout of the set-up.

Q. Well, those are not a part of the layout plans, then?

A. No, they are part of the general plan of that station.

Q. Well, I will ask you this——

A. Those compressor station plans have fifty or seventy-five sheets.

Q. Those plans to which you refer now for the units themselves—the compressors themselves were furnished you in absolute detail by the Cooper-Bessemer Company, were they not?

A. Yes, but Lone Star Gas Company for its records does not use those plans used by the Cooper-Bessemer Company, [fol. 1565] Mr. Fitzhugh.

Q. Well, you don't have to change them a bit to make them—if you were to make them over you would make the same plans, wouldn't you?

A. Why no, those plans are not drawn and set up in the standard form required by the engineering records of Lone Star Gas Company, and these plans become a part of this structure connected with the appurtenant equipment.

Q. What is it you do, Mr. Connor—simply change the scale and re-draw the plans?

A. The plans that came there with the Cooper-Bessemer units were probably worn out long before the station was ever half finished. You don't suppose that those plans that came out there from the Cooper-Bessemer Company at the time they shipped those units would be set up in the permanent records of Lone Star Gas Company?

Q. I would, if they—I would think they would if they showed accurately the exact plan of the machine, yes, sir. Why wouldn't they?

A. Well, because when those compressors were set up in that station they became a part of a specially designed piece of equipment.

Q. Well, are these plans you show, tracings of the factory plans?

[fol. 1566] A. The final engineering records are tracings, yes.

* * * * * * *

[fol. 1567] Q. Before the recess, we were talking about the plans for the Cooper compressor at the bottom of page 306.

A. Yes, and I must have misunderstood your question, Mr. Fitzhugh. I understood you to say, were the final drawings tracings, and I answered in the affirmative, that they are in that form; but it is my understanding that your interrogation really indicated that you thought they were tracings of the sets furnished by the Cooper-Bessemer people. I do not think that is so. Those tracings are prepared from detailed studies made on the ground by the engineers who work out all of the detailed connections of the particular compressor layout, both overhead and underground piping.

Q. Well, Mr. Connor, the layout plans show the layout of the piping and so on, do they not?

A. Mr. Fitzhugh, it is only possible for me to explain what those plans show if I had a set of those plans before me. They are extremely complicated; they show every detail, both from a standpoint of general layout and then a detail from the standpoint of the independent units, the underground piping, the overhead piping, the foundation plans, each recording instrument in the station, and every single thing in that station is drawn in detail, and it would be impossible for me on this stand to identify or explain just what these individual designations might refer to.

Q. Well now, you have plans in here for the foundations, and you have plans in here for the layout?

[fol. 1568] A. Yes, that's right.

Q. Don't these plans that we are talking about now apply only to the compressor units themselves? The compressor machines?

A. You mean the layout plans?

Q. No sir, the plans I have directed your attention to.

A. Which page is that, Mr. Fitzhugh?

Q. At the bottom of page 306, where it shows two plans, Cooper compressor No. 2; two plans Cooper compressor No. 1; and two for No. 3?

A. In all probability that is a plan and an elevation.

Q. All right; now the Lone Star Gas Company did not design these engines, did they?

A. No, they didn't design the engines, but they made these drawings.

Q. How in the world could they change the plans of any of these engines?

A. The plans of the engines?

Q. Yes, the detailed drawings for these engines will be just the same when they are assembled on the foundation and piped and put in your compressor station as they were as shown in the drawings shipped to you by the company, won't they?

A. Why, you are absolutely mistaken.

Q. Do you say the change now, in these plans, from the factory plans would be for the purpose of showing a new elevation?

A. No, the factory does not make any plans of the arrangements of a compressor station of Lone Star Gas Company. The Lone Star Gas Company makes that set of plans.

[fol. 1569] Q. Well, those are not the plans we are talking about here, are they?

A. Well, certainly they are the plans we are talking about here.

Q. Oh, Mr. Connor, don't you know these plans are simply the plans of the engines themselves?

A. No sir; I know that they are not simply the plans of the engines themselves; I know directly the opposite.

Q. Didn't we, at Fort Worth, have these same identical plans, or ones just like them, there before the Commission, and don't they show in detail just exactly what the factory plans show?

A. They would show, so far as the individual compressor unit is concerned, no doubt, what the factory plans would show, but they would show that individual unit and a number of other individual units in relation to everything else in the station. That would be like drawing a plan of this room and including in the plans of the room the elevation and plan of the judge's desk as a part of this room. The factory might send you a plan of this desk; these plans take into account all of the equipment in the construction with relation to the units as well as the units themselves. The factory does not make any such plans as that.

Q. All right; turn to page 253. On this page you show a house count as made in various towns, including Fort Worth and Dallas. This, I believe you say, was necessary as a part of the engineering records; is that right?

A. No, that is not a part of the engineering records.

Q. Well, what was this house count made for?

[fol. 1570] A. It was made for the purpose of designing the pipe lines.

Q. Was that not done for the purpose of finding out your engineering data?

A. Yes, but the design of a pipe line and the determination of the capacity of a pipe line is not a final engineering record. The map of the pipe line would be the final engineering record.

Q. All right; the purpose of the house count was to find out how much load you would have to have in your pipe line?

A. No. It was to know how much capacity you would have to have in your lines.

Q. Well, that is the same thing as saying how much line you would need for the load necessary to serve the territory. Isn't that right?

A. Yes, that expresses it better.

Q. In each of the towns listed on this page, as well as the towns listed on page 351, and later on some additional towns for the third year, you made these house counts?

A. These house counts would be absolutely necessary in the reproduction of this property, and in most cases they were actually made by the engineering department. Lone Star Gas Company never makes a pipe line extension into any new territory before it first determines the necessary capacity of that line. The only way that the capacity of that line can be estimated is to determine the number of consumers who may be expected to be attached to that line, and for that reason the engineering department invariably makes a house count in every community in which the company proposes to serve gas, and from that information the engineer-[fol. 1571] ing department in turn calculates the size of pipe required to give adequate service at predetermined pressures, to that particular community.

Q. How did you get the number of field engineer days, the number of helper days and the number of helper man days for making the house count shown on page 351?

A. On page 351? For the past ten years the engineering department of Lone Star Gas Company has required of the field engineer or the engineer in charge of a field party, to make a detailed report showing the amount of work done and the character of the work done and the number of men

engaged in that work. Mr. R. A. Minter, chief office engineer of the Lone Star Gas Company, has had responsible charge of that work. Mr. Minter, under my direction, collected the data which are the basis for the estimate of the field engineer days, and the number of helpers who would be required to make the house counts in the individual towns.

Q. Are the number of hours you have computed in here for house counts based on any actual experience?

A. Yes.

Q. In what towns?

A. In practically all of these towns which are enumerated, because there was a house count made in each of those towns under Mr. Minter's direct supervision.

Q. When was the last house count made in Fort Worth?

A. I said that in practically all of these towns—now there was not a house count made in Fort Worth, to my knowl- [fol. 1572] edge, or in Dallas, but in the reproduction of the system, such a house count would absolutely be made.

Q. When was the last house count made in Waco?

A. I could not tell you.

Q. When was the last house count made in Wichita Falls?

A. I doubt if there was ever a house count made in Wichita Falls, Mr Fitzhugh.

Q. What town can you think of, of some size, where a house count has been made? How about Abilene?

A. There was no house count made at Abilene.

Q. How about Cisco? Or Sherman, or Greenville?

A. I am not so sure Mr. Fitzhugh, about those towns. I know that every town which has been reached by an extension of Lone Star Gas Company in recent years, that each house in that town has been counted, and I know that in the reproduction of this property, that every house on the system would be counted.

Q. Well, all of those towns are towns where rate matters are now pending before the Railroad Commission; isn't that true?

Mr. Griffith: We object to that as being immaterial and irrelevant.

Q. Well, I just mean by that, that those are towns where you would be likely to have made a house count lately.

A. No, Mr. Fitzhugh; I don't think you know what I am talking about. When the Lone Star Gas Company makes an

extension into a new town, and they have made a lot in the period from 1920 to 1929, the towns to be served are selected [fol. 1573] and designated, and the engineers, under the supervision of the chief office engineer, go to these towns, count the houses and make such notes as would be informative, relative to the number of domestic consumers and industrial consumers who may be attached to the system or to the company's lines. Those counts are made for the purpose of determining the size of the pipe line that should be built to serve these communities. I can not see what relation that might have to a rate case that might come up years after the pipe line had been constructed.

Q. Mr. Connor, the point is this: There are lots of things you can use a house count data for besides just to find out the necessary capacity of that line to serve some particular community, are there not? Aren't there lots of things you can use about house count data that would have application to something besides just something to find the capacity of the line?

A. Not so far as Lone Star Gas Company is concerned, no.

Q. Well, if you were counting, and trying to make a survey to find the potential number of any class of consumers, say the domestic consumers in any town, you would make a house count, wouldn't you?

A. That is exactly what I have been trying to say.

Q. At any rate, you can not think of any large town on the system where you have made a house count lately?

A. No, not the large cities. I do not believe that Dallas or Fort Worth—or that in Dallas or Fort Worth that house counts were made, but if the property should be reproduced —and that is the sort of an estimate that I am making, a re- [fol. 1574] production cost estimate—the house count in those towns would absolute- be made.

Q. All right. Now Mr. Biddison, in his testimony, said that you gave him the figure for the final engineering records in the amount of $765,690.35. That does not show in this exhibit, does it?

A. Yes.

Q. Whereabouts? Does that come under your general engineering costs?

A. No sir; it comes under the final engineering costs.

Q. Is that what you show on page 234, then?

A. There will be a summary on page 234. The details are

shown in subsequent sections of the report. Now if you have read the text of the report, you will note—and also if you have looked at the detail, you will note that in every case —and take for instance on page 251, for the first year's statistical engineers—there are certain groups of men designated as computers, inventory men, and stenographers; and that the hours that they work on the various items set out in the page are divided into preliminary hours and final hours. Now, the first engineering year as set up in this estimate is all general engineering, for the reason that it would be for the preparation of plans used in the construction of the property. However, for the purpose of saving typing and extending the exhibit, the final and preliminary hours are shown on the same page. Now, you will find that the final engineering record set up, the first detail will appear in the second year engineering section; the hours to which it refers [fol. 1575] are the final hours shown in the first year detail. Is that clear, Mr. Fitzhugh?

Q. Yes.

A. I think you will find that first detail for the Final Engineering on page 342, which sets out the sum of $136,320.00, which is the sum shown on the summary, page 234.

Q. Now, then, the next section, Mr. Connor, appears to be General Supervision Costs, in a total of $414,493.00, of which amount $255,610.00 is for salaries, as shown on page 532?

A. That is correct. That summary sets out the General Supervision Costs which have not been allocated to specific property accounts, as distinguished from the supervision costs which I have estimated, but which Mr. Biddison included in his section of the reproduction cost estimate in the appraisal.

Q. Where do you show the detail of the allocated general supervision costs or supervision costs?

A. The summary is shown, Mr. Fitzhugh, on page 537.

Q. When you say "allocated," what do you mean?

A. I mean distributed to or assigned to a specific property account. In other words, the details of this summary are so broken down as to show the amount which would be chargeable to the general supervision of pipe line construction, to the general supervision of compressor station construction, to the general supervision of telephone line construction, and so forth.

[fol. 1576] Q. Now, the amounts shown for the general supervision cost on page 532 are the same type of expense as shown on page 537, except they are not the type of costs that could be distributed to specific property accounts; is that right?

A. No, not altogether. The general costs shown on page 532 include the costs of the office and the salary and expenses of the man who would be directly responsible for all of the construction. That individual I have designated in this estimate as the general supervisor of construction, or the general superintendent of construction.

Q. Whom did you consult with in arriving at these costs, Mr. Connor?

A. These costs were developed through a conference between Mr. Schmidt, General Superintendent of Lone Star Gas Company; Mr. Julian Foster, Chief Engineer of Lone Star Gas Company; Mr. Vandercook, Superintendent of Pipe Line Construction of Lone Star Gas Company; Mr. Tom Sutherland, Superintendent of Production and Drilling for Lone Star Gas Company; Mr. Reed, Superintendent of Telephone Construction and Equipment; Mr. Fred Richardson, Superintendent of Transportation Equipment; and Mr. Brieland, Safety Supervisor of Lone Star Gas Company.

Q. Do you mean by that, Mr. Connor, that you and all these gentlemen got together and fixed up the cost to be included for General Supervision?

A. No; I don't mean that. I mean that I am responsible [fol. 1577] for the preparation of this estimate; but in the preparation of it I went to each of these men and went over with him the work which was included in the three construction years which I have previously described.

Q. As a part of your——

* * * * * * *

These men were each men who had many years of practical experience in doing the very things which the individuals assigned as the General Superintendent of Pipe Line Construction, and so forth, would be called upon to do.

* * * * * * *

Q. You show as a part of your total for General Supervision Costs, Special Medical Equipment in the amount of

$12,500.00. Of what does that equipment consist, Mr. Connor?

A. That equipment consists of the equipment which would be required and used in connection with the medical examination and first aid work during construction.

Q. Do you have a detail on that?

A. I don't know whether I have or not.

Q. Well, who gave you that cost, Mr. Connor?

A. The detail of the cost of the Safety and Personnel Section, which is a highly specialized department and division, [fol. 1578] were worked out by Mr. Brieland, who is the man responsible for the safety and personnel and medical section of the Lone Star Gas Company's organization.

Q. In addition to the equipment, you have included in here the services of four examining physicians, have you not?

A. That is correct.

Q. In addition to those four examining physicians, you have the services of other physicians located at various points over the property about to be constructed?

A. No; I believe that the examining physicians, together with the chief examining physician are the complete personnel.

Q. Are these full-time men?

A. They would be in the reproduction of the Lone Star Gas Company.

Q. And at what salary?

A. Chief Examiner, $300.00 a month; and assistant examiners, $200.00 a month.

Q. These men have the final say as to whether or not men are fit to work, do they?

A. They make an examination of men in order to determine whether or not they are able to perform the tasks which they will be called upon to perform and to discover any hidden weaknesses which might be the source of damage suits and injuries to other employes, or other costs of that character.

Q. Your Taxes During Construction starts on page 52 of [fol. 1579] Volume 8, does it not, the total amount for the item being $173,818.00?

A. That is correct.

Q. Has your company in the past, Mr. Connor, had to pay any taxes for property under construction, but not completed as of the taxing date?

A. Yes; it has.

Q. In what amount and where?

A. I don't have the complete record, Mr. Fitzhugh, of taxes during construction actually paid by the company. I happen to have some notes on some cases where—I may not have that notebook with me, Mr. Fitzhugh. If I have not, I will bring it in the morning. No; I haven't it with me.

Q. Do you know what the amount historically incurred by the company has been during construction?

A. No; I don't know, and I doubt if anyone knows.

Q. Well, it is a fact, isn't it, Mr. Connor, that ordinarily when construction work is in progress, whether it be a pipe line, house, apartment, or what, if the structure is still incompleted as of the date of the taxing body's determination, that the work in progress is not taxed in Texas?

A. No, I would not say that that is so, Mr. Fitzhugh, because I know it to be a fact that material and supplies on hand, which are to be used in construction, are universally [fol. 1580] taxed, and furthermore, the experience of the company, which might be constructing its property piecemeal, would be no proper criterion for an estimate of the taxes which would accrue and be chargeable to the construction period of Lone Star Gas Company should it be reproduced as of this time.

Q. Well, now, granting that there are some cases where you are taxed, it is only on the materials and supplies on hand, isn't it?

A. No; I have personal knowledge of cases where an open ditch has been taxed, and pipe strung along the ditch has been taxed.

Q. Where was that now?

A. I will give you the reference in the morning.

Q. Has the Lone Star Gas Company, so far as you know, ever had an open ditch taxed?

A. I believe that it has. I would not want to make that statement as a definite one without referring to my notes; but it would be difficult for anyone to go through the records of Lone Star Gas Company—the early records, particularly, —and make such determination.

Q. Now, the taxing authorities in Dallas County are supposed to be fairly alert, aren't they?

A. It has been my experience, Mr. Fitzhugh, that taxing authorities don't let you get away with very much.

[fol. 1581] Q. But there was not one cent of taxes during construction paid on the Dallas Gas Company Building or the Lone Star Gas Company Building?

A. I don't know.

Q. If you put, Mr. Connor, an allowance in a rate base being used as a basis for the fixation of gas rates for taxes during construction isn't that in effect making an asset of what would otherwise be a liability to the Company?

A. I can't see, Mr. Fitzhugh, how in setting up an estimate of the cost of anything that the inclusion of one of the items of cost in that estimate would be making a liability out of an asset. That would be just as logical as to state that the cost of interest during construction and the capitalization of such costs would be making a liability or attempting to make an asset out of a liability. The Interstate Commerce Commission, and every other regulatory body which has prescribed a uniform classification of accounts for the capital structures of public utilities, specifically sets out that taxes during construction should be capitalized, and defines very clearly what taxes they refer to, and makes a special exception of special benefit assessments, for the reason that it is presumed that there will be a benefit accruing to the property equal to the amount of the taxes paid; [fol. 1582] but all other taxes—ad valorem taxes, and school district taxes—are all specifically set out in every classification of accounts that I have ever seen as items proper to be capitalized in the capital structure of the property under consideration.

[fol. 1583] Q. How did you go about finding your taxes, if you made no examination of the company's books, Mr. Connor?

* * * * * * *

A. For this reason. That it is plainly stated on the cover of Volume 1 of Defendant's Exhibit 28, of which the subject matter we are now discussing is a part, it sets out that this is a cost of reproduction new of the public service plant, property and business of Lone Star Gas Company. Reproduction cost is a matter of estimate and not a matter of outlay. If we were to take the cost of items which have been incurred historically, we would not make an estimate. The very nature of the task which was assigned to the engineers, was the problem of making an estimate, and not the de-

termination of historical costs; and furthermore, the man-
[fol. 1584] ner in which the property would be constructed in reproduction bears no relation whatever to the manner in which it was constructed historically, because if this property were to be reproduced today there would be twenty-five gas fields from which this company could secure and does now secure its supply of gas. It is absurd on the face of it to assume that in the reproduction of this property the only line which would be built would be a line from Petrolia to Fort Worth, Texas, and Dallas, Texas, when as a matter of fact the Petrolia field would not be able to meet one-twentieth of the market demand of either one of those cities.

So there could be no relation between the program or the process which would be followed in reproducing this property as of January 1, 1933, as there was in the manner in which this property was historically constructed and built, and for that reason there can be no rational relation between what the company actually expended for taxes during construction on items of property which could be constructed and put into operation within a taxing period, and those taxes which would accrue and have to be paid on a property which would be constructed wholesale on a three years construction program; and for that reason, Mr. Fitzhugh, I gave no consideration to what the company had actually and historically paid in connection with taxes during construction.

Q. Or whether, in fact, it actually paid anything or not?
[fol. 1585] A. That is correct.

Q. Is it your understanding of a reconstruction cost valuation as a measure of value, Mr. Connor, that you are under obligations to include in your evaluation items which actually cost the company nothing?

A. Why, absolutely.

Q. Historically?

A. Yes. If those items are used and useful in the public service; if they belong to the company, and if it would cost money to reproduce them, it would make no difference to me whether they were donated or otherwise secured.

* * * * * * *

[fol. 1586] A. Mr. Fitzhugh, if I may interrupt you—at the close of yesterday's testimony you had directed a ques-

tion to me, and I had not completed my answer when the hearing was adjourned, and if I may I would like to complete that answer at this time?

Q. Go ahead.

A. The substance of your question was, I think: Would I feel it incumbent upon me in making a reproduction cost estimate as of a given date to include in that estimate items of property or costs which had not been historically incurred by the Company? I stated to you that if the Company at the time of the investigation was in possession of items of property which were used in the public service and which would cost money to reproduce at the date of the [fol. 1587] inquiry, I would feel that it was incumbent upon me to include the reproduction cost of those items in my estimate. I wish to amplify that answer by giving an illustration of what I mean, and also to make reference to testimony which has heretofore been given in this case. It seems to me that it should make no difference in making an estimate of this kind whether the property of Lone Star Gas Company was donated to the Company. It would make no difference to an individual who owned a piece of land whether he had purchased that land by out-of-pocket expenditure or had received it as an inheritance or as a gift, he would not feel that he would be justified in giving that property to the use of someone rent free merely because he had inherited that property. It does not seem to me that the source of the money whereby the utility acquires a piece of property has anything to do with the value of that property or the reproduction cost of that property at any specific date; and, therefore, I feel that it would be incumbent upon me to include any item of property which I might find in possession of Lone Star Gas Company as of the date of inquiry. Further, Mr. Hulcy, in his testimony, has made it clear that the books of Lone Star Gas Company do not fully reflect the actual cost of certain items properly designated as capital items and a part of the [fol. 1588] actual costs of the property and business of Lone Star Gas Company. That completes my answer.

Q. Now, if I understand you, Mr. Connor, you would include in reproduction evaluation an allowance for taxes during construction, even though no taxes at all had ever been paid for that item in the past?

A. That is correct, if in the logical process of reproducing this property taxes during construction would neces-

sarily and inevitably be incurred in that reproduction process.

Q. Now, regardless of those facts, Mr. Connor, isn't it a fact that the way that taxes are collected in Texas that there would never be any taxes during construction incurred in a reproduction of these properties?

A. Absolutely not. I don't agree with you at all.

Q. On yesterday you told us, Mr. Connor, that you would furnish us this morning some instances where taxes were paid on property under construction?

A. I did, and, Mr. Fitzhugh, I wish to apologize, because in coming down here I left that notebook in Mr. Griffith's room.

Q. So you are not this morning able to furnish us that information?

A. I will bring it at noon.

Q. Well, did you look up that matter last night?

A. Yes; I did.

[fol. 1589] Q. Can you give us the approximate amounts you found?

A. The amounts were not large; but they were taxes levied on open ditch and pipe strung, indicating that the political subdivisions in the State of Texas do assess and levy taxes upon property in that state. Furthermore, in the reproduction of Lone Star Gas Company, within a logical construction period, certain property would be complete, but still be considered from the standpoint of an estimate of this kind property in construction.

Q. Well, as soon as property is completed and goes into operation, it is not the sort of property you would have taxes during construction on, is it?

* * * * * * *

A. It would be impossible and impracticable in the reproduction of Lone Star Gas Company not to have substantial parts of the system complete, but unable to be in operation.

Q. Isn't it a fact that during the entire corporate history of Lone Star Gas Company, from the time it was organized in 1909 to the present time, during which its entire mileage of four thousand miles of pipe line was built, that your Company has not paid over five thousand dollars as the total [fol. 1590] amount for taxes during construction?

A. I couldn't tell you, and I don't think anybody else could tell, Mr. Fitzhugh.

Q. Nevertheless, you have set up in this appraisal $173,818.00 for taxes during construction?

A. That is correct; and I think it is an extremely small estimate of the amount of taxes which Lone Star Gas Company would incur should this property be reproduced.

Q. Pick out one item of property, say the automotive and construction equipment, and show how you would find the taxes during construction on that item of property?

A. Mr. Fitzhugh, I did not attempt to segregate any item of property. I took as the basis of my estimate of Taxes During Construction the taxes actually paid by Lone Star Gas Company for ad valorem taxes.

Q. The inclusions that you have made for this item of property—I am talking about Automotive and Construction Equipment—include $105,930 for the first construction year; an additional $105,929 for the second construction year; and an additional $211,859 for the third construction year.

A. What page are you looking at, Mr. Fitzhugh?

Q. Page 25 of your Volume 8.

A. Yes; but those figures shown on page 25 have nothing in the world to do with the basic amount which I have used in connection with the estimate of Taxes During Construction.

[fol. 1591] Q. I know, but these amounts enter into the property that you considered would be—the additions of value, I should say, that were made to the property during these construction years?

A. Merely to set up a proportionate amount of the property which would be constructed during each year; but what I used for the basis of the money value were the taxes actually paid by Lone Star Gas Company. I tried to make myself very clear on that point.

Q. On page 55, Mr. Connor, about the middle of the page, you have a tabulation of the expenditures by period for physical property and upon which you based your Taxes During Construction?

A. No, sir; absolutely not. I based my Taxes During Construction on the payment by Lone Star Gas Company of $301,820.00 for taxes; that is what I based my estimate for Taxes During Construction on, and that was what they actually paid on their public service property, less their

general office building and certain real estate in connection therewith.

Q. What is the purpose of this tabulation on page 55?

A. The chief purpose of that tabulation shown on that page is to make a determination of the proportionate part of the property in construction which would pass into operation during the successive years of the construction program. It merely allocates, or divides, or segregates the [fol. 1592] amount which I used as the basis for my calculation of Taxes During Construction.

Q. Well, if I understand you now, Mr. Comor, you made no determination of the exact value or the exact amount of property that would be taxed?

A. I did. I got the relative value, or the relative reproduction cost of the items of property in successive years which would be in construction or in operation, and that was the sole purpose of the determination, concerning which you are examining me.

Q. What was the value of the property that would be taxed during the first construction year?

A. $23,568,327, less $10,259,635, or $13,308.692. Now, I did not apply any tax rate to that sum of money. I simply made a determination of the proportionate part that sum of money was of the total property of Lone Star Gas Company in construction which would be subject to ad valorem taxes.

Q. Where did you get this twenty-three million and the ten million, that you just mentioned?

A. Refer, please, to page 21, Volume 8, of Exhibit 28, the following statement is found; under the heading, "Taxes During Construction,": "After deducting from Direct Structural Costs the items included in the Pre-Construction Period on which taxes have been included in Other General [fol. 1593] Costs,"—and I refer there to the general office building and adjacent land—"the taxable expenditures were found to be as follows: Pre-Construction Period, $3,049,057; Construction Period-First Year, $20,519,270; Construction Period-Second Year, $17,485,239; Construction Period-Third Year, $9,128,368." Now, if reference is made to the sum of those yearly estimated expenditures, it is $50,-181,934. Now, if reference is made to page 55, of Volume 8, of Exhibit 28, those same figures will be found.

Q. Well now, where did you get this ten million business that you deducted from the twenty-three?

A. I evidently did not make myself very clear on my direct examination. If reference is made to page 57, Volume 8, of Exhibit 28, it will be noted that the $10,259,635, which I have deducted from the first construction year, is explained in the text itself, as is indicated by the following language: "Less One-half Expenditure for the Period." In other words, that ten million dollars that you mention is one-half of the $20,519,270 which I estimate would be expended during the first construction year.

Q. Well, does that ten million dollars plus represent property that has gone into use?

A. No; it represents property which was constructed during a *a* year in which I estimate that portion of the construction would take place subsequent to January 1st of the year under consideration.

[fol. 1594] Q. Well, was the deduction made then to get an average for the year?

A. No; it was deducted for the purpose of ascertaining the property considered in this estimate to be under construction which would be in existence as of January first of the year under consideration, at which time the taxes would be determined.

Q. Well, wherein on page 57 or elsewhere do you make a deduction for the property that has gone into use?

A. On page 57, the same page, the same exhibit, under the heading "Construction Period—Second Year", it will be noted that the following deductions were made: the sum of $41,053,566.00, which represents the accumulated expenditures up to that time—that is, the expenditures which would have been made in the pre-construction period, the first construction year, and the second construction year. The deductions are as follows: Less one-half of expenditures for the period,—that is, the second construction year—for the same reasons as I have previously explained, that the expenditures would be made subsequent to January first. Now, you asked me specifically if I made a deduction for property that I estimated would pass into operation. The second deduction is as follows: Taxable expenditures, property operated, $23,568,327.00, making a total deduction of $32,310,947.00.

Q. Doesn't your $23,568,327.00, which represents property as of the first construction year, include automotive and construction equipment?

[fol. 1595] A. It includes all of the property of Lone Star Gas Company which would be subject to taxation, but in arriving at the amount of money which I have used for the calculation of taxes I did not apply my figure or percentage to the twenty-three million dollars; I used the actual taxes paid by Lone Star Gas Company, and simply used these successive estimates of property in construction and property passing into operation for the purpose of determining what proportionate part of the $301,000 would be attributable to property under construction. Had I left out——

Q. So you are unable, then——

A. I beg your pardon. Had I left out of the total sum of money all automotive equipment, which you seem to be stressing, it would not have made one bit of difference in this estimate, because what I was using was a ratio finally after all.

Q. While you made all these deductions and computations, you didn't use them a bit, did you?

A. I think I have explained thoroughly just exactly how I used them. Now, if the taking out of a single item that you have pointed out would not affect the ratio, then the taking out of that item would be immaterial. Certainly it is important, however, to determine the ratio in the first place, and the steps taken were absolutely necessary in order to do that.

Q. Suppose you had eliminated from consideration entirely the whole of Transmission Line Equipment, would that have made any difference?

[fol. 1596] A. It would not have made any difference, Mr. Fitzhugh, if the taking out of the Transmission Line Equipment through successive years would not have affected the ratio of the property passing from construction into operation during each of those years. Now, that would not have been true—it would not be true in the matter of the particular property, any item that you are mentioning, for the reason that there is a difference each year in the sum of money represented by the transmission line in construction.

Q. Can you tell me, Mr. Connor, the exact amount of taxes during construction for any year on any item of property?

A. No. You mean from this estimate?

Q. Yes, from any estimate?

A. Why, no.

Q. Can you tell me the amount of taxes during construction that you figured on Line B?

A. Certainly not.

Q. Or for all the lines?

A. No. The matter is so clear and definite and explicit that I hardly think it would be necessary to make an explanation of that kind in addition to that which is already set out in the exhibit, for the reason that the $301,000 which I have used includes taxes on Line B and Line A and every other line in the system.

Q. And the reason why you can not tell the amount of taxes on any line or any particular item of property is because you took the taxes for 1932 and applied a ratio to that to get your total taxes?

[fol. 1597] A. That is correct. It is reasonable to assume that the total sum of taxes paid by Lone Star Gas Company in 1932 would be applied proportionately to this property as a whole.

Q. The next item appearing in your appraisal is interest during construction in the amount of $4,975,933.00?

A. That is correct.

Q. What did you say was the interest rate you used?

A. Eight per cent.

Q. Now, your company actually has borrowed at this time some seventeen million dollars?

A. Lone Star Gas Company?

Q. Yes, sir.

A. It has loans outstanding and payable to Lone Star Gas Corporation in substantial amounts. I do not know exactly what those amounts are.

Q. It is currently paying on the money thus borrowed six per cent interest?

A. It is paying Lone Star Gas Corporation six per cent on the money.

Q. Why don't you assume six per cent, then, Mr. Connor, as your interest rate?

A. Because Lone Star Gas Corporation could not secure, neither could Lone Star Gas Company secure in the open market funds to reproduce this property at six per cent per annum.

Q. Can you take any line or any item of property, as, for instance, gas well construction in the Panhandle field of Texas, and give us the interest during construction you

[fol. 1598] have considered to be attributable to that piece of construction?

A. No. I did not make a calculation of interest during construction upon the basis of segregating individual units of property, except in so far as I have made a definite allocation to construction years of certain of the major units of property which I estimated would be construed in each of the construction years, and those items are set out in detail in this volume.

Q. How long have you considered for the purpose of finding interest during construction that it would take to construct Line A?

A. Mr. Fitzhugh, I have set out in this volume definitely the years in which Line A would be constructed.

Q. Well, let me ask you——

A. Wait a minute. I am not through with my answer—I haven't even started.

Q. All right.

A. If reference is made to page 31, Volume 8, Exhibit 28, it will be found that I have estimated of the total reproduction cost of Line A that $314,018.49 of that reproduction cost would be attributable to the first construction year; that $3,383,796.73 would be attributable to the second construction year, and that $296,133.69 of the reproduction cost of the line would be involved in the third construction year. Now, what I want to make clear to you, Mr. Fitzhugh is this: that Line A and Line B and Line C and Line E and [fol. 1599] Line L and Line K and Line O, in so far as they refer to specific property units of Lone Star Gas Company, are merely conveniences for the purpose of operation. Those lines would have no particular identity as Line A or Line B or Line C if this property should be reproduced.

Q. Mr. Connor, do you know the question I asked you?

A. Yes, sir. You asked me if I gave consideration to interest during construction of Line A, and I am explaining to you why in making a reproduction it would not be feasible to give consideration to the nomenclature attached to a line of an operating department of Lone Star Gas Company, because the property would not be constructed that way.

Mr. Fitzhugh: Mr. Reporter, would you mind reading my question back?

(Thereupon the Reporter read as follows: "Question: How long have you considered for the purpose of finding interest during construction that it would take to construct line A?")

Q. Now, will you answer that?

A. I have set out as definitely and clearly as I could how much money I estimated would be expended on Line A for each of the construction periods; in other words, that it would take three years to construct Line A in this construction, in the amounts I have set out. Now, what could be more definite than that.

Q. All right. It takes three years to construct Line A?

A. Yes, sir.

Q. How much time was actually spent in constructing Line A?

[fol. 1600] A. I don't know.

Q. Wasn't it six months?

A. That might true. But when I say it would take three years to construct Line A I do not mean that they would be out there working on Line A for three years, but on Line A, and in the amounts which I have estimated, that the construction would fall within the construction period which I have set out.

Q. You figure, do you not, that interest would be going on on some part of this line all three years?

A. No, sir. How did you get that idea?

Q. Do you mean to say, Mr. Connor, that the methods you used would not include the computation of some amount of interest on some part of Line A during the whole of the three year construction period?

A. Absolutely not. For instance, I estimate that $314,018.49 would be constructed in the first construction year, and I think I have explained no less than fifty times that I have estimated that the property which was constructed in the first construction year would pass from construction to operation at the end of the first construction year. Therefore, so far as that expenditure is concerned, the interest would have fall*ed* after the first construction year. Is that clear?

Q. Yes. Let me ask you this: On that $314,018.49 you charged interest during construction, didn't you?

A. That is correct.

[fol. 1601] Q. Now, on the second construction year you have $3,383,796.73, and you charged interest during construction on that part?

A. Yes, for that part of Line A. There is nothing cumulative there.

Q. In the third year you have $296,133.69, for which you charged interest during construction on Line A?

A. Yes, sir.

Q. Now, to get back to the question, isn't it a fact that on some part of Line A in each of the three construction years you did charge and include in your appraisal some interest during construction?

A. No, sir. The question you asked me was whether or not I did not charge on some part of Line A interest during construction for three years, and there is not one item of property in this appraisal from cover to cover on which the calculation of interest during construction extends over one year.

Q. Well, what is the answer to the question? Did you include interest during construction on some part?

A. On some I did, on such proportionate part as would be constructed during the three years, but the time at which interest would accrue against that part would be only for one year; in other words, if I had taken all of the cost of the line for one year, that would have been the equivalent of the manner in which I proceeded.

Q. How long does it take to drill a gas well, on the average?

A. You will have to ask somebody other than myself, [fol. 1602] because I don't believe anybody knows how long it takes to drill a gas well.

Q. How long did it take actually to build Line B?

A. I don't know.

Q. You have assumed on Line B about the same as on Line A, that the building of it would be extended through three years, a part in each year?

A. No—no. You are mistaken—you are mistaken.

Q. On page 31, Mr. Connor, you show for Line B $1,381,217.39 for the first construction year?

A. That is correct.

Q. You figured interest on that amount?

A. Yes, for one year, and one year only.

* * * * * * *

[fol. 1603] It will be noted that in the second year Line Second B is estimated to be constructed, and if reference is made to the maps which clearly set out the construction program, it will be noted that Line Second B is a part of the second construction year.

Q. How long would it take to build a compressor station such as the Joshua Compressor Station, or did you have to know that to figure your interest during construction?

A. No, I didn't have to know that. It would depend upon the effort made to turn out a rapid job. I would say that the Joshua could be built probably within five months.

Q. But you didn't use any five-months period in finding your interest during construction?

A. No, sir; just as I wouldn't use, in estimating the reproduction cost of the Austin Gas Company, the fact that it takes four hours to lay a service, in finding my interest during construction in reproducing the Austin Gas Company property.

Q. Just to sum the whole matter up, there is not a single item or a single classification of property on which you could tell from this exhibit the amount of interest during construction, as calculated?

A. I think if you wanted to attempt to make an estimate [fol. 1604] of interest during construction upon that basis, that the information is pretty fully set out; but to proceed upon that method or that basis is——

Q. Well, just pick out any class of property you want to, Mr. Connor, and show how you would make the segregation for interest during construction on that.

A. Do you mean you want me to make an estimate of what the cost of interest during construction on the property of Lone Star Gas Company would be if I would pick out each of these line systems and estimate how long it would take to construct each one of those, and calculate the interest during construction on those lines, assuming that the minute those particular lines were constructed that they would go into operation? Is that what you mean?

Q. I mean this, Mr. Connor,—pick out any line, any compressor station, any house, any measuring station structure, any unit at all that you want to, and just tell how long it would take to construct it, and what the interest during construction would be, as figured from your exhibit.

A. No, because I have not attempted in this exhibit, Mr. Fitzhugh,—and I have attempted to explain why—to say

how long it would take to construct Line A. I have set out the amount of money which would be involved in the con- [fol. 1605] struction of these various lines and the compressor stations, by years; but the mere fact that a piece of property is completed, or a unit of property is completed, in the construction of a property such as Lone Star Gas Company, is no evidence or indication that it would go into operation the minute of its completion. Why, in the reproduction of a property such as Lone Star Gas Company, the first thing you — would be to drill gas wells, because you would have to do that to demonstrate the fact that you had a gas supply, and it would be several years before any one of those gas wells ever produced a single foot of gas which would go into the system of the company.

Q. And in computing your interest during construction you figure that wells would be drilled the first thing and that they would lay out for some time before being attached to the system?

A. Why, certainly; because that is exactly what would happen.

Q. In spite of the fact that from the history of your company, the gas was lying there, just crying to be put into your mains, when at all times——

A. I don't think that is true, Mr. Fitzhugh. It may be that at several periods during the history of Lone Star Gas Company there has been a substantial amount of gas [fol. 1606] available, in excess of the immediate requirements; but there have been a great many times when there was not enough gas to keep the people in Dallas and Fort Worth from being pretty cold.

Q. Isn't it a fact, Mr. Connor, that for the last three or four years in the Panhandle Field there are lots of people who would like to attach to your lines and would be tickled to death to sell their gas to you at two cents per thousand cubic feet?

A. I don't know so much about it at that price, Mr. Fitzhugh.

Q. The total expenditures upon which you figure interest during construction, as shown on page 68, is $59,512,984.00 —is that correct?

A. That is correct.

Q. Now, where did that figure come from, Mr. Connor?

A. Refer, please, to page 22—I beg your pardon, Mr. Fitzhugh, refer, first, to the bottom of page 21; Volume 8,

Exhibit 28. Under the heading Interest During Construction the complete thing is found: "From the Schedule of Expenditures by Periods, including the distributed calculation of Taxes During Construction, the total expenditures by periods was found to be as follows: Pre-construction Period, $6,895,832.00; Construction Period—First Year, $22,673,380.00; Construction Period—Second Year, $19,326,719.00; Construction Period—Third Year, $10,617.[fol. 1607] 053.00"—or a total of $59,512,984.00, which is the same figure as is found on page 68 of the same exhibit and volume.

Q. Do you have in your exhibit, Mr. Connor, a detail of the pre-construction period in the amount of $6,895,832.00?

A. That will be found, Mr. Fitzhugh, on pages 25 and 27 of Volume 8, Exhibit 28. On page 25, under the heading of Direct Structural Costs, it will be found that the Pre-construction Expenditures are estimated to be $3,580,178.00, and under the heading of General and Undistributed Costs, on page 27, it will be found that the estimated expenditures attributable to the Pre-Construction Period are $3,591,487.00. The sum of those two items will result in the figure used.

Q. Well, the sum of those items would be, instead of the figure you have used, $7,171,665.00, wouldn't it?

A. That is correct.

Q. What is the trouble there?

A. I have eliminated certain items, which are the General Office Building and General Office Land. I think that accounts for that difference.

Q. Now, those are the only two eliminations that you have made from the amounts shown on pages 25 and 27?

A. I think that is correct.

Q. On page 27 you have included in the total, $275,833.00 for interest during construction?

A. No, Mr. Fitzhugh, the summation is made—I will [fol. 1608] have to explain that to you. What page are you referring to now, Mr. Fitzhugh?

Q. 27—Page 27, Volume 8.

A. No, that is the reason for that difference. I wish to make that explanation, that it is not the General Office Building and Land that I omitted. It is the charge of In-

terest During Construction, in the sum of $275,833.00. Now, what I do is to——

A. Yes, that is correct; and it should have been.

Q. —and the Land?

A. That is right; and it should have been, because in my calculation of Office Building Costs I made no allowance for interest—I eliminated in my Estimate of Construction, Taxes during Construction, because I had included the taxes. Now, the grand total shown at the bottom of the page—Page 27, includes Interest During Construction; but the totals which I have used for the calculation of Interest During Construction do not include Interest During Construction in any of the years; including the Pre-construction Period.

Q. So in no instance have you figured interest on interest?

A. No, but I think that it would be a proper thing to do.

Q. The next section in your exhibit is Going Value, or Cost of Business Development. The amount of this allowance, as made by you, is $7,792,888.00, is it not?

[fol. 1609] A. That is correct—rather, Mr. Fitzhugh, to be exactly correct, that is my estimate of what it would cost to reproduce the business of Lone Star Gas Company.

Q. What is the most important item entering into your Going Value allowance?

A. The most important element which enters into my allowance are the fixed charges which would accrue during the period of normal business development upon that portion of the Company's property which would not or could not, under a normal business development program, be used.

Q. On page 72, Mr. Connor, you state that Going Value is intended to cover the reproduction cost of various elements of worth or value.

A. That is correct.

Q. One of the things noted on that page that you claim adds value to your Company's property is the fact that there are 230,000 domestic consumers receiving their supply of gas from your Company—isn't that correct?

A. That is correct, through the facilities afforded by Lone Star Gas Company for the delivery and transportation of natural gas—for the transportation of natural gas.

Q. Does your Company serve any domestic consumers?

A. Indirectly, it serves 230,000.

[fol. 1610] Q. Well, the only companies that you sell gas to are the distributing companies—isn't that right; they are your customers?

A. In the main, that is correct. Of course, Lone Star Gas Company sells a small number—a relatively small number to what are called right of way consumers.

Q. Now, of those 230,000 domestic consumers you mention here are the customers of the distributing companies, aren't they?

A. Directly, they are the customers of the distributing companies; yes, that is true.

Q. Isn't it a fact, Mr. Connor, that in order for you to consider these 230,000 domestic consumers as customers of Lone Star Gas Company, that you have to regard yourself and the distributing companies as just operating one business?

A. Why, of course; the transportation of natural gas by Lone Star Gas Company and the subsequent distribution of it by a distributing company constitutes to things which are somewhat different in their details but practically alike in their general characteristics. The transportation company—the Lone Star Gas Company—brings the gas up to the city gate of the distribution system, and the gas is there received by the mains of the distributing company and [fol. 1611] transported to the meters and outlets of the individual domestic consumers.

Q. Well, you figure, don't you, Mr. Connor, in estimating your Going Value that the distributing companies and the pipe line company work as one entity, and that the customers of the one are the customers of the other?

A. Not necessarily. What I have done is to estimate the rate at which Lone Star Gas Company would secure that portion of its business and which it now has, as represented by the sales of gas for which it receives a domestic rate.

Q. Well, you do figure that the distributing companies act as the agencies for the delivery of gas given them by the pipe line company, directly to the domestic consumers?

A. Certainly, you have to have a distribution agency to make the ultimate delivery of the gas to the domestic consumers.

[fol. 1612] Q. And you in this appraisal have assumed that the distributing company or the companies, are the agents and work in conjunction with the pipe line companies to deliver directly to domestic consumers?

A. I have not considered that they are agents or anything else.

Q. Well, how in the world, Mr. Connor, are you going to *going to* claim that these 230,000 customers, which are customers of the distributing companies, are going to add to the value of the pipe line company unless you consider the pipe line company and the distributing companies as one?

A. Because they don't have to be one. The operation or the process of delivering gas is necessarily continuous, just like the process of delivering electric current would be continuous, but whatever value there is that I attribute to Lone Star Gas Company grows out of this fact—that if the distributing companies did not have a single customer, Lone Star Gas Company would sell no domestic gas.

Q. Well, if you were raising produce, Mr. Connor, and brought your produce to market and sold it to a grocer and the grocer in turn sold it to consumers that came into his store, would the man that eventually bought the groceries at the grocery store be your consumer or the groceryman's consumer?

A. It would not make any difference to me, if I was delivering that produce, Mr. Fitzhugh. If I was in the produce business, and let us say that I depended for the sale of my commodity upon the subsequent sales of the man to [fol. 1613] whom I made by delivery. I would then be limited in the extent of the development of my business by the business ultimately secured by the retailer. The development of his business would in turn insure the development of my business, and yet the two operations would be conducted by two people, one independent of the other, but there would be no question but what my business as a deliverer of my commodity to the ultimate consumer would reflect the result of the sales which he made. If he had no customers, my business would not be developed.

Q. Mr. Connor, you have testified in several cases involving rates of distributing companies which were affiliated with the Lone Star Gas Company, have you not?

A. Certainly.

Q. In those cases have you figured that the customers of the distributing companies add to and give going value to the properties of the distributing companies?

A. Why, most certainly. They are two separate properties. Let's take two properties, say a pipe line company——

* * * * * * *

[fol. 1614] You have a distributing system here, for instance, we will say, which costs Five Million Dollars, and you have a pipe line company which costs Fifty Million Dollars, and the going value which is developed and included for the distributing plant includes only the property devoted to the distribution of gas. If there was a common ownership of those two properties from one end to the other, do you think you would stop and segregate one element of that property and set it on one side and say it had going value, and the other element which also contributed to the same value, did not have any? I don't think so.

Q. Mr. Connor, when you testified for distributing companies, you used the customers of distributing companies as an item contributing to the value of the distributing companies, didn't you?

A. Yes, and they likewise contribute to the value of the pipe line company.

Q. And then when you get on the stand and testify for the pipe line company, and the going value as to a pipe line company, you use those same customers as contributing another and a new value to the pipe line company?

A. Certainly I do.

Q. If you regarded the pipe line company and the distributing company as one integrated company, just as you suggested, you would only get those customers in there once, wouldn't you?

A. Yes, but I would get them in there on the combined [fol. 1615] values of the property.

Q. But you wouldn't use it twice?

A. I don't use it twice. I apply it to separate sections of an investment required to render the ultimate service.

Q. All right. Now, Mr. Connor, to analyze your proposition a little bit further, do you think that when customers become attached to a pipe line, ipso facto the property of the pipe line company becomes worth more?

A. I think that——

Q. Well now, Mr. Connor, can't you answer this question Yes or No?

A. Certainly it is worth more than merely the reproduction cost of the property.

Q. And the same thing would be true in a distributing company case. The attachment of customers to a distributing company's lines ipso facto contributes a value to the distributing company's property?

A. Yes, it would be worth more.

Q. And the creation of this additional value makes for higher rates, doesn't it?

A. I don't know that that construction should be placed upon it. It is a question of value and worth, and what the company is entitled to earn upon.

Q. Well, if your company is entitled to get ten per cent, as you say it is, on the value of its properties used and useful, it would get more in rates if its properties are worth Fifty Million Dollars, than if the property is worth Forty Million?

A. It would be legally entitled to higher rates—or to more [fol. 1616] revenue, I should say.

Q. And it would get more money from the gas consumers on the higher valuation?

A. It would be entitled to a fair and reasonable return on the value of its property, no matter how that value might be provided.

Q. So when you analyze this going value, Mr. Connor, based upon the attachment of consumers, it simply means that the consumers have to be penalized for having attached to your lines, through higher rates, doesn't it?

A. It doesn't mean any such a thing, Mr. Fitzhugh.

Q. Well, will you explain to me now, why it doesn't mean just exactly that?

A. I can make my explanation very clear, I believe. The attachment of business to a natural gas pipe line, from the time that it goes into business, up to the time that it will secure its normal business, is a gradual process. It can not be any other kind of process. Every record connected with the history of Lone Star Gas Company's operation clearly demonstrates that fact. Now when the owner of that property puts it into service, he is confronted with the absolute certainty that it is going to take a certain definite period of time for him to acquire his business, and that is going to cost him money. Now, the fact that that costs money is just as much a part of the cost of rendering the ultimate

service to that consumer, as the cost of buying the pipe, and if such costs are inevitable and are not contributed to by bad [fol. 1617] management and a series of operating losses over an operating experience of a company, but are the inevitable costs of development of the business, that cost represents a part of the cost of developing that property just as much as any other element in the property represents a part of the cost of the property, and of course the consumer should pay a reasonable return upon such costs as are necessarily incurred in rendering him service, and I can not distinguish between that cost and any other cost which is a properly capitalizable expense.

Q. Mr. Connor, suppose your company was doing business here in Austin, and that you had ten thousand domestic consumers of gas, obtaining gas at a certain domestic rate. Suppose then that ten thousand should become twenty thousand domestic consumers. Isn't your proposition, as shown in your exhibit, that through the addition of those new customers the properties and business of the company doing business here in Austin would be worth more and hence they would be entitled to a greater amount of money per year, and hence they would be entitled to increased rates?

A. I think that if the company had made provision for the attachment of ten thousand additional consumers——

Q. Well, is your answer Yes or No?

A. The property would be worth more, yes.

Q. Your answer is Yes?

A. Yes. I don't know whether they would be entitled to higher rates or not. That is a matter which would take into consideration a number of factors of which you did not make mention.

[fol. 1618] Q. Now, suppose, Mr. Connor, instead of 230,000, your company had only 200,000 domestic consumers as of the date of your appraisal. What would have been the effect on the total value you gave to going value, which was $7,792,000 plus?

A. It would not have made any difference, Mr. Fitzhugh, had the 200,000 that you are referring to represented the ultimate saturation which you could expect on the system as constructed.

Q. Well, does 230,000 domestic consumers represent the saturation?

A. I think it represents a fair degree of saturation.

Q. Suppose you had only had 100,000 domestic consumers. What difference would that have made in your final value?

A. That would have made a substantial difference.

Q. Does your allowance for going value include an allowance or estimate of the value of your trained personnel?

A. No sir.

Q. What is this allowance of $200,000.00 you have made for personnel costs?

A. That is an estimate of the out of pocket costs which would be required to get together a personnel such as Lone Star Gas Company now has, together with the labor turnover which would take place during the early years.

Q. Well, doesn't that refer, Mr. Connor, to what, or represent in your opinion what it would cost to train an inexperienced and new organization up to the present operating efficiency of your operating organization?

A. No, sir; it does not.

Q. In the past, Mr. Connor, your company has always [fol. 1619] paid salaries commensurate with the abilities of a man, hasn't it?

A. Yes, I would judge that they have paid salaries which would be commensurate with the abilities and duties of the men employed by the company.

Q. If you took on a man of little ability, you would not pay him a very high salary, would you?

A. Mr. Fitzhugh, in certain classes of departmental employees, rather standard salaries are paid for certain types of work——

Q. I know, but——

A. —and unfortunately it is impossible to reward individuals employed in capacities of that kind in proportion to their actual relative efficiency; and men become more efficient, of course, in their work after they have become familiar with it.

Q. It is the aim of your company in general, though, isn't it Mr. Connor, to pay just what a man is worth?

A. Yes.

Q. And certainly no more than he is worth?

A. You are correct.

Q. Isn't it fair to assume, Mr. Connor, that the salary

will in all cases, as nearly as possible, reflect what the man is really worth?

A. That is not altogether true. I think that if there is any difference between the amount paid to an employe and the amount deserved, by reason of certain peculiar qualities, that in practically every case in the Lone Star Gas Company organization with which I am familiar, the man is perhaps worth something in excess of that which he receives.

[fol. 1620] Q. Now for you to make the allowance that you have included here of $200,000.00 for personnel costs, don't you have to assume, Mr. Connor, that the men that the company hires in the beginning of the business will fail to give dollar for dollar value for their services in that amount?

A. No, you would have to spend a very large sum of money, Mr. Fitzhugh, just getting an organization like this together, before they even moved into their offices. You would have to pay for the transportation of a large number of men. You would have to move their household goods from other places, because there is no city in this part of the country which prior to the initiation of the natural gas project such as Lone Star Gas Company, could furnish the personnel of Lone Star Gas Company. Those men have come from all over the country; they have come from places where the natural gas business has been developed over a long period of time. They are not people that could be picked up in Dallas or Austin or Fort Worth or Houston or anywhere else, and it would cost a great deal of money to assemble and bring together an organization of that kind.

Q. On page 138, Mr. Connor, after telling about what a fine trained personnel you have, you make this statement: "The existence of this coordinated personnel and its definite association with this particular property constitutes an element of value that would be recognized and paid for by any willing buyer of the property as of January 1, 1933". Now, Mr. Connor, if a purchaser came along and [fol. 1621] bought your properties, he would not buy your employes, would he?

A. No, he wouldn't, but they would be there.

* * * * * * *

Q. What I mean, Mr. Connor, is that you have attempted to say here that the existence of the employes, and the fact that the company has employes, is a property right or a property value that can be measured in money. Isn't that what you are saying?

A. No. I said it could not be measured in terms of money.

Q. But you have set up $200,000.00 for it.

A. No, I did not, Mr. Fitzhugh. I said that would be costs which would be incurred in bringing such an organization as this together, and getting it organized and under way. It hasn't anything to do with the value which I would attribute to the trained personnel of Lone Star Gas Company, because I think it would be worth many, many times that amount of money.

Q. You say here in the very next sentence: "The existence of this element of value is not difficult to determine, but the worth of it, measured in terms of dollars, can not [fol. 1622] be fixed "by any mathematical form"?

A. That is correct. I do not think anybody would have any difficulty in coming to the conclusion that a trained organization of experienced men, who had had a long and intimate contact with that property, would be an element of value, and that is just what I say. The existence of that value would be easy for anyone to determine; I think anyone would come to that conclusion after they had met and become acquainted with the men who are working day in and day out in the operation of the Lone Star Gas Company.

Q. But you do say, right in this exhibit, don't you Mr. Connor, that this trained personnel which the company now has, is an element of value that can be measured in dollars and cents?

A. No, I say the existence of it is readily ascertainable, but the determination of what it should be can not be determined mathematically.

Q. Refer to Exhibit 36, Mr. Connor. As shown on this chart as of December 31, 1931, you assume that 97.72 per cent of the business is now developed, or was developed as of that date, do you not?

A. Would be developed, should the property be reproduced.

Q. How many feet of gas did the company sell during 1931?

A. In 1931?

Q. Yes.

A. I don't know that I have those figures with me, Mr. Fitzhugh.

Q. Well, how would you go about working out this percentage if you didn't, that you used for business development?

[fol. 1623] A. I have the money sales or the money received by Lone Star Gas Company for various classes of sales for the year ended September 30, 1931; and it was from that basis that I made the determination. I was interested in the over-all dollar revenue.

Q. What was the dollar revenue for 1931?

A. The total sales for domestic gas amounted to $7,240,419.68. That is the money that Lone Star Gas Company received during that period for gas sales at domestic rates.

Mr. Griffith: Do you refer to the twelve months ended September 30, 1931?

A. That is correct. Now, the industrial sales or the revenue from industrial sales amounted to $2,184,540.22 for the same period.

Q. You used only the domestic figure, did you not, for finding your 97.72 per cent figure?

A. I used only the domestic sales; that is correct.

Q. In 1933, what were the domestic sales?

A. I don't know, Mr. Fitzhugh.

Q. Wasn't it around Five Million Dollars and something?

A. I am not certain.

Q. Well, you do know that domestic sales dropped off substantially in 1933, from the 1931 figure?

A. They may have, yes.

Q. Now, if you had used the 1933 or the 1934 business on the basis of domestic sales, for the finding of your percentage of business developed, you would only have about 70 per cent, would you not?

[fol. 1624] A. No, I would not come to that conclusion.

Q. Well, about what would be the approximate amount—would it be 75 per cent?

A. No, I would not think that would have anything to do with it, Mr. Fitzhugh, because I believe that as of the date of the inquiry that Lone Star Gas Company had its prop-

erty saturated, in view of the conditions existing at the time of the inquiry.

Q. You mean it had its properties saturated as of what date?

A. As of this date.

Q. Well, if it had more sales prior to this time, Mr. Connor, you had more saturation at that time, didn't you?

A. Yes, but that was a different time.

Q. So if you take the peak time when you had the most saturation, you certainly have less saturation now, haven't you?

A. It has less saturation now, perhaps, compared to the peak time of its business, but that might be not the ultimate saturation of sales which the company could acquire or could be expected to acquire at this time.

Q. Well, is there really very much to this saturation business anyway, Mr. Connor? Don't you expect to be getting more customers as the years go on?

A. Not without the extension of facilities to secure new customers, or the provision of additional capital to meet additional consumer needs.

Q. Certainly the saturation you had in 1912 does not compare with the saturation you had in 1915, or in 1920, or on [fol. 1625] down through the years to the present time, does it?

A. It might in some towns, yes.

Q. You have constantly been adding customers all the time, have you not?

A. Yes, and the company has been constantly spending millions of dollars in additional capital to provide for these new customers.

* * * * * * *

[fol. 1626] Q. Mr. Connor, there is no way, is there, to tell as of December 31, 1931, or as of December 31, 1933, or as of the present time, whether the business of the Company at any of those dates anywhere approaches what might be the saturation point?

A. Yes.

Q. Either as to customers or customer consumption of gas?

A. Yes. I think that men experienced in operating natural gas properties can estimate pretty closely what the per cent of saturation actually is at any given time.

Q. Well, in order for your chart, known as Exhibit 36, to work out and be correct, you had to assume that as of the date December 31, 1931, one hundred per cent of the business of the Company had been developed, did you not?

A. I assumed that as of that date that what I construed to be normal customer use and saturation had been secured.

Q. And that the Company as of that date actually had one hundred per cent of that business attached?

A. I would not say one hundred per cent of the business attached.

Q. Doesn't that chart show that?

A. It shows one *hundred per cent of what I* would consider normal. The point I wanted to make, Mr. Fitzhugh, was simply this: That in any business of this kind there is always some relatively small part of the property which is probably in the process of acquiring saturation. If the [fol. 1627] Lone Star Gas Company ceases to grow, from the standpoint of extensions and the taking on of new communities, then that condition itself will be finally eliminated.

Q. Mr. Connor, you used this same chart—the same thing exactly—in testifying before the Railroad Commission, did you not?

A. No, sir; I did not.

Q. What changes have you made in it?

A. I have made the changes in it which are necessary by reason of the changes in the reproduction cost estimate, and in certain re-arrangements in the estimate of certain costs.

Q. Well, what are the main differences in the estimate that you have made of going value in this appraisal and in the one that you made before the Railroad Commission?

A. There is no substantial difference, Mr. Fitzhugh, except that this is not at all the same chart which was introduced in that hearing.

Q. Well, you have still taken the volume of domestic business as of December 31, 1931, have you not?

A. That is correct; and in doing that, I simply ascribed to the various construction—or various business development periods, the proportionate part of the total sales, domestic, of Lone Star Gas Company, which would be acquired in that development year. Now, the total sales—the total amount of money involved in the sales in succeeding years will, no doubt, vary; but what I was endeavoring to do by [fol. 1628] the use of these sales was to determine what

proportionate part of the total domestic sales enjoyed by Lone Star Gas Company would be secured from specific towns; and I don't think that that ratio would change from year to year, even though the total amount of money received from the sale of domestic gas might show a variation. In other words, Mr. Fitzhugh, if you look at the chart, the reason for the use of those sales was to determine what proportionate part of the total domestic gas of Lone Star Gas Company would be secured through the attachment of the cities and towns which would be attached in conformity with the construction program outlined on pages 16, 17, and 18, of Volume 8, Exhibit 28. Now, as you have indicated, the sales may change from year to year, but I believe that the percentage of the total sales which would be represented by the sales in the metropolitan areas of Dallas and Fort Worth and the various and sundry towns included in the estimate would remain approximately the same.

Q. On page 71, Mr. Connor, you have $8,042,414—of the total of eleven million dollars plus before deduction of your credits for net industrial revenue to give your final going value—which you have denoted Interest and Return?

A. That is correct.

Q. You mean there that Interest and Return are the same, or do you have two items there?

[fol. 1629] A. They are two separate items.

Q. And how much of that amount is Interest and how much Return?

A. Well, I don't know whether I can tell you or not, Mr. Fitzhugh. Perhaps the Exhibit discloses that fact; I will try to see. Turn to page 107, Mr. Fitzhugh.

Q. All right, sir.

A. You will notice that for the first development year, and the second development year, the calculations are made upon the basis of eight per cent, and for the subsequent years on the basis of ten per cent. That is the reason for the terminology used on page 71. In other words, while the plant was in the process of construction, and only partially in operation, I used what I construed to be a fixed charge identical with the interest which I used during the construction period; and after the property became wholly operative, I used what I construed to be a fair return upon the fair value of the property.

Q. In other words, you started construction of your plant, and while the plant was being constructed you included as

one of the overheads Interest During Construction at the rate of 8 per cent, did you not?

A. That is correct.

Q. Then as soon as it went into active operation you discontinued the charge as Interest During Construction, but continued it as Return or Interest on Idle Plant?

Q. I continued it, Mr. Fitzhugh, to the extent that the [fol. 1630] property which went into service, which I estimated would go into service, would be practically as idle as property under construction, by reason of the experience afforded by the history of Lone Star Gas Company in the matter of the rate at which business could be secured on the property going into operation.

Q. It is a fact, Mr. Connor, that as soon as a public service corporation starts business of serving the public with its product it is entitled to a fair return on its fair value?

A. I think that that is a legal construction of what a public utility is entitled to receive for its service.

Q. So, as soon as the plant starts actually serving the public it is entitled to such rates as would compensate it adequately; isn't that true?

A. Theoretically, that may be true; practically, it is not possible.

Q. Why isn't it possible?

A. Because a public utility going into initial operation would construct its property in order to anticipate the probable business which it could reasonably secure in the future. Now, that would not be true of some public utility businesses——

Q. Well suppose——

A. Just a second, Mr. Fitzhugh. —but in the case of a natural gas pipe line company, that applies with particular [fol. 1631] force, for the reason that the cost of a natural gas pipe line increases almost directly in proportion to the increase in the diameter of the pipe installed. In other words, a four-inch pipe will cost approximately one-fourth as much to lay as a sixteen-inch pipe, but the capacity to deliver gas of the sixteen-inch pipe is about thirty-five times as great as the capacity of a four-inch pipe to deliver gas under the same pressure and under the same conditions. So that a natural gas utility building a pipe line system to a potential market would be better off, and so would the public in the end be better off, to construct that system into the market with an approximate capacity to serve that market

ultimately, rather than to construct it in increments which would provide ratably for the business which could be acquired. So that there would be an investment in the initial stages of this reproduction, which the limited number of consumers who would be attached, and the limited amount of gas which they would use by reason of the attachment, that business could not under any rate schedules which could be devised provide a reasonable return on the value of the property used in their service; furthermore; it would be impracticable and poor business to attempt at the initiation of a new service of this kind to attempt to put into effect rates which would have the very effect of driving off the development of the business, rather than attaching the business; [fol. 1632] and for that reason, it is impossible, and particularly so for a natural gas pipe line company building into a new market, to receive during the normal development period returns which will be fairly adequate to pay a reasonable return on the fair value of the property.

Q. And because you say, Mr. Connor, that your Company would not be able to get an adequate return which would compensate it for all of the costs of idle plant, if there is any idle plant, you would want the consumers to reimburse your Company for those initial costs at the rate of ten per cent?

A. No; I think what the consumers would do, Mr. Fitzhugh, would be to pay for the service that was rendered by the Company. I don't think that the consumers by doing that would contribute anything to the capital of the Company, or specifically, to any part of its operating expenses. They would simply pay for the service that the Company renders.

Q. When your Company started out in 1909, as a matter of historical fact, Mr. Connor, wasn't its success practically instantaneous from an earning standpoint?

A. The Company, I think, did very well during the initial years of its business. The whole project at that time was a very simply lay-out. I do know that in subsequent years that followed the initiation of service into the cities of Fort Worth and Dallas that it was largely due to the revenues [fol. 1633] which were derived from non-service property that the Company was able to maintain itself and continue in business.

Q. Does it make any particular difference, Mr. Connor, whether the Company has in use its plant one hundred per

cent, or whether it only uses fifty per cent of its facilities, so long as its return is adequate?

A. I don't think, Mr. Fitzhugh, that a company whose facilities were only used to the extent of fifty per cent could secure a rate which would yield a full and fair return upon the value of the property, or the reproduction cost of the property.

Q. Well, the return is the key to the whole situation, isn't it, Mr. Connor. If you were doing hauling, using a wagon, it would not make any difference to you whether you filled your wagon up and hauled a whole load each time, or hauled a quarter of a load each time, if you got the same pay for it?

A. No; if I was in the hauling business, and that was the characteristic of my type of hauling, I would be satisfied with what constituted a fair return on the use of my equipment and facilities.

Q. And the same in the natural gas business, it would not make any difference whether you used your equipment one hundred per cent, or fifty per cent, so long as you were making enough money; is that right?

[fol. 1634] A. I don't think that in making a reproduction cost estimate that consideration should be given to what the company has earned, or has not earned in the past, as an operating matter, and I have given no consideration to that fact, Mr. Fitzhugh.

Q. Have you made any study of the history of the company in the past, so far as it concerns the cost of developing business?

A. Yes; I think I read into the record—I am sure that I did—the exact experience of Lone Star Gas Company and took several of its major trunk lines and showed the per cent of business which those lines had attached each year after they were placed into operation. Now, as Lone Star Gas Company built those lines and put them into operation and received a small amount of revenue the first year, and received a small amount of revenue the second year, and received a small amount of revenue the third year, and the fourth, despite the fact that the fixed charges on Taxes and Return, as you may desire to term it, and depreciation, accrued on those lines without respect to the volume of gas transported through those lines, I think that process cost the Lone Star Gas Company money even though they were making money as a whole. It would not make any difference

to me if I were making a certain sum of money if I lose a certain sum of money during that same time. The fact that I was making money over all would not in any way eliminate [fol. 1635] or remove the fact that I might have lost money in connection with a certain phase of my business during that same time. Now, the fact that Lone Star Gas *Co* Company from year to year may have earned money does not eliminate nor remove the proposition that every time it built a line into a new territory it went through exactly the same process I have outlined in my testimony.

Q. Mr. Connor, can you tell what the books show for the cost of development of the business of the Company?

A. No, sir; the books of the Company do not reflect items of cost of that sort.

Q. Has there ever been any interest on idle plant on the books of the Company, either as operating expenses or as a capital item?

A. No, sir; I don't believe that Lone Star Gas Company has ever set out an entry of that nature. I do know, however, Mr. Fitzhugh, that very recently a large natural gas pipe line company has done that very thing in connection with its capital account, and the method adopted has been approved by nationally recognized certified public accountants.

Q. Isn't the real reason your books show no amounts for such costs the fact that there was not any such costs incurred, Mr. Connor?

A. No; I don't think that is true, Mr. Fitzhugh. I don't [fol. 1636] think books kept as the Lone Star Gas Company's books have been kept would reflect items of cost of that nature.

Q. What was the per cent of idle plant at the end of 1909?

A. I don't know.

Q. What was it at the end of 1910?

A. I don't know; but I do know that during the successive years following 1909 that the business of the Company increased.

Q. Was there any idle plant as of the end of 1911?

A. I would say that there was.

Q. How much?

A. I don't know.

Q. Was there any at the end of 1912?

A. I would say that there was.

Q. What was the per cent of idle plant as of that date?

A. I don't know.

Q. Was there in 1913 any idle plant?

A. I would say that there was.

Q. Do you know the per cent of idle plant?

A. No; but it would be somewhat reflected by the business development from the standpoint of customer saturation and customer use saturation, which concurrently developed in the cities of Fort Worth and Dallas, because during the period of time you refer to Lone Star Gas Company was making deliveries into the cities of Dallas and Fort Worth [fol. 1637] through practically the same facilities that it had at the beginning of its public service operation.

Q. At just what year from 1913 down to the present time would you say there ceased to be idle plant, Mr. Connor?

A. You mean on what line?

Q. On any line?

A. Mr. Fitzhugh, that would be a matter which would have to be analyzed by the rate of sales on each and every individual line in the system, and I have only extended my study to include some of the large lines which had been laid in recent years.

Q. Mr. Connor, unless your company is at this moment serving every possible customer and delivering every cubic foot of gas it possibly can, doesn't it have some idle plant right now?

[fol. 1638] A. I think I explained some time ago, Mr. Fitzhugh, that there never was a time in the operating history of any public utility but what some proportionate part of its plant not only was not fully used but would not be fully used. It would be a very improvident attitude and a very dangerous attitude from the standpoint of rendition of adequate service for the management of Lone Star Gas Company to permit the building up of a loan on its system which would absorb the capacity of the system one hundred per cent, because the public interest and adequate service demands that a natural gas pipe line company always have some reserve capacity with which to meet extraordinary and unfor-seen demands, and in addition to that there is no telling at what time some very important part of the pipe line system may give way, and those accidents, which are unavoidable, usually take place at the time of maximum domestic demand. The people of a territory served by a company like Lone Star Gas Company become independent upon that company for heat in their homes and for their

comfort and health during the winter months, and the company can not afford to trim so close to the line as to have a plant which would just exactly fit the absolute demand on that service.

Q. Have you answered my question, Mr. Connor?

A. I think I have.

Q. Well, I will ask it over again. If you assume at the present time that your company does not have absolute saturation, serving every customer it possibly can and delivering every cubic foot of gas it possibly can, don't you [fol. 1639] at the present time have some idle plant?

A. You would have a plant which was not being used, but I would not designate it as contribution to a lack of normal one hundred per cent saturation and customer use.

Q. Well, what is your answer to the question?

A. There will always be a certain amount of line in any well managed property which would not be used for immediate needs, and to that extent there would be a plant which theoretically idle but which, I think, would be entirely useful in the public service.

Q. Well, what are you saying: "yes" or "no".

A. I said three times that on a well designed and well maintained property there would always be some portion of it which would be idle theoretically.

Q. Well, is your answer "yes", then?

A. Yes.

Q. Now, then, isn't it a fact, Mr. Connor, that if you consider your company has a hard time getting started, with more idle plant during the years when they are just starting business, that you inevitably get a larger amount for going value through interest on idle plant?

A. Yes.

A. I think that any one who would make an estimate of [fol. 1640] this kind and would extend the period of business development beyond that which would be normal and speedy even for the type of business under consideration would be committing a very improper—would be making a very improper calculation.

Q. Even as you assume, as you have assumed, Mr. Connor, that at the time you start this construction most of the big cities served by the company would be having artificial gas, which, as you have said already, I believe, would be at higher rates than the natural gas rates, isn't it a fact that as

soon as you attach to those towns your success in those towns would be instantaneous?

A. Well, now, in that respect I have actually taken for the basis of my calculation the actual experience of such a community, and that is the City of Dallas and its metropolitan area, and have taken the rate of growth and development in the town. They had an artificial gas system and were selling artificial gas at higher rates than natural gas, considerably higher. I have taken the actual experience of that town, and then what have I done? I have reduced it from a twenty year period to a six year period, to be absolutely conservative; in other words, I have taken the experience of the City of Dallas and the actual attachment of its business with this artificial gas plant there and, instead of assuming that the business would be acquired over a period of twenty years, as was actually done, I have assumed that the company would get it in six years.

[fol. 1641] Q. I understand, but answer the question. If you assume that all these plants were artificial gas plants and your company attaches and brings in cheaper natural gas to serve some communities, isn't it sure that you will have plenty of customers in those communities instantly attached to your line and willing to pay a good rate for gas?

A. Well, now, Mr. Fitzhugh, the experience of Dallas shows that when that gas was introduced into Dallas there was only one meter for ten and a half inhabitants and for a year or more after that only one meter for every 6.4 inhabitants, and it was only after gas was introduced into Dallas for nearly twenty years that the ratio of meters to population got to the point that it now has. Now, that indicates to me that people do not jump right in and pick up the service, and the actual experience of towns which I have used in this estimate shows it takes three years to get that business from the standpoint of number of customers.

Q. Well, the number of customers per meter don't mean a thing—it is the return you get that matters, isn't it?

A. Well, if you can serve a community with the same facilities that has a hundred thousand people and you have twenty-five thousand domestic consumers in that community, you are going to receive more revenue than if there were twenty-five hundred customers.

Q. Mr. Connor, isn't it a historical fact that when the company attached in Fort Worth, Dallas, and other towns,

that they charged and received rates that adequately com-
[fol. 1642] pensated them for every cent of investment they had made for pipe lines and other equipment?

A. I don't know whether it did or not.

Q. And doesn't the history of the company show that if you had any cost of building up business that you have been amply repaid not only through operating expenses but in other ways for that cost?

A. I don't know that I have any information that would justify me in reaching that conclusion.

Q. Have you made any investigation to find out whether or not rates in the past have been inadequate to repay your company any cost of building up business, if any such costs were incurred?

A. Mr. Fitzhugh, in making the reproduction cost estimate I gave no consideration to the operating experience of the company in the past, except in so far as I made such studies as would provide me definite information relative to the specific things to which I have testified. It does not seem to me that whether the company made money or lost money in the past has anything to do with what it would cost to reproduce this property as of this time, and so I did not give any consideration to those accounting records.

Q. You are aware of the fact, are you not, Mr. Connor, that Mr. Hulcy has already testified in this case that if there were any costs of developing business that they have been charged as operating expenses in the past?

A. I don't know, Mr. Fitzhugh, that I quite understand what costs you are referring to. Now, if Mr. Hulcy means
[fol. 1643] new business expense and soliciting expense and such expenses as that, no doubt all of those items have been included in the operating expenses of the company, and I think probably they should be included in the operating expenses, but there is no effort on, my part in this exhibit here to capitalize any such expenses. Now, if you mean costs which have accrued to Lone Star Gas Company by reason of the fact that its pipe lines have not been used to their capacity, then I do not believe there is any reflection of that sort of expense or cost on the books of the company.

Q. Did it make any difference to you in making your estimate, Mr. Connor, that the costs commonly known as going value costs have been charged on the books of the com-

pany in the past as operating expenses and are now still being charged as such?

A. No, because I made no attempt to capitalize the items which are treated as operating expenses, and I do not understand, Mr. Fitzhugh, just what you mean by "going value costs".

Q. I mean as you detail them in here.

A. No. I have detailed costs of developing the business of Lone Star Gas Company. Going value of this company is something which exists by reason of a large number of factors. I have merely made an estimate in conformity with the methods hitherto used in the appraisal.

Q. The way you have arrived at your final value, it would not have been necessary for you to have seen the books of the company, at all, would it?

A. Yes.

[fol. 1644] Q. What for? For the purpose of finding industrial revenues?

A. I went to the books of the company to get the proportionate part of industrial sales and domestic sales which would be secured in each of the groups of towns which I have estimated would be attached to the system at various dates. I went to the records not only of Lone Star Gas Company but of each and every distributing company of Lone Star Gas Company to find the actual rate in each of the plants.

Q. You didn't go to the books of the company to find the actual amount of interest return as shown by the books, did you?

A. No.

Q. Or the exact amount of depreciation or idle plant as shown by the books of the company?

A. No.

Q. Or the taxes on idle plant as shown by the books of the company?

A. No; that is correct.

Q. Or any personnel cost as shown by the books of the company?

A. That is correct.

Q. Now, your taxes on idle plant were figured about the same way as taxes during construction, weren't they?

A. That is correct. No; they were applied wholly to the property which would be in operation but not active during the period of business development. The proportionate

amount of the total taxes paid by Lone Star Gas Company ascribable to that part of the total reproduction cost has been set up as the item of taxes during the development period.

[fol. 1645] Q. Of the amount you show on page 71, being $3,111,610.00, for depreciation on idle plant, what would be the actual amount for replacements during that time?

A. They would be nominal.

Q. About how much in dollars and cents?

A. I don't know.

Q. Would it be as much as fifty thousand dollars' worth?

A. I could not tell you, Mr. Fitzhugh.

Q. You could not come anywhere close to an estimate on it?

A. No, sir. But that would not remove the necessity of setting up a reserve accrual.

[fol. 1646] Q. On page 101, where you show the depreciation rate by years, you use a rate of three per cent in the first, and through the other years three and one-half, four, and four and one-half. Why did you use a different rate for each year?

A. Because I believe that property of a natural gas—that in the natural gas business wherein the business itself would be small during the early years, you need not set up the same reserve accrual which would be required in the future; and, furthermore, the estimated reserve accrual during those years is somewhat less than that which I would suggest for a natural gas pipe line company; and it was inserted in the estimate prior to the time that I had made my final determination of what actual reserve accruals Lone Star Gas Company should set up.

Q. On page 132, near the bottom of the page, you say: "During the year 1931, Lone Star Gas Company compressed 73.8 per cent of the total gas delivered at an average cost of 1.74 cents per M. cubic feet compressed (operation only)." Where did you get that 1.74 cents per thousand cubic feet?

A. That was taken directly from the operating records of the Compressor Department of Lone Star Gas Company. And, in that connection, on page 133 there appears a typo- [fol. 1647] graphical error which should be corrected in the exhibit, and that is that a decimal point should be placed in front of the figure 87 appearing at the top of page 133.

• • • • • • •

Q. Does this cost apply only to domestic gas?

A. No, that is the cost of all gas compressed, Mr. Fitzhugh. Operation only; no fixed charges.

Q. That includes all of the labor, does it?

A. And that includes all of the cost of compression—the fuel and the labor and the repairs not charged to reserve account.

Q. You would still have this cost for compression if you eliminated natural gas, would you not?

A. Well, that would be impossible for me to tell you, Mr. Fitzhugh, what per cent of it would be eliminated. I don't know.

Q. Well, if you took out the industrial gas, you would still have the same compression costs, wouldn't you, for the residue?

[fol. 1648] A. No, the costs of compression, if the residue gas—the remaining amount of gas were all compressed, would be much larger, because the cost of compression per M. C. F., while in proportion to the amount of gas compressed, declines per M. C. F. as the volume of gas compressed increases. This is the over-all cost of compressing gas in the Lone Star Gas Company system for the year which I have indicated. Now, I have attempted no segregation of industrial and domestic gas compression because I don't think anybody could do that, but I have assumed that it would cost less, that there would be less industrial gas compressed than there would be domestic gas compressed, for the reason that domestic gas—large volumes of domestic gas move over the peak load periods, while industrial gas is sold more or less uniformly throughout the year; not altogether so, but to a greater extent than the delivery of domestic gas.

Q. Now, you say this figure is made up of all the fuel and labor costs; everything except fixed charges, I believe you said?

A. That is correct.

Q. Now, you would still require the same amount of labor if you eliminated the industrial rate, wouldn't you?

A. At a few compressor stations you have to keep a cer-[fol. 1649] tain number of men there, yes, irrespective of the volume of gas you compress.

Q. The only difference in the case of compression, after eliminating the industrial load would be the cost of t[illegible]el, wouldn't it?

A. Yes, but Mr. Fitzhugh, you can't pick out and decide what industrial gas is compressed and what domestic gas is compressed. For instance, Lone Star Gas Company during that year received a very large proportionate part of its base load requirements—and by that I mean the amount of gas which it delivered every day through the year—from casinghead gasoline plants in West Texas. Every cubic foot of that gas was compressed and the very large proportion of it was sold for industrial purposes. I think the arrangement that I have made here really relieves the industrial gas of a certain element of cost which might very properly be ascribed to it.

Q. How much of this 1.74 cents per thousand cubic feet is made up of the fuel cost?

A. I don't know.

Q. Can you say approximately how much?

A. No, I can not. Fuel costs, of course, are a rather sizable expense in connection with the compression of gas. [fol. 1650] Q. Well, would you say it would amount to as much as a half a cent?

A. I couldn't tell you, Mr. Fitzhugh; I haven't the figures available.

Q. All right, sir. The last section of your appraisal is Working Capital, which you show in the amount of $1,701,600.00. In your summary you have an item of Incomplete Construction, $100,000.00. If a rate hearing were to be had at some subsequent time, this same Incomplete Construction in the amount of $100,000.00, as shown on page 141, would have Interest during Construction figured on it, wouldn't it?

A. No, sir.

Q. How do you know it would not. That would then be property of the company, wouldn't it?

A. Oh, you mean after it has been completed?

Q. Yes, sir.

A. I see.

Q. And we were having a hearing at some future date.

A. I would take the entire plant just as I found it and estimate what time would be required to construct it, and proceed just as I have done.

Q. In other words, the inclusion of this amount allows you at this time to earn a rate of return on an amount which at some future time you expect to calculate Interest [fol. 1651] during Construction on?

A. Mr. Fitzhugh, I don't believe that I follow your question.

Q. Suppose that you had not allowed—this is going in the rate base, isn't it—this Incomplete Construction in the amount of $100,000.00?

A. That is correct; and it should go in.

Q. And the Company is going to be allowed in its rates to earn a rate of return on that, isn't it?

A. That is correct.

Q. Now, if that happened in all incomplete construction, there wouldn't be any sense in charging interest during construction on it, would there,—if incompleted property was allowed to earn its return there wouldn't be any loss on the capital tied up during incomplete construction?

A. Well, the incomplete construction on the property, so far as it is concerned, is simply like materials and supplies on hand, and it is money which it has advanced on things that are not in service at the date of the inquiry. Now, if incomplete construction *construction* constituted some tremendous proportion of a valuation or a reproduction cost estimate, your point might be very well taken. If you were to include immediately in a rate base some tremendous proportion of a piece of property which would be out of pro- [fol. 1652] portion to that property which was being estimated upon the reproduction cost basis, I think your point would be exceedingly well taken; but in the case of a small current expenditure for construction in progress, I think that the proper way to handle it is as a part of working capital.

Q. Has your Company in the past, Mr. Connor, been obtaining a return on incomplete construction as a part of working capital?

A. I would say that that would depend upon the revenues that the company happened to be receiving at any given time and the proportionate part of the total system represented by incomplete construction. I don't imagine that the Company got a return on incomplete construction during the years 1927, 1929, or 1930,—no, absolutely not.

Q. How did you find the amount of gas in the system, Mr. Connor?

A. Why, I have a curve.

Q. Is that actual measurement, I mean.

A. That is the actual measurement of the diameter of the pipe in the system reduced to a cubic foot basis at 200

pounds pressure, and reduced to—well, I haven't a note here on just exactly what pressure base was finally determined—I have it in my notes; but it was just simply a [fol. 1653] mathematical calculation, Mr. Fitzhugh. And the amount of gas should be set out as 156,425 M cubic feet. In my copy the M—capital M—was omitted. I suggested the change to Mr. Freese some time ago. That same change should be made in the copy in the record. By that I mean 156,425 thousands of cubic feet.

(NOTE.—The correction above suggested was subsequently made in the exhibit introduced in evidence herein.)

Q. You figured this gas was worth ten cents per thousand cubic feet, did you not?

A. That is just a rough estimate of what that gas would be worth, yes.

Q. That is purely an arbitrary figure; that was not calculated in any way?

A. No; I knew that the over-all cost of gas was around six cents, and that the compression was around 1.75 cents, and I just wanted to get an item of cost applicable to operating costs only. I don't know that that would cover it, by any means, because some of the gas cost ten cents a thousand at the well.

Q. Did you some time during your examination, Mr. Connor, testify that the Petrolia gas is about a 750 b. t. u. gas? [fols. 1654-1665] A. That is correct.

Q. Has that always been true of that Petrolia gas?

A. I think it has. Mr. Biddison is here and he is more familiar with that gas in its early period of the Company's operations than I am, and he can, I am sure, give you that information.

Q. Well, that gas has a 750 b. t. u.——

A. It may not be that much, Mr. Fitzhugh.

Q. —content today, doesn't it?

A. I am not sure; I think that is just about what it is.

Q. Yes, sir.

Redirect examination.

Questions by Mr. Griffith:

• • • • • • •

[fols. 1666-1676] Recross-examination.

Questions by Mr. Fitzhugh:

* * * * * * *

[fols. 1677-1681] P. M. BIDDISON, recalled by defendant, testified as follows:

Direct examination.

Questions by Mr. Griffith:

* * * * * * *

[fol. 1682] Q. Mr. Biddison, without going into the detail in reference to each well, I will ask you if you have the [fols. 1683-1684] detail on each of the well lines which you think should properly be excluded from your inventory and appraisal?

A. I do.

Q. And can you give the fotal for the Fox Field and for the other fields?

A. Yes, sir.

Q. And then if counsel for the State so desire, they may inquire about individual lines?

A. Yes, sir, for the Fox Field the total correction is $1,351.74; for the West Texas Field the total correction is $41,822.66; the total for all fields is $52,473.00.

Q. And you would accept a correction to your inventory and appraisal, Exhibit 28, in those amounts?

A. Yes, sir.

* * * * * * *

[fol. 1685] Q. Mr. Biddison, would you say that you had a thorough familiarity with the public service plant and property of the Lone Star Gas Company in its respective locations?

A. Well, I am quite familiar with it.

Q. Over the period of the last several years have you had occasion to visit, inspect and observe practically all of the physical property of the Company, wherever located in the States of Oklahoma and Texas?

A. I have.

Q. Have you made any examination and observation of the property on the ground as a result of visual inspection, for the purpose of determining the observed or ac-

crued depreciation or the per cent condition of new which you would attribute to the respective items of property?

A. I have.

Q. At what time did you make those inspections and observations?

A. A number of those inspections were made during the summer of 1932, and a number of them during the summer of 1933.

Q. Was that for the purpose of ascertaining the accrued or observed depreciation or per cent condition of the property as of the date of your appraisal?

A. It was.

Q. And have you embodied your observations and deter-
[fol. 1686] minations in a compilation in form to be presented as an exhibit in this case?

A. I have.

Q. Mr. Biddison, is this the compilation and report to which you refer,—it being styled on the title cover "Lone Star Gas Company—Report on Condition of Property as of January 1st, 1933. By P. McDonald Biddison, Consulting Engineer"?

A. It is.

Q. Bearing in the lower right-hand corner the designation "Dallas, Texas. August 30, 1933"?

A. That is correct.

* * * * * * *

Examination by Mr. Stout:

Q. Mr. Biddison, does this exhibit show any separation as between property in Oklahoma and property in Texas?

A. No, sir, it does not.

Q. What ever it is, it is all a combined system—all together.

A. It treats the property as a whole, yes, sir.

Q. What is it? I say what do you call it?

[fol. 1687] A. What do I call the report?

Q. Yes, sir.

A. Lone Star Gas Company—Report on Condition of Property as of January 1, 1933, by P. McDonald Biddison, Consulting Engineer.

Q. In your language or in United States language what would you designate it as being—is it a depletion or something like that?

A. No, a report on the condition of the property.

Mr. Stout: We make the same objection we have heretofore made,—that it shows no segregation between Texas property and Oklahoma property.

The Court: All right; the objection is overruled.

Mr. Stout: Note an exception.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 37.)

[fol. 1688] By Mr. Griffith:

Q. In connection with the objection which has been made, that it makes no segregation as between Oklahoma and Texas property, Mr. Biddison, I will ask you if it does make a segregation to the extent that your observations in connection with property in each state are separately identified and may be identified by anyone going through the report?

A. That is correct.

Q. In other words, throughout the report, you have given station pipe line designation or town location in reference to the inspection made?

A. Yes, the location given is sufficiently definite enough that a classification by states could be made from it. I have not attempted to do so.

Q. In other words, it would be just a matter of mathematical calculation, insofar as the determination of the per cent condition of property located in Oklahoma was concerned, and also so far as the Texas property was concerned?

A. That is right. Simply a re-arrangement of the data.

Q. Now Mr. Biddison, please relate to the jury just what was the general nature of the work that you did in connection with the compilation of Exhibit 37.

A. The general nature of the work was to tour the territory covered by the Lone Star Gas Company's system and to inspect the items of equipment and make notations of the observations. With regard to the inspection of pipe lines, I had the operating forces of the company to dig holes at [fol. 1689] selected locations, of sufficient size that the pipe could be readily seen and inspected, and at such locations I inspected the pipe to determine the condition of the protective coating and to determine the condition of the pipe

itself, and from the observations on the protective coating and on the pipe itself, I determined an over-all condition of the complete installation of pipe. Now, with regard to these observations in the section of this report devoted to transmission system equipment, for example, or transmission line equipment beginning on page 149 will be set out the details of the observations which I made. Now, with respect to compressing stations, I did not have with me at the time of these inspections any inventory of equipment whatever, and I made notations as to the condition of the principal elements of value in a compressor station job, and later when the inventory became available to me with the estimated cost of reproduction new, I set down opposite these items constituting compressor stations the per cent condition in which I observed that property to be, and multiplying that figure of reproduction cost new by the figure of condition, I obtained what I have called the present value of that property. For example, an item of property which is estimated to cost $100 to reproduce new today, if I found it in a condition of 90 per cent, I would multiply that $100 by 90 per cent and obtain a present value figure of $90. Now, with respect to measuring stations, at measuring stations I would make notations of my judgment of the condition of the structure or of the building. And then a separate [fol. 1690] notation of my observation of the condition of the equipment in that station, and all these observations have been applied to the cost of reproduction new, as shown in Exhibit 28, which is the valuation, to obtain the final figures in this Exhibit 37 of what is therein styled present value.

Q. The reproduction cost new of the plant, property and business of the company as shown by the summary in Volume 1 of Exhibit 28 of the Defendant, is the sum of $73,983,405.57?

A. That is correct.

Q. And you have carried that figure over to page 1 of Exhibit 37 under the column headed Reproduction Cost New?

A. That is correct.

Q. The next column, styled Percent Condition, is the result of your determination of the observed or accrued depreciation as determined by you in connection with the observations of the property, which you have made, and

inspections which you have made, and which observations and inspections are set forth in detail in Exhibit 37?

A. That is correct, and all the figures of cost of reproduction new are taken from Exhibit 28, which Exhibit 28 is the valuation or the estimate of the cost of reproduction new, and brought forward into this Exhibit 37.

Q. It would appear from page 1 of Defendant's Exhibit 37 that you found the property to be in a condition of 92.93 per cent, in so far as the physical property was concerned?

A. That is correct?

Q. And that over-all you determined the per cent condi-
[fol. 1691] tion of new of the property as a whole to be 94.26 per cent?

A. That is, of the property and business, yes.

Q. And thereby you arrived at a present value of $69,738,021.16.

A. That is correct.

Q. The column headed Present Value on page 1 of Exhibit 37 might well have been styled reproduction cost new less observed depreciation, might it not Mr. Biddison?

A. It might well have so been styled; it represents that specifically.

Q. What have you set forth on pages 2, 3 and 4 of Exhibit 37?

A. On pages 2, 3 and 4 are set out by groups of property the derivation of the figure of 92.93 per cent and the figure of $55,809,205.16 present value, shown on page 1. On pages 2 and 3, production system property is broken down into subdivisions of that property. Gathering system property is similarly broken down into its main subdivisions; transmission system property is broken down into its main subdivisions; compressing system property is broken down into its main subdivisions and general property into its main subdivisions.

Q. Now what is the first item of physical property of the company for which you made a determination in respect of its per cent condition?

A. Production system property.

Q. And is the first item gas well equipment?

A. The first item on which a determination of condition from observations of the equipment was made, is gas wells.

Q. Now, it is noted that on the fee wells, and I suppose
[fol. 1692] by that you mean the gas wells owned by the

company, you determined them to be in 100 per cent condition of new. Hasn't there been any deterioration or depreciation of the gas well equipment in those wells, Mr. Biddison?

A. Yes, there had been.

Q. Why, then, did you apply 100 per cent as the condition in which you found those wells?

A. The method of evaluation of leases and wells——

Q. That is, developed gas reserves?

A. Developed gas reserves and gas wells as used by Mr. Hulcy, and I think he has himself explained this, is a method which produced a present value figure for the total. If we take the sum of $2,681,689.00 for leaseholds developed and the sum of $3,908,424.15 for gas wells, that sum substantially then represents the present value of that property as determined by Mr. Hulcy. Now, having determined the overall present value, he arrived at the value of the leaseholds developed by deducting therefrom the estimated reproduction cost new of the wells. If, instead of so doing, he had used a depreciated figure on gas wells, and deducted that from his total value for leases and wells, he would have had exactly the same total figure here, but a larger amount of the value would have been in the leaseholds, and a somewhat smaller value in the gas wells, without in any way affecting the total amount of money involved as a present value figure.

Q. Well, summarizing your testimony in that connection, Mr. Biddison, to any extent that Mr. Hulcy would have [fol. 1693] considered the depreciated value of gas well equipment in connection with developed gas reserves, would he to the extent of such depreciation have increased his value of gas reserves?

A. That is precisely the idea I was trying to convey.

Q. In connection with other-owned wells, appearing on page 6 of Defendant's Exhibit 37, it would appear that you did depreciate that equipment?

A. I did. I estimate that that equipment is in a condition of not less than 85 per cent, as compared to new equipment. I have inspected a great deal of that equipment, and——

* * * * * * *

[fol. 1694] Q. Mr. Biddison, you stated that you made numerous observations and inspections of the equipment

located on what you style on page 6, Exhibit 37, "Other Owned Wells"?

A. That is correct.

Q. And as a result of those observations and inspections, you determined that class of equipment had suffered an observed depreciation of 15 per cent?

A. This figure of 85 per cent condition is not actually the result of observation, as the observations on that equipment show it all to be in very excellent condition; but I adopted 85 as being a figure somewhat lower than the actual observations I made on that kind of equipment.

Q. Turn next to page 8. What have you summarized on page 8, of Defendant's Exhibit 37?

A. Other Production System Structures. Of these structures I actually inspected the ones opposite which are set down the figures of per cent condition, and out of a total of $9,450.29 of the Reproduction Cost New figures for these items, I observed $5,453.13 worth of those items, and on the items observed I had an average, or weighted mean condition of 82.73 per cent; so to the total cost of reproduction cost new I applied not the 82.73 per cent, but a flat 82 per cent.

Q. Do you believe that you saw a representative number of those structures, so as to enable you to testify as to their average condition?

[fol. 1695] A. Yes; I saw considerably over half of the values involved.

Q. And made minute inspections of more than half of the structures in money value involved in the property account?

A. Yes, sir.

Q. On page 10 of your Exhibit 37 appears a summary of Other Production System Equipment, consisting of Drill, Repair and Clean Out Tools. Please state how you arrived at your figure of 75 per cent Condition for this class of condition?

A. That figure is not the result of a mathematical computation, but is the result of my observations of this equipment at various locations. I believe it to be in a condition equal to seventy-five per cent of the value of new equipment.

Q. I will ask you if that general class of equipment is scattered in the several fields in which the Company operates?

A. It is, and to properly weigh out observations of scattered items that way would be a long, tedious task, without any better result being arrived at than the short-cut method I used.

Q. Turn to page 13, of Exhibit 37. Mr. Biddison, why didn't you depreciate gathering system rights of way?

A. Because they are not depreciated property; their condition does not change.

[fol. 1696] Q. In other words, is a right of way grant as good today as it was on the day it was secured some ten years ago, say?

A. It is.

Q. You mean there is no necessity for setting up a reserve accrual in respect of such gathering system rights of way?

A. I don't mean that at all. It is necessary to set up a reserve accrual for many items whose condition does not change throughout their life. Their life may expire suddenly, but their condition be one hundred per cent up to the moment they are wiped out. It is necessary for an owner of buildings to accrue for the possibility of sudden destruction of a building, although the condition of that building may be one hundred per cent at the time it is destroyed.

Q. Are these gathering system rights of way given in perpetuity to the grantee, or the Lone Star Gas Company?

A. Not necessarily in perpetuity; but as long as the Company desires to use them for the purpose for which the grant is given.

Q. That is, so long as the Company wants to maintain its pipe lines in that location, it has the right under these right of way grants?

A. That is correct.

Q. Turn next to pages 15 and 16. What have you summarized on those pages?

[fol. 1697] A. I have set out in summary form the results of my observations on Field Measuring Station Structures; and those are further detailed on succeeding pages 17 to 19 inclusive.

Q. In other words, in the summary on pages 15 and 16 of Defendant's Exhibit 37, have you summarized the observations which you made on these Field Measuring Station Structures, with respect to the Chicasha Field, the Duncan

Field, and all of the other fields where in the Company operates?

A. That is correct. I want to point out that in determining, on pages 17, 18, and 19, the average condition for these structures, the determinations result for each field in some cases in a fractional number; such as on the Duncan Field, the Per Cent Condition determined is 77½ per cent, but in applying that to the reproduction cost new of those structures on page 15, I have dropped the fraction and used the even 77 per cent.

Q. Mr. Biddison, please refer to page 17, in connection with the Duncan Field, Clarkson No. 4 Well Measuring Station Structure,—what appears in the first column?

A. The number of the meter in that station.

Q. In other words, the meter in that station bears number 232?

A. That is correct.

Q. What is the next column?

A. That is the serial number of my observation.

[fol. 1698] Q. Number 335?

A. That is correct.

Q. And what appears in the following column?

A. The condition in per cent of this structure with respect to what a new structure would be.

Q. Of similar size and design and construction?

A. The identical size and design and construction. In other words, a condition of 70 per cent indicates that, in my judgment, 30 per cent of the deterioration which would render this building valueless has occurred.

Q. And that it is worth 70 per cent of its reproduction cost new?

A. That is correct.

Q. And in a similar manner, following on pages 17, 18, and 19, did you detail in this exhibit the field measuring station structures examined and observed and inspected in connection with each of the several fields, giving the meter number, your serial observation number, and the per cent condition that you found for that particular structure?

A. I did.

Q. In your judgment, did you examine and observe and inspect a sufficient or representative number of these stations so as to give you a representative picture of the condition in which all of the measuring station structures could be determined to exist?

[fol. 1699] A. I did.

Q. And based upon those observations which you made, did you determine that the over all per cent for the Gas Purchase Stations was 86 per cent of new, and for the total field measuring station structures 86.78 per cent of new?

A. I did.

Q. And that is set forth on page 16 of this exhibit?

A. That is correct.

Q. Mr. Biddison, what is the next class of property which you examined and inspected for the purpose of arriving at the observed depreciation?

A. Field Measuring Station Equipment. This is the equipment located at the same points as the field measuring station structures previously explained.

Q. Now, on pages 21 and 22 of Defendant's Exhibit 37, have you summarized your observations of this field measuring station equipment for the several fields?

A. I have; and as in the case of those structures, in carrying forward to pages 21 and 22 the averages of the observations, I have dropped decimals and taken the even figures of percentages.

Q. On pages 23, 24, and 25, do you give the meter number, the observation number, and the per cent condition which you found in respect of each of the examinations and inspections which you made?

[fol. 1700] A. I do.

Q. And do you believe that in the case of this equipment you examined and inspected and observed an amount of the equipment which would give you a representative picture of the per cent condition of new of the entire classification of property which is embodied in Defendant's Exhibit 28?

A. I do.

Q. Refer please to page 28. What do you summarize on that page?

A. Field line equipment.

Q. And in what per cent condition of new do you find field line equipment to be as a result of your inspection and observation?

A. 88.78 per cent.

Q. And was that the per cent of reproduction cost new that you took in order to determine present value?

A. It is.

Q. On the succeeding pages, 29 to 39, inclusive, have you detailed the inspections which you made in connection with the field line equipment?

A. I have.

Q. Please give a brief explanation of what you have set forth in your exhibit in connection with the inspections of field line equipment.

A. I have set forth in the left-hand column under the heading "Line", the name of this field line, and generally, [fol. 1701] but not always, the name of the well to which the line is connected. In the second column, under "Location" I have set forth the approximate point at which the inspection was made. In the next column, under "Remarks", I have described generally the kind of soil at this location, and described generally the condition in which the line was found to be at the time of the inspection. In the next column, under "Observation", I have shown the serial number of my inspection. There are three subdivisions of the heading "Condition". The first subdivision headed "Paint" represents the condition in which I found the protective coating on the pipe, and on page 29, on the first item, Line W. T. 14, the paint was of no value.

Q. That is, the paint had deteriorated to the point to where no value could be assigned to it?

A. That is correct. In the second column under "Condition", I have shown the condition of the pipe itself; and in the first case the pipe had suffered very little damage. It was, in my judgment, of a value of 98 per cent of that of new pipe. Now, in this particular case, the value of the painting is something in the neighborhood of three per cent of the total cost of the job. Therefore, I deducted from 98, an allowance of three per cent for that painting, which was of no value any more, to obtain in the column "Overall" the condition of 95 as shown for the "Overall" condition of this installation of pipe in this line.

[fol. 1702] Q. Wherever you found that the painting on the pipe had no value whatsoever through your determination of per cent condition in connection with the field line equipment, and also the transmission line equipment, did you make what you thought was a proper deduction for the loss in value caused by deterioration of the pipe?

A. I did.

Q. Now, in a manner similar to that which you have described in connection with the inspection which you made

of West Texas Line 14 at the measuring station, did you make similar observations in respect of all of the other field line equipment set forth in detail at pages 29 to 39 inclusive?

A. I did. I would like to point out that on page 32, for the West Texas Field, the average of 45 observations on these field lines was 92.33 per cent; and I have applied on page 28 not 92.33, but a flat figure of 92 per cent condition for these lines. I would like to point out further that on some of these lines, upon inspection it is difficult to determine whether or not those lines were originally painted when they were installed, and in making the inspection I assumed that they were painted. If the paint does not show now, it is shown in this report as being O condition, and the reduction in value is greater in the case of lines which were not actually painted than would otherwise have been found in the determination of the overall condition.

[fol. 1703] Q. Now, in a similar manner as for the West Texas field did you determine the per cent condition of the pipe as the result of your inspection for the several fields and apply those percentages as shown in the summary on page 28 of Exhibit 37?

A. I did, and thereby determined that the average per cent condition for field lines was 88.78 per cent, as shown on page 28.

Q. That is, for all the gas fields wherein the company operates?

A. That is correct.

Q. Please turn to page 42. What have you summarized on that page?

A. Transmission System Measuring Station Land. These are the parcels of real estate owned by the Lone Star Gas Company on which are located measuring stations in connection with the transmission system property. The first column on the left, headed "System", indicates the pipe line system; the second column, headed "Land", indicates the reproduction cost new of the land itself. Under the heading "Improvements" there are three columns. The first one, headed "New", represents the reproduction cost new of the improvements; the next column, headed "Per Cent Condition", represents my determination of the condition of the improvements; the next column, headed "Depreciation", represents the application of per cent condition to the reproduction cost new of these improvements; and the column on the right, headed "Total Present Value",

[fol. 1704] is the sum of the column headed "Land" and the column showing the depreciated value of the improvements. So in this case the land is carried undepreciated, but the improvements are carried at a depreciated figure over into the column styled "Present Value".

Q. It may sound absurd, Mr. Biddison, but why did you not depreciate land?

A. Land is not of a depreciable nature. Its condition does not change. It may vary in value, but for the purposes such as these its condition does not change.

Q. Now, Mr. Biddison, commencing at page 43 and going through page 58, have you set forth by systems—that is A System, B System, C System, and so forth, the examinations and inspections which you made in connection with the land and improvements on the Transmission System Measuring Station land sites in connection with each of the pipe line systems of the company?

A. I have.

Q. And the description which you have just given of your method as applied to the summary on page 42 is equally applicable by way of explanation of the method which you followed in the determination of per cent condition of the measuring station land and improvements of the several pipe line systems?

A. It is. I think there is one more point possibly which should be explained. I did not inspect myself at every one of these sites, but with respect to each line system I show locations at which I did make inspections, the present value [fol. 1705] and average condition and reproduction cost new of the improvements which I actually inspected and then applied that condition to the total of the improvements.

Q. Refer, please, to page 60 of Defendant's Exhibit 37. What appears on that page?

A. Transmission System Measuring Station Leaseholds. This is the summary.

Q. Now, what was your general method of determining the per cent condition deduction for reserve depreciation in respect of the Transmission System Measuring Station Leaseholds?

A. Identically the same as I have just explained in regard to Transmission System Measuring Station Land.

Q. And does the same explanation hold good as to the setting forth of the details of your inspections commencing at page 61 and ending on page 72 of the exhibit?

A. It does.

Q. Refer, please, to pages 74 and 75 of the exhibit. What have you summarized on that page?

A. Other Transmission System Land. This land is used for warehouse sites, line-walkers' cottages, gate valve pits, and other miscellaneous uses in connection with the Transmission System.

Q. Your determination of the per cent condition of the improvements on this land was 84.43 per cent?

A. That is correct. Out of total improvements estimated to cost $12,353.14 to reproduce new, I saw and inspected $10,029.06 of that value.

[fol. 1706] Q. You believe again that that was an amount which was sufficiently representative of the entire classification of property to enable you to express an opinion as to the whole classification of property?

A. Yes.

Q. Refer, please, to page 77. How did you arrive at your determined per cent condition of Other Transmission System Leaseholds?

A. In the same manner as for Other Transmission System Land. Those tracts are used for the same purpose as Other Transmission System Land, but are leaseholds and not fee ownership.

Q. Mr. Biddison, refer, please, to page 79 of Defendant's Exhibit 37. It is noted on that page that you do not depreciate Transmission System Rights of Way?

A. That is correct.

Q. In other words, you find them to be in one hundred per cent condition new?

A. Yes, sir. These rights are in identically the same condition today as the day the rights were obtained; they do not depreciate.

Q. They are not for a specified term of years?

A. No; these grants run for as long as the terms are used for the purpose for which the grant is given; they are indeterminate.

Q. The fact that you have not depreciated these rights of way, is that the equivalent of saying that no manner of depreciation or amortization accrued should be set up cov-

[fol. 1707] ering these rights of way?

A. No, it is not. On the contrary, there must be accrued to reserve account an amount to retire these values when

the wells located on these lands are retired, but the value of the grant does not change during that period.

Q. Mr. Biddison, refer, please, to page 81 of Exhibit 37, and state what you have summarized on that page.

A. On this page is summarized Transmission System Measuring Station Structures, the first column being reproduction cost new as taken from Exhibit 28, the next column of figures being the average per cent condition determined for each line system, and the right hand column representing reproduction cost new less accrued depreciation, but being here styled "Present Value". The details for the per cent condition for the structures on each line system are set forth in succeeding pages 82 to 104. Now, on page 82 is set up the detail for Transmission System Measuring Station Structures of "A" System. "A" System being that portion of the company's pipe line originating in Wheeler County near Shamrock and extending down to the Petrolia station in Clay County near Wichita Falls. The first left hand column shows the line or line subdivision on which the structure is located. The next column gives the geographic description of the location. The next column, headed "Per Cent Ownership", shows the percentage of ownership in the structure of the Lone Star Gas Company. This was explained previously in regard to the same structures with respect to Exhibit 28, that [fol. 1708] the Lone Star Gas Company has a joint ownership in some of these structures with the distributing company to whom gas is measured at the respective points. In the column headed "Reproduction Cost New" is shown the reproduction cost new of the proportion of the building owned by the Lone Star Gas Company. In the column headed "Per cent Condition" is shown the per cent determined by me by observation of the respective structures. In the column headed "Present Value" is shown the result of the application of the per cent condition to the reproduction cost new figure; so that the present value figure is a determination of the reproduction cost new less accrued depreciation.

Q. Mr. Biddison, in a manner similar to the manner in which you have described your development of the per cent condition of the structures on the "A" System, did you determine the depreciation and per cent condition of all the other pipe line systems of the company?

A. I did.

Q. And the results of your determinations as set forth commencing at page 82 and carried through page 104 are carried forward to the summary on page 81 of the exhibit?

A. That is correct.

Q. And you determined that the per cent condition of the structures over all was 94.71 per cent of new?

A. That is correct.

Q. Refer, please, to page 106. What have you summarized on that page?

[fol. 1709] A. On this page have been summarized determinations of per cent condition and present value of Other Transmission System Structures. These are structures in connection with the Transmission System other than Measuring Station Structures; they consist of cottages, warehouses, items of that sort, for use in connection with the Transmission System.

Q. Commencing at page 107 and going through page 121, have you set forth the details of your inspection and examination of the structures located on the various pipe line systems of the country?

A. I have.

Q. The pipe line systems bear letter or number designations?

A. Yes, sir.

Q. On page 106 you have summarized the findings which are set forth in detail commencing at page 107 and ending on page 120?

A. That is correct.

Q. You found a lower per cent condition for this class of structures than for the preceding class of structures?

A. I did.

Q. What was the condition per cent determined in connection with this class of structures?

A. 83.76 per cent.

Q. Now, as you previously stated, these structures consist of miscellaneous items, such as cottages, garages, warehouses, storm cellars, tool platforms, auto wash racks, pipe racks, work shops, and other miscellaneous items?

[fol. 1710] A. Chicken houses, and line-walkers' houses.

Q. All structures which are used or useful in connection with the company's operations?

A. Yes, sir.

Q. Refer, please, to page 122 of Exhibit 37. What have you summarized on that page?

A. Transmission System Measuring Station Equipment.

Q. Commencing at page 123 and ending on page 144, have you set forth in detail by letter or number the pipe line system and the observations which you made in connection with this Transmission System Measuring Station Equipment?

A. I have. Now, I have not inspected every piece of this equipment. For example, with respect to the "A" System shown on page 123, reproduction cost new is $23,545.44. Of this, I actually inspected items which total in reproduction cost new $13,222.35, and on that equipment found an average condition of 97.97 per cent. I applied that condition to the total reproduction cost new of $23,545.44 to find the present value shown on page 123, of $23,067.47. It may be noted that in this class of equipment there is little variation in the condition found as between various locations.

Q. Is that equipment usually kept in exceedingly good condition and in a high state of maintenance and repair?

A. Yes. More care is given to the maintenance of this equipment in good condition than any other class of equipment which the company owns.

Q. Why is that true, Mr. Biddison?

[fol. 1711] A. Because this equipment is equivalent to the company's cash register; it is what measures their product as it is being delivered for sale.

Q. Now, in a manner similar to the manner which you have described for the making of your inspection in connection with the "A" System of the company, did you make your observations and inspections to arrive at your conclusions as to the per cent condition covering the "B" pipe line system and other lettered and numbered systems of the company?

A. I did.

Q. And those observations are summarized by you and carried forward to page 122, covering the entire pipe line system of the company?

A. That is correct; and on that page I have determined that the per cent condition of this equipment over all is 97.16 per cent.

Q. Mr. Biddison, what is the largest item of physical property found in Defendant's Exhibit 28?

A. The largest group of physical property is Transmission System Line Equipment.

Q. On page 146 of Defendant's Exhibit 37 have you summarized your findings in respect of the per cent condition of Transmission Line Equipment?

A. I have, and found there as an over-all average for this equipment a condition of 92.28 per cent.

Q. An examination of page 146 of Defendant's Exhibit [fol. 1712] 37 would disclose that there is a wide variation in the per cent condition and observed depreciation which you found and determined as the result of your inspection of the various pipe line systems?

A. That is correct.

Q. And if we refer to pages 147 to 174, inclusive, do those pages set forth in detail the result of your numerous inspections of each and every one of the lettered or numbered systems commencing with the system known as "A"?

A. I have. On pages 147 and 148 is a recapitulation for each system showing the derivation of the figures carried forward from those pages to page 146. On page 147 is an example with respect to the "A" System. It will be found on page 151 that I made 28 observations on the "A" System. The average of these observations was 94.61 per cent. On Line "A" itself—that is, on the main line of this system—I made 12 observations and these 12 observations average 95½ per cent. Now, I carried forward to page 147 the round figure of 95 per cent and applied that to $3,170,075.09, reproduction cost new, to obtain the reproduction cost new less depreciation, or present value figure of $3,011,571.34. Now, similarly on the gathering lines the average shown on page 151 from 10 observations was 97.3 per cent. I have used 97 per cent, ever, with respect to the pipe line tap lines. On this system six observations showed an average of 88.3 per cent; I have used 88 per cent. Now, that is typical of the method used. In applying the average per cent condition to the reproduction cost new I have dropped the decimals and used the even percentages.

[fol. 1713] Q. In a similar manner, Mr. Biddison, did you make a determination in respect of the main lines and the tap lines and gathering lines on the B Systems or other numbered and lettered pipe line systems of the Company?

A. I did, and the details of it are shown in pages up to and including 174.

Q. Now, Mr. Biddison, I wish you would relate to the jury, in a general way, what has been the method pursued by

you in determining that pipe is in 80 per cent or 90 per cent or 95 per cent condition of new.

A. At each of the locations where inspections were made, shown on the pages I have referred to in connection with transmission line equipment I had a hole dug large enough so that I could thoroughly see and inspect this pipe. As shown on page 149, I made notations as to the line on which an inspection was made, the location on the line, the class of soil; the condition of the paint is described under the column of "Remarks", and the condition found with respect to the pipe itself is shown in the column headed "Remarks", and, taking the first item, which is an 18-inch pipe in the system near Petrolia Compressor Station, 1000 feet west of Petrolia Suction Header—at that point the soil was sandy red clay; it was apparent that the painting job done at that point was [fol. 1714] poor, because there were spots to which paint apparently had not adhered—pipe painters refer to those as being 'holidays'. It was also found at that location that the paint would peel off quite readily; that it would adhere to the soil, and in some places adhered to the soil in preference to adhering to the pipe, and when you took the soil away from around the pipe the paint came off with it. Now, with respect to the pipe itself at this location, my notes show that there were shallow scaling spots. This was observation No. 297. Now, at that location my inspection of the paint indicated that its value was only ten per cent of the value of a new paint job on that pipe; that the amount of damage which had been done to the pipe itself was about five per cent of the total amount of damage which would be required to render that pipe valueless. Therefore, that pipe was in 95 per cent condition. Now, this paint being—amounting to possibly four per cent—no, amounting to about two per cent of the cost of the job on an 18-inch pipe, and being only worth ten per cent, I just assumed that it was worth nothing, and have taken off two per cent from my 95 per cent condition to arrive at an over-all condition of 93 per cent for the installed pipe at this location.

Q. Take another example, at the top of page 158 on the G System, the G 16-inch line, Junction G-1.

[fol. 1715] A. This is a 16-inch line. At that point the soil was red clay; the paint was mostly gone, light scaling was general.

Q. That is, there was a light scaling on the pipe itself?

A. Yes, sir.

Q. Had it destroyed much of the pipe wall?

A. No. This was my observation No. 356. My conclusion set down at that time while looking at the pipe was that the paint was worth nothing, that the pipe had suffered a depreciation of fifteen per cent, and was therefore in 85 per cent condition, and that the over-all condition was 84 per cent.

Q. Take, for example, Mr. Biddison, the inspection No. 404 which you made and disclose on page 166 of Defendant's Exhibit 37, it being the second inspection on that page.

A. That inspection is on Line L-14-1. That means it is on a branch No. 1 of Tap Line No. 14 off of Line L. It is a 4-inch line, and it is close to the Rockdale Measuring Station. The soil is loamy white sand to sandy red clay—that is, the soil changes within the depth of the ditch at that point from loamy white sand to a sandy red clay. The paint looks good, but small corrosion spots show outside of the paint, and a few tiny pits were found. It is my judgment that at [fol. 1716] that point the paint was the equivalent of 80 per cent of the value of new paint; that the pipe had suffered one per cent depreciation, and was, therefore, worth 99 per cent; that allowing for the twenty per cent depreciation in the paint itself, the total depreciation was 98 per cent, or was about two per cent, or the condition of the pipe installed over-all was 98 per cent.

Q. Take, Mr. Biddison, the inspection which you made on Line L-12 at Junction L-4, appearing at the bottom of that page.

A. This is an inspection of 12-inch pipe in Line L at the point where Line L-4 connects with Line L. The soil is black waxy. The paint was mostly gone; numerous pits on the top half and a general light scaling and *and* pitting on the bottom half. I estimate that the paint at that location has no value any more; that the pipe has suffered 22 per cent depreciation, or is in 78 per cent condition, and allowing that the paint constituted three per cent of the total value of the job, since it was in zero condition, I have deducted three per cent from the 78 per cent to obtain the over-all condition of this job of 75 per cent as shown.

Q. Now, in several cases in connection with your ob- [fol. 1717] servation which you have described, you have stated that the millscale was loosening in spots, with shallow pits. What do you mean by "millscale" on the pipe?

A. As pipe comes from the mill it has on the outside surface, and adhering generally pretty tightly to the pipe, a thin layer of material, which is not steel but consists of slag, with possibly some steel in it. This is what is commonly referred to as being the millscale.

Q. What is slag?

A. Slag—I couldn't tell you the chemical composition of it now, but in general it is the impurities found in iron and steel which work out to the surface in the course of manufacture and rolling, mingled with some limestone or limestone products.

Q. Mr. Biddison, in a manner similar to the manner that you have described specific observations in connection with the pipe contained in transmission line equipment, did you make all of the other observations and inspections of the pipe which are detailed commencing at page 149 and ending at page 174?

A. I did.

Q. And in connection with each observation you have shown the line on which the inspection was made, the approximate location of the inspection, and under the column [fol. 1718] "Remarks" you have noted the kind of soil in which the pipe was laid, whether the paint was good or otherwise, and what was the effect of corrosion, if any, upon the pipe?

A. That is correct.

Q. And also, in respect of each observation, you have shown your observation serial number, the per cent condition of the paint, the per cent condition of the pipe, and your over-all per cent condition determination?

A. That is correct.

Q. And all of those details have been summarized and carried forward to the summary on page 146?

A. That is correct.

Q. And in respect of your evaluation of the transmission line equipment on the basis of reproduction cost new in the amount of $31,894,439.40, you determined that the application of your determined per cent condition of 92.28 per cent gave you a present value figure of $29,432,462.72?

A. That is right.

Q. All as reflected on that page?

A. Yes, sir.

1161

[fol. 1719] Q. Mr. Biddison, did you make a sufficient number of examinations and inspections and observations of the transmission line equipment which would enable you, as you believe, to express a satisfactory opinion as to the condition of that character of equipment, and classification of property as a whole, covering the pipe line system of the company?

A. I did. I made more examinations than I would make if I were representing a prospective purchaser.

Q. Mr. Biddison, refer please to page 176 of Defendant's Exhibit 37; what have you summarized on that page?

A. Compressing station property.

Q. Have you personally visited, observed and inspected the equipment at each and every one of the compressor stations of the company?

A. I have. I have inspected every one, and some of them I have been in numerous times.

Q. And would you say that you have a complete familiarity with that character of the company's property?

A. Yes, I have.

Q. Are you familiar with the standard of maintenance of that character of property?

A. Yes.

Q. Is the property well maintained, or otherwise?

A. This property is exceptionally well maintained. I do not know of any gas company's compressing station property, of ages comparable with these stations, that are main-
[fol. 1720] tained in any better condition than are these stations.

Q. The first station appearing in the list is the Alvord compressing station, in Callahan County, Texas?

A. Yes.

Q. That is a relatively small station, is it not, Mr. Biddison?

A. It is. It is the smallest compressing station of the company.

Q. Take some other station which would be typical of the inspections and determinations which you have made, and summarize in a general way the manner in which you proceeded to make your determination of the observed depreciation or the per cent condition of new.

A. Well, I might take Caddo station, which is a good sized station and represents over $290,000.00 reproduction cost new. The details of my observations on that are on

page 184. Now on this page it shows that I have set up for land itself a condition of 100 per cent, and for the improvements a condition of 87 per cent, which results in a weighted condition for land with improvements of 89.81 per cent. With regard to the structures, there are five structures on which I did not make specific notes at the time of my inspection. All the other structures shown were noted specifically upon inspection.

Q. The structures on which you did not make specific notes are denoted by the letter "E"?

A. That is correct.

Q. They are all relatively small structures, as compared with the entire property account?

[fol. 1721] A. Yes, they are small compared to the entire property account, and only two of them are of any material importance whatever, one of them being a little over a Thousand Dollars, reproduction cost new, and the other one a little under a Thousand Dollars, reproduction cost new.

Q. And one of them small as $54.22?

A. Yes. Now applying to each structure, the per cent condition as shown in the condition column, I arrived at the present values as shown in the present value column, and thereby determining that the present value of the structures at this station was the sum of $27,129.14, as compared to a reproduction cost new of $32,290.31. Now, this figure which I have derived for present value is 84.02 per cent of the reproduction cost new. Now with regard to the equipment, I show in the per cent condition column my determination of the condition of these various units or classes of equipment.

Q. Of course the main units of compressor engines themselves are the largest items in the equipment column?

A. They are. They constitute nearly $115,000.00 out of a total of equipment of less than $221,000.00. From these determinations of per cent condition for each item or groups of items of property, I find that the present value of the equipment is $190,671.62, which is 86 per cent of the $221,714.18 estimated cost of reproduction new, and I find that for the total property at this station, the sum of the items in the present value column is $224,969.14, which is [fol. 1722] 85.87 per cent of the $261,986.25, estimated cost of reproduction new. Therefore, I have carried forward from page 185 to page 176 that figure of present value, and that figure of condition, for the Caddo station.

Q. And in a similar manner, Mr. Biddison, did you make a determination of the observed depreciation or the per cent condition of new for each and every other station, including all buildings and equipment located at the stations?

A. I did.

Q. And a detail of your findings is set forth in this section of the Exhibit, commencing at page 177 and ending at page 234?

A. That is correct.

Q. And as you stated, the method of your determination in respect of the Caddo station was followed in connection with all of the other stations?

A. That is correct.

Q. Refer please to page 236. What do you set forth on that page?

A. The determination of the condition of general office land. This is the site on which is located the office building in Dallas. The reproduction cost new of this land is taken or has been taken at its actual cost of $44,545.00, as given in Exhibit 28. To it I assigned a condition of 100 per cent; that is, this land has not depreciated. It has not changed in condition. I therefore have a present value figure identical with the cost of reproduction new, or $44,545.00.

Q. On page 237 it would appear that you have similarly [fol. 1723] taken other general land at 100 per cent of its reproduction cost new or purchase price, in the amount of $44,157.00?

A. That is true in respect of land.

Q. Now what is true in respect of improvements located on that land?

A. As to the improvements located on that land, my determination is that they are in 95 per cent condition. Therefore the present value of those improvements which cost or are estimated to cost new $5,116.87, is $4,861.03, and the total present value of that land and those improvements is $49,018.03, as compared to its estimated cost of reproduction new of $49,273.87, or the weighted per cent condition as shown on page 237 is 99.48 per cent.

Q. Refer please to page 238. Have you given on that page the reproduction cost new, per cent condition and present value of the general office building of the company?

A. I have.

Q. Did you make that determination of per cent condition?

A. I did. That is my own determination, and that determination was made by an inspection of the building.

Q. And based upon that inspection, do you believe that the per cent condition of new of that building is 93 per cent?

A. I do.

Q. Is that building well maintained?

A. It is maintained in excellent condition.

Q. Refer please to page 239 of Defendant's Exhibit 37. [fol. 1724] What have you summarized on that page, Mr. Biddison?

A. Other general structures, and that means structures other than the general office building, including the general shop at Dallas, the warehouse, garage and machine shop in connection therewith. The shop addition, a steel building used as a warehouse, and the pipe racks at that same point. I show a determination of the per cent condition for each of the four structures, and have applied that per cent condition for the respective structures to the respective estimated costs of reproduction new, to obtain the present value figures corresponding thereto. The present value figures so determined amount in total to $45,328.83, which is 96.88 per cent of the estimated cost of reproduction new.

Q. Are those structures well maintained?

A. Yes, they are. They are in good condition.

Q. Refer please to page 240, under the heading of General Office furniture and fixtures. How did you determine the per cent condition of that character of property?

A. That condition is determined by an inspection. I have seen—I don't believe I have seen every item of this equipment, but I have been through this office generally and have seen practically all the office furniture and fixtures in use by the Lone Star Gas Company at its general office.

Q. And based upon that visual inspection and observation, did you determine that the observed depreciation was 15 per cent, and that this classification of property was in [fol. 1725] 85 per cent condition of new?

A. That is correct. Some of that equipment, as of the date of the appraisal, was almost new.

Q. Isn't that true of a very substantial part of it?

A. It is—a very large amount of it.

Q. Refer please to page 241. What have you summarized on that page?

A. Other general furniture and fixtures. This includes furniture and fixtures outside of the Dallas general office, in the shops and warehouses.

Q. Now, you did not give as high a per cent condition to this class of property as to the general office furniture and fixtures?

A. No, that is correct. A great deal of this equipment is equipment which has been in use in the general office, and which has been transferred to these local points for use, and replaced in the general office by new, and in many cases, better equipment.

Q. In connection with this classification of property known as other general furniture and fixtures, you determined that it had suffered a depreciation of 35 per cent?

A. Yes, that is my estimate.

Q. And that it was in 65 per cent condition of new?

A. That is correct.

Q. Refer please to page 242, on which page you have summarized the general shop equipment. Did you inspect [fol. 1726] this class of equipment, Mr. Biddison?

A. I did.

Q. Have you inspected it at numerous times?

A. Yes, I have been in that shop quite often, and the figures of per cent condition shown on page 242 represent my judgment of the value of that equipment, or the condition of that equipment, compared to new equipment.

Q. And based upon that determination, you find a present value or a depreciated value of $97,429.70 for the total of that class of property, and for which you make an estimate of reproduction cost new, in the amount of $104,000.27?

A. That is correct.

Q. And that gives you a determination of per cent condition of 93.68 per cent of new?

A. That is correct.

Q. Refer please to page 243 of Defendant's Exhibit 37. What is this class of equipment?

A. General tools. This is the same classification on those general tools as is found in Exhibit 28, and divided between compressing station tools; gas measurement tools; general shop tools; meter shop tools; pipe line tools; production tools; storehouse tools and telephone tools. That is, it is divided among those different departments, as to the amount set aside for the use of the different departments.

Q. Now, Mr. Biddison, I don't suppose that you want to represent to this jury that you have seen all of the general [fol. 1727] tools of the company?

A. No, because I don't think I have at all.

Q. That would have been manifestly impossible, for you to have made an inspection of all the tools?

A. That is correct.

Q. They are scattered throughout the pipe line system?

A. That is correct.

Q. But you have examined and inspected a representative amount of this classification of property?

A. Yes, I have seen some of the tools at each one of the compressing stations. I have seen a great deal of the gas measurement tools around the general shop and on the automotive equipment used by the employes in the gas measurement department. I have seen the tools and the tool room in the general shop. I have seen the pipe line tools at various locations along the company's pipe line system. I have seen production tools, both in the Panhandle area, the West Texas area, and in the yard at the Farwell warehouse in Oklahoma. I have been in various storehouses, and I don't know now what this $10.61 for storehouse tools is, but I may have seen it. The telephone tools I have seen in use at various places on the system.

Q. As a result of the inspections which you have made, you determined that the per cent condition over-all of the general tool account was 78.18 per cent?

A. Yes, as shown on page 243.

Q. Refer please to page 244. That appears to be a sum- [fol. 1728] mary of the automotive and construction equipment. Now, Mr. Biddison, have you seen a great part of the construction equipment of the company?

A. I have.

Q. Consisting of air compressors, ditching machines, backfillers, tractors.

A. I have.

Q. Have you seen all of the automobiles and trucks of the company?

A. I don't think so. I have seen a great many of them.

Q. Have you seen a sufficient number of the automobiles and trucks of the company to give you a good idea as to the general character of condition in which that equipment is found?

A. I have, and knowing something about the policy of the company in regard to the time at which they retire equipment, I think I am informed in a general way as to the limit of condition to which that class of property might run before being retired from service.

Q. In order to make the matter clear so far as this class of property is concerned, Mr. Biddison, I will ask you if you attempted to arrive at the per cent condition of this property based upon its tradein value?

A. No, sir.

Q. Or its sales value?

A. I did not.

Q. Have you endeavored to arrive at its per cent condition based upon its utility to the company?

[fol. 1729] A. That is not the basis. The basis of this determination is the amount of deterioration suffered, compared to the amount which would render the item useless for the purpose designed.

Q. You have not attempted to apply any so-called values or blue-book ratings to this equipment, as second-hand?

A. No, I never saw one of those blue books long enough to find out what it meant.

Q. The company maintains a general automobile shop at Dallas where cars are currently repaired and maintained?

A. It does.

Q. And automobiles in the company's fleet, as well as the company's trucks, are frequently overhauled?

A. Yes, I have seen a great deal of that work in progress at those shops.

Q. Refer please to pages 245 and 246. What have you set forth on those pages?

A. I have set forth a determination of the per cent condition and present value of the company's general telephone system.

[fol. 1730] Q. Now, Mr. Biddison, how did you go about your method of determining the observed depreciation in per cent condition for the general telephone system equipment of the Company?

A. As I went over the Lone Star Gas Company property inspecting other items, at such places as were convenient I made notations of the condition of the telephone line. I grouped those observations by subdivisions of the telephone line system. On page 247, I show observations which I made

on that part of the system extending from Petrolia, Texas, to Shamrock, Texas, along Line A.

Q. That is approximately 200 miles of telephone line, isn't it, Mr. Biddison?

A. It is in a uniformly good condition. The average of those observations on page 247 is 95 per cent, and the average of those observations on page 247 is applied on page 245 to the $64,545.43 estimated reproduction cost new of that telephone system. Now, in a similar manner I have determined average conditions for other sections of telephone system and have applied on page 245 averages so obtained to certain sections of the telephone system. There are, however, some sections which I did not see, and some sections which I saw and did not make observations upon.

Q. That is, you made no specific notes?

[fol. 1731] A. That is correct. But I did make specific notes sufficient to make a determination of condition on sections of this telephone system estimated to cost for reproduction new $274,562.92, out of a total of $310,227.12, and the present value of those sections so observed and noted is $245,875.19, or 89.55 per cent of the estimated cost of reproduction new. Applying this percentage to the total, including General Supervision allocated of $370,464.12, I develop a present value for the Telephone System of $331,750.62.

Q. Now, Mr. Biddison, the summary of your findings in respect of the observed depreciation, or the per cent condition of new of property, are carried over to page 1 of Defendant's Exhibit 37?

A. Yes; they are first carried through the recapitulation on pages 2, 3, and 4, and from there carried forward in the final summary form to page 1.

Q. Now, Mr. Biddison, when we refer to page 1 of Defendant's Exhibit 37, it is noted that you do not depreciate Preliminary and Organization Expense, Working Capital, or Going Concern Value?

A. That is correct.

Q. Why did you not depreciate those items?

A. Those are not items of property which depreciate. They are not subjected to the things that cause depreciation —acid soils, alkali soils, weather conditions, do not affect those items.

[fol. 1732] Q. Or rust, rot, or decay?

A. No.

Q. But in connection with your determination of the per cent condition of the physical property, you have depreciated the undistributed general costs which have been allocated to the production system property, the gathering system property, the transmission system property, the compressing system property, and the general system property?

A. I have, as shown on pages 2, 3, and 4.

Q. Why did you depreciate the undistributed general costs?

A. These undistributed general costs, as I see them, are parts of the physical property, and differ from pipe and fittings, and the labor of installing the pipe and the labor of installing the fittings, only in the fact that in accounting for expenditures during construction, those items of expense cannot readily be assigned to specific pieces of pipe or to specific fittings. Their life or their value runs concurrently with the life or with the value of the direct structural costs; and I have, therefore, depreciated those items to the same extent that I have depreciated the direct structural costs for the classes of property to which they respectively pertain.

Q. Mr. Biddison, throughout Exhibit 37 you have followed the same property classifications which are set forth and included in the inventory and appraisal, which we know in [fol. 1733] this case as Defendant's Exhibit 28?

A. I have.

Q. Could you make an estimate of the approximate amount of time that you spent in connection with the observations and inspections which are set forth and summarized in Defendant's Exhibit 37?

A. Well, I spent the greater part of four months in making the observations.

Q. And in the making of those observations, did you go from Chickasha, Oklahoma to Round Rock, Texas, north and south?

A. Yes, sir.

Q. And from Colorado and Snyder, Texas, on the west, to Paris, Clarksville, Sulphur Springs, and Greenville, on the east?

A. Yes; I believe Clarksville is the farthest east on the system.

Q. Now, several months have elapsed since you have completed this examination and inspection of the company's property as set forth in this exhibit?

A. Yes, sir.

Q. But in those several months have you had occasion to be over the property at various times and see various component parts thereof?

A. I have.

Q. Do you believe that the per cent condition of the property as of this date, to-wit, June 27, 1934, is substantially [fol. 1734] the same as the determination of per cent condition set forth on page 1, of Defendant's Exhibit 37?

A. I do. I think that any change since the date of my inspections up to the present time in condition of this property would be very minute.

Q. Mr. Biddison, in connection with all classes of the Company's public service property for which you have made a per cent condition determination, as set forth in Exhibit 37, do you believe that you have seen a sufficient amount of the property and inspected a sufficient amount of the property to enable you to testify as to its overall per cent condition?

A. I do; and I believe that I have made a more careful inspection of this property for the purpose of determination of the per cent condition for this report than I would have made had I been representing a prospective purchaser of this property.

Q. And based upon your determination of the per cent condition of the property, what is the present value, based upon reproduction cost new as determined by you in Exhibit 28, less the observed depreciation found and determined in Exhibit 37?

A. $69,738,021.16.

[fol. 1735] Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Biddison, I believe you testified that the correction which should be made on valves amounted to $4,603.78; is that correct?

A. $4,603.78 is correct.

Q. Now, how many valves does that cover?

A. It is on 62 drilling valves; but there were not corrections on all of those valves. Did you want the total valves that were studied on that?

Q. I want to know how many different kinds of valves besides this, and then I want to know how many corrections in all you made?

A. Well, I would have to take this off and classify it in order to give an answer to that. I can tell you very shortly how many corrections were made; but to tabulate that off by kinds and sizes, that would take a lot of time.

Q. All right; how many corrections did you make?

A. Seventeen corrections.

Q. That would average about $275 per valve?

A. I don't know what it would average out. It would not mean anything if it did.

[fol. 1736] Q. Well, on these 10x8¼ screw end, drilling, gate valves, 1600-pound test, what was the price that you finally applied to those valves?

A. Well, for Crane 10x8¼ inch, 1600-pound test, I applied a price of $196.5052.

Q. Did you use the same price for the Westcott and Walworth valves?

A. No, sir.

Q. What was the price on the Westcott valve?

A. For Westcott 10x8¼ inch, 800-pound working pressure, I applied a price of $205.1486. Those are both cast iron valves, and in both cases the error was made of substituting a price and in making the substitution pricing them as if they were steel valves. They are 10x8¼ valves—the body is 10-inch, and they are fitted for 8¼ casing.

[fol. 1737] Q. Yes, sir. This includes the tap valve that you had priced originally at over $700.00, does it not?

A. One of the valves that was so priced was a Westcott 10 by 8, listed as 1600 pounds working pressure. I question whether that is the working pressure or test pressure on that valve, but I have had no opportunity to make the final determination on that. One of those valves was priced at $717.30 on page 109 of Exhibit 28. I have priced it here as if it were a 1600-pound test valve, or 800-pound working pressure valve, at $205.148.

Q. For the Crane 10 by 8¼ drilling valve, 1600 pounds test, appearing on page 100, and all other valves like it, where you use the price of $717.36, you priced that at $196.50, did you not?

A. Yes, sir.

Q. On the well lines which you say should have been eliminated from the inventory, as well as all the lines that are still in the inventory and appraisal, you allowed omissions and contingencies, did you not?

A. Yes, sir.

Q. In what amount—what per cent? Is it 2½ per cent?

A. On field lines the omissions and contingencies is 5 per cent, and that is included in the amounts which I have [fol. 1738] stated were deductible by reason of the inclusion of lines which should have been omitted.

Q. Don't these instances, Mr. Biddison, where you have priced certain items or property at too much, and other instances where you have included items of property which should not be included, show that it is just as possible in making an appraisal of this sort for rate-making purposes to over-state the amount of the value of property, as it is to understate it?

A. No, it does not show that at all, Mr. Fitzhugh. It does show that with respect to any classification of property it is possible to include something which should not be included; but as to relative possibilities, it does not make any such showing as your question intimates. Now, I do not think that the possibilities of inclusion of additional property are of any great moment, while the opportunities for the omission of property are of considerable magnitude. Now, in connection with——

Q. Just the same, Mr. Biddison——

A. Wait a minute, if you please.

Q. All right.

A. In connection with the matter of some of these lines I fail to find included two measuring stations which are in operation and have been continuously in operation, not [fol. 1739] only as of the date of the appraisal but since that date. Now, I don't feel like trying to add those to the valuation determined, but at the same time I can not locate them in the inventory, and yet my investigation shows that they are there and operating.

Q. Well, why is it you don't make the addition? There is nothing to prevent it, is there?

A. Well, I think it is too trivial to fool with on a job of this size.

Q. Just the same, Mr. Biddison, those items where you have accepted corrections are just the sort of thing that show that your appraisal would have been a little bit more accurate if you had included a deduction for duplications or items improperly included, rather than including an item for omissions and contingencies?

A. No, it does not show that. It does show that the job would have been more accurate if these things which should

have been omitted had actually been omitted. It does show that, but it does not show the other at all, and I don't think even indicates the other.

Q. Mr. Biddison, when you were on the stand before we failed to get the price you used on some tubing. I wonder if we could get that now—do you have that data with you still? [fol. 1740] The tubing I refer to is on page 2182 of your appraisal—that is Volume 4 of Exhibit 28.

A. I will try to find it for you, Mr. Fitzhugh, My own price-books from which I worked this up are not here, and I will have to refer to the others.

Q. Would you mind getting it for us by in the morning?

A. I will try to have it for you in the morning, yes.

* * * * * * *

[fol. 1741] Q. Mr. Biddison, on page 6, of your Exhibit 37, there appears a per cent condition for "Other Owned Wells" of 85 per cent?

A. Yes, sir.

Q. That is the first determination that you made in this exhibit, is it not?

A. Yes, sir.

Q. Following the Reproduction Cost New amount, you have a letter "E"; what does that mean?

A. That means that figure of 85 per cent is not determined by the numerical average of my observations on that equipment.

Q. Do you have with you your observations made on these wells?

A. I have them with me, but I don't have them averaged up and classified.

[fol. 1742] Q. Well, refer to the observations you made on these wells and show how you determined the per cent condition of any one well?

A. I made observations on a large number of these wells, as explained yesterday in giving my testimony; but for the determination of this condition of 85 per cent I did not classify and average all those particular observations. The condition of that equipment is, in my opinion, nearer 90 per cent than it is 85 per cent. I simply used 85 per cent as a conservative figure after having made these inspections. Now, I can pick those out of my list and classify them, but I don't think there is any purpose to be served in doing that.

Q. Well, what was the use of making the observations if you disregarded them?

A. Inasmuch as practically all of those observations were 90 per cent or above, I used the conservative figure of 85 per cent.

Q. Now, refer to these observations and pick out any one of the wells.

A. Well, I don't know whether I can do it at this time, because I have not classified out those observations.

Q. Well now, suppose, Mr. Biddison, that you found a well to be in 85 per cent condition, do you mean by that, that 85 per cent of the value of that well and equipment as it would cost new is still in the well?

[fol. 1743] A. No; all of the material listed in the column "Reproduction Cost New" and the labor of installing it is there. The value of that equipment and the labor of installing it is, in my opinion, 85 per cent of the reproduction cost new. Now, on these wells listed as "Other Owned Wells", this material and equipment and the labor of installing it is not in drilling the wells; this is equipment above the surface.

Mr. Griffith: It is observable equipment?

A. Yes.

Q. This equipment includes just the "Christmas tree"—the surface equipment?

A. Yes, sir. Now, that equipment is all in excellent condition. I saw very few locations where as much as 15 per cent depreciation had occurred. It is uniformly well painted,——

Q. What would be the difference in the appearance of the surface fittings on a well in 85 per cent condition as distinguished from one in a hundred per cent condition?

A. One in a hundred per cent condition would look just absolutely perfect and brand new; and one in 85 per cent condition would look as if it had depreciated 15 per cent, or approximately one-seventh of the damage that would render the equipment useless had occurred.

Q. Just pick out any typical installation that you remem-

[fol. 1744] ber having actually inspected that was in 85 per cent condition, and describe in detail the appearance of those fittings?

A. Well, I don't know that there was one installation on these wells owned by others in which my observation was actually exactly 85 per cent; but, in general, if it would appear from inspection that ten per cent of the total damage

done to that equipment which would render it useless had occurred, I set down a figure of 90 per cent condition. Now, that is the general method.

Q. Now, just pick out any case where you remember 90 per cent——

A. I don't remember 90 per cent, or any one particular figure on this list; but having seen a large number of them, I am of the opinion that the condition is over 85 per cent.

Q. I am trying to find out what it is that knocks out that value—is it rust on the fittings, knicked places, no paint, broken valve stems, or what?

A. Any or all of those things would impair its value.

Q. Did you take into consideration for the other owned wells the depletion that had occurred on the wells?

A. No; that does not affect the condition of the equipment.

Q. Suppose you had a well with no gas in it, the fittings would be worth only salvage value, wouldn't they?

A. They might or might not.

Q. Well, would they or not be worth more than salvage value?

[fol. 1745] A. It would depend upon the condition of the whole.

Q. Suppose that ten per cent of the original supply of gas was still in the well, wouldn't the value of the fittings then be considerably less than the same fittings on a well with still one hundred per cent of the reserve under ground?

A. No, sir.

Q. In other words, nowhere in finding your per cent condition here did you take into consideration the probable future life of the wells?

A. Certainly not. They don't affect the condition of that equipment one iota.

Q. Does it make a difference in the money value of property whether it is going to be in shape to serve a month, or ten months, or ten years?

A. It may.

Q. You didn't take into consideration that, anyway?

A. No; because I don't think it affects the value of this equipment, and it certainly does not affect its condition.

Q. Suppose that you knew of a "Christmas tree" over on a well would be abandoned along with the well within thirty days, and that the value of the equipment on the well at that time would be only the salvage value, wouldn't you

price the "Christmas tree" as of the date of inspection at less than you would on a well expected to have a life of ten years?

[fol. 1746] A. No, sir; I would not for this reason: If you are going to operate that well for the balance of that period you would have to have that equipment on there; and if it were not on there and you had to put it back it would cost this reproduction cost new, and its value would be the reproduction cost new less depreciation. Now, you will accrue in reserve account as deduction from revenues for conditions like you have mentioned, where property is removed in advance of its failure on account of the physical condition; but that does not affect its physical condition while in use.

Q. Well, this final value is an entirely different proposition from providing for maintenance and wear and tear in operating expenses?

A. Yes, sir.

Q. On page 8, you show for Clarkson Ware House Site—this is under Other Production System Structures—a per cent condition of 90. How did you find that?

A. By observation of that.

Q. What did you find on that site that caused you to knock off 10 per cent from its new value?

A. I have no specific notes of the factors that contribute to the total of ten per cent. My notes show that for that residence, upon inspection, I estimated it to be in condition of 90 per cent relative to a new structure.

[fol. 1747] Q. Are your notes of about that general tenor on all the cottages?

A. Yes, sir.

Q. You have no specific notes on any of them?

A. No, sir.

Q. Now, this house has been built about fifteen years, hasn't it?

A. I don't know. I was not interested in its age or antecedents, but only in its condition when I saw it.

Q. Did you examine the foundation of this house?

A. I don't know how minutely I examined the foundation. I looked at the building and decided it to be in that condition.

Q. Did you look at the floor joists?

A. No, sir; I didn't crawl under and look at the floor joists.

Q. It is a fact, isn't it, that the house could not be in any better condition than the foundations and floor joists?

A. Certainly, it could be; on the other hand, it could be in much worse condition.

Q. Did you make any particular inspection of any cottage as to its foundation and floor joists?

A. I didn't crawl under any cottage to look at its foundation and floor joists. The observations set down are general overall observations of these cottages. They are not weighted from making separate notes as to foundations, floor joists, walls, roofs, and so forth.

[fol. 1748] Q. Suppose you came to a house that looked absolutely in good condition as to exterior appearance, and suppose you had crawled under and found the foundation was so faulty that it needed immediate replacement, what per cent condition would you have found that house to be in?

A. That would depend on what shape the balance of the building was in.

Q. Take this Clarkson Warehouse Cottage No. 58, and if you had found the condition of that cottage like I described, what would you have found the per cent condition?

A. If the foundation needed immediate replacement, somewhere between 2 and 10 per cent, depending upon the foundation.

Q. Suppose you had found rotten floor joists?

A. That would have had some effect on the condition; just what I don't know, without weighting it out with respect to the particular structure.

Q. Now, there are several hundred of these cottages similar to this?

A. Yes.

Q. You made the same sort of inspection on all of them, didn't you?

A. Yes.

Q. And in no case where you found anything defective, did you make a particular determination to see what its relation to the per cent new value would be?

A. No, sir; I made my notes on these structures as an overall figure for the entire building.

[fol. 1749] Q. As shown on page 8, you found a per cent condition of 85 per cent on the Cheaney Field, Eastland

County, Texas, Cottage No. 216; 90 per cent on the Clarkson Warehouse Site, Cottage No. 58; 80 per cent condition on the Petrolia Cottage No. 42; 75 per cent on the Roberson Lease Cottage No. 80. Then you weigh-ed those per cent conditions and found an average per cent condition of 82.73 per cent, didn't you?

A. Yes, sir.

Q. Then you applied that percentage back to the Hatcher Lease, Wheeler County, Texas, as to pump house, water wells, water handling equipment and dam, did you not?

A. No, sir.

Q. What did you do about the Hatcher Lease structures and equipment?

A. On the four structures which I observed I determined a weighted condition of 82.73 per cent, as you related. Now, the total amount of structures in this group is $9,450.29, so I applied to that, not the 82.73 per cent determined on four structures, but the even figure of 82 per cent, and thereby determined the depreciated value of $7749.24.

Q. Well, the only difference between what you have just detailed and what I say it is, you dropped off the .73 of one per cent from your average of 82.73 per cent?

[fol. 1750] A. Yes; that is right.

Q. Now, why do you think that the condition of these four cottages would be in any way related to such equipment as the pump house, water wells, water handling equipment, and dam, on the Hatcher Lease?

A. Well, I think probably that equipment might be in a higher per cent condition, but not having seen it, I gave it the benefit of the doubt and called it 82 per cent over all.

Q. Well, that is just about the same as making a guess at it, isn't it?

A. Exactly the same, but it is a guess made in the light of information.

[fol. 1751] Q. Well, isn't it a fact, Mr. Biddison, that these cottages bear about the same relation to water handling equipment and dams as if you had found the per cent condition of four horses and applied that to the water handling equipment and dams?

A. No, it is a class of equipment that is in the same class of organization, and generally the condition of property under one organization has been found to be kept at fairly uniform levels as to condition.

Q. On page 10, the next item, Other Production System Equipment, Drill, Repair and Clean Out Tools, reproduction new $95,764.08. After that item you have the letter "E". That means, does it not, that that is just an estimate?

A. It means that the figure is not the numerical average of observations taken. The figure is an estimated figure as the result of having seen some of that equipment in each one of those fields.

Q. Well, after seeing it you didn't use any average of your observations to find per cent condition?

A. No, I did not; I have specifically so stated.

Q. So after you made the observation you didn't use the observation for any purpose?

A. Yes; the observations were used as a guide in the determination of this figure of 75 per cent, but I did not set down specifically the observations and average them up to get this figure of 75 per cent.

Q. There is included in this equipment, Other Production System Equipment, a number of old boilers; is that true?

[fol. 1752] A. There are some boilers in that equipment; yes, sir.

Q. How did you go about finding the per cent condition for those?

A. Well, I looked over those boilers. I have bought a lot of boilers, both new and second-hand. I might be able to locate one of those here eventually in my notes. (Witness refers to his notes.)

Q. Well, at any rate, Mr. Biddison, you simply looked at the exterior of the boilers, didn't you?

A. I looked at the exterior and looked in the fire-boxes.

Q. What inspection did you make of the tubes in the boilers?

A. Well, I looked at the tubes through the fire-box end and through the stack end. I did not make a pressure test and did not go over the rivets with a hammer to see if they were loose; I did not go through all that routine.

Q. Well, refer to any of the larger pieces of equipment in the repair and clean out tools and state how you found the per cent condition.

A. Well, I can determine the condition by looking at the equipment, and it is my opinion on the average that it is about 75 per cent.

Q. Well, Mr. Biddison, if I understand you, you say you looked at those and determined the condition?

A. Well, I didn't undertake to work out those on that class of equipment at all. As a matter of fact I have not taken them out of my tabulation and classified them at all.

Q. Well, would you read your notes on any important piece of equipment, just to see what you did do? This is [fol. 1753] no small matter, Mr. Biddison. If you made an error of one per cent in the condition it would amount to about a thousand dollars each time?

A. Yes, it certainly would, and therefore in order to be safe I have taken what I considered to be conservative figures on the condition. It is not possible for anybody by any means to determine a figure of that sort with any degree of exactitude.

Q. That is the reason the whole thing is more or less uncertain, is it not?

A. No, it does not make it uncertain.

Q. It is inaccurate?

A. If one uses judgment his resultant figure will be one of judgment.

Q. Well, just start anywhere and read some of your notes, Mr. Biddison.

A. Well, I will as soon as I locate some of that class of equipment. I have not classified them here so as to locate them.

Q. Well, let that go and let's go to the next class of property. Page 13, Gathering System Rights of Way. You find that to be 100 per cent condition?

A. Yes, sir.

Q. In no instance in finding the value of this property have you considered the probable length of life of the right of way?

A. Absolutely not.

[fol. 1754] Q. It is a fact that the Gathering System lines are moved pretty often—they are comparatively short lived?

A. Yes, sir, they are.

Q. They are moved quite often?

A. That is right.

Q. But you have evaluated this right of way as 100 per cent condition, just the same as if it was going to last a thousand years or more, have you not?

A. That is right.

Q. Now, you did depreciate in finding the final value for the gathering lines to the extent of the supervision on those lines, did you not—the overheads on the gathering lines?

* * * * * * *

A. The aliquot portion of those overheads which applies to gathering system rights of way is in effect not depreciated. I depreciated the overheads on production system property and gathering system property in a proportion that the depreciation amounted to on the direct structural cost.

Q. Well, to make it clear, Mr. Biddison, if you had found the gathering lines to be in 75 per cent condition wouldn't you then have found the overheads to have lost 25 per cent [fol. 1755] of their value or found the overheads to be in 75 per cent condition?

A. Yes, sir; I would have.

Q. You would have?

A. Yes, sir.

Q. Now, why do you figure, Mr. Biddison, that the overheads would lose value in accordance with the wear and tear of the pipe, but at the same time the value of rights of way would not be affected at all by the wear of the pipe or by the length of the line in service—the probable length of service life?

A. I consider those overheads as being just as much *as* a piece of property as is the pipe and the fittings and the labor of installation. The only difference in these overheads is that they can not be identified with the minute exactness of property, that their life expires with the piece of property, that they are parts of that property, and that as that property decays or corrodes those values disappear gradually with the value of the physical property. In the case of a right of way, that right expires suddenly, not gradually, and its condition throughout its life does not change.

Q. The right may expire suddenly, but the value is affected somewhat by the time when it is going to expire, does it not.

A. I think not. Take a particular line that is going to be retired the next month, if we didn't have the right it [fol. 1756] would cost us today that same amount that it did cost in order to get the use for one month.

Q. If you knew that all these rights of way shown on page 13 were going to be abandoned as of the day after your appraisal would you still have included them as 100 per cent condition?

A. Yes, I would include them at 100 per cent condition up to the date of abandonment. I would, however, accrue them in reserve account for that sudden retirement.

Q. Well, that don't have anything to do with finding the value?

A. Absolutely not, and should not be confused with it.

Q. The observations that you have referred to on the various pieces of property we have covered so far as the same observations that you made before you testified before the Railroad Commission, aren't they?

A. Well, I have seen a great deal of this equipment since then, but without any modification of my conclusions reached at that hearing before the Railroad Commission.

Q. You found exactly the same condition of property as you found then?

A. Well, I found nothing to change my conclusion in that respect.

Q. Well, have you made any additional inspection?

A. I have made no additional notations of inspection of the equipment about which you have questioned me so far.

Q. And the notes you have just been referring to are the notes without change that you testified to before the Railroad Commission?

[fol. 1757] A. Yes, sir.

Q. Now, the date of your appraisal before the Commission was January 1, 1932, and the date of your appraisal here in this case is January 1, 1933?

A. Yes, sir.

Q. That is, you found that that year's passage of time made no difference whatsoever in the per cent condition of those classes of property?

A. Well, the observations were not made as of either date, but were made at a period just about half way between the two dates and apply with equal validity to either one.

Q. Well, you don't mean, do you, Mr. Biddison, that you made observation after January 1, 1932, which you applied to the appraisal as of the date January 1, 1932?

A. Exactly; that is exactly what I mean. That is precisely what I did and precisely what I testified to before

the Commission. The observations were made in the summer of 1932. Mr. Simon Freese was along while some of these inspections were made.

[fol. 1758] Q. Now, this is 1934—how much time has passed since you made these observations?

A. About two years has passed since some of these observations were made, and one year has passed—substantially one year since the last observations were made.

Q. The next classification of property is Field Measuring Station Structures. The first structure shown is the—on page 17 for the Panhandle Field, is the J. A. Hall No. 1 Well. You found this to be in 98 per cent condition, did you not?

A. Yes, sir.

Q. What notes did you make on this structure?

A. My notes read: "Meter station No. 3187 Lone Star J. H. Hall No. 1, building 98 per cent, equipment 98 per cent".

Q. Are those your complete notes?

A. That is the complete note.

Q. What was the matter with the structure building that you knocked off two per cent of its value?

A. I don't know right now; probably the paint was not in excellent condition.

Q. Aren't those corrugated iron buildings?

A Some of them are, but the bulk of the meter station buildings are also painted.

Q. You mean the corrugated iron ones are painted?

[fol. 1759] A. Yes, sir.

Q. What is the matter with the equipment, that you knocked off two per cent of its value?

A. Well, probably nothing that is visible; and that is in most cases an allowance for defects that are not apparent upon inspection.

Q. On page 17 of your exhibit, what does the—in the observation number column what do these Cs and Ds mean?

A. Well, with respect to that 341-C that would mean that I made a subdivision of my serial number 341.

Q. You have got three observations, then, under 341-C, is that it?

A. I have more than that; I have subdivisions down to F—341-A, B, C, D, E, and F.

Q. Does that apply to different equipment, or observations on the same equipment?

A. Well, in this particular case it simply happens to be a correction to serial number.

Q. Well, that doesn't have any particular significance, except to trace down the number of your observations?

A. That is all it is for.

Q. What do those obelisks and Xs, and one thing and another, in the meter column mean?

A. I can't read them on my copy. (Witness refers to counsel's copy). Well, I don't think they mean anything. [fol. 1760] Q. All right. Now, refer to the Fox Field—Billy McKinley No. 1 Well, where you found 70 per cent condition, what are your notes on that observation?

A. "Observation 339, Billy McKinley Well, Loco Field, Meter Station No. 151, Building, wood frame, corrugated galvanized, painting 70 per cent, equipment 98 per cent."

Q. Now, what was the difference between this structure and the others where you found the 90 per cent condition, or the 98 per cent condition?

A. I don't know; but when I was on the job I set down the figures representing my estimate of the relative condition in each case. I have not attempted to write down in detail everything in regard to those buildings that would try to describe their condition. I have not attempted to do any such thing. I would still be writing notes out there at this location, I guess, if I tried to do that.

Q. Well, there is no way that we can check up, then, Mr. Biddison, to find out whether you proceeded in the correct manner to find your per cent conditions, is there?

A. Only to just ask me if I did, and I will say Yes, I did.

Q. Well, just so we can get some idea as to how you [fol. 1761] knocked off all this value, or how you saved all of it in most cases, can you give a description of one of these typical measuring station structures that you think would be in 70 per cent condition?

A. I couldn't describe to you now, after that lapse of time, a single one of those structures.

Q. Well, you know pretty well how they are built, don't you?

A. Yes.

Q. Well, can't you fix up for us a picture of some building that would be in 70 per cent condition, so we would see whether it is a total wreck——

A. No, it is not a total wreck;——

Q. —or just a partial wreck?

A. —a building in 70 per cent condition might be one on which the paint was largely peeled off and of no practical value any more, and on which the corrugated sheets might be loosened in some cases, and in some cases might have holes poked through, and it might be that the door sags and hangs out of line, and there might be some damage to the interior framing.

Q. Well, now, suppose you come to a structure where the door was sagging and otherwise the structure is in pretty good shape—the paint and all in good condition, would you try to relate the value of that door replaced or the necessary [fol. 1762] money outlay to fix up the door, to the value of the structure as a whole, to get the per cent condition.

A. Hardly that. Not an estimate of the amount of money necessary to put the building back in good condition, but rather an analysis of the amount of damage which that represented as compared to the total value of the building.

Q. Suppose you take a structure, Mr. Biddison, that costs $100.00 new, and your observation shows this structure to be in 70 per cent condition, do you mean by that that if the owner should spend $30.00 in repairs on that structure he would have a new building back again?

A. Not by any means, not at all; on the contrary, if there has been damage done to that building to the extent of $30.00, it will more than likely cost the owner $60.00 to repair the damage.

Q. So that there is no relation between the per cent condition you have found and the amount of money that would be required to repair the piece of property?

A. No, sir, there is not.

Q. On your observations in the Panhandle Field you found in each case where you made observations on the field measuring station equipment that the per cent condition was [fol. 1763] 98 per cent, did you not?

A. You are talking about equipment now?

Q. Yes, sir, page 23.

A. That is correct.

Q. That is, you found the condition was in the same condition on every well?

A. As near as it could be determined, yes, sir. That is excellent equipment up there, and uniformly well maintained.

Q. That covered 17 wells that you looked at?

A. Yes, sir.

Q. On the Chickasha Field, where you made a number of observations—about a dozen—you found 97 per cent on all the field measuring station equipment on those wells?

A. Yes, sir.

Q. What is the lowest that you found for any well—95 per cent, isn't it?

A. I believe so; yes.

Q. Now, we come to Field Line Equipment—on the Reproduction New of this class of property, $1,324,159.00, you found 88.78 per cent condition, did you not?

A. Yes, sir.

Q. Isn't it likely that at the present time, or as of the date of your appraisal, Mr. Biddison, that on an average about half of the length of life of all the field lines was gone?

[fol. 1764] A. Well, now, I don't know about that. I don't think anybody knows about that. That is a figure that can hardly be determined.

Q. Do you know about what the average length of service life of field lines in existence as of the date of your appraisal was?

A. I do not.

Q. Beginning with page 29 and running through page 39 you show your observations on this field line equipment, do you not?

A. Yes, sir.

Q. Now, how big an opening did you make at the points where you made your observations on the field lines?

A. Well, these openings were not uniform in size; they were large enough, however, that the pipe could be inspected for its complete circumference and long enough so that two feet or more could be seen. Now, that was the general rule; there were some exceptions to those; I can't tell you which ones now.

Q. The holes that you opened were about two feet in diameter, is that it?

A. No, these holes were not circular holes; they were, in general, from three to four feet long and from two to five feet wide, depending upon the size of the pipe.

[fol. 1765] Q. About how much of the pipe was exposed?

A. As a general rule, at least two feet of pipe was open for inspection; in most cases there was available at least three feet.

Q. Did you have all of the portion of the exposed pipe scraped?

A. Not all of the portion of the exposed pipe, no.

Q. Well, what was the area that you actually had scraped on an ordinary, average inspection?

A. Well, in some cases I didn't scrape any of it, but I scraped in any case enough to determine the amount of corrosion and the extent of corrosion; that sometimes didn't require any scraping, and sometimes it required a considerable amount of scraping.

Q. Now, where you were looking at pipe that was in 20-foot joints, the exposed portion would probably not be over six or eight inches, would it, that was actually scraped?

A. Well, maybe not, that was actually scraped in some cases; but in other cases the amount that was actually scraped might have been three feet.

Q. Well, why would there be such variation? You mean where there might seem to be some unusual condition you had more of the pipe scraped?

[fol. 1766] A. Yes.

Q. I see. Well, now, in examining a 20-foot joint of pipe, the relative part covered by any one inspection would be small as compared with the total length of the joint, wouldn't it?

A. That is correct.

Q. At the same time, Mr. Biddison, the joint of pipe would be no better than the worst place in the pipe, isn't that true?

A. That is not true, certainly not. You might have one hole in a piece of pipe that you could repair by making a weld on it, and the balance of the pipe be perfect.

Q. Well, if you had a blow-out on a piece of pipe, Mr. Biddison, that let all the gas out, the good portion of the pipe wouldn't be any good to you, would it?

A. Sure it would; certainly.

Q. Not until the repairs were made and some additional labor and material put on that piece of pipe?

A. Well, it might or might not be until that was done; but that doesn't render that joint of pipe entirely valueless.

Q. Well, it would be just the merest sort of accident, wouldn't it, Mr. Biddison, if you happened to strike at the point of your observation, even, as to the 20-foot joint of

[fol. 1767] pipe being inspected, the worst places in the pipe?

A. As to a particular joint that is true; but on the average, under the law of probabilities, it is not true.

Q. And, furthermore, it would be just the merest sort of accident if you happened to hit the worst 20-foot joint in the whole line, or in the portion of the line being inspected?

A. That is true as to any particular joint, yes.

Q. Now, to really get a fair idea of the value of a line in service, where you are just spot-checking, as you did, shouldn't you really take an average of the worst observations out of about every ten or twenty observations, rather than to take an average of the whole, which includes the best observations, as well as the worst?

A. Why, no; that is just the same as taking the observations of the ten best ones, and calling that the answer.

Q. Well, your pipe is no better than the worst places in it, is it?

A. It certainly is—it certainly is.

Q. Well, if it were really to be reasoned the way you suggest, Mr. Biddison, you would never throw a piece of [fol. 1768] pipe away, would you? You would always have some good part of it?

A. Well, you nearly always do, in fact, have some good pipe left out of a joint that is discarded. The question is whether there is enough life left to justify the use of the short section.

Q. If you had a pipe that was so pitted as that the walls of the pipe were just barely thick enough to stand the pressure of gas in the line, you would still find at an observation point some place on the line a good portion, would you not?

A. Not necessarily. Ordinarily, you wouldn't; there are occasions when you might.

[fol. 1769] Q. Well, if you did happen to strike a good portion of pipe or a pipe like that, you would still ascribe it to a very high per cent condition, wouldn't you?

A. I would ascribe to the piece of pipe the condition I found on the section I looked at, certainly.

Q. How many observations did you say you made on the field line equipment?

A. 134.

Q. Now would you say these 134 observations averaged as much as two feet of exposed pipe, scraped off?

A. Yes, I think that would be a very close approximation.

Q. In other words, you actually looked at exposed pipe amounting to about 268 feet?

A. That's about right.

Q. How many thousands of feet of pipe are in this field line equipment?

A. I don't know.

Q. Well, can you say approximately?

A. No, but it is a great many miles.

Q. Five hundred miles, or a thousand—or how many?

A. Well, I would be making a very rank guess about it. I don't remember.

Q. You could not even approximate it?

A. No.

Q. Now, the lowest per cent condition that you found from your observations on this class of equipment is 67 [fol. 1770] per cent; isn't that right?

A. I'll see.

Q. I beg your pardon. On page 38, I believe there is one 50 per cent you found for pipe. That is probably the lowest one, is it not?

A. Well, on page 38 there is one at 62 and one at 47 per cent.

Q. Well, that is including the paint, where you found the 47 per cent, isn't it?

A. Well, that is the over-all condition.

Q. All right; now take that 47 per cent condition and describe in detail what you saw on that pipe.

A. Now, all I know about that particular piece of pipe is what I saw when I was there, and that is set out right on that page: brown sandy clay, was the soil; paint gone; very heavy scale, and large deep pits.

Q. What size pipe is this? Or before you look that up, Mr. Biddison, at the time you made this examination you did not know the weight of this pipe, did you?

A. No.

Q. Or did you know the thickness of the pipe?

A. No, sir. It was 10 inch pipe.

Q. Ten inch—what weight?

A. 32.515 pound pipe.

Q. How deep were the pits that you found?

A. I don't know now. I did not make notes about the depth of those pits, and I can't tell you a thing in the world [fol. 1771] about it now except what I have just told you.

Q. Not knowing the thickness of the pipe at the time you made the observation, Mr. Biddison, what good did it do you to find out the depth of the pit?

A. I know very closely the average thickness on pipe walls. I have been handling pipe for thirty years, and I have some idea as to the relative depth of pit to the wall thickness when I look at it.

Q. Did you measure the depth of the pits?

A. I did in some cases, but not as a general rule.

Q. Well, now, suppose just for the sake of illustration, Mr. Biddison, that you did know the thickness of the wall and say it was one-quarter inch thick, and you found a pit that went half way through the thickness of the pipe wall. Now how would you relate that data to the per cent condition of that pipe, assuming that in all other respects the pipe was in good condition?

A. And just had one pit?

Q. Yes.

A. Well, I would take off something in the neighborhood of five per cent.

Q. Suppose you found other pits of the same thickness?

A. It would depend entirely upon their number.

Q. What difference, Mr. Biddison, would it make if you had one or twenty pits say, per square foot of surface? Would the increase in the number of pits increase the [fol. 1772] probability of blowouts or wearing out of the pipe at that point?

A. Yes, it would.

Q. And it should affect the per cent condition?

A. Yes.

Q. Just how did you take into consideration the number of pits as well as the depth of pits?

A. Well, I didn't count them at all, but I judged by inspection of the pipe the amount of damage that had been done relative to the amount that would be required to render the pipe valueless.

Q. Did you attempt in any way to relate the condition of the pipe as you saw it while making your observations, to the probable length of life of that pipe?

A. No, not in any way, shape or form; certainly not.

Q. You think the probable life of pipe hasn't anything to do with its per cent condition?

A. I don't think it. I know it.

Q. Or the value of pipe?

A. Absolutely nothing. A pipe may have a value today of One Dollar a foot, which value may disappear over night due to some sudden happening, and that same pipe in another location may last for a hundred years, and its condition today in both cases would be identical.

Q. Suppose you came to a point where, from the soil conditions and the other conditions at that point in the line, you knew that the average length of pipe life would be forty years, and that the piece of pipe you were looking [fol. 1773] at had been installed ten years. Would you use that information in any way, providing you had it, in finding the per cent condition?

A. No, I would not. I would be governed entirely by the condition the pipe was in.

Q. And in no case in making your observations did you attempt to find out in any way how long the equipment had been installed?

A. Certainly not.

Q. Now, on a lot of this very field line equipment that you made your observations on, at the time you were making your observations, there were being pieces of pipe replaced from time to time in these lines. Isn't that true?

A. Well, I don't know that any operations of replacement were going on at that time.

Q. Well, you do know, do you not Mr. Biddison, that replacements were being made from time to time and continuously and have always been made on field line equipment?

A. Well, from time to time, but not continuously. I also know that the bulk of those replacements are made not on account of the condition of the pipe but for entirely different reasons that have nothing whatever to do with the condition of the pipe.

Q. The records of your company show that there are replacements of pipe because of worn out condition every year, do they not, in thousands of feet of field line equipment?

A. They might; I don't believe they do.

Q. Well, there are some replacements, anyway?

[fol. 1774] A. There are a lot of replacements, yes.

Q. And because of the worn out condition of pipe?

A. Some replacements because of the worn out condition of pipe, yes, certainly.

Q. Now, at the time the pipe is taken out of a field line because of its worn out condition, what per cent condition is it in at that time?

A. Well, the pipe that is taken out on that account may largely be in zero condition, but at the same time when a removal is made on account of the condition of pipe, there are usually removals of pipe made simultaneously which would not ordinarily be removed if it were not for the fact that the removal of some pipe in zero condition were in progress.

Q. Just the same, you don't show any condition of pipe in any observations that anywhere closely approaches a zero per cent condition, do you?

A. No. 47 per cent is the nearest, on this equipment.

Q. Now, you do not show any observation other than that as low as 47 per cent, do you?

A. No. The next highest one is 62 per cent.

Q. And the average is 88 per cent, plus?

A. That is correct.

Q. The next classification of property is transmission system measuring station land. The land itself is taken at 100 per cent, is it not?

A. That is correct.

Q. And it is only the improvements that are found to be [fol. 1775] in less than 100 per cent condition?

A. That is correct.

Q. The improvements on this class of property consist of shrubbery and drives and fences and that sort of thing, do they not, Mr. Biddison?

A. Yes, and culverts.

Q. On page 43 you show the improvements on quite a number of stations in the "A" system, to all be in 98 per cent condition?

A. Yes.

Q. How did you happen to find that Mr. Biddison?

A. Well, they are in uniformly good condition—just about all alike. You can not tell very much difference in condition on any of them.

Q. Did you make separate notes on those observations?

A. Yes.

Q. Suppose you refer to your notes and show what your observations were.

A. Well, I have before me here, at Chillicothe——

Q. What do your notes say?

A. Observation No. 129, Chillicothe City Gate Station: Building, wood, frame, corrugated galvanized, painted, crushed rock floor, 95 per cent. Equipment 98 per cent. Fences 98 per cent.

Q. Is that all?

A. That is all on that one.

Q. Now, you do not say a thing there about the condition of the shrubs, the drives or the fences—or rather, you do [fol. 1776] about fences, don't you?

A. Yes.

Q. But as to sod or anything else at the station in the way of improvements, such as rose bushes and so on?

A. I don't think there is any of that at this location. I will have to go back into that.

Q. Well, there is no use of looking that up. There is a drive there, isn't there Mr. Biddison, or some improvements besides a fence?

A. I don't believe there is at that one. The fence is the only thing I made note of in the way of improvements, however, at that location.

Q. Well, the next classification of property at page 79 is transmission system rights of way, in the amount of $1,242,000.69, and that you found to be in 100 per cent condition?

A. That is correct.

Q. Your reasons for allowing the 100 per cent condition on these rights of way would be the same as on the gathering system rights of way?

A. Precisely.

Q. And in no case did you take into consideration the probable length of life of the line?

A. In no case.

Q. Or the condition of the pipe?

A. That is correct.

Q. The next class or section is transmission system measuring station structures?

[fol. 1777] A. Yes.

Q. On this class of property you find an average per cent condition of 94.71?

A. That is correct.

Q. Now practically all of these structures are corrugated iron buildings, are they not?

A. Yes.

Q. On page 82 you show the city gate station structure at Mountain Park, to be in 75 per cent condition. No—that is 75 per cent ownership, I believe. You show it to be in 97 per cent condition. What do your notes say on this structure?

A. Building Idaco Steel, concrete floor, 97 per cent. Equipment 98 per cent. Walks 100 per cent; fence 98 per cent; shrubbery 100 per cent.

Q. Did you in every case find the shrubbery in 100 per cent?

A. No.

Q. The description that you have in that observation of the structure is typical of all the observations you made on structures, is it not?

A. As to the form in which the observation is set down, yes.

Q. Yes. In other words, that is in as much detail as you have it in your notes?

A. Yes.

Q. The next classification of property is other transmission system structures. On page 108 you have some buildings listed with an "E" notation?

A. Yes.

[fol. 1778] Q. What does the "E" mean as applied to these values?

A. That means that those values are not noted in my notes. You will find some of them appearing on page 107 as well. Take with respect to Shamrock warehouse site. My notes do not show an observation with respect to the storm cellar. My notes do not show an observation with respect to the gas, water and sewage system. With respect to Vernon camp site, my notes do not show an observation with respect to the auto grease rack, and the gas, water and sewage system; nor do my notes show an observation with respect to the gas equipment at the Linkey farm.

Q. Now, everything in these sheets, even the ones that do not have an E following them, represent pure estimates, do they not, Mr. Biddison?

A. Certainly.

Q. And those that you have noted with an E notation, are really estimates without any factual data behind them. Isn't that what you mean by that?

A. No, I do not mean that by it. I mean that when at that location I did not make specific note of the condition on those particular items designated with an E.

Q. Well, that is just another way of acknowledging that you don't know much about those, isn't it Mr. Biddison?

A. Well, my information on those is of course not as definite as the ones about which I made specific notes. That is quite apparent.

Q. Have you seen any of the equipment where you have [fol. 1779] made the "E" notation?

A. Certainly I have.

Q. But you have made no notes on it; is that the idea?

A. That's the idea. For example, on page 108, the line walker's house at Prairie Dog gate, and the line walker's house at Texas state line; I have been to both of those. The pipe racks listed on that page—I have seen a great number of those.

Q. But at the time you were there you did not make notes as to their condition or anything of that sort?

A. I did not make notations; that is correct.

Q. Now, in other transmission system structures, page 113, you have some fifteen or so items listed with the notation "E"?

A. That is correct.

* * * * * * *

[fol. 1780] Q. Now, we come to the classification of property—Transmission Line Equipment—this is the biggest one in the whole appraisal, is it not?

A. Yes, sir.

Q. Being the amount of $31,894,439.40?

A. That is correct.

Q. For this type of equipment you found a per cent condition average of 92.28 per cent?

A. That is correct.

Q. Now, on this class of property, if you are off so much as one per cent, it would make a difference of approximately $319,000, wouldn't it?

A. Yes, sir.

Q. This class of equipment includes all of the pipe in the big pipe lines and transmission lines?

A. Yes, sir.

Q. Now, your observations on this class of equipment were made in the same manner as the observations on gathering lines?

A. Yes, sir.

Q. That is you depend altogether on a few little spot checks over the system and the visual observations you made at those points?

A. Not a few; but a large number of checks at various points.

[fol. 1781] Q. How many observations did you make?

A. I don't think I have added them up. I can do so quite readily here.

Q. Well, in round numbers it would be around four hundred, wouldn't it?

A. Something of that sort, yes.

Q. In other words, your observations would have covered about 800 feet of pipe?

A. Nearer 1200.

Q. Twelve hundred feet of pipe?

A. Yes.

Q. Of this class of equipment there are considerably over 3000 miles of line, isn't there?

A. Yes, sir.

Q. In other words, change that into terms of feet, it would be about fifteen million feet, wouldn't it?

A. Yes, sir.

Q. To find the value for about fifteen million feet of pipe, you determined that on the basis of observations made on about 1200 feet of pipe?

A. That is right.

Q. And if you were one per cent off, it would make a difference of $319,000?

A. That is right.

Q. Now, Mr. Biddison, in all these observations—these approximately 400 observations you say you made—you [fol. 1782] depended entirely on the appearance of the outside of the pipe, didn't you?

A. Yes, sir.

Q. Now, there have been some cases where substantial replacements were made necessary by inside corrosion, isn't that true?

A. Yes; in two locations of which I know on the system, replacements have been made on account of interior corrosion.

Mr. Griffith: Does pipe generally corrode on the inside?

A. Very rarely.

Q. Practically all of the recent replacements made on the line that came out of Joshua—two lines, I believe it was—were made on account of inside corrosion, were they not?

A. Yes, substantial replacements were made on the outlet at Joshua Station on account of interior corrosion.

Q. There have been some considerable replacements made out of the Breckenridge Station on account of interior corrosion?

A. Comparatively small ones; there was a section of about four or five miles, I think, that was affected by interior corrosion.

Q. In none of your per cent conditions have you taken into consideration the inside condition of the pipe, have you?

A. Yes; I believe at Breckenridge Station, I gave some consideration there to an observation based on the in- [fol. 1783] terior condition of the pipe, because at the time of the inspection there there was a joint which had blown out as a result of interior corrosion of pipe.

Q. Now, Mr. Biddison, at the hearing before the Railroad Commission, which was based on the same notes, you told us you were guided solely by the outside appearance of the pipe and did not take into consideration the interior corrosion?

A. That is generally true; but I believe in that specific instance I gave consideration to that.

Q. Well, read your notes on that observation.

A. "Line O-16 inch, one-quarter mile east of Breckenridge Compressor Station, joint blown out. Pipe weakened by internal corrosions to less than one-half original thickness in places. Paint good and exterior of pipe unaffected. Observation number 5; paint 80 per cent condition; pipe 20; overall 18 per cent."

Q. Does that show in this exhibit?

A. Yes; on page 169, Exhibit 37, first item.

Q. What other observation besides this one do you show you noticed any interior corrosion?

A. Well, I don't believe I show any consideration of interior corrosion in any other inspection; I don't recall one at this time.

Q. None of the inspections coming out of Joshua Station [fol. 1784] show any interior corrosion, do they?

A. I think not.

Q. Wasn't the replacement made last year on Line "L" on account of interior corrosion—a replacement amounting to about 5,000 feet of pipe?

A. There was such a replacement, and I believe on account of interior corrosion.

Q. And amounting to about 5,000 feet of pipe?

A. Something near that.

Mr. Griffith: I think that was on Line "O", rather than Line "L", wasn't it?

A. I am not sure on which line it was.

Q. Well, on one of those lines coming out of the Joshua Station?

A. Yes.

Q. On page 149, on your second observation on that page, you have the notation, "Very light pitting under paint." What accounted for that pitting?

A. It was corrosion that caused it.

Q. Could you see the pits under the paint?

A. No; but you could find them by scraping the paint off.

Q. You mean you scraped off the paint to find these pits here?

A. Yes. My notes show that discoloration showed through the paint, and to find out what the effects of that had been the paint was scraped off and there was found that [fol. 1785] there was very light pitting under the paint.

Q. Now, could you see the pitting before it was scraped?

A. I don't know in regard to this specific location; but, generally, you could not under conditions as found here, and you would have to scrape the paint off to find out.

Q. On the 18-inch, the lowest per cent condition you found on pipe was at this point, was it not—91 per cent overall?

A. Yes.

Q. Now, explain to the jury, Mr. Biddison, just exactly in making this observation what processes your mind went through to get the 91 per cent condition—or omitting the paint consideration, just as to the 92 per cent condition that you found for the condition of the pipe?

A. Well, inspection of that pipe indicated to me that if about twelve times as much damage were done to that pipe by pitting as had been done the pipe would be worthless; therefore, the pipe had suffered about one-twelfth of the damage that would render it useless, or had declined in condition about 8 per cent; therefore, I gave it a condition of 92 per cent.

Q. Now, your notation here is very light pitting. Did you, by looking at this pipe at the time of the observation, decide that approximately one-twelfth of the steel thickness of the pipe had disappeared?

A. No, sir; I did not.

[fol. 1786] Q. Well, did you decide that one-twelfth of the weight of the pipe had disappeared from deterioration?

A. No, sir.

Q. Well, did you decide that one-twelfth of the functional value of the pipe had disappeared?

A. No, sir; I decided that about one-twelfth of the total damage that would render the pipe valueless had occurred.

Q. Well, do you mean by that that one-twelfth of the service life of the pipe had disappeared?

A. Not in time, no; not in years.

Q. If you did not give some consideration to the actual physical disappearance of part of the pipe, or to the life of the pipe, or to the functional value of the pipe in service, or to the weight of the pipe new as compared with the weight of the pipe in its then condition, or to the depth of the pitting as compared to the total thickness of the wall of the pipe, what in the world did you depend upon to find your per cent condition?

A. I depend upon the depth of the pitting—the extent of the pitting. Now, the condition of pipe is not in proportion at all to the amount of weight that may be lost. A piece of pipe may lose but five or ten per cent of its weight and be in zero condition; so the loss in weight is not a measure of its condition; and if I had considered in some of these instances simply the loss in weight of pipe, I would have [fol. 1787] had conditions way above what I have here; that is no measure of condition by itself.

Q. But taken into consideration with other things, it may be, though, may it not?

A. It may and may not be.

Q. But you don't use it at all?

A. Not as an exclusive guide, no.

Q. But, Mr. Biddison, as to the pits, what was the depth of these pits?

A. I don't know; but from the notes here I would say that the pitting that occurred here was probably not more than two or three hundredths of an inch deep.

Q. You did not know at the time you made this observation what the wall thickness of the pipe was?

A. Not specifically, no.

Q. So, even if you had known the exact depth of the pits —the average depth of the pits, the number of pits per square foot, or any other information as regards the pits, you still would not have been able to relate that to the depth —strike that—to the thickness of the wall of pipe?

A. Yes; you could relate it to the thickness of the pipe.

Q. You did not know the thickness of the pipe, though, did you?

A. Not specifically, no; but after you relate it to the thickness of the pipe, you still would not have any answer that [fol. 1788] meant anything.

Q. Mr. Biddison, isn't it, as a matter of fact, virtually a practical impossibility to find the condition of property such as this when it is all underground with any degree of certainty at all?

A. No; it is not at all impossible to do, and it is possible and practicable to do it; but it is not possible to do what you have intimated, and by a mathematical formula, from the number of pits, and depth of pits, and thickness of pipe wall, and age of pipe, and average life of pipe, tie them up into a figure that represents the condition or value of the pipe.

Q. Isn't it a fact that the only way that you could be sure about the condition of pipe would be to take it up and take it apart and look at it inside and out?

A. No; that is not true. There are some conditions under which the determination of the condition of pipe would require interior examination, but those are rare instances.

Q. Wouldn't a much more certain and much more satisfactory method be to use life studies of pipe as shown by the replacement studies, or the replacement records actually shown in your company's records?

A. No; because those replacement records will not produce the basic data from which condition can be determined in any way, shape, or form.

[fol. 1789] Q. Why?

A. Because those replacement records are on replacements due to causes other than condition of pipe.

Q. Well, you can very easily separate the pipe that is taken out for causes other than wear and tear on the pipe, can't you?

A. Not very readily. You can make some progress in that respect.

Q. Why can't you? You always know when a pipe is taken out why it is being taken out, don't you?

A. You may know at the time. I don't know whether the records always show it or not.

Q. This much is certain, Mr. Biddison, that records of that sort could be made and kept, if you wanted to?

A. Yes; records of that sort could be made and kept, and if they were kept for a period of maybe a hundred years, then I believe you might have data from which a determination of condition might be made with some rational approach to accuracy.

[fol. 1790] Q. If a study of that sort were made it would be much better than all this guesswork, wouldn't it?

A. Well, I am not talking about anything that I consider to be guesswork.

Q. Well, you will admit, Mr. Biddison, won't you, that where you don't know the interior condition of pipe by simply looking at the outside that your outside examination is absolutely no criterion for the condition of the pipe?

A. In a location where pipe is subject to interior corrosion an exterior examination does not reveal or may not reveal the full facts—I admit that; but the balance of your inference is totally incorrect.

Q. Even in the cases where there is no interior corrosion your outside examination is still an uncertain method of finding per cent condition, is it not?

A. No, it is not. It is the only method of which I have any knowledge or of which I can conceive by which the condition of property can be ascertained.

Q. You mean in the absence of life studies of pipe?

A. No, I don't mean in the absence of life studies of pipe. I don't think the condition of any kind of property can be definitely determined except by examination of the property. I don't see how you can expect at any time to go to a book some place and find out what the condition of a

piece of pipe is at a location five hundred miles away. I think the way to determine the condition of the pipe is to go and look at it.

[fol. 1791] Q. All right. On page 150, Observation 684, you have the same sandy red clay as shown in the observation we were just talking about. In this case the notation is: "Paint good, but numerous rust spots underlain by small pits", whereas the notation in the first place was: "Discoloration through paint and soil adheres to paint. Very light pitting under paint". In the first case you get 82 per cent condition—I mean 92 per cent condition, and in the second case you get 85 per cent condition. Now, what was the difference between the pipes in the two cases?

A. Well, the difference is that in the second case, where I have 85 per cent condition, there was more damage done to the pipe.

Q. Well, in both cases you have small pits, don't you?

A. Well, there is a difference in the intensity of the pits; one shows 92 per cent, very little pit; the other says "small pits".

Q. On line B, on the 16 and 18 inch, what is the lowest per cent condition you found?

A. 90, on pipe itself; 89 over all. I have three observations there; 89 per cent over all.

Q. On Second B, how long is that line?

A. Oh, somewhere around one hundred miles.

Q. You have got four observations on that pipe, haven't you?

A. Yes, sir.

Q. What is the lowest per cent condition on that?

A. 97.

[fol. 1792] Q. What is the lowest per cent you show for condition of pipe?

A. 98.

Q. What is the value of that line—a million eight hundred thousand and something, isn't it? Well, it is shown in your exhibit, Mr. Biddison, page 147.

A. Yes, I can get it.

Q. You have got $1,828,421.66?

A. Well, I will have to get Exhibit 28. Yes, $1,828,421.66.

Q. On three of those observations you found pipe in 98 per cent condition, and on the fourth 100 per cent condition?

A. That is correct.

Q. So on each one of those observations the amount when averaged in is the basis for the valuation of about half a million dollars' worth of property, isn't it?

A. Yes, sir.

Q. At the same time, there are replacements being made on that line every year, are there not?

A. Line Second B? I don't know whether there has been a single replacement yet on Line Second B of the 20 inch pipe.

Q. Are you willing to say, Mr. Biddison, that there was not a single replacement on this line in 1933?

A. No; I just said I didn't know.

Q. Well, as a matter of fact weren't there same replacements during that year on this very line?

A. I just said twice I didn't know. I doubt it very much. [fol. 1793] Q. On this observation where you found the pipe in 100 per cent condition, how long had that pipe been installed?

A. That line was laid, I think, in 1929, or thereabouts.

Q. Well, had this pipe been in the ground three or four years?

A. Yes, sir.

Q. And you found it in perfect condition—no wear and tear to it?

A. Yes, no sign of corrosion of pipe and the paint excellent.

Q. In other words, if this pipe keeps up its same record in the four years of its life so far it will never wear out?

A. That is right. If nothing happens to it it will never wear out.

Q. On the "C" System you made three observations?—that is page 154.

A. Yes, sir.

Q. Those three observations would take care of about $585,900.00 worth of property, wouldn't they?

A. Yes, sir.

Q. At no point in your entire valuation of the Transmission Line Equipment have you found any pipe in zero condition?

A. I don't believe so.

Q. The lowest you found was this pipe that was just about ready to be taken out at Breckenridge, wasn't it, where you found 18, I believe you said?

A. Well, I could not state that definitely without checking through here, but I believe that is correct.

Q. Now, outside of that one low observation, you don't [fol. 1794] show anything below fifty per cent, do you?

A. Well, I would have to check through all this to see.

Q. Well, without taking time to do that, you know as a matter of fact, don't you, Mr. Biddison, that there are very few low conditions—that is, fifty per cent or lower?

A. Well, I know there are not a great many of them—I know that.

Q. On page 163, Transmission Line Equipment on the "K" System, how long has the "K" System been built?

A. I don't know.

Q. About between ten and fifteen years, isn't it—ten or twelve years, along in there?

A. Well, I think it is something on that order.

Q. That is one of these West Texas lines?

A. Yes, sir.

Q. They have been out there quite a while?

A. Yes, sir.

Q. Nevertheless, on this page you show nine observations at 100 per cent and on the following page five more observations at 100 per cent?

A. That is correct, again exemplifying that the age of pipe is no criterion as to its condition.

Q. Besides these fifteen observations where you found 100 per cent condition, you have thirteen—you have five at 99 per cent and thirteen between 90 and 99, do you not?

A. Well, there are five of them at 99.

Q. And then eight others between 99 and 90?

[fol. 1795] A. Between 99 and 90? I think it is five of them. There are some about 90. If you include them maybe your figures are correct.

Q. And your average on all observations and the per cent condition that you finally applied to this line where the value as found by your reproduction cost new $5,153,684.18 is 96.12 per cent of new?

A. That is true.

Q. Now, if your calculation as to per cent condition on this line are correct, Mr. Biddison, this line is going to last an awful long time, isn't it?

A. It will last just as long as anybody wants to keep it in operation.

Q. As a matter of fact don't you know, Mr. Biddison, that as of this present time large replacements are being made on the "K" System?

A. No.

Q. Do you know what the replacements of pipe on "K" System for 1933 were?

A. No.

Q. Do you know what they were for 1932?

A. No, nor any other year.

Q. If you had known, Mr. Biddison, that substantial replacements on the "K" System were being made during the years 1932 and 1933 and are still being made would you have changed the per cent condition as found by you on this system?

[fol. 1796] A. No. That is the condition which I actually found by looking at it.

Q. What is the lowest per cent condition you found on that line, of pipe?

A. 90 per cent, pipe.

Q. Where in this exhibit do you show how you found the per cent condition of the bridges for the Transmission Lines Equipment or any other special construction?

A. I don't show it in this exhibit.

Q. Well, do you show it at all anywhere?

A. I have notations in my field notes.

Q. Well, did you make separate observations of the special equipment—special construction?

A. On a great deal of it, yes.

Q. Well, how did you take it into consideration?

A. In the final analysis I did not take it into consideration, but applied to the Transmission Line Equipment as a whole the mean condition determined from the observations on pipe.

Q. So, while you made some inspections of the special construction, such as bridges and so forth, you did not use any average of any calculation from the per cent condition you may have found by those observations in finding the value of the equipment when included in your appraisal?

A. That is correct.

Q. The approximate value of the bridges is how much—about a million dollars?

[fol. 1797] A. Something approaching that figure.

Q. I mean the reproduction cost new.

A. Yes, something approaching that figure, I believe.

Q. Isn't it a fact, Mr. Biddison, that on the numbered system—the lines in the numbered system—there are a number of wooden gate boxes?

A. Yes; that is true.

Q. How did you go about including those in the appraisal?

A. The condition of those is given the same figure as was derived from the observations of pipe on the numbered systems.

Q. Well, you didn't make separate observations for the wooden gate boxes?

A. No, sir.

Q. But simply gave to them whatever condition you found for the pipe line where they appeared?

A. That is correct.

Q. In other words, on the numbered systems you found these gate boxes to be in 92 per cent condition, approximately?

A. Well, I don't know offhand whether I made any notations of condition of those gate boxes on the numbered systems or not, but, at any rate, they are at 92 per cent condition in this report, and that is the condition found from inspection of the pipe, and I have applied it to the whole property in the numbered systems.

Q. Just the same, it is a fact, Mr. Biddison, that a number of those wooden gate boxes are rotting out?

[fol. 1798] A. I expect that is true. I think it is also true that a large number of them were in excellent condition and some of them had just recently been rebuilt.

Q. Well, those are always being rebuilt and replaced, aren't they?

A. Wooden gate boxes? No, sir; not always but frequently.

Q. The next classification of property is Compressing System Property. The Joshua station is the one you had the plans on yesterday, isn't it?

A. Mr. Connor had the plans on it yesterday.

Q. Turn to where that station shows in your exhibit.

A. It begins on page 205, Exhibit 37.

Q. One of the large items shown on this page is the compressor building, which you found to be in 90 per cent condition?

A. Yes, sir.

[fol. 1799]. Q. What notes did you make?

A. (Reading): "Compressor building, Ideco Steel, galvanized, not painted, 95 per cent."

Q. Are those all the notes on the compressor station building?

A. I want to see which building this one is now, for sure. That note is: "No. 2 Station, Compressor Building, steel, corrugated, galvanized, painted, 90 per cent."

Q. Is that the only note that you have on this building?

A. Yes, sir.

Q. How long has that building served at the Joshua Compressor Station?

A. I don't know.

Q. Well, it has been there ever since the station was built, hasn't it?

A. I presume so.

Q. Fifteen or twenty years?

A. No.

Q. Approximately how long?

A. Well, I don't know.

Q. You didn't build this compressor?

A. No, sir, and I don't know precisely when that station was built.

Mr. Griffith: Are you referring, Mr. Fitzhugh, to the No. 1 or the No. 2 station?

[fol. 1800] A. He is referring to the No. 1 station.

Mr. Fitzhugh: The No. 1, on page 205.

Q. On the main units you have found no per cent condition per unit, have you?

A. No.

Q. The units for this station alone amount to $108,831.95?

A. That is correct.

Q. And that cost includes quite a number of engines, doesn't it?

A. It does.

Q. To all those engines you applied 92 per cent as the per cent condition?

A. Yes, sir, my notes read: "Compressors, 12 Coopers, 90 per cent; 4 Ingersoll-Rand Steel, 95 per cent." The notes read: "90 plus". I applied to the group, 92 per cent.

Q. On which, the Cooper units?

A. Numbers 1 to 12.

Q. Those are the ones that you found 95 per cent?
A. 90, plus, the notes read.
Q. And you got four other units that you found 95 per ent?
A. Yes, sir.
ol. 1801] Q. So that the 92 per cent does not represent weighed per cent or a calculated per cent, but simply an ssumed per cent?
A. Yes, based upon those two observations.
Q. Now, how could you tell the per cent condition of ose engines?
A. Well, I am familiar with that class of machinery, om many years contact with it, and by looking it over I timated the amount of loss in value and loss in condition at had occurred.
Q. Well, what did you do, just look at them?
A. Yes.
Q. Did you listen to them run?
A. Yes; looked at them and listened to them run.
Q. Well, now, what did you—just what sort of mental rocess did you go through, Mr. Biddison, to find the per nt condition?
A. Well, to begin with, on this class of equipment the arts which are subjected to loss in value comprise a comaratively small part of the total value of the equipment; r example, the fly-wheels and the main bed-plates suffer ery little loss in value—very little deterioration; the parts hich really do deteriorate are largely the moving parts, e bearings, the pistons, the guides, and, in addition, some the small fittings and appurtenances. Now, some of ol. 1802] that equipment can get into pretty low condition ithout affecting the over-all condition of an engine to a ery great extent; and by looking over that equipment I rmed my opinion of the total of deterioration or depreation which had occurred on this equipment.
Q. Now, Mr. Biddison, this is a type of property you e supposed to be an expert—particularly expert on?
A. Yes.
Q. You know better than anyone else, probably, don't ou, Mr. Biddison, that where a moving part of one of ese engines is continually subjected to stress, that the ctual wearing out and crystal-ization of the metal in the

part being placed under stress does not show on a visual inspection?

A. Perfectly well, yes, sir.

Q. That is, you might have a rocker-arm or some other part that has considerable stress placed upon it, that would look absolutely good up until the time that it snapped?

A. Yes, that sometimes happens.

Q. Isn't it true more with Compressor Station equipment probably than with any other class of property that the Company owns, that life studies properly made would [fol.1803] prove the best index in finding value as of any date?

A. Well, as a comparison that might be true, but then at the same time the life studies would not show you anything in the world about the condition.

Q. Take the bearings in those engines, Mr. Biddison, for example,—is there any way you could look at the bearings and tell what the condition of those bearings actually was?

A. Why certainly; and that is the only way you could tell what shape they were in.

Q. Did you look at the bearings in making your inspections?

A. Yes.

Q. Bearings are one of the parts of a machine that suffer from stress, are they not?

A. Very little.

Q. What are the parts that you would say would probably suffer most from stress?

A. The part that suffers most from stress in an engine is the piston rod.

Q. Now, in the case of the piston rod on all these engines, you simply ascertain its per cent condition along with the whole machine, didn't you?

A. Yes, sir.

Q. And you didn't give any particular consideration to [fol. 1804] that part of the engine as distinguished from the other parts?

A. Yes, I did.

Q. I say you didn't separately find a separate per cent condition for the rods or the pistons, did you?

A. I did not, no, sir.

Q. In the hearing before the Railroad Commission, Mr. Steinberger testified that he took some of the machines and calipered the moving parts of the machines and found the

amount of wear and tear that had occurred on the moving surfaces. Did you avail yourself of that information?

A. I did not.

Q. Did you consult with any of the superintendents or men actually in charge of the operation of those machines, as to the life or as to the general condition of any of the machines operating any of the properties under their supervision?

A. Yes, I talked at every station I inspected with somebody who knew something about the particular engines at the location.

Q. In what way did you take that information into your per cent conditions as finally found?

A. Well, I don't know exactly what weight I gave to anything I got from those gentlemen.

Q. At any rate, you didn't give any weight to the length [fol. 1805] of time or the amount of service per machine?

A. Certainly not—certainly not.

Q. Now, the lowest per cent condition you found for any compressor station was about 82 per cent, wasn't it, or 80 per cent? I believe in one case it was 80 per cent, in the case of the Sipe Springs or the Tiffin Station?

A. Yes, that's the lowest.

Q. At the Caddo Station you found an 85.87 per cent?

A. That is correct.

Q. Did you know at the time that you applied that per cent condition to the Caddo Station, Mr. Biddison, that that station was gradually being abandoned, due to the depletion of the gas reserves in that section?

A. No; and it wouldn't have made any difference if I had—it wouldn't have changed the condition of that equipment one particle; if it were going to burn up by the next day it wouldn't have affected its condition to-day.

Q. It is true, is it not, that a number of these stations are being dismantled and moved?

A. Why, it is true that there is some slight rearrangement of compressor stations being made at various times. That does not affect their condition at all.

Q. So you don't think it makes a bit of difference in the value of a piece of property, such as a compressor station [fol. 1806] where a great part of the value of the property is in the foundations and appurtenant equipment—piping and so on, that that station is going out of service within

a short time, relatively, as compared to the date of your appraisal?

A. No, sir, I don't.

Q. The whole purpose of the thing is to find value, isn't it?

A. Yes, sir.

Q. How did you get the 93 per cent condition you found for the Office Building, on page 238?

A. By a general inspection of that office building. I am in that building quite frequently.

Q. Was that per cent condition given to you by somebody?

A. No, that is my determination.

Q. Did you consult with Mr. Dyer as to the per cent condition he found on the General Office Building when he made his inspection?

A. No, I didn't.

Q. Your per cent condition is, nevertheless, higher than the per cent condition Mr. Dyer found and testified to while he was on the stand, isn't it?

A. I don't recall what figure he gave.

Q. Where did you get your per cent condition for the General Office Furniture and Fixtures? Is that your own estimate?

[fol. 1807] A. Yes, sir.

Q. You do not claim to be any expert on the matter of furniture and fixtures, do you, Mr. Biddison?

A. Well, I don't claim to be an expert on it, but I am informed in regard to it.

Q. Well, you are no furniture man, are you?

A. No.

Q. Now, suppose you came to some piece of equipment—some office chair, such as this—that chair right there (indicating),—how would you go about finding the per cent condition of it?

A. By looking at it.

Q. What all did you take into consideration?

A. Its general condition.

Q. Well, did you take into consideration the style—the period of the furniture, or anything that would be connected with the obsolescence or its value as a fashionable piece?

A. No; that has got nothing to do with its condition; certainly, I wouldn't consider that in determining its condition.

Q. Well, does your per cent condition reflect only the wear and tear that the piece of furniture shows?

A. Yes, sir, it reflects just what it is labeled—"Condition".

[fol. 1808] Q. It does not reflect or attempt to reflect the obsolescence of the piece of furniture?

A. No.

Q. Or the lessening in value that may have occurred because the piece of furniture is no longer a fashionable piece?

A. That is correct. Those things are not items affecting the condition of property. They are items that affect the retirements of property, and affect the accruals that should be made for such retirements; but they do not affect the condition of the property.

[fol. 1809] Q. And in so making your valuation, Mr. Biddison, you have made it practically the same as assuming that there is no change in present value of furniture due to its obsolescence or to a change in fashion?

A. That is correct.

Q. If you came to the type of roll top desk that is no longer in fashion as office furniture, Mr. Biddison, you would have given that the same per cent condition that you would have given to a flat top desk or the type of desk now in vogue?

A. If they were in the same condition.

Q. If they showed the same wear and tear?

A. Yes, if they were in the same condition, I would have given them the same per cent condition figure, precisely.

Q. In other words, your per cent condition throughout your appraisal, whether it is applied to pipe, furniture or what-not, reflects only wear and tear, doesn't it?

A. Yes, as it is meant to do, it reflects only the condition of the property.

Q. And not the lessening of value that may have come about from other causes than wear and tear?

A. That is correct, if there be any such.

Q. In the case of general tools, I believe you say that you made no particular examination of the tools, but simply applied some assumed conditions?

A. No, I said that with respect to certain items which on page 243 are marked with an E, that the figures are not the [fol. 1810] result of averaging up observations.

Q. Well, you did not make any observations at all, did you?

A. Yes I did, and specifically stated that I saw equipment in all these branches at various places.

Q. You saw the equipment but you did not make observations where you saw the condition of any particular tool?

A. I did not make notations, that is correct.

Q. So in all cases where you have an E marked there, you have an assumed per cent condition?

A. Yes, based upon having seen a great deal of the equipment and having made a great number of observations of it, but not based upon making a great number of notations. There is a difference in seeing things and making a note of what you see.

Q. Well, if you made a very large number of observations, you could not very well benefit by the observations you had made unless you made some notations.

A. Certainly.

Q. You carried all that stuff in your head, did you?

A. Yes.

Q. Going over four thousand miles of pipe line, every time you saw a tool you could remember what it looked like until you got back to the office, and gave it a per cent condition?

A. No; no such process as that whatever.

Q. Well, for example now, Mr. Biddison, you have a variation in the per cent conditions; the tools for the telephone system you put in at eighty per cent, and the tools for the pipe line, production and storehouse departments, at 75 [fol. 1811] per cent. How were you able to remember all those tools for the various departments, without making some notations on them?

A. It is simply the impression gained by having seen materials of these various classes at various points, all over the system.

Q. You do not claim this per cent condition you attribute to any of these classes is a very certain and exact finding of condition, do you?

A. Not of any such degree of accuracy as in those cases where I made notations, such as on pipe lines and structures. I do not claim it to be of any such a high degree of accuracy as that.

Q. In the automotive and the construction equipment account where you have $423,717.85 worth of it- reproduction

value new, you have applied there a 65 per cent condition. How did you say you found that?

A. I have seen a great deal of this equipment along the line. I have had occasion to examine fleets of such equipment owned by others, time after time, both for purchase and sale, and by comparing this equipment with other equipment which I have at various other times examined in detail, it is my opinion that this equipment is on the average in about sixty-five per cent condition or higher.

Q. What would you say, Mr. Biddison, is the average age of these automobiles?

A. I don't know.

Q. Do you know how many miles on an average these [fol. 1812] automobiles have been run.

A. No, I do not. I have seen data on that as of this basic date, but I don't remember what it was now.

Q. Don't they average pretty close to 50,000 miles apiece?

A. No, my recollection was that it was a considerably less figure than that as of the date of this appraisal.

Q. Well, I will ask you this, Mr. Biddison: isn't it commonly known among automobile dealers that if you should buy a car today and put it on your garage floor, without running it a single mile, and hold it for a year there, its value will have faded away to the extent of about 35 per cent?

A. It will have very substantially declined, yes, if you should do that, so far as its tradein value is concerned, but I don't think its tradein value is necessarily a measure of its value.

Q. Well, you have been talking about the price that a buyer would pay to a seller. Just how did you take that into consideration if you did not take into consideration its tradein value or its sales value?

A. In the first place, I don't think that I have made any comment along that line.

Q. Didn't you say a moment ago that the price you applied in here, you considered, was the price that a buyer would pay for this equipment if it was offered for sale?

A. No, I didn't say that at all.

Q. Well then, you will agree, won't you Mr. Biddison, that the price you have given to these automobiles, trailers, trucks and so on, does not represent a price that a willing [fol. 1813] purchaser would pay?

A. No, I won't agree to that at all. Now, what I said -while ago was that I had evaluated in detail aggregations of equipment of this nature, both for the purposes of purchase and for purposes of sale. Now I said I had done that, and that comparing this equipment with equipment which I had so evaluated in detail for purposes of purchase and sale, it was my opinion that this equipment was in 65 per cent condition.

Q. Well, suppose now, Mr. Biddison, that you knew that this $170,000.00 worth of automobiles here would only bring you $50,000.00 in the open market, or that you could buy similar automobiles to the ones that you have listed here for $50,000. Would you still value them at $170,000.00, minus 35 per cent, or would you value them at $50,000.00?

A. If I could buy—go out and buy them for $50,000.00, I would say that $50,000.00 was their value.

Q. But you did not take their sales value or their trade-in value into consideration at all?

A. No, because their trade-in value does not to me indicate their value. In the first place, what you can go out and buy them in for, is not what you can go and trade them in for. There is a wide spread between those figures, ordinarily.

Q. And you disregarded, too, didn't you, the mileage on the automotive equipment?

A. No, I did not set up the condition based specifically on the mileage, but I have not ignored the mileage or the effects of mileage on the condition.

[fol. 1814] Q. You just said you didn't know what the mileage is.

A. That is correct, but I am judging from the effects that mileage would produce upon the equipment.

Q. Well, the company had records that show the exact mileage for each machine?

A. Yes, I have seen them.

Q. And the exact performance for ditching machines?

A. Yes, I have seen those too.

Q. But you did not use them, did you?

A. Not specifically, no.

Q. Did you use them at all?

A. I considered it, but I did not make a computation from that data, no.

Q. In finding your per cent conditions as applying to the general telephone system, did you make observations personally on these items of property?

A. Yes, I made the observations shown.

Q. In the matter of telephone poles—in looking at a telephone pole, Mr. Biddison, how would you go about deciding the per cent condition to apply to it?

A. Well, if a telephone pole looks like it was about half done for, I would consider it to be in about 50 per cent condition, and since that constitutes something like three-fourths of the total value of the line, that would mean a deduction of about one-half of 75 per cent, or about 37½ per cent deduction from 100, on account of the poles.

Q. Did you in making your observations on poles scrape [fol. 1815] away any of the dirt from the base of the pole to find the rot of the pole underground, if any?

A. Yes. That rot as a general proposition, however, is more marked right at the surface of the ground than it is either just above the ground or below the surface of the ground. That is the point where rot usually occurs on telephone and telegraph poles, and also on fence posts.

Q. Now, on several of these lines, the poles are in pretty bad condition, aren't they, as to the rot near the surface of the ground at the base of the pole?

A. Well, some of them have some bad poles.

Q. Nevertheless the poles as they are included in your appraisal are in there at around ninety per cent condition, Mr. Biddison, are they not?

A. Some of them are and some of them are not.

Q. Well, the per cent condition on an average that you apply to all telephone lines was 89.55 per cent, was it not?

A. That is right.

Q. Well, aren't the poles in that?

A. Yes.

Q. In bringing forward to your summary sheet on page 1, you have $13,928,816.00 worth of values which you have included at 100 per cent condition?

A. That is correct.

Q. And you are responsible for the application of that 100 per cent condition to those values, are you not?

A. I am.

[fols. 1816-1817] Q. The inclusion of these items at one hundred per cent condition raised your per cent condition

from 92.93 per cent on the physical property to 94.26 per cent, as applying to the whole property; is that correct?

A. That is correct.

Q. Could you say, Mr. Biddison, what the average life to be expected from all classes — property in the whole system of Lone Star Gas Company is?

A. No.

Q. Or in other words, how much longer the system as a whole could be expected to last?

A. Well, the system as a whole may be expected to last just as long as gas supplies may be found in reasonable distances from the existing system. Now it can be maintained forever, so far as the physical plant is concerned, and if they have gas supplies within reaching distance, they will undoubtedly maintain the system. There may be a time, however, under those conditions, when there will not be a piece of the property in the system which now exists.

Q. And although you have a property that has been in operation since 1909, and which was gradually built up from 1909 to the present time, you nevertheless find that that property is in 94.26 per cent condition as of this date, or as of the date of your appraisal?

A. That property and business, yes; and I might say further that that property will undoubtedly be maintained in a condition not very much below that, throughout its life.

* * * * * * *

[fol. 1818] Q. Before we leave the discussion of your exhibit on condition of property, I would like to ask you one more question on that, Mr. Biddison. What is the type of soil that seems to cause the most corrosion on pipe?

A. I have not attempted to make any determination of that. In some locations in black, waxy soil we find pipe that has been in for a number of years in excellent condition. On the other hand, in other location in black, waxy soil where there may be occlusions of gyp rock, we find serious corrosion of pipe that has only been installed a short time. I don't think that any general conclusion on that may be drawn. I don't think it is so much a matter of type of soil, as it is a question of the change of soil conditions from one location to another.

Q. By gyp rock, you mean rock that has a high alkaline content, do you not?

[fol. 1819] A. Yes. In other words, the sort of rock from which gypsum is made—rock containing gypsum.

Q. Where you find that type of rock you are pretty apt to find highly corrosive soil conditions?

A. That is not always true. I have found some locations where there was gyp rock present where the signs of corrosion were faint.

Q. Locations of that kind are where the soil is very dry, isn't that true?

A. No; peculiarly, I recall one inspection in which the soil was wet with gypsum present, and close to a gypsum factory, in which there was almost no signs of corrosion. It is not so much a question of the acidity or the alkalinity of the soil in a particular location, but of changes in that condition.

Q. A while back you furnished us a bunch of sheets showing on certain transmission lines, a certain percentage of hand and machine excavation, and the cost per hundred lineal feet. I believe this little pamphlet includes all of the lines, doesn't it?

A. It was intended to.

Q. All of the transmission lines?

A. Yes.

Q. A few days ago when you were testifying on the prices used in your inventory for excavation, or rather as applied to your appraisal, you testified that you used a cost of $1.31 [fol. 1820] per cubic yard for hand excavation where there was more than 200 feet of trenching, and that you applied a cost of $2.13 to stretches of trench of less than 200 lineal feet; is that correct?

A. Well, I don't think those figures are exact. They are close approximations by dropping decimals, and the figures varied somewhat as between Texas and Oklahoma.

Q. Well, what are the correct Texas figures?

A. On Transmission Lines in Texas, $2.138 per cubic yard; and in Oklahoma $2.0191 per cubic yard. That is for the short stretches. Now, for the long stretches, the figure for Texas is $1.31, and for Oklahoma, $1.28.

Q. Now, in general, Mr. Biddison, why is it you say you make that differentiation? Why is it you use one unit cost for the short stretches, and the other for the longer stretches?

A. Because on these short stretches the amount of work to be done in one location is comparatively small; and

1219

furthermore, the amount of work to be done at such locations as cannot be done by machine is ordinarily of a nature that is also difficult by hand—approaches to gullies and streams, and work of that nature.

Q. Now, as shown in your sheets, there is some 12-inch line on Line K-A, is there not?

A. Yes.

Q. The length of the 12-inch section of the line is 89,245 [fol. 1821] feet, is it not?

A. 87,975 feet of 12-inch pipe in Line K-A, as shown on page 2191 of Volume 4, Exhibit 28.

Q. Is that all of the 12-inch in Line K-A?

A. Yes.

Q. Now, that whole line is hand excavation, isn't it—either hand-earth or hand-rock?

A. It is.

Q. What price per cubic yard did you use for the hand-earth excavation?

A. $2.083 per cubic yard.

Q. How did you find that $2.008?

A. It seems to me it should be $2.138.

Q. Now, there are 87,000 feet, of which 46.51 per cent is hand-earth?

A. Yes, sir.

Q. Why didn't you apply to this amount of hand-earth excavation the 1.31 cost per cubic yard which is supposed to apply to stretches over 200 feet?

A. Because this is mixed in with rock excavation, and over half the excavation is rock, and it consists of short stretches in connection with rock.

Q. Well, the stretches are over 200 feet, aren't they?

A. The bulk of them, or over fifty-three per cent, would be short stretches of less than 200 feet.

[fol. 1822] Q. How do you know the rock comes in intermittently—how do you know this per cent of rock excavation is not all in one batch?

A. I know it is not; but just exactly what the longest stretch of hand work is on there, I don't know.

Q. Now, the real reason that you apply in the stretches of less than 200 feet the two dollar price, instead of the $1.31 price, is because you say it costs you more to move your men and equipment and all that sort of thing to inaccessible places, and for just short stretches. Now, if you have intermittent stretches of hand excavation, all being

done hand work, whether it is rock or earth, why shouldn't you apply the $1.31 price on it.

A. Because the $1.31 won't cover doing that kind of excavation work in any such manner.

Q. Well, the same men that do the earth excavation would do the rock excavation, wouldn't they?

A. No.

Q. Do you have a different crew for each?

A. Yes, sir; you certainly do. You would put a rock crew on your rock excavation with air compressors and dynamite.

Q. How long do you figure these rock stretches are?

A. Offhand, I don't know at this time.

Q. If you figure that the earth stretches are less than 200 feet, isn't it inevitable, out of 87,000 feet, of which 53.59 is rock, that you are bound to have some long stretches [fol. 1823] of rock?

A. I don't doubt it.

Q. Now, in the K-B 12-inch, where you have some 70,000 feet of line you show 56.35 per cent hand-earth, and 43.67 per cent hand-rock. For the hand-earth excavation on this line you likewise intended to use the $2.13 cost per cubic yard, did you not?

A. I think the $2.13 price on there would be justified. Apparently some consideration was given to the average length of these, and that figure is also at 2.083. Now, I don't find at once the set-up from which that is derived. It is in connection with the K section. That $2.083 figure was also used on K-B-A-A.

Q. What is the length of that?

A. 5496 feet. K-B-A-B at 9,162 feet; and K-B-A-C——

Q. 23,000 on that, isn't it?

A. A little over. K-B-B, a little over 4,000 feet. Also on K-C-B, 13,580 feet; on K-C-D, 12-inch, 26,836 feet. K-C-D-A 6-inch, 3,153 feet; on K-C-E 10-inch, 30,082 feet; on K-C-E-A 10-inch, 14,991 feet; on K-C-F 10-inch 2,831 feet; on K-C-K 10-inch, 13,068 feet; on K-C-K-A 10-inch, 2,396 feet; on K-D 10-inch, 12,225 feet; on K-G, 6-inch, 16,659 feet; on K-H, 18,621 feet; on K-N 4-inch, 3,357 feet; on K-N 10-inch, 3,891 feet; on K-N by-pass, 6⅝ inch, 9343 feet; on K-P 8 and 10-inch, 47,670 feet; on K-P-A, 6-inch, 4,232 feet.

[fol. 1824] Q. Now, the hand earth excavation on some of those lines you have named runs as high as 70 per cent,

doesn't it? For instance, on K C K A hand earth is 68.24 per cent?

A. K C K A hand earth excavation is 68.24 per cent.

Q. And all the rest of the excavation on this line is hand rock?

A. Yes, sir.

Q. Now, all these lines, Mr. Biddison, that run into hundreds of thousands of feet, in order to justify using the two dollar price you have used instead of the $1.31 cost per cubic yard, you have to assume that all these little stretches of hand earth excavation are in less than two hundred foot batches, do you not?

A. In order to justify this figure—is that the question?

Q. Yes.

A. Substantially so, yes, sir.

Q. As a matter of fact that is not true, is it?—there are a lot of stretches of two hundred feet and over, some of them that run for a mile or over?

A. Well, there might be in some cases.

Q. Isn't it a fact that the stretches of hand excavation on all these lines, taking the whole thing, probably average about a thousand feet per stretch?

A. No, I think they will probably average around 100 or 150 feet per stretch.

Q. Well, if they did average as short a distance as that, Mr. Biddison, it simply means that they would have to alternate for, say, 150 feet of hand earth and 150 feet of solid rock?

[fol. 1825] A. Well, that is a degree of exactitude that I can't pass on.

Q. Well, do you have any data that has any exactness at all as to the length of these stretches of hand earth excavation on these lines?

A. Well, I do not have before me the data from which this is worked up. It shows in a great many cases what the lengths of these stretches were.

Q. Well, what were those sheets that you have before you now worked up from?

A. Well, these sheets I have before me now are the determination of the weighted cost per hundred lineal feet of excavation for these various lines.

Q. Well, you never have made a study, have you, Mr. Biddison, on your own account to find out the length of

these stretches of hand excavation or the amount of hand excavation on these lines?

A. No, not on my own account. I have studied some of the data collected by Mr. Steinberger of the relative machine and hand earth and rock excavation.

Q. Well, Mr. Steinberger's data didn't show the stretches of hand excavation by lines?

A. Well, the notes on these jobs and the maps from which the determination was made do show that data.

Q. What are the maps you are now referring to—the permanent maps that are a part of the company's records?

A. No, the maps on which the determination was made of the amount of machine and hand excavations.

[fol. 1826] Q. Did you study those maps?

A. Yes, I have.

Q. Which line did you study the maps for?

A. Well, I studied maps on quite a number of those lines. I can't state them offhand; it has been some time ago.

Q. On all these lines, Mr. Biddison, where you show any rock excavation, even where it is in such amounts as only one or two per cent, you have used for hand earth excavation a price per cubic yard in excess of two dollars, have you not?

A. No. Take Line K 5, where there is 9.54 per cent rock, there is no hand work whatever set up on that. That is true also of K-5-2.

Q. Well, the reason you didn't apply prices to hand earth was because there wasn't any hand earth on the line?

A. That is right.

Q. But I mean on all the lines where you have both hand earth and rock excavation you have applied for that hand earth a two dollar per cubic yard cost, have you not?

A. I think it is correct.

Q. And in all the lines where you have machine excavation of any amount together with hand excavation you have applied for that hand excavation a two dollar per cubic yard figure?

A. That is correct. That is correct in general. I think there may be some sections of some lines that were machine trenched on which the lower figure was applied, but in general on lines on which the job was a machine trenched job the higher figure has been applied.

[fol. 1827] Q. Well, can you point out, Mr. Biddison, any line that has got both machine and hand earth excavation where you failed to apply the two dollar figure?

A. Well, I would have to make an analysis of this to check that; I have not done so.

Q. Well, you know the method you used in all these things, don't you, Mr. Biddison?

A. Yes, but I don't know the variation from that method to suit the particular condition; I don't remember; this work has been some long time ago. I could make a search through here for it, but I can't point it out offhand.

Q. Now, these is between fifteen and twenty million feet of pipe in these lines, isn't there?

A. You mean in the pipe line system, in transmission lines?

Q. Yes, on all transmission lines?

A. Something on that order.

Q. And covered in these sheets you have here?

A. Yes, sir.

Q. Now, do you mean to say, Mr. Biddison, that in these fifteen to twenty million feet of line wherever there is machine rock excavation together with hand excavation that there are not long enough stretches of hand earth excavation anywhere in that large length of pipe line to justify the application of your $1.31 cubic yard cost of hand earth excavation?

A. No, I don't mean to say any such thing as that, and have not said any such thing as that. I do mean to be understood, though, in making an estimate of this sort, that [fol. 1828] the application of these costs per cubic yard has been made on what I believe to be a rational basis and on the average properly applied. I have no doubt in the world that if one spent enough time in trying to get a higher degree of exactness in estimating that he would find that in some cases the price ought to have been higher and in some cases it ought to have been lower; I don't doubt that for a minute.

Q. But in all doubtful cases you have resolved it in favor of the higher price per cubic feet?

A. No. In every case there has been applied a figure to the particular line which under the conditions existing seems to properly fit the line.

Q. But in no case where there is a per cent of machine excavation or a per cent of hard rock excavation or hand earth excavation have you used the lower cost, have you?

A. I don't know without going through this. I think I have. I told you a while ago I could not answer the question without going through these sheets to point it out.

Q. Well, there are not many sheets—can't you make that examination now?

A. No, I can't make that examination in less than an hour and a half or two hours. I have got 158 sheets to analyze to answer the question.

Q. Without looking through any sheets at all, you know the general method you used?

A. Yes. I have explained it and think it is true, but I can't point to particular items to make an analysis with-
[fol. 1829] out going through the 158 sheets before me.

Q. Now, on the lines where there is rock and machine excavation do you have any idea at all as to what the length of line on an average is for the machine excavation part?.

A. On the average?

Q. Yes.

A. No.

Q. Or for the rock excavation?

A. No.

Q. And on the lines where there is hand earth excavation, for the hand earth excavation?

A. Yes; probably about 150 feet.

Q. Well, now, how does it happen that you are able to give us that figure without being able to give a figure for the machine work?

A. Well, I know how those skips come in actual operation. Therefore I know how long they are. Now, the average length of machine work on a stretch would depend upon how long the pipe line was. It might be anywhere from a half a mile to twenty miles.

Q. And the same thing would be true of hand excavation, wouldn't it?

A. Why, no, not at all. The hand excavation would be in those short skips.

Q. Can you refer to those sheets before you, Mr. Biddison, to find out if there are not some lines listed here where there is hand earth excavation and rock excavation in which

[fols. 1830-1834] the hand earth excavation exceeds one-half of it?

A. No; my sheets do not show that information. Therefore, reference to them for information on that point would not reveal anything. That information would have to go back to the notes gotten in the field on those lines.

* * * * * * *

[fol. 1835] E. A. STEINBERGER, recalled as a witness on behalf of defendant, testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. Mr. Steinberger, are you familiar with workmen's compensation insurance and public liability rates applicable to Cross Country Pipe Line Construction and the construction work such as would be encountered in the reproduction of the Lone Star Gas Company's public service property?

A. I am; I keep myself constantly informed on that matter.

Q. Is that a matter which has considerable bearing upon construction costs?

A. It certainly has.

Q. Have you prepared in form to be introduced as an exhibit in this case a compilation showing workmen's compensation and public liability rates as used by the Railroad Commission of Texas in connection with its evaluation of the Lone Star Gas Company public service plant and property, and such rates as were in effect on January 1, 1933, the date as of which Defendant's Exhibit 28—an appraisal—was prepared, and also the rates which are currently in effect?

[fols. 1836-1839] A. I prepared such an exhibit, yes, sir.

Q. Will you produce it, please? (Witness hands document to counsel). Is this the compilation to which you refer?

A. It is.

Mr. Griffith: We offer the exhibit so identified by the witness in evidence.

* * * * * * *

[fol. 1840] (Thereupon the above document was marked as Defendant's Exhibit No. 38.)

* * * * * * *

Q. What first appears at the top of that page, in so far [fol. 1841] as a change in insurance rates is concerned?

A. It says: "Comparison of public liability and workmen's compensation insurance as adopted in 'Railroad Commission of Texas, Gas Utility Docket No. 75, Order of September 13, 1933' and rates in effect as of January 1, 1933 and May 1, 1934."

Q. Now, Mr. Steinberger, the Railroad Commission valued the public service plant and property of Lone Star Gas Company as of December 31, 1931, isn't that correct?

A. That is correct.

Q. And the insurance rate used by the Commission in its findings and valuation was properly taken at $6.18 per $100.00 of payroll?

A. That is correct.

Q. There is no question here——

A. That is, $6.18 for workmen's compensation insurance.

Q. Yes, sir. There is no question here as to the propriety of the application of that rate as of December 31, 1931, is there?

A. No, sir.

Q. That was the rate actually paid by the Company?

A. That was the rate actually paid by the Company, and used by the Company in its determination of unit costs as of December 31, 1931.

Q. But was there an increase in workmen's compensation [fol. 1842] rates from December 31, 1931, to January 1, 1933?

A. There was, as far as the State of Texas is concerned. In the State of Texas the workmen's compensation insurance rate per $100.00 of payroll as of January 1, 1933, increased to $8.31 from the rate in effect December 31, 1931, and adopted in the Railroad Commission's order, and which rate was $6.18, or an increase of $2.13 per $100.00 of payroll.

Q. Now, in the order of the Railroad Commission or in its findings of the value of Lone Star Gas Company's property as of December 31, 1931, did it use and adopt for the State of Oklahoma a workmen's compensation rate of $6.18 per $100.00 of payroll?

A. It did.

Q. What was the trend of insurance rates in so far as workmen's compensation was concerned in the State of Oklahoma from December 31, 1931, up to the present time?

A. The workmen's compensation rate per $100.00 of payroll for the State of Oklahoma decreased to $5.34 as of January 1, 1933, from $6.18 as adopted in the Railroad Commission's order and used also by the Lone Star Gas Company in the evaluation of its public service property as of December 31, 1931, which amounted to a decrease of 84 cents per $100.00 payroll.

[fol. 1843] Q. Now, Mr. Steinberger, in so far as the public liability insurance is concerned, in the State of Texas and in the State of Oklahoma what happened to those rates from December 31, 1931, up to the present time?

A. The public liability insurance rates in the State of Texas were on December 31, 1931, and adopted in the Railroad Commission's order, $4.71—no, $.471 per $100.00 of payroll; those rates decreased to $.170 per $100.00 of payroll, as of January 1, 1933, and increased to $.731 per $100.00 of payroll as of May 1, 1933—1934, that should be.

Mr. Griffith: Mr. Reporter, the witness says there should be a correction made on the exhibit, under subparagraph C of Public Liability $20/40,000 limits in the State of Texas, the date being May 1st, 1934. Will you make the correction, please, in the file copy?

The Reporter: Yes, sir.

(The correction above referred to was thereupon made in the file copy of the exhibit, as requested.)

Q. In other words, from December 31, 1931, to May 1st, 1934, there was an increase of 26 cents per $100.00 of payroll covering public liability insurance in the State of Texas?

A. That is correct.

[fol. 1844] Q. Now, what was true in connection with public liability insurance in the state of Oklahoma?

A. Public liability insurance in the State of Oklahoma based upon twenty and forty thousand dollar liability, and the rate as adopted by the Railroad Commission's order, and also used by the Lone Star Gas Company in the evaluation of its public service property as of December 31, 1931, was 47.1 cents per hundred dollars; as of January 1, 1933,

that rate decreased to 25 cents per hundred dollars; but increased to $1.343 as of May 1, 1934, or an increase of 87.2 cents per hundred dollars between December 31, 1931 and May 1, 1934.

Q. Now, the combined workmen's compensation and public liability insurance for the State of Texas increased from December 31, 1931 up to the present time in what amount?

A. Combined workmen's compensation and public liability insurance per hundred dollars payroll for the State of Texas increased between December 31, 1931 and May 1, 1934, in the amount of $2.39 per hundred dollars payroll; and for the State of Oklahoma it has increased as of December 31, 1931, from $6.651 to $6.683 as of May 1, 1934, or 3.2 cents per hundred dollars of payroll.

Q. Now, are all of the rates shown in Defendant's Exhibit 38 on pages 1 and 2 thereof to be in effect as of May 1, 1934 in effect at this time, that is June 28, 1934?

A. They are in effect at this time due to the fact that I [fols. 1845-1846] have not been furnished any additional information from our insurance company.

Q. Mr. Steinberger, have you prepared in exhibit form to be introduced here a compilation showing the difference in pipe prices as used by the Railroad Commission of Texas in its finding and order in Gas Utilities Docket No. 75 and the prices which prevail as of this time?

A. I have prepared such an exhibit.

Q. Will you produce it, please?

A. Yes, sir.

Q. Is this the compilation to which you refer, being styled on the title cover, "Lone Star Gas Company, Comparison of Steel Pipe Prices and Dresser Couplings, E. A. Steinberger, Valuation Engineer, Dallas, Texas, June 11, 1934?"

A. Yes, sir.

Mr. Griffith: We offer the exhibit so identified by the witness in evidence.

(Thereupon the document referred to above was marked for identification as Defendant's Exhibit No. 39.)

Mr. Griffith: Do you want some time to look it over, Mr. Fitzhugh?

Mr. Fitzhugh: Yes, sir. * * * We object further be- [fol. 1847] cause this attempts to take prices or to state prices and quotations as shown by the N. R. A. Code of

June 11, 1934, Code Number 1116-02, because the Code itself is the best evidence, and the prices contained therein as to that extent are bound to be hearsay. We object for the further reason that it is purely argumentative and proves nothing, has no probative force, and is purely prejudicial.

The Court: I do not find anything in here showing it was priced by the N. R. A. Code. It simply states, "Covered by N. R. A. Code."

Mr. Fitzhugh: It says quotations based on N. R. A. Code.

The Court: It says, "Covered by N. R. A."

Mr. Griffith: Yes, sir; it says, "Covered by N. R. A. Code 1116-02."

The Court: Now, I told you gentlemen that we are not trying this lawsuit according to the N. R. A. Code. I sustained an exception to the pleadings on that point, so we don't want to bring the N. R. A. in here.

Mr. Griffith: If the reference is made to page 1, it will be noted it states, "As quoted by Pipe Mills, June 11, 1934; Covered by N. R. A. Code 1116-02."

Mr. Fitzhugh: One additional ground of objection: the footages per lineal feet of pipe of various sizes as shown [fol. 1848] in this exhibit contain also in addition to the pipe used in intrastate business in Texas the pipe used in interstate commerce in Oklahoma, and we object to the total feet of both the interstate and intrastate property being shown. I think there should be a segregation as to intrastate footages in Texas?

The Court: Let me ask you this question, Mr. Fitzhugh: Could the pipe in Texas be interstate?

Mr. Fitzhugh: It might be interstate in Texas, but not in any consistency with our theory of the case. We take the position that all Texas property is in intrastate business.

The Court: With the understanding we have had, I overrule the objection.

Mr. Griffith: I regret that the words "N.R.A." were used in here. I understood the Court's ruling; but the witness in the preparation of the exhibit wanted to make a reference to the complete source from which the material was obtained. If the Court desires, the N.R.A. reference will be stricken out.

The Court: Suppose we have it understood here that the N.R.A. part will not be considered by the jury at all.

Mr. Fitzhugh: Note our exception.

Mr. Stout: That N.R.A. is just a back-hand method of getting in here what the Court has previously ruled out.

[fol. 1849] The Court: They explained that this was made ahead of time, and they agreed that you may run a line through it.

Mr. Stout: But they bring it in here, and it has no business in that exhibit.

* * * * * * *

Q. Refer please to Defendant's Exhibit 39. This exhibit shows not only comparison of the steel pipe prices, but a comparison of the Dresser Couplings prices as adopted and used by the Railroad Commission of Texas in its determination and evaluation of the property as of December 31, 1931, and the prices which prevail as of this date?

A. That is correct.

Q. Refer please to page 1 of the Exhibit. Except in respect of 8⅝ inch pipe listed at the bottom of that page, was there a substantial increase in respect of all other sizes of pipe listed on the page?

[fol. 1850] A. There has been a substantial increase as indicated in the last column—column 8—headed "Difference".

Q. Take a few typical examples, Mr. Steinberger, and point them out where there has been some drastic changes in price?

A. The first item being a 20-inch, A. O. Smith weld pipe, and having a weight of 59.230 pounds per foot, the price as used and adopted in the Railroad Commission of Texas Gas Utilities Docket No. 75, opinion and order of September 13, 1933, is $1.8646; the price as quoted by the mill, f.o.b. mill, as of June 11, 1934, is $2.1660 per foot, there being a total of 536,523 lineal feet of that pipe, amounting to a net increase of $161,708.04.

Q. Now, Mr. Steinberger, the largest amount of 20-inch pipe of the Company—of A. O. Smith weld pipe—is found in the line 2nd B extending from Petrolia to a point between Dallas and Fort Worth?

A. That is correct.

Q. And the increase in the—or the difference between the price used by the Railroad Commission in its evaluation of that pipe, and the price current on that pipe in that line alone amounts to $161,708.04?

A. Yes, sir.

Q. Now, refer please to the 18-inch pipe, weighing 53.223 pounds per foot. Has there been a considerable increase in the price of that pipe over the price as used by the Railroad Commission in the evaluation of the property?

[fol. 1851] A. Yes, sir; there has been an increase from 1.4078 to 1.8498, or an increase of 44.2 cents per lineal foot.

Q. Expressed as a percentage, what is that?

A. Approximately 24 per cent increase.

Q. Now, Mr. Steinberger, take the 16-inch pipe, weighing 47.215 pounds per foot, has there been a considerable increase in the price of that pipe over and above the determined price as set by the Railroad Commission in its evaluation of the property?

A. There has been an increase from 1.2491 to 1.6017 per lineal foot.

Q. And as applied to the total amount of pipe in the system of the Lone Star Gas Company—that is, pipe of that particular size and weight—does that account for an increase of $255,854.32?

A. That is correct.

Q. In connection with the 10¾ inch pipe, weighing 31.445 pounds per lineal foot, is there a sizable amount of that pipe in the system?

A. There is a total of 1,917,929 lineal feet of that pipe in the system as of December 31, 1931.

Q. Now, the Railroad Commission of Texas in its evaluation of the property used what price per foot for that pipe?

A. They used a price of $.7693 per lineal foot.

Q. And what is the price prevailing as of this date?

A. The price quoted to me as of June 11, 1934, is $.8944 per lineal foot.

[fol. 1852] Q. Now, Mr. Steinberger, throughout Defendant's Exhibit 39 have you applied prices covering large lot purchases?

A. I have.

Q. This increase from 76.93 cents to 89.44 cents per lineal foot is how much of an increase?

A. It is an increase of $239,932.92.

Q. As applied to all of the pipe of that character in the system as of December 31, 1931?

A. That is correct, as applied to the 10¾ O.D. 31.445 pounds per lineal foot pipe.

Q. Mr. Steinberger, on page 2, of Defendant's Exhibit 39, is it shown that the Company has in its system a very

sizable amount of 6-inch pipe weighing 18.974 pounds per lineal foot?

A. Yes, sir; there was as of December 31, 1931, 2,525,456 lineal feet of 6-inch, 18.974 pound per foot plain end single random length pipe in the system.

Q. Now, what was the price at which the Railroad Commission evaluated this pipe?

A. The Railroad Commission of Texas evaluated this pipe at 40.82 cents per lineal foot.

[fol. 1853] Q. What is the current price as of this date?

A. The price current as of June 11, 1934, is 51.48 cents per foot.

Q. Representing how much increase over the Commission's price?

A. An increase of 10.66 cents per lineal foot, or a total of $269,213.61.

Q. Now, over all do you show on page 2 of Defendant's Exhibit 39 that the price current as of this date on the steel pipe in the Lone Star Gas Company system was $3,007,785.02 over and above the price at which that pipe was evaluated by the Railroad Commission of Texas in Gas Utilities Docket No. 75 and its finding and order dated September 13, 1933?

A. That is correct; and in that connection that increase is based upon the quantities per lineal foot of the Lone Star Gas Company system as of December 31, 1931, or as adopted by the Railroad Commission's order.

Q. On page 3 do you show a change in prices on threaded and coupled pipe?

A. I do.

Q. As between the prices used by the Railroad Commission of Texas in its opinion and order dated September 13, 1933, in Gas Utilities Docket No. 75 and the prices which are current as of this date?

A. That is correct.

Q. Showing a total difference or an increase in price as of this date in what amount for the various sizes of pipe?

A. For the various sizes, being a total of $2,441,437 lineal feet as of December 31, 1931, applying the prices as of June [fol. 1854] 11, 1934, amounts to an increase of $174,038.96.

Q. Now, Mr. Steinberger, taking the plain end pipe and the threaded and coupled pipe, what is the grand total of the increase in price as of this date over the pipe prices

used by the Railroad Commission in its opinion and order heretofore referred to?

A. That figure is found on page 3 of Exhibit 39, the last item under column 8, in the amount of $3,181,824.88.

Q. Now, Mr. Steinberger, what have you set forth on page 4 of this exhibit?

A. Page 4 is a comparison of dresser coupling prices as adopted in Railroad Commission of Texas Gas Utilities Docket 75, opinion and order of September 13, 1933, and as quoted June 11, 1934. Column 1, sizes of couplings; column 2, quantities in the Lone Star Gas Company system as of December 31, 1931; column 3, unit cost as adopted by the Railroad Commission of Texas; column 4, total amount, that being the unit cost multiplied by the quantities; column 5, unit cost per dresser coupling quoted to me June 11, 1934; column 6 being the amount of column 2 multiplied by column 5, and column 7 being the difference between the amount shown in column 4, the total amount adopted by the Railroad Commission of Texas in its opinion and order, and the total value of dresser couplings as of June 11, 1934.

Q. Summarizing your testimony, Mr. Steinberger, is it then true as reflected by Defendant's Exhibit 39 that in steel pipe dresser couplings alone the prices current as of [fol. 1855] this date are $3,400,000 in excess of the prices which are applied by the Railroad Commission of Texas in its opinion and order to the public service plant and property of Lone Star Gas Company?

A. That is correct, Mr. Griffith, the exact amount being $3,409,626.91. That amount is based upon the quantities of material—that is pipe dresser couplings—as of December 31, 1931.

Q. Mr. Steinberger, has there been any increase in labor prices since December 31, 1931, in respect to rates of pay—hourly rates of pay?

A. Yes; there has been an increase in the hourly rate of pay of common laborers.

Q. From what price to what price?

A. From 35 cents per hour to 40 cents per hour, which the company is paying and has been paying since September, 1933.

Q. And that is the current price or going wage for labor costs since September, 1933?

A. That is the current wage now being paid by the company for common labor.

Q. Now, Mr. Steinberger, since Defendant's Exhibit 28 was prepared, your exhibit would indicate that there have been sizable increases in rates of pay for labor, workmen's compensation and public liability insurance rates, in prices for steel pipe dresser couplings?

A. That is correct.

Q. In order that those prices which have increased, cov-
[fol. 1856] ering those items, may be applied and utilized in connection — Defendant's Exhibit 28, have you prepared a compilation in form to be introduced as an exhibit here, reflecting those increases in prices and showing the effect thereof on the total evaluation based on reproduction cost new as set forth in Defendant's Exhibit 28?

A. I have.

Q. Is this the compilation to which you refer, Mr. Steinberger, being styled on the title cover "Lone Star Gas Company—Appraisal—Cost of Reproduction New—May 1, 1934—Public Service Plant, Property and Business"?

A. It is.

Q. "E. A. Steinberger, P. McDonald Biddison, Ed C. Connor, Engineers, Dallas, Texas"?

A. It is.

Mr. Griffith: We offer the compilation so identified by the witness in evidence.

Mr. Stout: Your Honor, for the purpose of the record, we object to it because there is no segregation shown as between Texas and Oklahoma. That is true?

The Witness: That is correct.

The Court: The objection is overruled.

Mr. Stout: Note our exception.

(Thereupon the compilation above referred to was marked as Defendant's Exhibit No. 40.)

[fol. 1857] Q. Now, Mr. Steinberger, please relate to the jury in a general way the method that was adopted in the preparation of this exhibit in the matter of applying the increase in prices covering labor rates, workmen's compensation and public liability insurance rates, current prices for steel pipe and dresser couplings to the appraisal which we know in evidence here as Defendant's Exhibit 28.

A. In the preparation of Defendant's Exhibit 40 I merely attempted to re-work or apply the current rates of pay for common labor, namely, forty cents per hour, as well as

present prices for items entering into the so-called Transmission Line Equipment, that classification of property constituting approximately 70 per cent of the total value of the physical property as set forth in Defendant's Exhibit 28.

Q. You have not attempted to incorporate in this exhibit any small increase which might have taken place like a few thousand fittings in the property, or other miscellaneous items of property; such as lumber, brick or anything of that sort?

A. I have not; and by reference to page 7 of Exhibit 40, which is a comparative statement of the reproduction cost new as of January 1, 1933, and May 1, 1934, of the Transmission Line Equipment, it will be noted that the last item on that page, being Miscellaneous, which item covers small fittings and other items, such as gate boxes, bridges and so forth, I have used the same figure of May 1, 1934, evalua-
[fol. 1858] tion as found for January 1, 1933. Under the first item found on that page, being pipe, f. o. b. Railroad Siding, it will be noted that the price as of January 1, 1933, is $20,954,471.01, as against May 1, 1934, which price is $22,060,123.55, or a difference of $1,105,652.54, or, in other words, an increase in price of pipe f. o. b. railroad siding between January 1, 1933, and May 1, 1934. Now, referring to the previous exhibit—Defendant's Exhibit 39—which brought the price of pipe down to June 11, 1934, this figure should be corrected in the amount of approximately $309,693.44.

Q. Now, Mr. Steinberger, as of May 1, 1934, what discount were the mills allowing for cash in large purchases of steel pipe?

A. As of May 1, 1934, the mills were allowing one-half of one per cent for prompt payment or cash.

Q. As of June 11, 1934, what were the mills allowing for prompt payment for cash discount?

A. As of June 11, 1934, the mills allowed two per cent for cash or prompt payment.

Q. Therefore, to the prices as set forth on page 7 of Defendant's Exhibit 40, in the amount of $22,060,123.55, covering the cost of pipe as of May 1, 1934, there should be applied an additional discount of one and a half per cent?

A. There should be applied an additional discount of one and a half per cent to the f. o. b. mill price.

Q. The price quoted here is the price f. o. b. railroad siding from which the pipe would be hauled and strung?

A. That is correct. Now, under construction cost, the [fol. 1859] difference of $352,574.45, being an increase based primarily upon the common labor rate of 35 cents per hour paid as of January 1, 1933, and the common labor rate of 40 cents per hour paid as of May 1, 1934, with a fractional increase in the workmen's compensation and public liability insurance, resulting in a total cost of pipe in place as of January 1, 1933, of $27,941,145.35 as against May 1, 1934, in the amount of $29,399,372.34, or an increase over the January 1, 1933, evaluation in the amount of $1,458,226.99. The next item, being the cost of welding, the evaluation as of January 1, 1933, being $1,282,324.76, and as of May 1, 1934, giving effect to the increase in the rate of pay to common laborers from 35 to 40 cents, is $1,273,603.44, or a decrease as compared with January 1, 1933, in the amount of $8,721.32, that decrease being due solely to a decrease in the prices of materials used in the welding of lines, such as acetylene, carbide and oxygen. The next item, being Dresser Couplings, the evaluation for this class of property as of January 1, 1933, is $1,570,440.29, and as of May 1, 1934, $1,700,316.34, or an increase over January 1, 1933, in the amount of $129,876.05, amounting to a total evaluation of the Transmission Line Equipment as of January 1, 1933, in the amount of $31,894,439.40. The evaluation as of May 1, 1934, giving effect to the various increases and decreases heretofore testified to, is $33,473,821.12, or an increase over the January 1, 1933, evaluation in the amount of $1,579,381.72.

[fol. 1860] Q. Now, on the following pages—that is, pages 8 and 9—have you shown a detail of the reproduction cost new, January 1, 1933, of the various pipe line systems, commencing with "A" and ending with the T. P. U. system?

A. That is correct. Pages 8 and 9 set forth in detail various classifications entering into the Transmission Line Equipment. Page 6 is a comparative summary of the total reproduction cost new segregated by the various systems entering into the Transmission Line Equipment of the Lone Star Gas Company system.

Q. Now, having determined that the direct structural costs of the property in connection with the Transmission Line Equipment had increased to the extent to which they

have increased, did you then make an application of those increased costs as of May 1, 1934, to the public service plant and property as of January 1, 1933, and as set forth in Volumes 1 to 8, inclusive, of Defendant's Exhibit 28?

A. That is correct.

Q. Refer, please, to the summary in the fore part of Volume 1 of Defendant's Exhibit 28. What does it show as the grand total of the reproduction cost new of the public service plant, property and business of the company as of January 1, 1933?

A. It shows a total evaluation of $73,983,405.57.

Q. And as reflected by page 1 of Defendant's Exhibit 40, is that amount increased to $75,562,787.25 by reason of these increases in labor costs, workmen's compensation and public liability insurance, and the increase in price for steel [fol. 1861] pipe and dresser couplings?

A. That is correct.

Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Steinberger, you have in front of you, do you not, the order of the Railroad Commission in Gas Utilities Docket No. 75?

A. I have.

Q. Will you refer to that order and turn to the page and cite to the jury the line wherein you find that the Railroad Commission took $6.18 as workmen's compensation insurance rate per hundred dollars of payroll?

A. Mr. Fitzhugh, that figure does not appear anywhere in the Railroad Commission's order, but due to the fact that the evaluation used by the Railroad Commission is based on the unit cost as used by Mr. Connor and myself in the valuation of the public service property of Lone Star Gas Company as of December 31, 1931, the Commission adopted the units used by us.

Q. Will you cite the page in the opinion and order that indicates that the Commission adopted $6.18 per hundred dollars of payroll?

A. It does not so appear, but the unit cost used by Mr. Connor and myself was adopted by the Railroad Commission.

Q. Point out where the Railroad Commission adopted any of your unit prices for the purpose of getting this in-

[fol. 1862] surance rate—refer to the order and pick out, for instance, on excavation, which is one of the bigger items in the appraisal, findings of the Railroad Commission that would show that they took $6.18 per hundred dollars of payroll on workmen's compensation insurance?

A. That is correct, possibly. On excavation and backfill the Railroad Commission did not adopt our unit cost, but if you refer to pages 14 and 15 of the Railroad Commission's order——

[fol. 1863] Q. Well, wait. Now, on this excavation, isn't that about the biggest single item in the thing, so far as labor is concerned?

* * * * * * *

A. That is correct.

Q. Now, what did the Railroad Commission use for excavation as applied to the labor for excavation for workmen's compensation insurance per $100.00 of payroll, as shown by the Commission's order?

A. The Commission's order does not give a breakdown of that item.

Q. Now, you referred to something else where the Com-[fol. 1864] mission's order does give a basis for your $6.18, did you not?

A. Mr. Fitzhugh, I am referring to the fact that the Commission adopted our unit costs, and in adopting one set of unit costs they adopted one rate of insurance, and in adopting another set of unit costs they adopted another rate of insurance.

Q. All right. Now, read the passage you started to read a minute ago.

A. Pages 14 and 15, for instance under the item of Other Transmission System Land, Including Improvements, the Commission adopted the figure found by Mr. Connor and myself; on Other Transmission System Leaseholds, Including Improvements, the Commission adopted the same figure——

Q. Now, wait—wait. Take one at a time. As to the Land, is there any labor on the land?

A. No; no labor.

Q. There is no workmen's compensation insurance in connection with land, is there?

A. No, but on improvements——

Q. All right. Now, what is there said about improvements to show what unit costs the Commission adopted?

A. They adopted our figures as set forth in Exhibit 6, page 873. And in connection with Other Transmission System Leaseholds, Including Improvements, Exhibit 6, page 883, [fol. 1865] and Transmission System Measuring Station Structures, Exhibit 6, page 898.

Q. Now, are you through?

A. No, I can cite you a dozen more items, Mr. Fitzhugh.

Q. Well, to get the workmen's compensation insurance rate you had to dig back into your own appraisal and hunt up your own insurance rates, didn't you?

A. No, sir.

Q. Well, does that order show any rate that the Commission adopted for insurance?

A. It does not, but it shows they adopted the insurance rates included in the valuation as made by Mr. Connor and myself.

Q. Well, in order to find this $6.18, you had to go back and dig into your and Mr. Connor's insurance rates, didn't you?

A. I went through Mr. Connor's and my insurance rates, yes.

Q. And that is where you got this figure of $6.18 that you say the Railroad Commission found.

A. They adopted our figure. By adopting the total valuation on one item they automatically adopted that insurance rate.

Q. Why, Mr. Steinberger, don't you know, as a matter of fact, as shown by the order of the Railroad Commission [fol. 1866] right there in front of you, that what the Railroad Commission adopted was the final valuation and the result of the——

A. The exact valuation adopted by Mr. Connor and myself, yes, sir.

Q. And they might have thought it was too high on some of the things that went to make that final cost and too low on the others; but the only thing they adopted was the final result, isn't that true?

A. They adopted the result, yes, Mr. Fitzhugh; that is correct.

Q. Now, you don't know from that whether they took insurance rates at one rate or another, do you?

A. Well, no, I don't know whether they went ahead and didn't use any insurance rate at all, and added the difference on the value of the land.

Q. The Railroad Commission listened to testimony for eight months, didn't it, for various witnesses?

A. Ask the question again.

Q. Now, all that order shows is that for certain types of property they took a certain amount, and that coincides with the amount shown by your appraisal, isn't that right?

A. That is correct.

Q. Now, is there anything in the Commission's order to show what they undertook to decide was a correct insurance [fol. 1867] rate, if they did decide that.

A. The Commission's order does not specifically set forth the exact rate of insurance that was adopted by them, but in numerous cases throughout their opinion they have used the identical over-all costs arrived at by Mr. Connor and myself.

Q. Isn't it a fact, Mr. Steinberger, that there is not a single sentence or phrase in the whole order that makes any mention of workmen's compensation insurance rate per $100.00 of payroll?

A. It doesn't mention the rates used, but I can cite you hundreds of instances where the Commission adopted our unit costs or our over-all costs for certain classifications of property.

Mr. Griffith: And which unit costs included this $6.18 per $100.00 of payroll as the cost of workmen's compensation insurance?

A. Yes, sir, that is one of the bases of our unit costs.

Q. Now, I will ask you this question, if during the progress of the hearing before the Railroad Commission it wasn't testified to before the Commission by yourself that the per $100.00 of payroll had gone up, and was over and above the $6.18?

A. It went up on January 1st, 1933, and I understand that during the long period of my cross examination it had in- [fol. 1868] creased even at that time.

Q. That was in testimony before the Railroad Commission, wasn't it?

A. Yes.

Q. And if the Railroad Commission had adopted your figures they would have adopted the higher rate that you testified to, wouldn't they?

A. If they would have adopted the higher rate they would have gotten a different figure for certain items and classifications of property than those set forth in their opinion.

Q. By the time we had gotten through that eight months hearing there were other things that had gone down in price —that is a fact, is it not, and was testified to at the hearing?

A. That may be true, yes.

Q. Where you find public liability rates as shown in your exhibit which you say comes from the Railroad Commission, you did the same thing, didn't you—that is, you went back into yours and Mr. Connor's appraisal and dug out whatever insurance rates were used in that appraisal, and said then that the Railroad Commission had used those?

A. Well, I didn't have to dig them out; I knew them by heart.

Q. Well, that's the source of them, isn't it?

[fol. 1869] A. That is correct.

Q. You didn't get that from the Railroad Commission's order?

A. No, sir, it doesn't appear there, but the final answer I got from the Railroad Commission's order.

Q. And on this item, just as well as on the workmen's compensation insurance, it is a fact that there were some things that went up and some things that went down, and the facts as to those prices were in evidence before the Railroad Commission during that eight months hearing?

A. There has been a fluctuation in prices, yes.

Q. And all that they took was the final result on the class of property? You don't know whether they took a certain insurance rate or not, do you?

A. No, I don't. All I know——

Q. As to public liability——

A. All I know is that they got the same figure as Mr. Connor and I did; in fact, they got the exact figure Mr. Connor and I arrived at in the development of our unit costs.

Q. Now, on excavation, which you admit, Mr. Steinberger, has the most labor of anything in the appraisal,—you know very definitely that the Railroad Commission did not accept your and Mr. Connor's unit prices, do you not?

[fol. 1870] A. They didn't adopt it on excavation and backfilling, but they adopted our unit cost on hauling and

stringing, on welding, and on laying and testing, on aligning for welding—all these unit costs carried the insurance rates that I testified to before, of $6.18 for workmen's compensation and $.471 for public liability.

Q. The Railroad Commission adopted—refused to adopt your cost on hauling, did it not?

A. They adopted my basic cost on hauling, and only decreased the ten per cent contingencies which I had; but my basic cost for hauling included $6.18 for workmen's compensation insurance.

Q. But there is no human being, including yourself, Mr. Steinberger, is there, that knows what their insurance rates were?

A. Well, at what time—when?

Q. As found in the Railroad Commission's order, and as applying to excavation.

A. They are not set forth, Mr. Fitzhugh, in the Railroad Commission's order, but if the Railroad Commission adopted our unit costs it must have used the same insurance rates.

Q. Well, that is what you say. That is not what the order says, is it?

[fol. 1871] A. The order adopts our figure——

* * * * * * *

[fol. 1872] Q. Now, Mr. Steinberger, I will ask you this question, are you willing to state under oath that there is a single statement anywhere in the Railroad Commission's order that would allow you with certainty to find anywhere the rates for insurance that they used, if they used any?

A. Mr. Fitzhugh, there is no such statement—that is, the exact rate of insurance as used by the Commission, set forth in their opinion; but in view of the fact that they have adopted the identical figure for certain costs and certain classifications of property as found by Mr. Connor and myself, where we have used that insurance rate of $6.18 for workmen's compensation and $.471 for public liability insurance, they must have used that rate of insurance as testified to, because that is the insurance rate that applies to anybody that must have insurance for cross country pipe line construction.

Q. Well, in order for you to get the $6.18 for workmen's compensation insurance you had to go further than the Railroad Commission's order, and assume that they

[fol. 1873] adopted your figures, and assume further that they adopted your rates for insurance, didn't you?

A. That is the rate I used.

Q. And that does not show in the Railroad Commission's order?

A. As I said before, it does not, but I have used in the determination of certain items of property the insurance rates as testified to, and the Commission adopted my figures, as is clearly set forth on page 14 of the opinion and order (Reading): "The following reproduction cost new figures as of December 31, 1931, for the several items listed are taken from the appraisal submitted by the Company witness Steinberger and are accepted without discussion." They accepted one hundred per cent the evaluation as prepared by myself and Mr. Connor.

Q. Well, does that say anything about insurance?

A. It does not, but if the Commission would not have accepted the same insurance rates they would have arrived at a different answer.

Q. They might have accepted, as far as you know, $20.00 per $100.00 of payroll, with appropriate corrections as to other items, and have still come out at exactly the value that you show for Other Transmission System Land, Including Improvements, as shown by Exhibit 6; Other Transmission System Leaseholds, Including Improvements, as [fol. 1874] shown by Exhibit 6, and so on, as detailed on pages 14 and 15 of the Commission's order, isn't that right?

A. That may be correct, but they would have to juggle all kinds of figures in the entire opinion.

Q. How much do these items you have referred to on pages 14 and 15 amount to?

A. Those probably amount to half a million dollars.

Q. And how much was the labor on those?

A. I couldn't tell offhand. If you refer to page 26, under Compressing Stations, amounting to approximately five million dollars, that is the exact reproduction cost that was adopted, with the exception of certain deductions on valves for compressor engines; the same applies to hauling and stringing, aligning for welding, laying and testing, and construction of telephone systems.

Q. But the Commission did not find it necessary in their order to find any insurance rates for that either, did they?

A. They did not, but they accepted my figure.

Q. All you know about what the Commission did is the final result which it came to, isn't that a fact?

A. I know where the results came from; they came from my figures, where they adopted them. I am certainly [fol. 1875] familiar with them.

Q. Turn to your Exhibit 39. In your column "Quotations June 11, 1934, f.o.b. mill", where you show 20-inch A. O. Smith 59.23 pounds at a unit cost of $2.1660 per foot,—where did you get that price?

A. That price was furnished to the Lone Star Gas Company's Purchasing Department by A. O. Smith Company.

Q. Do you have a quotation sheet, letter, or any other data showing that price, here?

A. I do not. I was furnished that figure by the Purchasing Department of the Lone Star Gas Company.

Q. Well, have you got the quotations on any of this pipe?

A. I do not have those quotations, Mr. Fitzhugh.

Q. Can you swear of your own knowledge, Mr. Steinberger, under oath, that those prices are correct in that column?

A. I will not swear under oath that those prices are correct, but they were furnished to me by the Purchasing Department—Mr. Richey, and if necessary he can be here to testify.

* * * * * * *

[fol. 1876] Q. Where did you get those prices shown in your Railroad Commission Gas Utilities Docket No. 75 column, where you show for this same size of pipe a price of $1.8646 per foot?

A. That is the price—or rather the difference between the prices used by the Lone Star Gas Company, or rather [fol. 1877] by Mr. Connor and myself in our valuation, and the deductions made by Mr. Freese to our report; the deduction amounted to twenty-five and two-hundredths cents per lineal foot.

Mr. Griffith: And the Commission adopted Mr. Freese's prices?

A. The Commission adopted Mr. Freese's pipe prices, yes, sir.

Q. What was the price used in the Company's appraisal for this same size of pipe?

Mr. Griffith: You mean before the Commission, Mr. Fitzhugh?

Mr. Fitzhugh: Yes, sir.

A. Two dollars and eleven and forty-eight hundredths cents.

Q. Is that f.o.b. Texas common points?

A. No, sir, that is f.o.b. mill.

Q. Are you sure that is the correct price?

A. Yes, sir; in other words, we arrived at the figure set forth in Column 4, by taking our mill price and deducting from it the deductions made by Mr. Freese in his exhibit introduced before the Railroad Commission in arriving at the pipe prices, and which prices were used by the Commission in their opinion.

[fol. 1878] Q. Where did you find the list prices used for dresser couplings used by the Railroad Commission in its order?

A. The Railroad Commission's order and opinion does not set forth the individual unit costs that they adopted for dresser couplings.

Q. So you had to go further and assume something else, in addition to the statements in the Commission's order, before you could get these figures, didn't you?

A. The Commission adopted the same costs for pipe line equipment——

Q. Well, you had to assume——

A. —as found by Mr. Connor and myself. I assume the Commission used the same figures.

Q. You had to assume that the Commission adopted your figures?

A. Yes, sir.

Q. Does the Commission's order state that they adopted your dresser coupling figure?

A. It don't specifically state that they adopted our dresser coupling figures, but they adopted our miscellaneous pipe line figures, which include dresser couplings.

[fol. 1879] Q. How much did you say, Mr. Steinberger, pipe had gone down since May 1, 1934—one-half of one per cent.

A. One-half of one per cent on the mill price—one and a half per cent of the mill price, which in other words is an addition of one and a half per cent—which represents the cash discount, or discount for prompt payment.

Q. How much is that?

A. Approximately $309,693.00.

Q. In your final value, or grand total, shown on page 1, of Exhibit 40, is that $309,693.00 included in your total?

A. It is included, because that evaluation is made as of May 1, 1934, and the addition of 1½ per cent discount did not become effective until June 11, 1934.

Q. Since January 1, 1933, threaded and coupled pipe has gone down materially, has it not?

A. I cannot answer that offhand, Mr. Fitzhugh. I don't have any tabulations on that before me.

Q. Well, that is the type of equipment—type of pipe used on field lines, isn't it?

A. That is correct.

Q. You don't make any revaluation of field-lines?

A. No; I don't make any revaluation of field lines. There is a very small amount of it, and the decrease in price in the threaded and coupled pipe would have been offset by the increase in labor costs.

Q. But that is a type of pipe that has gone down; but it [fol. 1880] is the sort of thing you have left out of this statement, isn't it?

A. I merely made a revaluation of the transmission line equipment, and field line equipment is a very small part of the overall total.

Q. On page 7, of your Exhibit 40, you find the construction costs from May 1, 1934 on transmission line equipment to be $7,339,248.79. Where did you get that figure?

A. That figure was arrived at by taking the unit costs as determined by Mr. Biddison in his valuation of January 1, 1933, and applying to those unit costs the increased labor cost. In other words, wherever he used 35 cents for common labor, I used 40 cents for common labor.

Q. Can you break down this total amount by lines?

A. This $7,339,248.79?

Q. Yes.

A. No; I didn't work it up by lines.

Q. Well, how did you work it up?

A. I can break down the overall costs—the total of $33,473,821.12 by lines.

Q. Well, what I mean, I would like to know how you found this construction cost—you didn't find it by lines, did you?

A. In the same manner Mr. Biddison found his figure, by individual lines, individual performances, and individual unit costs.

[fol. 1881]. Q. You just took Mr. Biddison's figures and applied them to different labor rates?

A. To different labor rates and different insurance rates.

Q. So to find out by lines you would have to go back to Exhibit 28 and find out what Mr. Biddison used on say, Line A, and break down his unit costs to inquire into the correctness of your figure?

A. I can give you the exact cost by line based on this 40-cent rate as of May 1, 1934.

Q. Well, what would it be on Line A?

A. On Line A, the total cost of pipe in place as of January 1, 1933, was $2,782,450.98; May 1, 1934, $2,991,067.93; or an increase of $208,616.95. Welding costs, January 1, 1933, $118,072.58; May 1, 1934, $117,417.99; or a decrease of $654.59. Dresser Couplings, January 1, 1933, $167,175.61; May 1, 1934, $190,765.77; or an increase of $14,590.16. Miscellaneous fittings, January 1, 1933, $30,899.88; the same figure was used for May 1, 1934. Special Construction, $62,476.04, as of January 1, 1933, and the same figure for May 1, 1934. Total Miscellaneous Items, Fittings, and so forth, $93,375.92, for both January 1, 1933, and May 1, 1934; or a total for Line A as of January 1, 1933, in the amount of $3,170,075.09; as of May 1, 1934, $3,392,627.61; or an increase on Line A between January 1, 1933 and May 1, 1934, in the amount of $222,552.52.

Q. Now, this $208,616 includes both the pipe and the [fol. 1882] labor increase, does it not?

A. Yes; it does.

Q. Now, how much of that amount is labor?

A. I don't have it segregated between labor—I can give you that by giving you each item individually by unit costs per foot, but it is a long job.

Q. Well——

Mr. Griffith: In other words, you can give it in unit costs per foot, but you can't divide the total amount?

A. That is correct.

Q. Mr. Steinberger, to find your construction costs you had to make a separation between the material and the labor, didn't you?

A. Mr. Fitzhugh, for the preparation of page 7, of Exhibit 40, what we did, we arrived at the total cost of pipe in place as of May 1, 1934, in the amount of $29,399,372.34; deducted from that figure the total cost of pipe f. o. b. railroad siding, in the amount of $22,060,123.55, and arrived at a construction cost in the amount of $7,339,248.79. But we have prepared a separate unit cost for each line in order to arrive at a valuation as of May 1, 1934.

Q. On the 18-inch portion of Line A what was the increased cost of construction per foot?

A. In the evaluation, unit cost arrived at by Mr. Biddison as of January 1, 1933, the total installation cost on Line A, [fol. 1883] 18-inch, having 59.023 pounds per foot weight, being 58.6864 cents per hundred lineal feet, plus 2½ per cent for omissions and contingencies, amounting to 60.1536 per hundred lineal feet. The installation costs for the same size and weight of pipe evaluated as of May 1, 1934 is 63.6393 cents plus 2½ per cent for omissions and contingencies, or a total of 65.2302 cents per hundred lineal feet, or an increase of 5.0766 cents per hundred lineal feet.

Q. What was the increase per foot in hauling?

A. 38.92 cents per hundred lineal feet, applying to the 53.2223 pounds per lineal foot.

Q. When you were last on the stand, Mr. Steinberger, you were asked for a classification of the part of line B where it branches off from 2nd B, north of Rhome, Texas. Do you have that now?

A. Yes.

Q. This is for what length of line?

A. Do you want a segregation now between the north end and the south end, or what length of line do you desire, Mr. Fitzhugh?

Q. The segregation for both ends.

A. All right. The north end from Station O plus O-O, to Station 3975 plus O-O——

Q. Is that the station right north of Rhome?

[fol. 1884] A. That is correct—where Line 2nd B cross over Line B and goes east to Birdville.

Q. And Station O-O is at Petrolia, Texas?

A. That is correct.

Q. All right.

A. Machine excavation, 62.72 per cent; hand-earth excavation, 10.80 per cent; rock excavation 4.95 per cent; or a total of 78.47 per cent.

Q. Now, then, beginning at the station on the southernmost section of that part of the line proceed on to the end of the line?

A. From Station 3970 plus O-O to the end of the line, which is at North Fort Worth, machine excavation 14.2 per cent; earth excavation 1.17 per cent; and rock excavation 6.16 per cent; or a total of 21.53 per cent.

* * * * * * *

Q. Now, the machine excavation on the north end of this line was 62.72 per cent of the whole amount of excavation on the line?

A. The whole amount of machine excavation 62.72 per [fol. 1885] cent of the total excavation, yes, sir.

Q. And the 10.8 per cent for hand excavation on the north end is 10.8 per cent of the excavation on the whole line, is it not?

A. Yes, sir.

Q. Now, if you regarded simply the north part as an independent line of its own, what would the per cents for these classifications figure out?

A. Taking the north end of the line from Petrolia to Station 3975 plus O-O, machine excavation is 79.5 per cent; hand-earth excavation, 13.8 per cent; and rock excavation 6.7 per cent.

Q. Now, this portion of the line we have been talking about as the north portion is the part of the line that follows right along with line 2nd B—they are in the same right of way?

A. No; not in the same right of way.

Q. Well, they are only about twenty or thirty feet apart, aren't they?

A. I think they are sixty to seventy-five feet apart. The Government line goes between those lines part of the way.

Q. Well, they are never more than sixty or seventy feet apart?

[fol. 1886] A. About that distance.

Q. In most places, they are right along together, are they not, Mr. Steinberger?

A. No, sir; that would not be good construction practice, Mr. Fitzhugh.

Q. And in some places aren't they as close as twenty or thirty feet apart?

A. No; they are at least sixty to seventy-five feet apart, because twenty feet would not be good construction practice, because if there was a blow-out on one line it would endanger the other line.

[fol. 1887] Q. What was the classification of excavation as actually found on Line Second B?

A. Second B, classification of excavation, machine 90.10 per cent; hand excavation, .83 of one per cent; rock excavation 9.07 per cent.

Q. Now, by the barring method you determined the percentages given on Line B, didn't you?

A. Yes, sir.

Q. By actual measurement under actual construction conditions you found the per cent on Second B?

A. Yes, sir.

Q. In one case by the barring method you find that the hand excavation is 13.8 per cent, and by actual test on Second B it shows only eight-tenths of one per cent?

A. Mr. Fitzhugh, the figure of 13.8 per cent is only between Petrolia and crossovers of Line B, 16 inch; whereas the .83 of one per cent is on the entire line of Second B. I want to get that straight.

Q. If you had put all the hand excavation on Line Second B, even the part on the southern part of the line where it branches off at Rhome, into the hand excavation classification, you still would have only one and a quarter per cent for hand excavation on the whole line?

A. That is correct; yes, sir.

Q. That is one and a quarter per cent as opposed to 13.8 per cent as found by the barring method?

A. Yes, sir.

[fol. 1888] Q. To make the determination by the barring method, I believe, you made tests every five hundred feet of line, did you?

A. Yes, sir.

Q. How could you tell by the use of the barring method where you would have to use hand earth excavation?

A. From the general contour of the soil.

Q. Well, you dropped off the line over a few feet and dropped down a bar, didn't you, to find whether there was rock or whether it was soil?

A. Well, the bar was driven at the side of the ditch to determine the classification, whether it was rock or soil.

Q. What instructions did you give the men working in making the bar test as to the classification they should give

for earth—how would they determine about the earth proportion?

A. They would use their experience and their judgment, whether it was accessible to a ditching machine to excavate that portion of the land.

Q. If they thought the ground was too rough for a machine they classified it as hand earth?

A. If it was too rough or not accessible for a machine, yes.

Q. Now, how did your men determine the rock excavation?

A. They determined from the backfill whether there was any solid rock in that vicinity, and when there was no rock on top of the soil, of course, they drove the bar down to determine it. If the rock was only in thin ledges, it was considered as soil and not as solid rock.

[fol. 1889] Q. Now, as to the backfill, you are talking about the cover over the trench?

A. That is correct.

Q. All the rock in that backfill has been broken up?

A. Yes, but you can determine whether it was broken up in solid rock or in thin ledges.

Q. You can tell that?

A. Yes, sir.

Q. You could not tell, could you, Mr. Steinberger, by looking in the backfill whether the rock broken up and lying there as fragments had been a layer of rock a foot deep or four feet deep—from the fragments you could not tell that, could you?

A. No, but if I find rock a foot deep I would say, "That is solid rock", and finding it that way you are not going in there with the ditching machine.

Q. Now, for the purpose of finding what was there you had your men drop off the ditch a few feet and drive the bar?

A. Dropped off two feet from the ditch to determine the depth.

Q. Well, now, when the bar struck some sort of obstruction which it could not pass you classified it as rock for the purpose of that observation, did you not?

* * * * * * *

[fol. 1890] A. No, unless the backfill showed there was solid rock in that vicinity.

Q. Well, these observations are the same observations as you testified to before the Railroad Commission?

A. At great length, yes.

Q. Didn't you testify before the Railroad Commission that whenever by bar test the bar struck a rock, no matter where the rock was located, whether six inches below the surface or farther, that you assumed all below that to be rock?

A. Yes, if the backfill so showed; yes, I so testified.

Q. Did you have your observations of bar test on Line B?

A. What observations do you mean, Mr. Fitzhugh?—every five hundred feet?

Q. Yes.

A. Yes.

Q. Can you point out in those observations any place where by the barring test a bar struck rock, where all the soil below that point was not classified as rock excavation—or, rather, where all the excavation below that point was not classified as rock excavation?

A. I can't tell from these notes. This is merely summarizing the depth data.

Q. You were not with the men that made the barring test?

A. Not all the time, no, sir. I have several gangs—had six gangs doing that work, scattered over four thousand miles of pipe line.

Q. You were also asked a few days ago, Mr. Steinberger, [fol. 1891] for a classification of excavation on Line "A" or for the portion which ran through Oklahoma?

A. Yes, sir.

Q. Do you have that now?

A. Yes, sir. From station 5442 plus double O to station 7315 plus 68 machine excavation is 17.85 per cent, hand excavation earth, 1.13 per cent; rock excavation, 1.69 per cent, or a total of 20.67 per cent of the total yardage on Line "A".

Q. What would have been the classification, Mr. Steinberger, considering this as a separate line—this section of it?

A. Taking that portion of the line in Oklahoma as a separate line, the excavation would be as follows: Machine, 86.5 per cent; hand earth, 5.3 per cent; rock, 8.2 per cent. That is a total of 100 per cent.

Q. Mr. Steinberger, you were asked to give the total number of yards as found by actual measurement of the lines studied?

A. Yes.

Q. Do you have that?

A. Yes. Do you want the individual lines, Mr. Fitzhugh?

Q. Yes, sir.

Mr. Griffith: How many of them are there, Mr. Steinberger?

A. Approximately thirty.

Q. How many lines did you study when you discovered this $2.18 per cubic yard for hand earth excavation of less [fol. 1892] than two hundred feet?

A. I studied approximately forty or forty-five lines; I don't know definitely.

Q. Now, will you give those lines, classification and yardage on each line?

A. The lines on which I determined that $2.18?

Q. Yes, sir.

A. Line E-10-5, 136.7 cubic yards; Line L-26-A, 189.4 cubic yards; Line K-C-Bm, 1,871.4 cubic yards.

Q. Well, now, wait a minute. You are omitting the classification on those lines. Did you give that?

A. What classification do you mean?

Q. The per cent of hand earth excavation.

A. Well, I don't have the per cent of that. In other words, the determination you asked me for the other day was to give you the determination of hand and machine rock excavation on lines on which I had one hundred per cent study; in other words, I made a study for hand excavation on some lines on which I did not have any rock excavation or complete data as to machine excavation. Now, I think what you asked me for the other day was a classification of machine and hand rock excavation on lines on which I had one hundred per cent study as to both machine and hand earth excavation.

Q. Well, on portions of the lines where you made the study, don't you know now what the percentage of the hand earth excavation on that represented?

A. No, I don't, because in some cases the daily progress reports were not complete and in order to enable me to make [fol. 1893] the segregation I eliminated such reports.

Q. Well, can you give it on some of the lines?

A. I can give it to you on 487,000 yards, which consists of both machine, earth and rock excavation; and which, incidentally is the information which you requested me to get the other day.

Q. All right, sir; give us that, please.

A. Out of a total of 487,119 yards of excavation, there were 445,796 cubic yards of machine excavation; 6,795 yards hand-earth excavation, and 34,528 yards of rock excavation.

Q. What are the percentages of the different classifications?

A. Machine 91.52 per cent; hand-earth 1.39 per cent; rock, 7.09 per cent; a total of 100 per cent.

Q. What is the biggest line, or the longest line that you included in your hand-earth excavation study?

A. Line 2nd B.

Q. Is that covered by these figures?

A. Yes, sir.

Q. Now, refer to your notes on your 2nd B study for hand-earth excavation and give the number of hours for the different classes of labor and equipment used in building that line?

A. Line 2nd B—foreman, 103 hours; sub-foreman, 223 hours; laborers, 5530 hours; truck-driver, 205 hours; watchman, 105 hours; equipment—one ton truck, 183 hours; one Ford car, 62 hours; one team and driver, 81 hours; a total [fol. 1894] yardage of hand excavation, 1,395.1.

Q. Does this labor of 5530 hours include the labor for crumming behind the ditching machine?

A. It does not. The hand excavation gang has nothing to do with the ditching machine gang. They are sometimes four, or five, or ten miles apart.

Q. Do you have the total yardages on the whole system for the different classifications of excavation?

A. The entire Lone Star system?

Q. Yes, sir.

A. What period do you want, Mr. Fitzhugh? Do you want what I set forth to tie in with Exhibit 28?

Q. Yes, sir.

A. Yes, sir; I have that figure. The total yardage of excavation in the transmission system of the Lone Star Gas Company is 3,375,162.9 cubic yards.

Q. Of that yardage, how much has been classified by the barring method?

A. 2,786,080.3 yards.

* * * * * * *

[fol. 1895] Recross-examination.

Questions by Mr. Fitzhugh:

Q. But on the northern portion of the line, from Petrolia to just north of Rhome, where Line B and 2nd B parallel each other at a distance not over 60 to 70 feet apart, the conditions for excavation are practically identical, are they not?

A. Not in each case, Mr. Fitzhugh. That is very rough country, and on one line there may be 100 per cent machine [fol. 1896] excavation and an ideal country for machine excavation, whereas on the other hand, you have gullies, ravines, and numerous small stream crossings, particularly from Decatur north as far as Bowie.

Q. Well, there would not be ten times difference would there? You have ten times as much hand excavation on Line B as you have on Line 2nd B, for a line just about 50 or 60 feet away?

A. Well, I am surprised there is not more, Mr. Fitzhugh. I have been all over that country; I have walked over every foot of it.

* * * * * * *

[fol. 1897] Ed C. Connor, a witness for defendant, re called, testified as follows:

Direct examination.

Questions by Mr. Griffith:

The Court: All right, gentlemen, let's proceed.

Q. You are still the same Ed C. Connor who has heretofore appeared and testified in this case?

A. I am, yes, sir.

Q. Mr. Connor, in connection with the statement of your qualifications when you first appeared on the stand in this case, I believe you testified at some length in regard to the experience which you had had in making studies regarding

replacement, retirement, and abandonment for all causes of natural gas properties, and particularly steel pipe?

A. That is correct; and particularly the property of Lone Star Gas Company, and the distributing companies to which it delivers gas.

Q. What specific studies in relation to the retirement, abandonment and replacements of units of property in the several classifications of Lone Star Gas Company have you made?

[fol. 1898] A. I made a study of all its property accounts since the time the Company was organized in 1909, with reference to the replacement, abandonment, and removal of all of the major property items included in the company's system. I have examined each and every voucher of the company which had anything to do with the removal, replacement, and abandonment of property items. As I have said before, I amplified that study of the property units of Lone Star Gas Company to include the history of steel pipe in the Fort Worth Division of Lone Star Gas Company, which is a distribution system located in the City of Fort Worth, 225 plants served by the Community Natural Gas Company, and the Denton, Sherman, Wichita Falls, Corsicana, Bowie, Denison, and McKinney plants of the Municipal Gas Company, which is a distribution company whose plants are also served by Lone Star Gas Company.

Q. Mr. Connor, what is depreciation in an operating sense?

A. Depreciation is the loss of value through physical causes, or through determinable causes, which has taken place in a property at a given time, despite the replacements and renewals of property items and the maintenance of property items. It is a condition which exists at a given time.

Q. Well, now, Mr. Connor, is it necessary that there be included in the operating expenses of any company, such as Lone Star Gas Company, an annual allowance for depreciation, in its broadest sense?

A. There must be included in the current operating ex-
[fol. 1899] penses of a company an allowance to cover the loss which is represented by depreciation, the cost of replacements, removals and abandonments of physical items of property, the costs of such major rehabilitations of prop-

erty items as are properly chargeable to a depreciation reserve account, and in the natural gas company provision must also be made for the depreciation of wasting capital assets, such as gas reserves, which are currently made smaller by the withdrawal of gas from them. Provision must also be made for the abandonment and the replacement of natural gas wells; and finally in the case of a natural gas pipe line company, which has a property all of which is dependent upon its service value, upon the existence of an asset or a commodity which is wasting, an amortization accrual, which will provide for the final loss which will come about through the ultimate dissipation of the gas supply available to the system. I may have omitted one or two things which depreciation reserve should and must provide for; but, in a general way, the statement I have made covers the function of a depreciation reserve accrual, as it is commonly called, as applicable to a natural gas pipe line company.

Q. In the broadest sense does the term depreciation reserve accrual cover and include not only depreciation, but [fol. 1900] depletion and amortization as well in connection with a natural gas property?

A. That is correct. The depreciation itself is that loss which takes place despite the payments and charges which are made from the depreciation reserve account itself; and, of course, for that reason only represents a small part of the function of a depreciation reserve accrual.

Q. Mr. Connor, you have read and are familiar with the findings and order of the Railroad Commission of Texas entered on September 13, 1933, in Gas Utilities Docket No. 75?

A. I am, yes, sir.

Q. Are you particularly familiar with those portions of said finding and order which relate to annual depreciation reserve accruals?

A. I am, yes, sir.

Q. Are you familiar with the respective allowances made by the Railroad Commission of Texas in its said finding, opinion, and order in relation to each one of the property classifications of Lone Star Gas Company?

A. I am, yes, sir.

Q. In round figures, and expressed as a percentage, what was the annual depreciation reserve allowance made by the Railroad Commission of Texas in its said opinion and order?

A. The amount shown on page 69 of the order is $968,066.98.

Q. And expressed as a percentage, what annual rate does [fol. 1901] there show to have been allowed?

A. 2.284 per cent.

Q. Of what?

A. Of the reproduction cost new of certain depreciable items as found by the Commission amounting to $42,387,856.78.

Q. Now, in addition to such an allowance for annual depreciation charges, or for credit annually to depreciation reserve account, did the Commission make some allowance for depletion?

A. The amount allowed for the depletion of the gas reserves of the Company, as shown on page 70 of the order, were $15,631.45.

Q. Now, Mr. Connor, upon what basis did the Railroad Commission of Texas say that it determined this depreciation reserve accrual—upon what method of accounting for depreciation reserve accruals?

A. The method adopted by the Commission was the method suggested by Mr. Simon Freese, and which he described as the sinking fund method of reserve accrual.

Q. What is the sinking fund method, and contrast it with any other generally accepted and recognized method of accruing depreciation reserve accruals?

A. The sinking fund method is a method which sets aside an annual sum of money, which when compounded at a given rate of interest, will equal a given sum at a given period of time.

[fol. 1902] Q. Does it presuppose the use of an undepreciated rate base?

A. It is always used in connection with an undepreciated rate base, for the reason that the reserve accrued is not free capital which the owner of the property may enjoy the use of, because the amount earned on the reserve cannot be used by the owner of the property, but must be credited to the reserve concurrently with its accrual.

Q. Is there any other method which is commonly used for the accruing of depreciation reserve accruals?

A. Yes; there is what is generally called the straight line reserve accrual, which contemplate the setting aside annually of a uniform rate, which is not set aside and compounded in a fund, but is to be used and withdrawn from

currently for the making of necessary replacements, removals, and abandonments, and other charges to a reserve account.

[fol. 1903] Q. Which is the more commonly known and used method of accruing depreciation reserve accruals?

A. The straight line method is the method generally adopted.

Q. Is it the method generally in use by public utility companies?

A. It is the method which is, I would say, almost universally used by public utilities in connection with their own accounting.

Q. Is it the method which is generally approved by regulatory and rate-making bodies and public authorities generally?

A. It is.

Q. Is it the method approved by the Interstate Commerce Commission?

A. It is.

Q. Has it been the method which has been in use by the Lone Star Gas Company over a period of twenty-five years?

A. It is, and it is the method which, in the main, I have used in connection with making my determinations of the proper reserve accruals for Lone Star Gas Company.

Q. Now, Mr. Connor, in your opinion and based upon your experience and study of the Lone Star Gas Company property in particular and other properties in general, do you believe that the annual allowance as made by the Railroad Commission and as clearly set forth in its opinion and order of September 13, 1933, was adequate to provide for the retirements, replacements and abandonments of the [fol. 1904] several classifications of property which the Lone Star Gas Company then had and now has?

A. I think the allowance is utterly inadequate.

Q. Mr. Connor, have you prepared in form to be presented as an exhibit in this case your estimate of the annual accruals necessary for credit to depreciation reserve account to cover depletion, depreciation and amortization of the Lone Star Gas Company's public service property as of January 1, 1933?

A. Yes, sir.

Q. Would there by any substantial difference between that compilation as related to the property as of January 1,

1933, and as related to the property as of this date, to-wit: June 29, 1934?

A. There would not, and for this reason: The relative calculations which I have made are predicated upon the necessary reserves which would be required for the property of Lone Star Gas Company as of January 1, 1933, as applied to all future years; in other words, the determination is made predicated upon the assumption that this reserve will protect this property in the future, and that is the function of a depreciation reserve accrual.

Q. Mr. Connor, is this the estimate to which you refer, being styled on the title cover "Lone Star Gas Company—Application of Annual Reserve Rates to Reproduction Cost New of the Public Service Property Exclusive of Fort Worth Division, January 1, 1933—Ed C. Connor, Consulting Engineer, Dallas, Texas"?

[fol. 1905] A. That is correct.

Mr. Griffith: We offer the compilation so identified by the witness in evidence.

Mr. Stout: Mr. Connor, do you show any segregation between Texas and Oklahoma in this exhibit?

A. I show no segregation between the property of Lone Star Gas Company located in those States.

Mr. Stout: For the purpose of the record, if the Court please, we make the same objection we have heretofore made, that there is no separation of any kind between Texas and Oklahoma property or business.

The Court: The objection is overruled.

Mr. Stout: Note our exception.

(Thereupon the above document was marked as Defendant's Exhibit No. 41.)

Q. Mr. Connor, refer, please, to Exhibit 41 and state in a general way what is contained in the exhibit.

A. The exhibit contains in the left-hand column a description of the property by property account classification. The first figure column sets out the reproduction cost new as determined by Mr. P. McDonald Biddison, Mr. E. A. Steinberger and myself and as reflected by Exhibit 28 in this case. The second figure column represents my estimate of the annual rate of reserve accrual which must be applied to the estimated cost of reproduction. The third or final figure

[fol. 1906] column, which is found on the right, merely sets out the application of the percentage in the second column to the money in the first column and is the annual amount which I estimate should be accrued.

Q. What is the total annual reserve accruals as estimated by you and set forth in Defendant's Exhibit 41?

A. Before answering that question, Mr. Griffith, I would like to call attention to the fact that in some instances, particularly with reference to the leaseholds developed and gas wells, that there is an annual amount set up, but no annual rate of reserve accrual included. The reason for that omission of an annual rate of reserve accrual will be fully developed as my explanation proceeds. The total amount of reserve accrual which I estimate would be required from January 1, 1933, each year in the future, to do the things required of a reserve accrual for the property of Lone Star Gas Company, is $3,022,597.54. The amount annually required to provide for the decline in per cent of new condition of the other undistributed general costs is $92,001.30. The amount annually required for the amortization of the property as a whole is estimated by me to be $350,514.52, making a total for the reserve accrual of $3,465,123.36.

Q. On pages 3 and 4 of Defendant's Exhibit 41 have you set forth the value of property items to be amortized?

A. That is correct. On pages 3 and 4 I have set out in summary form the manner in which I made a determination [fol. 1907] of the value of the property which I feel should be amortized.

Q. Upon the basis of that particular property you calculated your amortization rates?

A. That is correct. I applied to the $42,332,671.62, which is my estimate of the value of the property which would be *be* subject to liquidation upon the abandonment by Lone Star Gas Company—I applied the amortization rate determined by the forty year sinking fund accrual calculated upon a five per cent basis.

Q. Mr. Connor, will you please explain the several columns appearing on pages 3 and 4 of the exhibit?

A. Column A is the total reproduction cost new of the property and business of Lone Star Gas Company as determined by Mr. P. McDonald Biddison, Mr. E. A. Steinberger and myself as is reflected by Exhibit 28. In connection with my study of the annual reserve accruals which

would be required for this property, there were certain elements of the plant which the reserve itself as set up contemplated retirements of the particular property items, and of course if there is a provision already made for the retirements of the property items it would not be necessary to amortize the value of those items. There are certain other items of property in the possession of Lone Star Gas Company as of January 1, 1933, which would be worth as much at the end of the time when Lone Star Gas Company had to go out of business as they would be worth now, and of course there would be no necessity to set up a reserve accrual to amortize items such as those.

[fol. 1908] Q. Such as what, Mr. Connor?

A. Such as land, where the land would be usable for other purposes and would not lose any of its intrinsic worth to the company by reason of the fact that the company was not operating as a natural gas pipe line system. Now, on certain other parcels of land I have reduced or at least applied the amortization of a proportionate part of their cost, for the reason that they would lose a certain amount of their present value if they were not used for the purpose for which they are now being used. That would be exemplified by compressor station sites and real estate of that character, and small parcels of real estate which were taken out of the corner of a man's field for the purpose of locating a measuring station, or something of that sort.

[fol. 1909] Q. Now, Mr. Connor, give some simple illustration of the applicability of an amortization accrual in connection with the natural gas business,—either actual, as applied to Lone Star Gas Company's property, or theoretical, by way of explanation.

A. A simple illustration would be a pipe line extending from a gas field to a given market, with a definite limited supply of gas in that field, and no prospects of extending the line beyond the field from which it was taking gas. It would be obvious that as that pipe line withdrew the gas from that particular field that it would be approaching the time when it would have to go out of business, due to the fact that there was nothing which would replenish that gas after it had been withdrawn. The pipe line, of course, would have to stay operative and be in position to render service up until the day that it quit business; but at the end of that time it would be worth only what salvage could be recovered from the phys-

ical property. Now, a situation of that kind presents a simple illustration of the necessity for accruing an amortization reserve which will provide for the contingency which I have outlined.

Q. And which would replace the capital at the end of the useful life of the line?

[fol. 1910] A. Yes. And I would like to correct the word "contingency", because in that situation it would be a certainty and not a contingency.

Q. Mr. Connor, in connection with your determination of the annual reserve rates to be applied to the particular classifications of property as set forth in Defendant's Exhibit 41, have you prepared a report covering the annual reserve accruals required by Lone Star Gas Company as of January 1st, 1933, and giving the basic data upon which these reserve accruals set forth in Exhibit 41 are predicated?

A. I have.

Q. Is this the report to which you refer, it being styled on the title cover, "Report Annual Reserve Accruals Required For Lone Star Gas Company—January 1, 1933. Ed C. Connor, Consulting Engineer, Dallas, Texas."?

A. It is.

Mr. Griffith: We offer the report so identified by the witness, in evidence.

Examination by Mr. Stout:

Q. Mr. Connor, as usual, you show no separation whatsoever as between the State of Texas and the State of Oklahoma as to property or business, do you?

A. No, sir.

[fol. 1911] Q. In any shape, form or fashion?

A. No, sir.

Mr. Stout: Well; we make the same objection, Your Honor, that we have previously made—that there is no separation between the Texas property and the Oklahoma property, and the Texas business and the Oklahoma business, but it is all one mass and one whole; and we are only trying to fix a rate for Texas.

* * * * * * *

[fol. 1912] (Thereupon the document above referred to was marked as Defendant's Exhibit No. 42.)

By Mr. Griffith:

Q. What have you endeavored to set forth in Defendant's Exhibit 42? That is, give a brief explanation of what is covered by the exhibit.

A. I have endeavored in this exhibit, Mr. Griffith, to develop in detail the bases for the various annual rates which have been applied in Exhibit 41.

Q. Does Exhibit 42 afford, in large measure, the factual data based upon the experience of the Lone Star Gas Company which you have used in connection with the compilation of the estimate of reserve accruals set forth in Defendant's Exhibit 41?

A. That is correct.

Q. Have you, in connection with Exhibit 42, set forth the experience of the Lone Star Gas Company in connection with the abandonment and retirement of gas wells, and the re-
[fol. 1913] movals and replacements of steel pipe in its System, covering the entire period of its corporate existence and operations?

A. That is correct; and I have also included a history of all gas wells, exclusive of the gas wells in the Petrolia Field, that are now connected to the System of Lone Star Gas Company.

Q. You have made a recapitulation of the pipe replacements, removals and abandonments by years, and by sizes and feet of pipe?

A. That is correct.

Q. Have you also set forth in Exhibit 42 a schedule showing the replacements of pipe on the main lines, removals and abandonments of lines, by years, by sizes and by feet of pipe?

A. I have shown in this exhibit the replacements, removals and abandonments of the pipe in the entire System, the main and tap lines, and the field and well lines; and also have shown the replacements, removals and abandonments of main lines, tap lines, well lines, and field lines, individually, in so far as it was possible to make a segregation of the replacements, removals, and abandonments in those particular classes of pipe line.

Q. In other words, in so far as the records were avail-
[fol. 1914] able from which data could be secured, you have endeavored to analyze every replacement, retirement, abandonment, or removal of pipe of ever kind and character?

A. That is correct; but as pointed out in the text of the report, in the earlier history of the Company the plant and equipment section of the Accounting Department, which handled the replacement items, did not make a segregation between main lines and tap lines, and field lines and well lines, and for that reason in this report I have consolidated it—that is, the history of their replacements, removals, and abandonments.

Q. Now, you have set forth in Exhibit 42 consolidated summaries of your main line and tap line and well line and field line replacements, removals and abandonments, and have done that by years and by sizes of pipe and by feet of pipe for the respective years in which the removals occurred?

A. That is correct; and in all cases I have reduced the figures found to what is termed "feet of pipe of three-inch equivalent diameter."

Q. Please explain what you mean by "feet of pipe of three-inch equivalent diameter".

A. If a foot of pipe three inches in diameter was removed there would be no adjustment, because the pipe removed. [fol. 1915] was three inches in diameter. If a foot of pipe twelve inches in diameter was removed, that foot of pipe when reduced to a length of equivalent three-inch diameter would be three feet; in other words, when you are dealing——

Q. Four feet, would it not?

A. Four feet. Where you are dealing with a large number or a large amount of pipe of various sizes, in order to reduce the footage of that pipe to a common denominator it is necessary to express it in terms of a pipe of a standard diameter, and in all natural gas practice the common denominator used for that purpose is three inches; and I have, therefore, reduced all of the replacements, removals and avandonments to the equivalent footage expressed in terms of three-inch diameter pipe.

Q. Mr. Connor, refer, please, to page 1 of Defendant's Exhibit 41. In connection with the Production System Property it is noted that your Annual Allowance for Depreciation Accrual is $146,000.00 per annum.

A. That is correct.

Q. Upon what is that allowance predicated?

A. That is what is termed a depletion allowance, as dis-

tinguished from the accruals set up for other items of property; and it is predicated upon the volume of gas which will [fol. 1916] have to be recovered in order to exhaust the gas reserves of Lone Star Gas Company, the unit price fixed for each thousand cubic feet of gas in those reserves, and my estimate of what the average rate of withdrawal from those reserves will be over a period of time extending into the future; in other words, a more or less uniform charge for the item of depletion.

[fol. 1917] Q. If we refer to pages 311 and 312 of Defendant's Exhibit 42, do we find on those pages a development of the basis upon which you predicate this allowance of $146,000 per annum?

A. That is correct; and in so far as that part of the exhibit is concerned, the quantity of gas set out has been heretofore testified to by Mr. J. H. Dunn. The unit value of recoverable gas has been testified to by Mr. D. A. Hulcy. The determination of the average future annual rate of withdrawal from these reserves is based upon a study and report covering that particular phase of the investigation prepared by Mr. J. H. Dunn and myself.

Q. Now, Mr. Conno in determining proper annual depletion charges covering the utilization of the Company's gas reserves, wouldn't it be proper to apply your depletion rate per thousand cubic feet of .73 of one cent to the actual gas produced in any one particular year?

A. I don't think that that would be a good way to handle it. It would, of course, produce over a period of years the same amount of accrual as by the method which I have used; but it would create a fluctuation in the annual charges which would not be a true representation of the average annual cost of giving service, because it would be largely created by a different rate at which the Company took gas from its own reserves, and that change in the rate of withdrawal would in no wise reflect the total average gas delivered by the Company.

[fol. 1918] Q. If we refer to page 70 of the order, findings, and opinion of the Railroad Commission of Texas, do we find that the Railroad Commission of Texas allowed $15,631.45 per annum for this depletion allowance?

A. That is correct.

Q. Mr. Connor, in connection with the next item of property appearing as Leaseholds Undeveloped on page 1, of

Defendant's Exhibit 41, it is noted that you set up no annual rate of reserve accruals?

A. That is correct.

Q. Why is that?

A. Because I don't think any is necessary.

Q. Is it the practice of the Company, and has it been the practice over a period of many years to charge directly to Operating Expenses all amounts involved in canceling and surrendering undeveloped leases?

A. That is correct.

Q. And being handled directly into the operating charges of the Company, would there be any necessity for accruing a depreciation reserve accrual covering this particular item?

A. That is correct; there would not be, because any item of expense, or cost of service, which is charged direct to the operating expenses of the Company would eliminate the necessity for setting up a reserve accrual, which would do the same thing.

[fol. 1919] Q. And for that reason you have set forth nothing covering a reserve accrual on the undeveloped leaseholds in your Exhibit 41?

A. That is correct.

Q. The next item of property appears to be Gas Wells, the reproduction cost new of which is $4,057,020.15, and for which you have estimated a proper annual accrual of $421,316?

A. That is correct.

Q. How did you determine that this was a proper annual accrual in relation to gas wells?

A. The detail analysis of the manner in which I made my estimate for the reserve required for gas well construction and equipment is set out in detail in part 3 of Exhibit 42, beginning at page 187 and extending through page 235.

Q. Now, Mr. Connor, please relate, in a general way, what you did in order to determine the annual reserve accrual in relation to the item of gas well construction and equipment?

A. I have included in the report an approach to the solution of the problem from two different angles. I will discuss the one which I finally adopted first. A natural gas well as an item of physical property consists of certain pieces of equipment and a certain amount of labor——

Q. That is, drilling costs?

A. The equipment represents the fittings, and the casing [fol. 1920] or tubing in the well, and the labor costs, of course, represent the cost of drilling the hole. Now, a gas well is unlike other items of physical property which will be discussed in connection with this estimate of mine. One gas well might last a month, another gas well might last ten years, and if you didn't take any gas from the well it might last forever; so the question of the passage of time in connection with the life of a gas well is a more or less indeterminate item, and I don't believe that anybody can possibly determine how long a gas well is going to last, because he must know certain things which he cannot know, and therefore, he is unable to make the determination. No one knows at what rate gas will be withdrawn from a given gas well, and unless you do know that you have no way of knowing how long the gas well will live or be serviceable.

Q. You do have a means, however, of estimating the life of gas wells which have been drilled by the Company, and from which the Company has taken gas over a period of years, and the life of which wells have expired?

A. Oh, yes; we have a world of history, and I have incorporated that history in this report of a large number of gas wells—over a thousand—which have been attached to the system of Lone Star Gas Company, and some of which are now attached to the system of Lone Star Gas Company, and I will give a full explanation of just what has hap- [fol. 1921] pened in connection with those particular wells. But taking the problem as a general proposition, the life of a natural gas well is an indeterminate factor, controlled by the rate at which gas is taken from the well, and the amount of gas in the reservoir reached by the well; and for that reason, I determined that the logical method to use in connection with determining what annual sum of money would be required to maintain the present capacity to deliver gas from the wells of Lone Star Gas Company would be to ascertain the sum of money represented by gas well construction and equipment which would be required to take the gas from the reserves of Lone Star Gas Company, and in that way eliminate any consideration of that indeterminable factor, the average life of a gas well, because there is not any such thing. Now, Lone Star Gas Company has a certain amount of gas which has already been determined, which in order to be recovered must be recovered by means of gas well construction and equipment. The amount of

money which Lone Star Gas Company has at this time in gas well construction and equipment, upon a reproduction cost basis, is $4,754,961.00. Now, those wells will not produce all of the gas from the reservoirs which they reach, and will not produce all of the gas which Mr. Dunn has estimated is in the reservoir covered by the reserves of Lone Star Gas Company. Mr. Dunn estimated the future wells which would be required to withdraw this gas, and [fol. 1922] he estimated that the cost of those wells would be $2,813,488. Now, the sum of the thousands of cubic feet which those wells—the present wells and the future wells—will recover is 366,545,000 cubic feet. Now, in order to recover that gas it is going to cost in gas well construction and equipment not less than $7,568,459, and when that gas is recovered the money spent on the wells which I have mentioned will be worth nothing at all; and therefore, if the cost of the service given during that period of time is to be properly accounted for, that sum of money should be returned ratably to the owners of Lone Star Gas Company. The cost of those wells divided by the number of feet of gas which those wells will recover develops a unit cost of $.0206 per M cubic feet of gas produced by these wells, or two cents plus.

Q. That is per thousand cubic feet?

A. Per thousand cubic feet of gas produced. Now, Mr. Dunn, in making his estimate of the wells which must be drilled in the future in order to recover these reserves, limited his estimate to the obligations of the Lone Star Gas Company under its present lease contracts. Mr. Hulcy, in making his estimate of the cost of the value of those gas reserves, deducted from the gross value of those reserves the amount of money which Mr. Dunn estimated would be required for future drilling. Now, if Mr. Dunn has under- [fol. 1923] stated—or overstated the amount of gas in those reserves, then the unit cost to bring it out of the ground will be greater than the unit costs which I have set out. If it is suggested that the cost of future drilling should not be included, then it would be necessary to reduce the amount of the volume of gas divided into the money cost of the wells, for the reason that the present wells cannot produce all of the gas. Having developed a unit cost per M cubic feet of something slightly in excess of two cents, I then applied my estimate of twenty billion feet a year average production over the period of time required to deplete these

gas reserves, which resulted in an annual sum of $412,000.

Q. Is that done at page 207 of Defendant's Exhibit 42?

A. That is correct. Now, in addition to that cost, Mr. Biddison found that the average per cent condition of this property indicated a decline of one per cent per annum based upon the weighted age of the property, and that, too, must be provided for, and I have applied one per cent for the decline in per cent of new condition.

Q. Which decline in per cent condition would take place irrespective of use of the gas well construction and equipment?

[fol. 1924] A. That is correct. The total sum developed is $450,943. Now, I made a very careful study of what could be recovered in the way of fittings and equipment when a gas well is abandoned.

Q. In other words, casing pulled and tubing recovered, and all other items of recoverable property?

A. That is correct. I studied the experience of the Company in the amount of salvage which they secured from an abandoned gas well. The per centage of total loss was 93.43, and I applied that 93.43 to $450,943, and arrived at the figure $421,316.

Q. And which figure is the figure you have carried on to page 1 of Defendant's Exhibit 41, in connection with your annual reserve accruals on gas well construction and equipment?

A. That is correct.

[fol. 1925] Q. Mr. Connor, commencing at page 209 of this section of Defendant's Exhibit 42 and running through page 235, have you set forth certain statistical data upon which your compilations are based?

A. I set out certain statistical data, but the compilation which I have just finished explaining is not predicated upon these compilations. I think, however, in connection with the explanation which I have previously made, that a brief description of the compilations will be enlightening. The compilation shown on page 209 of Exhibit 42 shows the history of 502 gas wells which have been attached to the system of Lone Star Gas Company, but which have been abandoned by reason of the fact that there was no more gas for them to produce. Those wells include all of the wells which have ever been attached to the system of Lone Star Gas Company, except such wells as are now or have been attached to the system in the Petrolia field and have

been abandoned and such wells as are now delivering gas into the system.

Q. In other words, with those exceptions, the summary on page 209 includes every gas well which has ever been connected to the system of Lone Star Gas Company in its entire corporate existence?

A. That is correct. Now, an interesting thing in connection with the summary in this: that in my estimate for setting up the annual accruals for gas well construction and equipment I have estimated that every well which Lone [fol. 1926] Star Gas Company now has attached to its system on the average will produce over nine hundred million feet of gas—nine hundred million feet of gas. The experience of Lone Star Gas Company with reference to the 85 wells which they had attached to their system shows that instead of producing nine hundred thousand feet of gas——

Q. Nine hundred million?

A. Nine hundred million, that the average production from those wells has been only ninety-one million feet of gas plus, and that every other well owned by other people which has been attached to the system of Lone Star Gas Company from the beginning of its operations has only produced 180,000,000 feet of gas.

Q. What is the effect of that upon your estimate?

A. If the future experience of Lone Star Gas Company should be based upon the experience of Lone Star Gas Company—that it has had in the past, it would mean that my estimate is ten times too small.

Q. Now, Mr. Connor, why the discrepancy, then—the apparent discrepancy or seeming discrepancy between the actual experience of the company in the past in reference to the average production of gas from individual wells and your estimate for the future?

A. I have assumed in the estimate which I have made that an ideal condition will exist, and that is that each of the gas wells now connected to the system, together with the few additional wells which Mr. Dunn has estimated will [fol. 1927] be required, will more completely recover all of the gas in the gas reserves of Lone Star Gas Company.

Q. If they don't do it, your estimate for annual reserve accrual will be under that which it should have been?

A. That is correct. Now, that information is informative, because it has to do with the average life of gas wells as actually developed by the experience of the company.

There is also included on pages 212, 213, 214 and 215 an analysis or at least a summarization of the sources from which Lone Star Gas Company has received its gas supply in the past, showing the number of wells that the company has owned, the amount of gas that the company has produced itself on its own production, the gas purchased from casinghead plants and the per cent that that has represented of the total, the gas that the company has purchased from other producers and the per cent that that bears to the total, and also the total volume of gas purchased and produced every year from 1917 to 1932. The purpose of this summary was to show the trend or behavior of the various sources of supply of Lone Star Gas Company. Now, this summary and the summaries which follow, which deal specifically with the decline in the amount of residue gas available to Lone Star Gas Company, are merely summaries which were taken in part from the most complete and detailed analysis of the sources of supply which are available to Lone Star Gas Company, which has been prepared by Mr. J. H. Dunn and myself. In this report reference is [fol. 1928] made to a report which at the time of the preparation of this report was being prepared by Mr. Dunn. Mr. Dunn subsequently turned over the data which he had to me and we collaborated and completed that report, and its findings are absolutely in conformity with the estimated quantity of gas assigned to company production for the future.

Q. On page 216 of Defendant's Exhibit 42, Mr. Connor, have you set forth an actual analysis of the salvable value of materials recovered in connection with the abandonment of twenty-two gas wells in the West Texas field?

A. That is correct. That was simply the basis for the estimate of the salvable value of gas wells which was applied to the gross figure, thereby reducing it in the amount shown on page 207.

Q. Mr. Connor, on page 218 of Defendant's Exhibit 42 you make reference to a compilation of historical data covering 512 abandoned gas wells in Texas and Oklahoma, exclusive of Petrolia field, the mortality history of those abandonments, the total deliveries of those abandoned wells, and also make reference to other calculations, and particularly a tabulation showing the weighted age of aban-

doned wells serving Lone Star Gas Company, and showing abandonments of wells serving Lone Star Gas Company system?

A. That is correct.

Q. Are the details of those tabulations included in this report—that is, Defendant's Exhibit 42?

A. That is correct; they are shown, and the tabulation [fol. 1929] on page 229 with reference to the wells which have been abandoned shows that of the total wells, 512 in number, which have been connected to the Lone Star Gas Company system but which have been abandoned, 177, or 34.57 per cent, lasted one year or less, and that 106 wells, or 20.7 per cent, lasted two years or less, and that 15.62 per cent lasted three years or less, or approximately 80 per cent of the total number of those wells lasted less than three years.

Q. Mr. Connor, what do you mean when you use the term "weighted age"?

A. It is the effective age of a group of units, based upon the number of units and the time they have been in service.

Q. Or what a layman knows as average gas?

A. It would not always correspond to the numerical average age. It would, I think, in the case of a gas well.

Q. Refer, please, to page 232 of Defendant's Exhibit 42. What does that page disclose?

A. The page discloses the fact that if all the wells which have either been attached to the system of Lone Star Gas Company, 1,043 in number,—that is, exclusive of wells in the Petrolia field—were still attached to the system and rendering service at this time, and no consideration had been given to the fact that five hundred and odd of them had been junked years ago, that the average age of that total number of wells would be 6.38 years as of January 1, 1933.

Q. Will you refer, please, Mr. Connor, to page 55 of the [fol. 1930] findings, opinion and order of the Railroad Commission in Gas Utilities Docket No. 75 and read into the record the last full sentence appearing at the bottom of that page?

The Court: What page?

Mr. Griffith: Page 55, right at the bottom of the page.

A. (Reading.) "We find the weighted average life of the Lone Star Gas Company gas wells to be not less than thirteen years."

Q. Now, based upon actually the things that have happened, what is the weighted average life of all wells which have been in service connected to the pipe line system of Lone Star Gas Company?

A. Mr. Griffith, exclusive of the wells in Petrolia field, and covering 531 wells which are now attached to the system, the average life of this well or these wells up to this time—and that is all the experience that we have in connection with this particular subject—has been 3.98 years.

Q. Where is that shown in connection with your report—that is, Exhibit 42?

A. That is shown on page 230: Now, if reference is made to page 233, we have there a history set out in detail of 1,001 wells, and those wells represent the wells that are now connected to Lone Star Gas Company, as well as the wells which have been disconnected. Now, the Commission's order states on page 55: "We find the weighted average [fol. 1931] life of the Lone Star Gas Company gas wells to be not less than thirteen years." Now, when you say "average" with reference to the life of a property unit—average life—some passing out of service at a very early day and some lingering along past the average life, you will find that it would be necessary for some of those wells to last twenty or thirty years in order for the average life of those wells to be thirteen years. Now, the experience of the company has shown that of seven wells which were in service in 1919 all of them — gone.

Q. That is shown on page 233 of Defendant's Exhibit 42?

A. That is correct. And that of 10 wells which were in service in 1920—connected in 1920, eight of them are gone; that of 85 wells which were connected in 1921, 80 of them — gone; that of 100 wells which were connected in 1922, 89 of them are gone; that of 92 wells connected in 1923, 79 of them are gone; that of 67 wells connected in 1924, 54 of them are gone; of 54 wells connected in 1925, 42 of them are gone; of 46 wells connected in 1926, 24 of them — gone; of 78 wells connected in 1927, 40 of them are gone; of 79 wells connected in 1928, 29 of them are gone; of 100 wells connected in 1929, 18 of them are gone; of 141 wells connected in 1930, 17 of them are gone; of 116 wells connected

in 1931, 17 of them are gone, and of 26 wells connected in 1932, as of January 1, 1933, three of them are gone. In other words, there is not a single well which has lasted thirteen years up to January 1st, 1933.

[fol. 1932] Q. Then, obviously, if not a single well has lasted thirteen years, the weighted average life of Lone Star Gas Company gas wells could not be thirteen years.

A. There is no evidence to support that contention.

Q. Mr. Connor, what have you set forth on pages 234 and 235 of Defendant's Exhibit 42?

A. I have prepared what is termed a mortality curve based upon the experience set out on page 233, and from this curve I have developed a calculation of annual replacements rates of gas wells based upon the indicated life shown by actual experience of the wells.

Q. The calculation of the total annual replacement rates appearing on page 235 was not used as the basis for the computation of reserve accruals in connection with Exhibit 41?

A. No, sir. I did, though, make that determination, and showed by the determination that, had I pursued this method, the annual reserve accrual would have been substantially in excess of that which I have used.

Q. Mr. Connor, if we refer to Defendant's Exhibit 41, the next item of classification of property for which you have computed a depreciation reserve accrual is the classification known as Other Production System Structures evaluated at reproduction cost new in the amount of $9,450.29, for which your annual rate of reserve accrual is 9.3 per cent and the annual amount required in dollars is $878.88?

A. That is correct.

Q. This is a relatively small item, but I wish you would explain briefly the basis for your determination of the adopted percentage of 9.3 per cent.

[fol. 1933] A. That is shown on page 287 of Exhibit 42.

Q. Please relate briefly, Mr. Connor, what you set forth in connection with your determination of the calculated percentage of 9.3.

A. That is a sum of three per cents: Decline in per cent of New Condition of one per annum, Current Replacements two per cent per annum, and an Amortization in twelve years of the worth of the structure on a five per cent an-

nuity basis; the last item being 6.30 per cent, and the total being 9.30 per cent, as shown on page 1 of Exhibit 41.

Q. Mr. Connor, upon what basis did you make your calculation that the current replacements would be at the rate of two per cent per annum, and that the building should be amortized over a twelve-year period?

A. Well, Mr. Griffith, in connection with these small structures and items of this sort it was not possible to develop any experience data which would be reliable, because they vary so largely from year to year and from structure to structure, and this estimate is largely based upon my judgment as to what the total figure should be.

Q. The next item, of Other Production System Equipment, appearing on page 1 of Defendant's Exhibit 41, appears to be an evaluated reproduction cost new at $95,764.08, and you have made an annual rate of reserve accrual of one per cent per annum on this item, amounting to, in [fol. 1934] dollars, $957.64?

A. That is correct.

Q. What is the basis for that use of one per cent per annum as applied to Other Production System Equipment?

A. That is the declined per cent condition which has applied to the property as a whole. Mr. Biddison's estimate of the decline in per cent condition of the property as a whole, based upon the weighted age of the property at the time of his investigation, indicated a decline of approximately one per cent per annum per year of weighted age, and the decline in per cent condition new of the various items evaluated, as disclosed by Mr. Biddison's report; but I applied a uniform rate to each item of property, of one per cent, and the end result will be just exactly the same as if I applied individual rates to individual items. Now, that is the only accrual which I have set out for this class of equipment. Now, the reason for that is that the Company charges directly to operating expenses or to capital account the depreciation on this class of equipment, and it is, therefore, otherwise provided for in the operating expenses of the Company, and is therefore not proper to be included in this estimate.

Q. In other words, where a direct charge is made to [fol. 1935] operating expenses, to cover depreciation on an item of equipment, it would be a duplication to provide an annual reserve accrual covering the same expenses?

1277

A. That is true; and in order to avoid the necessity of repeating the same explanation, I will say that the same thing applies to automotive equipment, which is shown on page 2 of Exhibit 41, with an annual rate of one per cent per annum. Well, it is perfectly obvious to any one who has ever owned an automobile, or driven one, that a depreciation allowance of one per cent per annum on an automobile would be utterly inadequate.

* * * * * * *

Q. Mr. Connor, the next classification of property appearing on page 1 of Defendant's Exhibit 41 is the Gathering System Property, and following that is the Transmission System Property, with the several classifications of each.

A. That is correct.

Q. Now, included in the Gathering System Property are the well lines?

A. That is correct.

Q. And the field lines?

[fol. 1936] A. That is correct.

Q. And the largest item in the Transmission System Property is, of course, the Transmission Line Equipment.

A. That is correct.

Q. In the amount of $28,524.00, plus?

A. That is correct.

Q. Now, Mr. Connor, in your determination of the respective per cents for the annual rate of reserve accrual, as applied to well lines and transmission line equipment, did you use the historical experience of the Company as a basis for the determination of the annual rate of reserve accrual?

A. Yes, I did, in so far as the history of the Company's experience could be used for such a purpose.

Q. In connection with Line Equipment, under the heading of Gathering System Property, appearing on page 1 of Defendant's Exhibit 41, it is noted that your annual per cent for reserve accrual is the same as in connection with the Field Line Equipment—that is 8.6 per cent per annum?

A. That is correct.

Q. It is noted that in connection with Line Equipment, under the Transmission System Property appearing on page 1 of Defendant's Exhibit 41, that the annual rate of reserve accrual is shown to be 5.4 per cent?

[fol. 1937] A. That is correct.

Q. Now, in preparing mortality studies for steel pipe, have you used the same data as applicable, in a general and primary way, to the well line equipment, the field line equipment, and also the transmission line equipment?

A. Yes, to this extent, that where the experience of the Company would be applicable—equally applicable to each classification of property—that is, well lines, field lines, main lines and tap lines, I have used the same basic information, and the factor which is commonly applicable to each class of property is the rate of replacement of the pipe which would be caused primarily by the physical condition of the pipe. It is hardly necessary to explain that steel pipe, whether used for one thing or used for another, will deteriorate, from the standpoint of physical deterioration, in about the same way. Now, as I develop my explanation it will be made clear that there are other factors which must be taken into consideration in connection with well lines and field lines which do not apply to main lines; but there is one factor, and that is the deterioration of the pipe itself, which is equally applicable to each of these classes of property.

[fol. 1938] Q. That is, pipe would deteriorate to the same extent, whether it were classified as a part of a field line, a part of a gathering line, a well line, or a part of a transmission line?

A. Yes, and in most cases as a part of a distribution system.

Q. Mr. Connor, what is the factual basis for your determination of the primary rate of reserve accrual for depreciation only or deterioration only, as applied to steel pipe?

Q. The basis for the deterioration only which I have applied to steel pipe is Mr. Biddison's determination of per cent of new condition, because that indicates the deterioration which has taken place in the property and which has not been offset by replacements. Now, the factor which I took into consideration with reference to replacement of pipe by reason of the condition of the pipe was based upon the experience of Lone Star Gas Company, as far as I was able to develop that experience, together with the collateral information which I secured from an examination and study of the records of more than 240 distribution plants which are located contiguous to the Lone Star Gas Company's System.

Q. Where in your Exhibit 42 do you set forth, either in [fol. 1939] a statistical way or by means of curves or graphs, the underlying basis for your determinations in respect of an allowance of 8.6 per cent per annum covering the well lines and well lines rights of way including in the Gathering System Property on page 1 of Defendant's Exhibit 41?

A. Well, Mr. Griffith, it will be somewhat difficult to make an exact segregation in Exhibit 41, for the reason that——

Q. Exhibit 42?

A. Exhibit 42, for the reason, as I have previously stated, that certain fundamental factors were developed both for field lines, well lines, main lines, and tap lines; then there was a specific and particular study made of the peculiar circumstances which would surround the experience of well lines and field lines.

Q. Well, in any way that seems to you most feasible, Mr. Connor, I wish you would outline, in a general way, to the jury the method of your determination of these respective per cents as applicable to well line equipment, field line equipment, and the transmission line equipment.

A. I will first take up a discussion of the basic rate which I have determined for all steel pipe with reference to the annual rate of replacement which in the future will [fol. 1940] be required by reason of the condition of the pipe itself, and that determination, as I have previously stated, will be applicable to all the steel pipe in the System, whether it is part of the main lines, tap lines, well lines, or field lines. On page 28 of Exhibit 42 there is shown a tabulation which sets out a recapitulation of the pipe replacements, removals, and abandonments, by years, sizes, and feet of pipe, from the beginning of the Company's operations in 1909, to July 1st, 1933. It is shown that when the amount of pipe replaced, removed, or abandoned in the system of Lone Star Gas Company is reduced to footage of pipe of 3-inch equivalent diameter that that footage will be 7,902,647 feet.

Q. That would be approximately how many miles of equivalent 3-inch pipe, Mr. Connor?

A. About 1200 miles.

Q. About 1200 miles of equivalent 3-inch pipe?

A. Perhaps more than that. Now, on page 29 there is set out a similar recapitulation, which confines the determination to the amount of replacements, removals and

abandonments which have taken place within the period specified in the main lines and tap lines of the System.

[fol. 1941] Q. And this tabulation likewise shows a recapitulation of the replacements beginning with the commencement of the Company's operations, back in 1909 or '10, and comes up to July 1st, 1933?

A. That is correct; and it shows that in the main lines and tap lines, as classified by the Company's property accounts that 6,066,627 feet of equivalent 3-inch diameter pipe have been removed, replaced or abandoned in these respective property classifications. On page 30 there is shown a recapitulation which refers solely to the main line of the System as defined by the account classifications of the Company, and shows that 5,362,659 feet of equivalent 3-inch diameter pipe have been replaced, removed or abandoned.

Q. Would that be in excess of 1000 miles of main line replacements, abandonments or removals?

A. That is correct. Now, I have previously stated that the records of the Company are not clear with reference to a distinction between tap lines—tap line and main line replacements; in other words, if they have the A system, and a replacement is made on Line A-1——

Q. Which is a tap line?

A. A tap line off of Line A—that replacement or removal is charged to the A System, rather than to a specific [fol. 1942] tap line; so that you will find in this recapitulation of main line replacements certain small diameter pipe which is unquestionably a replacement or a removal or an abandonment of a tap line, as distinguished from the main line itself, but by combining the two and taking the total feet in main lines and tap lines, and combining the replacements, removals, and abandonments, any error which might arise by an improper classification as to which is which will be eliminated. However, I was able to determine with a certain degree of accuracy the number of feet of tap lines which had been replaced, removed, abandoned, and they are shown on page 31. It shows the 703,966 feet of equivalent 3-inch diameter pipe have been removed, replaced or abandoned in the tap lines of Lone Star Gas Company, in so far as it was possible to identify those casualties specifically to tap lines.

Q. Now, these replacements, retirements, removals, or abandonments of main and tap lines which you have just testified to, are those abandonments, retirements, removals,

or replacements which have taken place by reason of every known cause?

A. That is correct; they include the replacements which have been made necessary by public requirements, changed operating conditions, as well as the condition of the pipe.

[fol. 1943] Q. What do you mean by "changed operating conditions", Mr. Connor?

A. In the natural gas business in the depletion of a gas field, the consequent situation which arises therefrom will necessitate the removal of large property items from one place to another.

Q. In other words, when there isn't any more gas in the field, why, the Company takes up the pipe and removes it?

A. That is right; and that sometimes affects not only well lines and gathering lines, but the main lines themselves. Quite frequently tap lines have to be taken up and removed by reason of public requirements, changed highways, and things of that sort. Now, a similar determination is shown on page 33, for field lines, and it shows that on page 32 there is a combined history of field lines and well lines. Now, in this exhibit I have designated certain lines as field lines. Mr. Biddison and Mr. Steinberger, in connection with their testimony, have designated those lines as gathering lines. So when I refer to a field line in connection with this exhibit I am talking about the same sort of gas line that Mr. Biddison was talking about when he referred to a gathering line. Now, the difference between a gathering line [fol. 1944] (or a field line, as I have called it) and a well line is that a gathering line is a line that is designated as the line which will go into a given area—gas producing area for the purpose of taking the gas delivered by a number of smaller lines which are attached to individual wells. Now, just as in the case of the main lines and tap lines, the Accounting Section does not always segregate the replacements on well lines and field lines, and so, while I was able to make a fairly close determination of the relative amount of pipe which had been replaced, removed or abandoned which could be specifically ascribed to field lines and to well lines, it was not possible to make an exact determination; so it was necessary for me to combine the experience of the field lines and the well lines, which are similar in their service characteristics, just as it was necessary for me to combine the main lines and the tap lines, as I have previously explained.

[fol. 1945] Q. As shown on page 32 in your summary of Field and Well Line Replacements, Removals, and Abandonments, have you summarized all of the historical replacements, removals, and abandonments which have actually taken place on the field lines and well lines in the Company's experience?

A. That is correct; and as far as I was able to do so, by an examination of all records having to do with this particular thing.

Q. Now, Mr. Connor, does this tabulation show that the Company has actually replaced, removed or abandoned approximately 350 miles of 3-inch equivalent pipe on the field and well lines?

A. That is correct. My first rough estimate as to how many miles of pipe had been replaced, removed, or abandoned was entirely too low.

Q. As a matter of fact, it is about 1400 miles, isn't it?

A. That is correct. Now, I have stated that these historical experiences which are shere by these figures included replacements, removals and abandonments from all causes. Of course, in field lines there would be a greater movement of pipe from one place to another than there would be in the case of main lines, by reason of the fact that as individual gas fields play out and become depleted, it would be necessary to remove those lines. In the case of well lines there would be a still greater removal, abandonment, and [fol. 1946] changing, due to the fact that a gas well does not last very long—at least, that has been the experience of Lone Star Gas Company. Now, the history of the main lines and the tap lines is much clearer with reference to what has actually happened. You can go into the records of the Company, and from the experience of a person who has actually been connected with the Company over a number of years, you can trace what has actually happened to the pipe in the main lines and tap lines with a much greater degree of accuracy than you can in the well lines and field lines. Now, in order to make a determination of what the experience of the Company has been with reference to the replacement of pipe by reason of the physical condition of the pipe, it was necessary to find out, if possible, just what part of this total removed and abandoned footage I set out was actually caused by the condition of the pipe.

Q. That is the deterioration of the pipe, as distinguished

from abandonments and removals necessitated by changed operating conditions or public requirement?

A. That is true. Now, in the main line system and in the tap lines of the Company, there is a large amount of pipe involved, much greater than in the gathering lines and well lines, and having a better record of what actually happened in the case of the main and tap lines, I confined my analysis of the experience of the Company with ref- [fol. 1947] erence to replacements of pipe by reason of the condition of the pipe to the main lines and tap lines; and assumed, and properly, that if on a large amount of pipe —sixty million feet of 3-inch equivalent diameter pipe, nearly—that if something could be developed that would indicate the future behavior of that pipe, that that finding would be applicable for that particular purpose to the well line and field line pipe; and that is the premise upon which I started.

Q. You meant six million feet, didn't you?

A. No; sixty million feet of 3-inch equivalent diameter pipe, because there is about that many feet of 3-inch equivalent pipe in the main lines and tap lines of the Lone Star System, I think.

Q. Referring to page 29, it appeared that the replacements, removals, and abandonments have actually been six million feet?

A. That is right there. Now, in order to make that study I had to go back and make an analysis of each and every replacement, removal, and abandonment that had taken place in the main line and tap lines of the Company.

Q. That is for the purpose of determining just what caused the removal?

A. That is correct; and in doing that I have searched old records, to get into the map records of the Company at the time it was organized, and got hold of the men who [fol. 1948] in the field actually changed the pipe and removed it, in order to make a determination of what actually took place in the case of each removal. Now, in a great many cases, pipe would be removed and transferred to the warehouse; and so far as I was concerned, its identity then became lost, except there was a disposition made of the pipe as junk at the time it was transferred to the warehouse, because the Company when it moved from its offices downtown in Dallas up to its home on Wood Street destroyed a lot of those old material transfer records, which, of course,

were useless and had no bearing upon the accounting records of the Company or the operation of the Company. It is true, however, that a certain percentage of that pipe which was transferred to the warehouse was subsequently junked as unfit for use, and I have not taken into consideration, in connection with the assignment of pipe as pipe junked and abandoned, the pipe which might have been junked after it had been transferred to the warehouse. The result of the study which I have made in connection with the main lines and tap lines of Lone Star Gas Company, relative to what actually happened to that pipe, is shown on page 79.

* * * * * * *

[fol. 1949] Now, the term "replacement", as applied to the [fol. 1950] pipe in the system of Lone Star Gas Company, is intended to include the removal and replacement of pipe, either by pipe of the same size, or by pipe of a larger or smaller diameter than the pipe replaced. In each case of replacement, as herein used, there have been no changes in the designations of the lines affected by the replacements, nor in the general location of the line in which the replacement has been made. In other words, if there is a piece of pipe taken up, and another piece of pipe put back in the line, and the line has not been changed and it remains where it was before, I have designated that as a pipe replacement. Now, these replacements have been brought about by three things, as I have previously explained: the physical condition of the pipe, changed operating conditions, and public requirement. Now, the term "Removal" is intended to cover the complete removal of a designated unit of the pipe line system and the use of the pipe and fittings thus removed as a part, or the whole of another designated unit of the pipe line system. In other words, if we take up a section of pipe line at once place and take it to another place and give it another letter, I have designated that as a Major Removal. The word "Abandonment" is intended to cover the abandonment of pipe in place in any designated line, the abandonment of the line itself as a unit or service, and the total or partial removal of the pipe and [fol. 1951] fittings and the subsequent transfer of the material removed to warehouse stock as second hand or salvaged material. Now, I think I have made clear, or at least I have attempted to, that I went into the records of the

Company and found out how many feet of the pipe line in the main lines and tap lines had been replaced, removed, and abandoned; then I found out what had happened to the pipe, and what they had done with it after it was removed or abandoned; and that is covered by the tabulation I have just described.

Q. On page 79?

A. On page 79. Now, steel pipe, I think everyone knows is a type of material which once placed in the ground becomes subjected to the effect of external factors, and these external factors have a tendency to a greater or less degree, dependent on where the pipe is located, to bring about the ultimate destruction or deterioration of that pipe. Now, that is a more or less gradual process, and does not become evident as a whole during the earlier years of the life of the pipe, but becomes a greater and greater element of destruction as the life of the pipe becomes extended; and so, if we could have a complete history of all the steel pipe that had ever been laid, it would be found that during the early years of the life of the pipe there were few replacements, [fol. 1952] and that as the pipe got older the replacements gradually increased as the age of the pipe increased, and that as the pipe became still older finally it would entirely disappear and be worthless. But, of course, in a natural gas pipe line system, which is operated continuously and renders a public service, a condition of that kind could never be allowed to exist. In other words, whenever a piece of pipe in the system of Lone Star Gas Company reaches the stage where its replacement is necessary, this replacement is made and the pipe line, be it designated A Line, B Line, or C Line, might last forever through a succession of replacements of the pipe as the necessity for the replacements arose. Now, one of the most important things in connection with the whole study is to determine the behavior of steel pipe relative to this condition which I have explained, and that is the effect of corrosion, and rust, and decay upon that pipe.

[fol. 1953] Q. And did you first determine that effect of rust, corrosion and decay on the pipe in arriving at your ultimately adopted and determined rate of reserve accruals?

A. Yes, sir; that was the basis for the determination. Now, inasmuch as pipe deteriorates with reference to time as well as with reference to peculiar local conditions, it was

ecessary to learn how long this pipe had been in service, o that was the next step which I took—to learn exactly, f possible, when each line was laid, so that I would know he age of the pipe in the system and could relate the age f the pipe to the experience developed by the replacement f the pipe, because those two things were absolutely inter-lependent, at least to a large extent.

Q. Does an insurance company or do insurance actuaries n the determination of insurance premiums do virtually the ame thing in respect to the lives of men?

A. That is correct. Now, there are many billions of dol-ars in the United States invested in steel pipe laid in the round and there are millions and millions of dollars ex-pended every year for the replacement of pipe brought bout by the corrosion of the pipe; but, peculiar as it may eem, despite the importance of knowing that, very little in-ormation has ever been correlated and brought into such hape that an engineer could tell anything definitely about hose factors which might control the life of pipe, and I guess the reason for that is that conditions vary so widely rom one place to another that what would be applicable fol. 1954] to one part of the country would not be appli-able to another part of the country, and so that a study to e of any value would have to be of the specific property nder consideration, because, as one of the leading authori-ies on the corrosion of pipe has stated, there is a differenee f from 1 to 24 in the rate at which pipe will corrode, based pon studies made, depending upon what part of the coun-ry the pipe is laid in.

Q. To a large extent is corrosion of steel pipe determined y the character of soil in which it is located?

A. It is determined altogether by the conditions external o the pipe at the place at which it is laid. I say "alto-gether"; I mean almost altogether. The manufacture of teel pipe has developed to such a point that there is prac-ically no variation in the pipe itself, and the rate of cor-osion of steel pipe is dependent entirely upon conditions xisting at the point at which the pipe is located. Now, here might be some extraordinary situation where internal orrosion might take place, and does take place, but they are actors external to the pipe. I mean internal corrosion s well as external corrosion.

Q. Now, Mr. Connor, you thereby determined the serv-

ice years of the main lines and tap lines of the Lone Star Gas Company as of January 1, 1933?

A. I took all the lines into consideration—tap lines, main lines and field lines—and ascertained the date when those lines were put into service. I went a step further than that, because certain of the lines have been purchased by Lone Star Gas Company, and these lines had a certain age [fol. 1955] up to the time they had been acquired by Lone Star Gas Company, and their actual age was not represented by the time in which they have been a part of the Lone Star Gas Company system, so I made a separate analysis of that factor, which I will subsequently explain in detail, and I also made a determination of the length of time each of the lines had been in service in the Lone Star Gas Company system until replacements had been made and which were included in my summary but which had been removed and were no longer in service.

Q. Where in Defendant's Exhibit 42 have you set forth the historical data relating to the service years of main lines, tap lines and other lines as of January 1, 1933?

A. Beginning on page 36 and extending through page 46 I set out in detail, both in tabular form and in graphic form, a series of charts and a series of tabulations of the actual rate of growth of the various pipe line systems and designated as being part of the Lone Star Gas Company property. On page 38 is a graph which shows the rate of growth of the combined pipe lines, including main lines, tap lines, field lines and well lines, in the system from the date of the company's organization up to the date January 1, 1933, and the graph shows the year at the bottom and the percentage of total pipe in the system in the vertical right-hand scale.

Q. Now, Mr. Connor, having made that determination of the average or weighted age of the property included in the pipe line system, how did you make use of that information?

[fol. 1956] A. This, Mr. Griffith, is not a determination of the weighted age; it simply shows the per cent of pipe of various classes in service each year, and total proportion of pipe now in service which was in service each year from the time of the company's organization.

Q. It would serve as a basis for determining the weighted age?

A. Yes, sir. I have also determined the weighted age. With the age of the pipe, the number of feet which has been installed in various years, and the actual pipe which has been replaced determined in so far as replacements were controlled by the condition of the pipe, I was in a position to attempt, at least, as far as that information would permit me to proceed, to make what is commonly called a mortality curve which would indicate the behavior of that pipe under the conditions imposed by the service. Now, a mortality curve may seem very complicated, but it is not. It is simply a picture of the percentage of an original group which would survive a given number of years of service. Now, that mortality curve was developed by me from the information which I had in hand. It was checked for its accuracy and as to its direction and general behavior by studies which I have made of the pipe line replacements in the distribution system of the Fort Worth division of Lone Star Gas Company. It has subsequently been checked by similar mortality curves, which have been based upon the experience of more than 240 natural gas distribution plants.

Q. In this territory?

[fol. 1957] A. In this territory.

Q. And have you set forth in Defendant's Exhibit 42 a mortality curve of pipe as developed by you from the historical experience of the company?

A. That is correct; and that is shown as a part of the graph on page 57; and I may state in that connection that it is the identical curve which I used in connection with my testimony in the hearing held at Fort Worth.

Q. By the Railroad Commission of Texas in Gas Utilities Docket No. 75?

A. Yes, sir. I have, since the time I prepared this, investigated the experience of sixteen million feet of pipe in distribution plants in service over a period ranging from twenty years to one-half year, and I found nothing to lead me to make any modification of it.

Q. Mr. Connor, if we refer to the findings, opinion and order of the Railroad Commission of Texas in Gas Utilities Docket No. 75 we find on page 61 hereof the following language: "In arriving at his mortality curve and the resulting 25-year average life for steel pipe, Mr. Connor

was largely influenced by a mortality curve which he had previously worked out for steel pipe in the Fort Worth Distribution System and which curve had a 20½-year average life. In fact, it can be fairly stated that the characteristics of Mr. Connor's 25-year average life mortality curve for steel pipe in the Lone Star Gas Company Transmission System were largely determined by the characteristics of [fols. 1958-1959] the 20½-year average life mortality curve for steel pipe in the Fort Worth Distribution System. Yet Mr. Connor testified that the factors which affected the mortalities of pipe in a city distribution system were entirely different from those which affected mortalities in a transmission system. He testified further that only some sixty per cent of the mortalities in the Fort Worth System had been caused by deterioration.'' Now, Mr. Connor, did you so testify?

* * * * * * *

A. I so testified.

* * * * * * *

[fol. 1960] Q. Did you actually use the mortality curve developed on the Fort Worth Distribution System for the mortality curve which you applied to the Transmission System of the Lone Star Gas Company?

A. I used it as a guide, and it was helpful, but the point I wish to make is as to the mortality curve which I used in connection with the Fort Worth Division. The inference in the Commission's order is that that was a mortality curve based on the historical experience and that forty per cent of the total replacements were caused by other factors than the condition of the pipe. Now, as a matter of fact the basis information upon which that curve was prepared was a study made by myself and Mr. Goodson of the firm of Haskins & Sells, wherein we took the voucher records of the Fort Worth Gas Company from the date that that company went into business as a natural gas company through the year 1928 and gave no consideration to any [fol. 1961] piece of pipe other than the pipe which was junked.

Q. In other words, you gave consideration in that curve only to the pipe which was junked and abandoned by reason of deterioration?

A. Plus an allowance of ten per cent. Now, the investigation that Mr. Goodson and I made at that time primarily was not for the purpose of determining how much pipe had been junked and abandoned in the Fort Worth System. We were making the investigation to determine how much pipe was then in the Fort Worth Distributing System. There was a dispute as to the amount of pipe in that system. We therefore took the purchase of pipe and then we took the ultimate disposition of the pipe from the beginning of the company's history. Now, all the pipe which was taken up in that system and transferred to the warehouse was given no consideration whatsoever by Mr. Goodson and myself, and the basis for the mortality curve which is referred to by the Commission's order was predicated solely upon pipe which was junked and abandoned.

* * * * * * *

[fol. 1962] Q. Please refer to the mortality curve which you have determined, as set forth on page 57 of Defendant's Exhibit 42, and explain that curve, Mr. Connor.

A. Curve A-B shown on page 57 is a graphic delineation of my interpretation of the experience of Lone Star Gas Company pipe with reference to the failure of pipe due primarily to the condition of the pipe. Now, the actual experience of the company, of course, could not extend beyond approximately twenty-three and a half service years, as shown at the bottom of this page.

[fol. 1963] Q. Because that has been the period of the Company's corporate existence?

A. That is correct. And there are no data which would give you anything further than that, with reference to that experience. Now, from that curve I have derived what is called a distribution curve of annual replacements, the annual replacements being the replacements which would be indicated by the slope of the curve for the corresponding year. Now, a property of this kind can not be permitted, as I have stated before, to pass out of existence; replacements must be made, and the calculated reserve to accruals are predicated solely upon the assumption that this property will be perpetually maintained as it is, in so far as its physical condition is concerned. So that we have a situation wherein we must determine ultimately the rate of replacements of replacements, because after a piece of line composed of a large number

of units of pipe has passed entirely out of existence so far as the original units are concerned, and the line itself is still in service, the pipe which will then be in service will be replacements of the original units, and such replacements as will be made thereafter will be replacements of replacements; and that cycle would continue as long as the prop- [fol. 1964] erty remained in service.

Q. In other words, in some particular sections of a pipe line there might be a series of replacements of individual joints of pipe?

A. That is correct.

Q. Over a period of a number of years there might have been a particular section of the pipe line — might have been replaced as many as four or five times?

A. That is correct. Now, this calculation is based on an assumption which is usually made in determinations of this sort, and that is that the behavior of the replacement will conform to the behavior of the original unit, or the property as a whole; in other words, if you make a replacement in a piece of pipe line system you will assume that the units of that replacement will have the same type of experience in the matter of replacements that the entire line or the entire system might have; and it is upon that assumption that the calculations have been made which will determine the future annual rate of renewal of pipe. The calculations, which are rather extended, are shown on pages 58 and 59. Now, since the preparation of this report, or at least during the past year Mr. P. McDonald Biddison and myself have been making a series of investigations [fol. 1965] covering the applicability of the assumption which I have made—that is, that the replacements will perform as the average of the whole system to the steel pipe laid in this territory. And we have reached the conclusion that that assumption will not hold true, and that the actual rate of replacement of pipe will be greater than that indicated by the assumption that the pipe which goes back into the System as a replacement will take on the characteristics of the System as a whole.

Q. In that respect would you say that your mortality curve is conservative?

A. To that extent it is, yes, sir.

Q. Now, does your mortality curve on page 57 of Defendant's Exhibit 42 indicate the average life to be expected

of steel pipe in this territory and on the Lone Star Gas Company System?

A. Yes, it indicates the mathematical average of the life of steel pipe in this System upon the assumptions which I have outlined.

Q. And what is that average life of steel pipe determined to be, as reflected by the mortality curve on page 57 of Defendant's Exhibit 42?

A. That is shown to be twenty-five years.

Q. In the order and opinion of the Railroad Commission and in its findings, in evidence in this case, what did the Railroad Commission of Texas determine to be the average [fol. 1966] life of steel pipe on the Lone Star Gas Company's System?

A. Thirty-three and one-half years.

* * * * * * *

Q. Now, Mr. Connor, having determined that the average life of steel pipe on the Lone Star Gas Company's System was twenty-five years, how did you proceed to utilize that information in connection with your determination of the annual reserve accrual rates?

A. I made the computation shown on pages 58 and 59, and from those computations developed the future annual renewal rates which are shown on page 60.

Q. Then, having determined the annual renewal rates for steel pipe as shown on page 60, how did you make use of that information?

A. That information was subsequently used in the second section of the report. However, I also developed a curve which would take care of the replacements, removals, and abandonments of pipe for causes other than the physical condition of the pipe.

Q. And at what page in your exhibit is that curve disclosed?

A. That is on page 63.

[fol. 1967] Q. Is that likewise based upon the historical experience of the Company up through the twenty-three and one-half years of its corporate existence?

A. That is correct. Now, that curve was prepared independently for well lines and field lines, and main lines and tap lines. The primary curve of replacements, which has to do with the condition of pipe solely, applies to all lines alike.

Q. Did you prepare any other curves based upon the historical experience of the Company, in connection with replacements, abandonments, and removals, and which curves appear in your exhibit?

A. That is correct; it is on page 68; that is a curve for replacements, removals, and abandonments of field lines and well lines, due to causes other than the condition of the pipe.

Q. And what does that show, that graph or curve on page 68, Mr. Connor?

A. That shows an ultimate average rate of replacement, removal, and abandonment for causes other than the condition of the pipe, indicated by the history of the Company, to be about fourteen per cent per annum—fifteen per cent, plus, per annum.

Q. Now, in connection with your determination——

A. No; no, I beg your pardon; I was reading from the [fol. 1968] wrong scale. It is about six per cent per annum.

Q. In connection with your determination of annual rate of reserve accruals on steel pipe, did you develop any other curves which are set forth in the exhibit?

A. Nothing except those which would be merely explanatory, and a graphical delineation of some of the subject-matter which is set forth in tabular form; it has nothing to do with the calculations themselves.

Q. Now, Mr. Connor, you have explained to the jury how you arrived at your determined mortality curves and determined mortality rates for steel pipe arising by reason of deterioration, and also by reason of the removals, abandonments, replacements, or retirements brought about by changed operating conditions, as well as such retirements, replacements, removals, and abandonments as are brought about by public requirements.

A. That is correct.

Q. Now, having determined those three factors, were you then able to arrive at a basic factor to be applied in connection with the annual rate of reserve accrual for steel pipe?

A. Yes.

Q. And where in your Exhibit 42 do you make that application of those several factors?

A. Well, Mr. Griffith, before I did that—made that ap- [fol. 1969] plication, I made a number of checks upon the work which I had done, in order to determine whether or

not the calculations which I had made would conform to the experience of the Company when applied to a pipe in the System of the Company, after giving effect to the age of the pipe in service.

Q. What were those checks you made to determine the correctness of your findings?

A. First, I had to determine what I call the effective service years of the main lines and tap lines in the system.

Q. Where does that appear in Exhibit 42?

A. That appears on pages 82, 83, 84, 85—it extends to page 96.

Q. Now, Mr. Connor, the tabulations appearing on pages 82 to 96, inclusive, seem somewhat comprehensive, but can you relate to the jury, in a general way, just what you did in the matter of making checks upon your developed mortality curves?

A. Yes, I think that I can. I show on page 82 the miles of equivalent 3-inch diameter pipe both in main lines and tap lines which are now in service which were installed in various years. Now, there are certain adjustments which I made to that. I determined the age—the actual age at which a [fol. 1970] certain number of lines purchased by Lone Star Gas Company, the actual time at which those lines had been originally installed, and, of course, their actual life was older than the actual service life they have had in the System of the Lone Star Gas Company. However, the actual retirements which would be applicable to those lines would only be applicable to the number of years they had been in the service of the Lone Star Gas Company, because there is nothing included in my tabulations for replacements made in those lines prior to their acquisition by Lone Star Gas Company. So I put them in the System at their true age with reference to the time they were constructed, but only leave them there for the period of time for which they had been owned and operated by the Lone Star Gas Company. The effect of that adjustment is shown in Table 2, page 85. Now, I take those lines out and treat them independently, because they require an independent application of my replacement rates. On pages 86 and 87 I describe how I took care of certain lines which had been laid and which had been replaced and removed and were not in the System as of the date of this appraisal; but I put them back in the System in order to apply the proper replacement rates against them. And those lines, [fol. 1971] too, had to be treated independently, and a sepa-

rate calculation made for them. Now, the final adjustments are shown on page 95.

Q. In what you denominate to be Table 4?

A. Table 4. Now, there was one other adjustment which I made and which is explained in the text, and that is that two lines in the System—three lines in the System, Line H, Line B, and Line C, were taken up after they had been in the ground for a certain number of years, the bad pipe was culled out of the line, the good pipe was thoroughly cleaned and reconditioned and repainted, and put back into the line; and on account of the fact I have estimated that the service life of those lines so treated would be reduced by reason of the reconditioning to which they were subjected.

Q. Now, these reconditionings of those particular lines that you have enumerated, would that be characterized as a major rehabilitation?

A. That is correct. And I merely assumed that those lines —to Line H that same thing had been done to it twice, and Line C and Line B had been rehabilitated in the years 1917 and 1918, and I assumed that that repainting and reconditioning of those lines shortened their service life by two years.

[fol. 1972] Q. Do you believe that that is a rational assumption?

A. I think it is a very conservative assumption, yes. Now, taking the footage of pipe shown to be installed in each year from 1910 through 1933—1932, on page 95, I then applied to that the replacement rates which I calculated would be the replacement rates for pipe in service upon having reached that age.

* * * * * * *

[fol. 1973] Q. Mr. Connor, please refer to page 169 of Defendant's Exhibit 42. What is disclosed on that page?

A. On page 169 there is shown the result of the application of an annual rate of 5.40 per cent, and the calculated annual charges expressed as a per cent of reproduction cost new, main lines and tap lines, the corresponding balance by years expressed as a per cent, and a calculation which shows that a five per cent interest was compounded on the balance accrued by years; and represented by the difference between the calculated annual charges and the annual accrual, and that even with the application of a five per cent compound interest accumulation, that the credit balance would never

equal that sum of money which would be equal to the decline in per cent of new condition which will take place in the property.

Q. Irrespective of maintenance and repair?

[fol. 1974] A. That is correct.

Q. Now, if we refer to page 1 of Defendant's Exhibit 41, do we find that you carried forward to that page your adopted annual rate of 5.4 per cent and applied it to the transmission line equipment?

A. That is correct, and in so far as the transmission line equipment is indicated on page 1, that also includes the tap line equipment.

Q. And it also includes the rights of way, does it not?

A. That is correct.

Q. Now, Mr. Connor, you testified this morning that in arriving at the ultimate rate or per cent which you adopted for credit to depreciation reserve account that you took into consideration the several factors which brought about the abandonment, removal and retirement of steel pipe?

A. That is correct.

Q. Those factors being the deterioration of the pipe caused by rust, rot and decay, and the removals, or abandonments and retirements caused by changed operating conditions or public requirements, and that you also took into consideration the decline in per cent condition of the pipe, which would accrue regardless of age?

A. That is correct.

Q. Now, did all of those factors enter into and constitute part of your ultimately adopted rate of 5.4 per cent?

[fol. 1975] A. Not directly. They were a component part of the figures shown in Column B on page 169, which represented the estimate of the charges which would be made to the reserve account by reason of the accumulated effect of all of these factors. Those were the charges which I estimate will be made against the reserve account by reason of these factors; the 5.4 per cent is the accrual which will be necessary to provide for those charges expressed as a uniform annual charge. It will be noted on page 169 that the figures in Column B are variable figures from year to year, and the purpose of a reserve accrual is to set up a uniform annual charge to operating expenses which will even out those very variable charges which will take place by reason of the replacements, removals and abandonments of property.

Q. Refer to pages 161 and 162 of Defendant's Exhibit 42. What have you shown on those pages?

A. On pages 161, 162, and 163, I have shown the results of a series of calculations applying to the miles of pipe in service in the main transmission lines and tap lines at the year in which it was installed, the percentages of annual replacements corresponding to that age of pipe, taken from my adopted mortality curve, and by applying those rates which change for each successive year as the property gets older, from 1934 through the year 1955, I determine the calculated amount of pipe which my mortality curve indicates [fol. 1976] will in the future be replaced during those years; and I then expressed that mileage of pipe as a percentage of the mileage of pipe in service as of January 1, 1933.

Q. Mr. Connor, if we refer to pages 144 and 145, do you there show your application of a percentage factor which enters into your determination of annual reserve accrual, and which percentage factor is arrived at as only covering the deterioration of the pipe?

A. Yes, sir; the figures on page 144, which shows the per cent of miles in service, are taken directly from the calculations shown on pages 161, 162, and 163, which I have heretofore explained. Those figures vary from .99 to 5.72 per annum, showing the variation in the calculated annual replacement rates as the time or the age of the property progresses.

Q. Did you take an average of those percentages determined for each year in arriving at your depreciation rate for deterioration only?

A. I took an average, which is 3.54 per cent, that being the average rate determined by the method heretofore described, from the year 1934 to the year 1955. Had the calculation been continued over a longer period of time, the average percentage would have approached 4 per cent as a limit.

Q. And you use this determined rate of 3.54 per cent as one of the factors in arriving at your adopted per cent of 5.4 per cent on page 1 of Defendant's Exhibit 41?

[fol. 1977] A. Yes; because it entered into the figure—those figures shown on page — it entered into as a part and was a part of the figures shown in Column B, page 169.

Q. Now, Mr. Connor, in addition to deterioration of pipe, you stated that the next factor which makes for the retirement, removal, and abandonment of pipe, is changes due to changed operating conditions, and the removals, abandon-

ments and retirements caused by public requirements. On pages 164 to 166 of this exhibit do you make a calculation of the retirements for such causes?

A. Yes. I have applied to the feet of pipe in service as of January 1st,—the miles of pipe in service in main lines and tap lines as of January 1, 1933, assigning to that pipe the year in which it was actually laid in the system, and I have each year thereafter, beginning with 1934 and continuing through 1955, applied the calculated annual rate determined from mortality curve No. 2, in order to provide for what I consider would be a proper annual rate to provide for the element of removals, and replacements due primarily to factors other than the condition of the pipe.

Q. On pages 146 and 147 do you show your adoption of a percentage factor covering removals, abandonments and replacements brought about by changed operating conditions or by public requirements?

[fol. 1978] A. That is correct. I used the factor .94 per cent per annum.

Q. And how was that determined?

A. That is determined by an average of the annual rates from 1934 through 1955.

Q. And which annual rates are set forth at the bottom of page 146 and the top of 147, of Defendant's Exhibit 42?

A. That is correct. Had these calculations been continued, as previously explained, with reference to the determination relative to the removals due to per cent of new condition, this annual per cent would have approached 1.60 as a limit.

Q. Mr. Connor, you testified this morning about major rehabilitations of property—that is the entire removal of large main transmission lines. At page 148 of Defendant's Exhibit 42 do you show the development of a factor which enters into your annual depreciation percentage covering transmission line equipment, which factor grows out of the probability of major rehabilitations?

A. I do.

Q. And what does it amount to, expressed as a percentage, and how was it determined?

A. It was determined upon the basis of the amount of expenditures in the past divided by the number of miles of service years of 3-inch equivalent diameter pipe. The expenditure was $570,000, and it was divided by 95,071 miles

[fol. 1979] service years; and the ratio finally determined by that method was .202 per cent per annum for this factor.

Q. In other words two-tenths of one per cent plus?

A. That is correct.

Q. Now, this determined percentage you say was based upon the actual expenditures of the Company for major rehabilitation from 1910 to 1933?

A. That is correct.

Q. And in the actual historical amount of approximately $570,000?

A. That is correct.

Q. Now, Mr. Connor, you also spoke this morning of another factor which entered into your finally adopted rate of 5.4 per cent as applied to the transmission line equipment. What was that other factor?

A. The decline in per cent of new condition which will take place in this property subsequent to the time that Mr. Biddison made his examination, and which decline in per cent of new condition cannot be offset by repairs and *and* replacements of property items in the system. In other words, the property will gradually decline in per cent of new condition until it reaches a point, which is nearly always reached in the life of a property, when thereafter it will remain at a constant value, by reason of the replacements that are made [fol. 1980] and the repairs; but until that point is reached, there will be a gradual diminution in the value or worth of the property, and it will be disclosed by an inspection of the property. Now, that factor, unlike the other factors to which I have been referring, will stop at some definite period of time, and as will be subsequently explained, I do not carry that factor forward past the estimated period of time at which I believe the property will become static with reference to its per cent of new condition.

Q. And when do you determine that the property will probably arrive at a static condition in respect of its per cent of condition new?

A. I estimate that to transpire in the year 1948 probably; and in connection with that, the reserve accrual required for that item should always be free capital;—that is, money which the company could use without accumulating interest upon it.

Q. Your determination then of annual reserve accruals does not contemplate that the money accrued in any depreciation reserve account would be funded?

A. No; I merely show on page 169 that if the money credit balance which I estimate would accrue should be funded and compounded at five per cent, that it would not equal at any time that amount which should be provided as free capital to take care of the decline in per cent of new condition.

[fol. 1981] Q. Now, the factor which takes care of decline in per cent of condition, when taken into consideration along with the other factors you have mentioned—that is, the deterioration of the pipe, the removals, replacements and retirements brought about by public requirement, by changed operating conditions, and by major rehabilitations, finally determines your adopted rate of 5.4 per cent per annum as applied to the transmission line equipment, the tap lines, and rights of way, on page 1, of Defendant's Exhibit 41?

A. They do with certain modifications which are set out in detail on pages 149, 150, and 151, and I think through page 160.

Q. Of Exhibit 42.

A. Of Exhibit 42. Now, in brief, those factors are these: In making a replacement in a pipe line system the cost of making that replacement is substantially in excess of the unit cost found by a reproduction cost estimate. The reason for that is that replacements are made in comparatively small sections—that is, comparatively small as compared with the length of a large pipe line; and it is, as a rule, a much more expensive proposition to go out and make a replacement of a piece of pipe here and there, using all hand labor, and move on the job and off, than it would be to organize a large construction crew and go out and construct a pipe line. Now, a reserve accrual finally must be in terms [fol. 1982] of money, because that is what it is. A percentage applied to a certain cost is merely a convenient method of estimating that sum of money. Now, what I have determined up to this time is merely the rate at which replacements will be made. Now, if the replacements made cost more than the unit costs to which the percentages apply, then of necessity some adjustment must be made to the percentage in order to yield the sum of money which is necessary to provide for the cost of the replacement; and in the final analysis a reserve must stand for the cost of the replacement. Now, I analyzed approximately 201 individual replacements on jobs which involved individual replacements ranging from 20 feet to 25,000 feet in length, with a total of

665,000 feet of pipe and involving a labor expenditure of $232,000.

Q. This was on the Lone Star Gas System and the figures you have just given are actual costs as reflected by the Company's books?

A. Yes; and then I related the unit cost per foot of those replacements to the unit costs in the appraisal, and found that the ratio of unit cost of making a replacement piecemeal was approximately 1.6 times as great as the unit cost in the appraisal.

Q. Or the unit cost that would be experience- in a wholesale construction program?

A. That is correct. Now, I found on investigation that [fol. 1983] there were included some incidental costs in connection with some of these jobs—not all of them—which could not be segregated from the cost of making the replacement. I found when they opened up a stretch of pipe for the replacement, that they would probably tighten up the Dresser couplings on a section of line close by, or something of that sort, and in order to account or to provide for that excess expenditure which might have crept into the investigation I reduced that ratio from 1.61 to 1.50. That was one step which would necessarily be made in connection with adjusting the percentages found when those percentages were ultimately expressed in terms of dollars and cents. Now, the next step was this: I estimated that whenever a piece of pipe was removed, by reason of the fact that operating conditions had changed, or some public requirement had necessitated the removal, that the pipe and fittings removed would be 100 cents on the dollar when placed in the warehouse. In other words, that is what you term the salvable value of the pipe—that is, one hundred per cent of the pipe, less such costs as would be necessarily applied to the pipe in the way of cleaning and reconditioning, and the cost of fixing the ends of the pipe for further service. Then I studied the actual costs of $4,548,487.22 worth of actual construction costs, and broke the costs down into pipe and fittings, and all other items of expense that went into that con- [fol. 1984] struction, in order to determine what part of a line, or what percentage of a line, would be saved or salvaged, if the line were removed. Of course, you would lose all your labor in ditching, backfilling, and all the cost of welding the pipe, and placing it in the ditch, and hauling it—

all that cost would be lost. And then, of course, it would cost you money to recover the pipe or take it out of the ditch and get it to the warehouse; and taking into consideration those factors, and making the detailed study found on page 167, of Exhibit 42, I found that if you estimated that the pipe and fittings were worth 100 cents on the dollar, and that it cost you 25 per cent of the cost of those fittings to recondition them and get them in shape to relay, that the total loss on any line under those conditions would be seventy per cent of its originally installed cost; so the percentage which I used to cover the future costs of removals and replacements due primarily to changed operating conditions was used only to the extent of 70 per cent of the estimated figure, which I have previously discussed. Now, if attention is directed to page 168, it will be noted that each of the factors which I am discussing have had the percentages which I am now explaining applied to them. Now, I estimated that when a pipe was taken out of the ground by reason of the fact that its per cent condition was such that it would be no longer used, or [fol. 1985] in other words, replaced on account of its condition, I estimated that pipe would be worth 50 per cent of new.

Q. Mr. Connor, in making that assumption that the pipe that would be removed would be worth fifty per cent of new, do you believe that that is a very conservative estimate?

A. I certainly do. I am assuming that every piece of property taken out of the Lone Star System by reason of the fact it was deteriorated would be worth 50 per cent of new.

Q. Based upon the actual experience of the Company, has the pipe which has been removed by reason of the fact that it has deteriorated been worth as much as 50 per cent of new?

A. It has not. Of course, pipe can be taken up from one section of a system where pressures are high, and be relaid as a suction line or where pressures are low, and it would render fair service, and I have taken that into consideration. By giving effect to that assumption, I then reduced the excess cost of making replacements in small sections over the unit sections from 1.50, as I have previously explained, to 1.18. Now, on page 168, each of those steps is set out in detail. The first column shows the year to which the calculation refers; the second column shows the estimated annual percentage of the line which the calculations show might be [fol. 1986] replaced in the future; Column B shows that estimated percentage when multiplied by 1.18; Column C shows

the estimated replacements due to public requirements and so forth. Column D shows that Column C has been multiplied by 70 per cent. Column E is the decline in per cent of new condition, and the factor that applies to that is .96, it having been determined that the per cent of the property subject to depreciation and replacement—that is, the main lines as distinguished from rights of way, was 96 per cent of the total cost. If the various columns on page 168 are added as shown in Column G, they will then be found as Column B on page 169, and the explanation of the calculations which I have made with reference to the determination and use of 5.4 for the replacement, removal, abandonment, and rehabilitation, and so forth, of steel pipe in the transmission system, tap lines, well lines, and field lines of Lone Star Gas Company, is complete.

[fol. 1987] Q. Now, in connection with well lines and field lines, Mr. Connor, as shown by page 1 of Exhibit 41, the per cent factor used as the annual rate of reserve accrual is 8.6 per cent?

A. That is correct.

Q. If we refer to page 186 of Defendant's Exhibit 42 do we find in the "A" column the application of that factor?

A. That is correct.

Q. Briefly, Mr. Connor, from what is that factor derived?

A. The factor 8.6 in column "A" on page 186, which refers particularly to well lines and field lines, is exactly comparable in all respects to the figure 5.40 shown in column "A" on page 169. The difference in the figure between 5.40 and 8.6, which is really derived and developed from the difference between column "B", 169, and column "B", 186, grows out of the fact that the provision for field line removals and well line removals by changing operating conditions, borne out by the history, and the curve itself is based on the history of the company, is much greater than replacements and removals of main lines and tap lines, because there is a constant shifting of well lines and field lines, more especially in the well lines and field lines, but in each case a great deal more than in the main transmission lines.

Q. Changed operating conditions in effect are the chief source—the chief cause of the removal, retirement and abandonment of well gathering lines or well lines and field lines?

A. That is correct. The rate of replacement for the well [fol. 1988] lines by reason of the physical condition of the pipe is identical in its development with that for main lines and tap lines, because, as I have previously explained, the factors which would contribute to the corrosion and rust of field lines would be exactly the same as those which would apply to main lines.

Q. Mr. Connor, refer to page 1 of Defendant's Exhibit 41. In connection with the Gathering System property you determined an annual rate of reserve accrual of 10.5 per cent as applicable to the rights of way in the Gathering System property and the same as applicable to the rights of way in the field line. What is the basis for that determination?

A. The percentage on the rights of way, 8.6, I will explain that the rights of way are included in all cases, because I have applied that percentage in making the estimate of percentage for main lines and tap lines and well lines; I estimated the per cent of property exclusive of the rights of way, and therefore I have to account for that by applying that per cent to the rights of way as appraised.

Q. Do you do that, Mr. Connor, for the reason that the rights of way will be valueless with the abandonment of the well lines and the field lines?

A. Yes.

Q. A moment ago, Mr. Connor, I erroneously stated that you applied 10.5 per cent as the annual rate of reserve accrual to rights of way. As a matter of fact you applied that to the Measuring System Structures, the Measuring Station Equipment, and any of the other well lines and field lines?

[fol. 1989] A. That is correct.

Q. Now, what is the basis for that adopted figure of 10.5 per cent?

A. The basis for that estimate is shown on page 287 and the summaries, as follows: Decline in per cent of new condition one per cent per annum; current replacements and paint, two per cent per annum; cost of removals and abandonment, 7.5 per cent per annum; giving a total accrual rate of 10.5 per cent per annum.

Q. Do you believe that that is conservative?

A. I think it is a fair estimate, and the field Measuring Station Equipment is based on the same factor.

Q. Mr. Connor, in connection with Transmission System line equipment—Transmission System rights of way, as well as in connection with Transmission line equipment, you have used a percentage factor in your application of the annual rate of reserve accrual in the amount of 5.4 per cent. Why do you use that percentage?

A. I state on page 152 the reasons why it was necessary to do that. The reason is this: that in making my application I omitted the rights of way—I reduced the value of the main Transmission System by the amount of the rights of way.

Q. And you have applied the same percentage factor for that reason?

A. They are specifically omitted in the calculations shown.

Q. And you have, therefore, applied the same percentage factor to the rights of way that you did to Transmission Line Equipment?

[fol. 1990] A. That is correct.

Q. Now, Mr. Connor, in connection with Measuring Station Structures, Other Structures, and Measuring Station Equipment, appearing on page 1 of Defendant's Exhibit 41, you appear to have used a percentage factor for annual rate of reserve accrual in the amount of 5.1 per cent. What is the factual basis, if any, for the adoption of that percentage?

A. The detail is *whon* on page 228 of Exhibit 42: Decline in per cent condition is fixed at one per cent per annum; current replacements, painting and removals, two per cent per annum; amortization in twenty-five years on a five per cent annuity basis; two and one-tenth per cent per annum. The sum of those figures is 5.1 per cent per annum.

Q. Do you believe that that is a reasonable estimate?

A. I do.

Q. Mr. Connor, the next large item of property appearing on page 1 of Defendant's Exhibit 41 for which you have made an estimate of annual reserve accruals is in connection with the Compressor Station property. Now, next to the Transmission System property, this is the largest item of physical property in the Lone Star Gas Company system, is it not?

A. That is correct.

Q. You used, as shown by page 1 of the exhibit, an adopted percentage of 6.216 per cent as the annual rate of reserve accrual, which, when applied to a total property

account of $4,867,679.03, gives an annual amount for credit to depreciation reserve accrual of $302,574.93?

[fol. 1991] A. That is correct.

Q. Now, what is the factual basis, if any, for the determination, or what is the derivation of that percentage?

A. The final derivation of that percentage is shown on page 255.

Q. Of exhibit 42?

A. Of Exhibit 42, wherein there is weighted out between the per cent of money represented by the reproduction cost of the main line stations and the per cent of money represented by the reproduction cost of the field stations the respective per cents which have been determined for each ground of compressor stations.

Q. Now, in connection with Compressor stations, as in connection with the steel pipe, did you resort to a study of the actual historical experience of the company?

A. In so far as the historical experience of the company afforded a basis for a rational determination.

Q. On page 263 of Exhibit 42 have you set forth the horsepower installed in the several compressors as of January 1, 1933?

A. I have.

Q. That shows the total horsepower at 38,165?

A. That is right, inclusive of two 190 horsepower Miller gas engines in the Moran station, which are not included in the inventory, I believe.

Q. Mr. Connor, commencing on page 269 and going through page 275, have you set forth the historical data covering retirements of units from the several Compressor Stations of the company?

A. I have set out briefly a history of each plant. For [fol. 1992] instance, on page 271, I specifically refer to the Ibex plant. The Ibex Compressor Station, located near Albany, Texas; date of installation, 1924; original set up: 12 160 horsepower Type 75 Cooper gas engines; 1925, four 160 horsepower Type 75 Cooper and one 175 horsepower Clark engines were added; 1926, seven 170 horsepower Type 80 Cooper gas engines were added. Now, in 1930 it shows seven 170 horsepower Cooper engines were retired from that station and erected at Brad and the 175 horsepower Clark and two 160 horsepower Coopers were re-tired in 1930 and erected at X-Ray, leaving the present set-up of the station 14 160 horsepower Cooper engines. I have a

similar segregation of each and every Compressor Station which Lone Star Gas Company had as of January 1, 1933.

Q. And showing the changes in the main compressor units?

A. That is correct, if any changes have been made, and if not, the statement is so made.

Q. Speak a little louder.

A. I say, if no changes have been made, it is so stated.

Q. On page 276 of Defendant's Exhibit 42 do you summarize the Compressor Station Construction and show the years wherein the various horsepower of the stations was installed?

A. That is correct.

Q. When was the first installation of compressor stations?

A. In the year 1914.

Q. Do you show in the right-hand column on that page the cumulative percentage of installation for each year from 1914 through 1930?

[fol. 1993] A. I do.

Q. Now, Mr. Connor, please relate to the jury in a general way how you arrived at your final adopted factor of 6.216 per cent for annual rate of reserve accrual as applied to Compressor Stations.

A. The first thing, of course, was to take into consideration the operating experience and history of the compressor stations in the Lone Star Gas Company system. There are two types of compressor units installed. I might modify that statement by saying that there are two classes of station in operation. The first class is the class of station which might be properly designated as a main line station; that is a station which is strategically located on the main line of the system, or main lines of the system, with the probability that it will remain there indefinitely. The other type of station is the type of station which is near a field station, and these stations are located near the field, close to the source of reproduction, and have no particular reference to the main lines, because as a matter of fact they are really rarely, if ever, on the main line. They take the gas from the gasoline plants—the residue gas from those plants, which comes to those stations at a very low pressure, and they pick it up at a sufficient pressure to permit it to be economically transported over transmission systems.

Q. The field stations carry it to the main lines?

A. That is correct. There are always a number of wells [fol. 1994] in what is known as low rock pressure or lower pressure than the average pressure of other wells. Now, the high pressure wells can discharge into a line the required pressure for adequate service. A large number of other wells in good condition, capable of producing a large volume of gas, would be able to—be unable to deliver gas into the lines. The installation of a compressor station there permits picking up the gas and putting it into the line. Now, as depletion takes place there is a constant shifting and movement of compressor units from one location to another.

Q. Is it in about the same way, Mr. Connor, as the constant shifting of field lines, well lines and gathering lines?

A. That is correct. Of course, in a lesser degree. Now, when stations are installed the units are specially designed in order to be readily transferred from one location to another. They do not compare in size with the very large units which are located on the main line station at Petrolia. Now, inasmuch as compressor stations have different characteristics, there is a certain amount of changing and moving around, incurring losses and costs by reason of these removals, and it is necessary to separate the reserve accrual into one which will apply to the field stations and one *which will apply to the field stations and one* which will apply to the main line stations. That necessitates as the first step a ratio of the reproduction cost of main line stations and of the reproduction cost of field stations. Now, on page 242, that allocation is made, show- [fol. 1995] ing that the reproduction cost of Gainesville station, Joshua station No. 1, Joshua Station No. 2 and Petrolia station was as of January 1, 1933, $1,643,591.00, while the reproduction cost of the other stations, of which Brad, Brazos, Breckenridge, Caddo, Cheaney, Desdemona, Eastland, and so forth, are typical examples, was $3,266,355.00. Now, the compressor units are very large gas engines. That is practically true in every case, except on some compressors at Joshua No. 1 station; all of the other units of Lone Star Gas Company are natural gas engines. They will unquestionable operate over a long period of time; just how long, I don't know. I don't know of any equipment of that kind which is operating now that is fifty years old. I do not believe that they will last or be in service

that long. Frankly, my estimate for the retirement of those units is merely an estimate, and I have assumed that they would have an average life of thirty-seven years, I believe—thirty-five years—and I have assumed that the accrual should be accrued upon a sinking fund basis, for the reason that there will be no substantial requirement for the use of that reserve with respect to the compressors until the time that they are ready to be taken out of service, for the reason that I have otherwise provided for the current renewals of parts around the station.

[fol. 1996] Q. Now, you say that your estimate of thirty-five years is just what you stated it to be,—I will ask you if that is a rational assumption for comparable—for machinery of that type in use in other work?

A. Yes; I don't think there are many reciprocating engines or engines that have the speed and have to stand the usage that the gas compressor does, that, as a rule, last much beyond thirty-five years. Improvements take place, and obsolescence or inadequacy will perhaps take precedence over actual physical deterioration.

Q. By proper maintenance the life of these engines can be prolonged for quite a period?

A. That is true. Now, in connection with these compressor stations there are a lot of other pieces of equipment that are entirely different from the equipment that we have been talking about. We have Class A Structures, which are steel frame, iron side structures; we have Class B Structures, which are wooden structures; we have boiler plants, and auxiliary units, water supply, water storage tanks, cooling towers, plant pipe, and other similar equipment around the stations, which is much more subject to loss through depreciation and replacements than the main units themselves. So I took the reproduction cost of the main line [fol. 1997] stations, and broke it down into the constituent items, and determined what percentage of the whole these constituent items were. For instance, on the main line stations the main units constitute 47.2 per cent of the entire equipment; while on the field stations the main units constitute 51.28 per cent of the entire cost—the reproduction cost of the units.

Q. Now, that breakdown—both in connection with the main line stations and in connection with the field stations—is set forth on pages 243 and 244 of Defendant's Exhibit 42?

A. That is correct. Certain current replacements and current renewals are required, and I have used very largely the Company's operating expense with reference to the cost of such charges to the reserve account, in making my estimate, and that tabulation is shown on page 253 of Exhibit 42; and I have put an asterisk after the items which would be included in my allowance for current charges, as distinguished from the reserve accruals provided to make the replacements of the units themselves. The most important thing is the determination of the proper rate of removal of these compressor stations, and I have determined it upon the basis of the actual experience of the Company in the past, in connection with the [fol. 1998] removal of units. Now, that determination itself had to be subjected to analysis, for the reason that in some cases the removals involved the abandonment and removal of the entire station, in many other cases only a part of the station, as was disclosed by the description that I gave of the Ibex Station, where it showed that some of the engines had been removed and that some were still there. I made a careful study of the cost of making these removals; the estimate was actually prepared by the Engineers of the Lone Star Gas Company who operated and constructed the compressor stations, for the purpose of determining how much would be lost when one of those stations was moved, in part or as a whole.

Q. Just give the jury a general idea of what is lost, Mr. Connor, in the way of construction materials and labor, when a station is removed or abandoned in whole or in part.

A. Well, when a station is removed as a whole, the foundations are lost, all of the labor of installation is lost, all of the supervision is lost, everything that had to do with getting the material on the ground is lost; there will be a very heavy loss on the cottages and other modern appliances that would have to be sold for what anybody would [fol. 1999] be willing to pay for them; there would be a loss on the land itself, because it would be difficult to dispose of it; there would be a loss on all the provisions for water—and the provisions for water at a compressor station constitute a very important factor—all of the piping and all of the labor in assembling the piping underground and overhead would be lost; and there would be some loss, of course, represented by the wear and tear on and injury

which might be done to the major equipment. Now, in the case of a partial removal, the loss would not be so great, because the structure itself would still be there, and the cottages and the substantial part of the building and appurtenant equipment would not be affected by the removal of one or more units; and I have given effect to those things on page 250, after first determining what percentage of the total removals in the past had been complete removals. I found that approximately 69½ per cent of the total horsepower removed had been in connection with complete removals, and that approximately 30.6 per cent had been removals in connection with removals of units from one station to another, without complete removal of the station. Now, it was determined after a careful analysis and estimate on the part of the Compressor Department Engineer-[fol. 2000] ing Section that there would be 49.2 per cent loss on the abandonment—the total abandonment of a station, and that 21.9 per cent would be lost on the removal of individual units.

Q. Did you check those compilations of the Compressor Engineering Department?

A. Yes; I had made up from the accounting records of the Company and taken from the plant equipment section a detailed estimate of the cost of several typical field stations. This detailed cost showed the actual cost of all the items which went into the construction of these typical field stations, and by checking the actual cost of the labor and material which went into these stations, and by making a careful determination of what would be lost in each case upon removal, it was possible to make a check against the Engineers' figures—and, in fact, the Engineers themselves, in making their estimate, made reference to these detailed costs, and that is, I think, a very conservative figure, that you would save about fifty per cent of the total installed cost of a station when you removed it. Things would have to work out pretty satisfactorily all around in order to secure that much salvage out of a removal of a complete station from one part of the State to another. However, those [fol. 2001] are the percentages which I used. Now, as I said before, thirty and approximately six-tenths per cent were involved in partial removals, and multiplying 3.57 per cent by 21.9 per cent (which is the loss in partial removals) we get a weighted loss of 6.69 per cent; and multiplying 69.43 per cent (which represents the total removals involved in

the per cent of the total removals—involved in the complete removals) by 49.2 per cent (which would be the loss involved in total removals) we get a weighted loss of 31.16 per cent, and adding this 6.69 per cent we get 40.85 per cent. Now, that 40.85 per cent then becomes a factor which I apply to the annual percentage of the reproduction cost of the stations, which I have estimated would be the rate at which these stations would be removed. For instance, for the estimate as shown on page 251, the annual rate is 4.35 for the year, with progressingly increasing percentages for each succeeding year. In each case that percentage is multiplied by 40.85, and in that case the 4.35 is reduced to 1.78 per cent. Now, in connection with the various items of property in the compressor stations, other than the main units as shown—and including the main units, as a matter of fact, as shown on pages 246 and 247, the percentage of the total of the main line stations to the percent-
[fol. 2002] age of the total of the field stations represented by the various items which go to make up the station, had applied to them an annual rate of reserve accrual. Now, in most cases this annual rate of reserve accrual was worked out in connection with the Engineers who actually operated and maintained these plants, together with a study and application of the depreciation percentages suggested for similar equipment by the Bureau of Internal Revenue in its preliminary report on that subject.

Q. You are referring to the Bureau of Internal Revenue of the United States?

A. That is correct.

Q. The Treasury Department?

A. That is correct. Now, these figures result in an annual rate—weighted rate for the main line stations of 3.522 per cent, and for the field stations of 3.115 per cent. Now, that was exclusive of the allowance for the removal of stations which would only involve the field stations, and also exclusive of the reserve required for current replacements.

Q. In other words, the annual rates shown on pages 246 and 247 of Defendant's Exhibit 42 for the main line stations and the field stations do not involve any accrual for replacements and do not involve any accruals which would
[fol. 2003] be necessitated by reason of future removals of stations, in whole or in part?

A. That is correct; and I made a further adjustment, in that I took into consideration a possible salvage value which might arise when the items subject to functional depreciation were finally abandoned.

Q. That is, they might be worth something as junk?

A. That is correct; and I reduced the annual rate by multiplying it by decimal eighty-five; in other words, I have reduced for the main line stations the annual rate of 3.522 to 2.994, and secured for the main line stations a total annual rate of 4.994, composed of 2.99 for functional depreciation of the main units and all of the auxiliary equipment and other appurtenant equipment, one per cent per annum for current replacements, and one per cent per annum for decline in per cent of new condition, making the total 4.994 per cent.

Q. That is shown on page 255 of your Exhibit 42?

A. Yes, that is correct. Now, for the field stations the determination is made on page 256, and there is also a credit of fifteen per cent for net salvage, on the assumption that there will be that net salvage upon the ultimate functional depreciation of the field stations.

[fol. 2004] Q. Then, having determined the annual rate for the main line stations to be 4.944 per cent, as set forth on page 255 of Defendant's Exhibit 42, and having determined that the annual rate for field compressor stations should be 6.831 per cent, as set forth on page 256,—what did you do in order to determine the composite rate for all stations?

A. I multiplied the annual rate determined for the main line stations by the percentage that the main line stations bore to the total investment in compressor stations, and I multiplied the percentage found for field stations by the percentage which represented the proportionate part of the total compressor station investment represented by field compressor stations.

* * * * * * *

[fol. 2005] Q. Mr. Connor, at page 255, you show the adoption of a weighted average annual rate of 6.2162 per cent for compressor station property, which is carried forward to page 1 of Defendant's Exhibit 41?

A. That is correct.

Q. And you have described in a general way the methods which you used to arrive at that determined percentage?

A. That is correct—in a general way.

Q. The various details and the factual data upon which you relay in connection with that estimate are set forth in the Compressor Station Section of Defendant's Exhibit 42?

A. That is correct; and also the tests which I applied to my conclusions and calculations—that is, testing the calculations with the actual experience of the Company.

Q. Mr. Connor, in connection with the next item of property appearing on page 1 of Defendant's Exhibit 41, under the heading of "General System Property", we find General Office Land and Other General Land, for which there is no annual depreciation reserve accrued?

A. That is correct.

Q. For what reason, Mr. Connor?

A. Because there is none necessary.

Q. In other words, land is a non-depreciable item or clas-
[fol. 2006] sification of property?

A. That is correct. I have included in my amortization accrual some allowance for such land as would probably lose a portion of its value by reason of its failure to be used for the purpose for which intended.

Q. But such an amortization would not be applicable to the General Land of the Company?

A. Not at all.

Q. At the bottom of page 1 of Defendant's Exhibit 41 is the item General Office Structure, the reproduction cost new of which is $321,437.63, and for which you determined an annual rate of reserve accrual of 3.3 per cent, resulting in an annual amount for credit to depreciation reserve account of $10,607.44. What is the basis of the determination of that percentage?

A. The details setting out the manner in which the annual rate for General Office Structure was determined are shown on pages 285 and 286.

Q. In connection with the General Office Building of the Company, have you made a breakdown of the component units that would enter into that structure on page 286 of Exhibit No. 42?

A. That is correct, I have.

Q. And having made that breakdown have you applied an average life figure to the various units, such as elevators, sidewalk lift, heating system, and Plumbing, Lighting Sys-
[fol. 2007] tem, Linoleum, roofing, and so forth, in order to determine a proper annual depreciation rate?

A. That is correct. In that connection I have used, wherever these items were included in the Preliminary Report of the Bureau of Internal Revenue, of the Treasury Department of the United States, the percentages set out by the Preliminary Report. In the case of the building as a whole I have assumed a forty-year amortization on a sinking fund basis. I have also include- 1½ per cent per annum for current changes and replacements in the building which would not affect the building as a whole or would not apply to the items enumerated and to which percentages have been applied.

Q. Do you believe that you have made a rational and conservative estimate as to the percentage of annual rate of reserve accrual in connection with the General Office Structure?

A. I think so. I think the estimated life of forty years for office building in the city of Dallas is a reasonable estimate to place upon the useful life of such a building. I have also applied a one per cent reserve accrual, as I have to each and every one of the other items of property which Mr. Biddison has included in the property account which he depreciated, in order to apply to the decline in per cent of new condition.

Q. Mr. Connor, refer to page 2 of Defendant's Exhibit 41. [fol. 2008] Continuing the classification of property known as General System Property, it appears that you have applied to Other General Structures 3.5 per cent as the annual rate of reserve accrual. Are these the general structures located in the city of Dallas, such as the shop, and garage and machine ship of the Company?

A. That is correct.

Q. And what is the basis for the calculation of that percentage?

A. That is shown on page 285. It is based on a thirty year useful life calculated upon a five per cent annuity or sinking fund accrual, which calculation results in an annual accrual for the amortization of the structure of 1.5 per cent. An annual allowance of one per cent is estimated for cost of changes and current replacements; and one per cent per annum is also included to offset the annual decline in per cent of new condition applicable to the property as a whole. The property I have described is the general warehouse and shops of the company located on Logan Street, Dallas, Texas.

Q. When you referred to page 285, you were, of course, referring to Exhibit 42?

A. That is correct.

Q. The next item on page 2 of Defendant's Exhibit 41, or rather the next two items, are listed as Other General [fol. 2009] Furniture and Fixtures, and General Office Furniture and Fixtures, and to which you have applied an annual rate of reserve accrual of 9.7 per cent per annum. What is the basis for the determination of this percentage?

A. The basis is shown on the schedule found on page 289 of Exhibit 42. That is for the General Office Furniture and Fixtures. General Office Furniture and Fixtures were broken down in detail by items, and the amounts applicable to the various items included in the total reproduction cost of $207,601.84 are set out opposite each item. The annual rates were determined largely by the Preliminary Report of the Bureau of Internal Revenue, United States Treasury Department. This Report gave the annual rates which the Engineering Section of the Treasury Department had found to be applicable to this class of equipment. I have applied those rates wherever they were found to be applicable to the particular property item.

Q. Based upon your own experience in connection with this class of equipment, do you believe that the determined annual depreciation rate is reasonable?

A. I do. The bookcases, cabinets, and files have been fixed as having a twenty year life, and I think that is conservative; and the comptometers and adding machines have been given a ten year life, which is really a longer life than Lone Star Gas Company has actually experienced with that class of equipment. Of course, I don't believe that Lone [fol. 2010] Star Gas Company has any furniture that has not been purchased within the last twenty years. In other words, the furniture that they had twenty years ago has been replaced.

Q. Mr. Connor, if you refer to the third column on page 289 it would appear that the determined depreciation rate expressed as a per cent is 8.70 per cent?

A. That is correct.

Q. Would you add to that figure one per cent for the decline in condition?

A. That is correct. In every case I have done so, except where the percentages are entirely omitted.

Q. And the figure of 8.70 per cent appearing on page 289 of Defendant's Exhibit 42 plus the one per cent for decline in per cent of condition new gives you the adopted figure of 9.7 per cent appearing on page 2 of Defendant's Exhibit 41?

A. That is correct; and that step which you have described is set out in detail on page 288 of Exhibit 42.

Q. Mr. Connor, the next item appearing on page 2 of Exhibit 41 appears to be General Shop Equipment, to which you have applied an annual rate of reserve accrual of ten per cent per annum. What is the basis for the use of ten per cent per annum for depreciation in connection with this class of equipment?

A. I made no specific determination by individual items [fol. 2011] of the General Shop Equipment. It is the percentage usually used in connection with equipment of this kind, and consisting of various items used in the repair of automobiles and other types of machinery, and a useful life of ten years is a fair and reasonable estimate for such equipment.

Q. In connection with the next two items, General Tools and Automotive and Construction Equipment, on page 2, of Exhibit 41, is set forth an annual reserve accrual of one per cent per annum. I believe you already referred to your reasons, or gave your reasons for using one per cent per annum as applied to the Automotive and Construction Equipment?

A. That is correct. The actual rate of depreciation which would be applicable to Automotive and Construction Equipment would be largely in excess of one per cent per annum; but that depreciation cost is entirely provided for in the manner in which the Company keeps its books by means of capitalization of depreciation when the equipment is used on capital structures, and as a direct charge to operation when the equipment is used in operation; and therefore, any allowance for depreciation on those items if included herein would be a duplication of those charges.

Q. Well, how did you determine your allowance of one per cent per annum as the depreciation allowance covering [fol. 2012] the classification of property known as General Tools?

A. The allowance is determined exactly the same as in the case of those which have been previously referred to.

That is, the annual rate of decline in condition expressed in terms of weighted age of the property as disclosed by Mr. Biddison's investigation was one per cent, and I have assumed that that rate of decline in per cent of condition new will be uniform for a good many years to come.

Q. In connection with Final Engineering Records you have likewise applied an annual rate of one per cent per annum for depreciation and reserve accrual?

A. That is correct. I have assumed that the engineering records will either be maintained at their present high state of excellence, or if current changes it will be probably charged to operating expenses; and the one per cent is merely the overall decline in per cent of new condition which Mr. Biddison found in the property and the engineering records as included in the determination made by him.

Q. Mr. Connor, the last item of so-called physical property, of the next to the last item on page 2 of Defendant's Exhibit 42 is the item of General Telephone Equipment, to which you have applied for annual reserve accrual 3.34 per cent per annum. What is the basis for that determination?

A. The basis for that determination is shown on page 279.

Q. Of Exhibit 42?

A. No; I beg your pardon—on page 279 I simply show a [fol. 2013] breakdown of the property account into its constituent elements as expressed in percentage of the total. The actual determination is shown on page 280.

Q. In other words, you have taken the entire classification of General Telephone Equipment and broken it down into its component parts, such as rights of way, insulators, poles and cross arms, booths, phones and other equipment, hardware, and so forth, in order to determine the respective percentages for depreciation applicable to each item?

A. That is correct; and having determined the relative proportion of the total amount involved in the Telephone System which has been allocated to these various items, I then applied annual rates to each of them, with the exception of Rights of Way.

Q. And did you then add to the weighted annual rate so determined one per cent for the annual decline in per cent of new condition, which you have heretofore described in connection with other property?

A. That is correct. The actual calculated annual rate before the application of the one per cent was 2.34 per cent. In making up this estimate I assumed fifty per cent salvage value to the poles, and that fifty per cent of the replacements on the system would be made directly to operating expenses. In other words, I got the estimated renewal rate of the poles halved in two twice.

[fol. 2014] Q. On page 282 of Defendant's Exhibit 42, what have you set forth?

A. I have set forth there a very complete experience table on Treated Poles—treated similar to the manner used by Lone Star Gas Company. These data were secured from a text on the replacement of materials by Professor Curtis, and it in turn was taken from investigations abroad made for the purpose of determining the probably life of poles. We have no such information in our possession, and I simply used that as a guide, which would indicate that for treated poles the average life would be about 9.8 years.

Q. And the detail table set forth on page 282 is generally accepted and recognized as being the most extensive study of a large number of treated poles which is in existence?

A. I imagine that it is. The Creosote people in this country may have done work similar to that, but I have not seen any of their data.

Q. And do you believe that your allowance of 3.34 per cent per annum as applied to the General Telephone Equipment is reasonable and conservative?

A. I do. I have allowed fifty per cent as salvage on all poles removed, and further assumed that fifty per cent of the charges for the removal of telephone poles would be directly chargeable to operating expenses.

[fol. 2015] Q. Mr. Connor, it now appears from page 2 of Defendant's Exhibit 42 that the total annual reserve accruals expressed in money, which you have computed for the direct structural costs of the property—or, in relation to the Direct Structural Costs—is $3,022,597.54?

A. That is correct; and is shown at page 2 of Defendant's Exhibit 41.

Q. I meant Exhibit 41.

A. Yes; Exhibit 41.

[fol. 2016] Q. We next find on page 2 of Defendant's Exhibit 41 an allowance of one per cent per annum for other undistributed general costs, and the money allowance of

$92,001.30. What is the basis for the allowance of one per cent per annum as applied to the other undistributed general costs?

A. I have included an allowance of one per cent per annum to provide for the decline in per cent new condition ascribed to those items by Mr. P. McDonald Biddison. Now, it is quite common for engineers in making an estimate of depreciation reserve accrual to make a specific allowance of some sort for items of this sort, but I do not agree with that practice, because I do not believe that the undistributed general costs which would be encountered in reproduction would be met with in the piecemeal replacement of units of property, just as it costs more money to construct property piecemeal, and consideration should be given to that in the setting up of reserve accruals. On the other hand, it costs less from the standpoint of general expenses in connection with making replacements than to reproduce the property, and I don't think it is proper to set up an annual reserve accrual to cover that.

Q. The next item on page 2 of Defendant's Exhibit 41 is an allowance of .828 per cent per annum applied to $42,332,671.62, resulting in a money figure for annual reserve accrual of $350,514.52. If we refer to pages 3 and 4 of Exhibit 41 do we find on those pages a tabulation showing the depreciable property to be amortized?

A. That is correct; and in a general way an outline of [fol. 2017] how the tabulation has been set up. In the text of Exhibit 42, beginning on page 291 and extending through page 301, there is a detailed statement setting out the reasons for each of the subjects which are discussed by the summary, and on pages 304 and 305 of Exhibit 42 the same summary which is found in Exhibit 41 is likewise set out.

Q. Is the same summary which appears on pages 3 and 4 of Exhibit 41 set out?

A. Yes, sir. I think I have previously explained the basis for the summary, with the exception of one item. I have explained that on certain items there would be no loss, that the loss would have been provided for in the other allowances made, and there remains to be explained the item in column "B". That represents decline in per cent of new condition, plus the salvable value of the materials on abandonment included in the estimate and for which no amorti-

zation should be provided, because wherever we have set up in the primary portion of the estimate of reserve accruals an allowance for decline in per cent of new condition certainly that portion of the total has already been provided and you would not want to amortize that. Then, if there was a salvable value, which I have estimated to be fifteen per cent you would not need to amortize that, because you would get it back when you abandoned that property, and the sum of those two items is shown in Column "D".

Q. Amounting to $14,311,896.15?

A. Yes, sir. The sum of the items in columns "B", "C" and "D" is added—I mean is found in column "E" as a [fol. 2018] total figure which shows $31,650,733.95, which is deducted from the total cost of reproduction new, and leaves the amount to be amortized. Now, included in the amortization item is my estimate of the cost of developing business, because it would be a capital asset which would be lost upon the final abandonment of the enterprise—that is, any going value or cost of business development which the company may have acquired or incurred.

Q. Therefore on page 2 of Defendant's Exhibit 41 you have set forth your annual determined amounts expressed as money covering the depreciation allowances for the direct structural costs of the physical property, for the other undistributed general costs, and for the amortization of property subject to amortization?

A. That is correct.

Q. And in what total amount, Mr. Connor?

A. $3,465,123.36.

Q. And does that represent your best estimate based upon the studies which you have made of the annual amount which Lone Star Gas Company should be entitled to charge to operating expenses in connection with its public service operations, exclusive of the Fort Worth Division, and for annual credit to the depreciation reserve account?

A. That is correct, subject to any mechanical errors which may have intruded into the calculation. Before leaving the subject, Mr. Freese has kindly called my attention to a typographical error which was found in two places on page 311. The error is obvious, because the calculated [fol. 2019] results have no relation to the figure actually found in the exhibit on page 311. In the last sentence of

the second paragraph, the figure dollar mark decimal nought 73 M cubic feet should be changed to read dollar mark decimal nought nought 73 per M cubic feet, and the same correction should be made in the following paragraph where the figure dollar mark decimal nought 73 appears.

Mr. Freese: It is on the next page, too.

A. Mr. Freese suggests that it is on the next page, too, and the same correction should be made.

Mr. Griffith: Mr. Reporter, will you see that the original copy is changed?

The Reporter: Yes, sir.

A. That figure which I read where the correction was required was Mr. Hulcy's determination of the unit value of the gas reserves of Lone Star Gas Company, and I had it in my book at seven cents per thousand cubic feet, while Mr. Hulcy's was seven-tenths of one per cent per thousand —one cent per thousand cubic feet.

Q. You did, however, apply the correct price of seven and three hundredths of one cent per thousand cubic feet in your calculation for depreciation?

A. Seventy-three thousandths of one cent. Yes, the extensions were correct in dollars; there is no error in the dollars.

Q. Mr. Connor, in connection with your qualifications, I believe that you stated you had had some considerable experience in the financing and negotiating of financing of natural gas projects and enterprises?

[fol. 2020] A. I have; yes, sir.

Q. Were those enterprises similar in all substantial respects to the business of Lone Star Gas Company or the business in which Lone Star Gas Company is engaged?

A. The enterprises that I have been connected with were natural gas pipe line projects, either constructed in the general territory in which Lone Star Gas Company operates or were planned to be constructed in this general territory, and in connection with my experience in those matters I have had occasion to represent both the people who were attempting to get money to build projections—projects of that kind and also the people who were going to furnish the money to build projects of that kind.

Q. Mr. Connor, are you familiar with current costs of money to utilities such as manufactured gas properties,

telephone properties, water properties, and natural gas properties?

A. I have kept myself currently advised as to the current yield on the senior securities of public utilities.

Q. Have you prepared, Mr. Connor, a compilation for introduction in evidence here giving current quotations on bonds and senior securities of natural gas, manufactured gas and electric utilities?

A. I have; yes, sir.

Q. Is this the compilation to which you refer?

A. It is.

Mr. Griffith: We offer in evidence the compilation so identified by the witness, being styled on the title cover [fols. 2021-2052] "Lone Star Gas Company—Current Quotations on Bonds and other Senior Securities, Natural Gas, Manufactured Gas, and Electric Utilities. Ed C. Connor, Consulting Engineer, Dallas, Texas."

• • • • • • •

[fol. 2053] Q. Mr. Connor, are you familiar with the returns commonly expected, demanded and received by investors in public utility enterprises?

A. I am.

Q. Is that true in respect of public utility enterprises generally through the United States as well as in this Southwestern territory?

A. That is correct.

Q. How do investors regard the relative hazards of the natural gas business, the electric business and the manufactured gas business as indicated by yields of first mortgage bonds and other senior securities?

[fol. 2054] A. They regard the manufactured gas business as being the most acceptable and least hazardous; they regard the electric utility business as being less hazardous than the natural gas business; they regard the natural gas business as being the most hazardous and uncertain of all public utility enterprises.

Q. Is there any particular division or section of the natural gas business or natural gas utility business regarded as more hazardous than any other division?

A. Yes.

Q. What is that division which is regarded as more hazardous?

A. That is the division of the natural gas business which has to do with the production and transportation of natural gas as distinguished from the local distribution of natural gas.

Q. Does it make any difference, Mr. Connor, whether that distribution is done in towns and cities which would not support a manufactured gas plant after the exhaustion of the natural gas supply?

A. The distinction does not apply to cities which are so small as to not justify the construction or operation of a manufactured gas plant should the supply of natural gas be exhausted.

Q. Mr. Connor, as a result of what you have stated relative to the relative hazards of the manufactured gas, electric light and power, and natural gas utility enterprises, is a higher rate of return necessary to attract capital for investment in natural gas enterprises than in manufactured gas and electric light and power enterprises?

[fol. 2055] A. That is correct.

Q. Mr. Connor, please refer to the exhibit marked for identification Defendant's Exhibit 43. The exhibit appears to give the maturity date, the high and low prices for 1934 and in most cases the last sale of each security, and the yield of most of the securities to maturity as of May 22, 1934?

A. That is correct.

Q. Has there been any substantial change in the selling price of such securities and the consequent yield to maturity from May 22, 1934, up to the time of this hearing, to-wit, June 30, 1934?

A. There has not.

Q. Mr. Connor, what does Defendant's Exhibit 43 reflect as to the comparative yields of bonds and senior securities of the three utility enterprises—that is, natural gas utilities, electric light and power utilities, and the manufactured gas utilities?

A. The exhibit discloses the fact that the average yield on manufactured gas utility enterprises is the lowest of the three and that the average yield of the electric utilities is lower than that of the natural gas securities.

Q. And does it also disclose that the yield of the natural gas utilities is substantially higher on the bonds and senior securities than on the bonds and senior securities of the manufactured gas and electric light and power enterprises?

A. In most instances that is correct.

Q. Mr. Connor, does Exhibit 43 reflect the current yield of senior securities of any natural gas utilities operating in [fol. 2056] the State of Texas?

A. It does.

Q. What are those companies?—and give the respective selling prices or yields of the senior securities of each company.

A. The Houston Gulf Gas Company is a pipe line operating in the State of Texas. The first and collateral sinking fund "A" six per cent securities of this company sold last at 74; the low for the year was 42; the high for the year was 77. There has been no calculation made of the yield to maturity of that security. The El Paso Natural Gas Company first sinking fund six and one-half per cent bonds on the last sale would yield to maturity 12.05 per cent. The Dallas Gas Company first mortgage sinking fund six per cent bonds will yield to maturity 5.51 per cent. The County Gas Company first mortgage five per cent bonds will yield to maturity 6.39 per cent; that is based on the last sale recorded as of May 22, 1934. The Texas Cities Gas Company first mortgage five per cent bonds, the last sale was at 55; the low for the year was 51, and the high for the year was 61 as of May 22, 1934. The Municipal Gas Company first "A" six per cent——

Q. First mortgage?

A. First Mortgage bonds, the sale—last sale was 94; the low for the year was 82; the high for the year was 94.

Q. Now, do those companies constitute practically all of the operating gas companies in the State of Texas for which you have the selling price or yield for the bonds or senior securities?

[fol. 2057] A. That is substantially all of them; yes.

Q. Mr. Connor, what is the El Paso Natural Gas Company?

A. The El Paso Natural Gas Company is a pipe line company which delivers gas from the Southeast portion of the State of New Mexico to the city of El Paso and its environs.

Q. What is the Houston Gulf Gas Company?

A. The Houston Gulf Gas Company is a natural gas pipe line company which transports gas from the vicinity of Refugio and White Point, Texas, to the city of Houston and its environs.

Q. Is the company engaged in the production as well as the transportation of gas?

A. Yes, sir.

Q. What is the Texas Cities Gas Company?

A. The Texas Cities Gas Company is a distribution company distributing natural gas in the cities of El Paso, Galveston, Waco, Paris, and Brenham, Texas.

Q. What is the County Gas Company, and where does it operate?

A. The County Gas Company is a company which serves a portion of the city of Dallas which, I believe, is outlined by the city limits of Dallas which existed in the year 1917. The remaining portion of the city of Dallas—that is, the portion of the city which was comprehended by the city limits of the city in the year 1917—is served by the Dallas Gas Company.

Q. Both of those companies are what are known as local distributing companies?

[fol. 2058] A. Local distributing companies, and the combined property of the Dallas Gas Company and the County Gas Company serves what is generally termed the metropolitan area of the city of Dallas.

Q. What is the municipal Gas Company, and where does it operate?

A. The Municipal Gas Company engaged in the distribution of natural gas in cities located in North Texas and North Central Texas. Wichita Falls, Sherman, Denton, Denison, Bowie, Corsicana, Cleburne, Hillsboro and Waxahachie are cities served by Municipal Gas Company.

Q. Mr. Connor, in Defendant's Exhibit 43 have you shown the yields of bonds and other senior securities of electric companies located and doing business in the State of Texas?

A. I have.

Q. What are those utilities and what are the yields of those securities to investors?

A. The utilities listed are: Dallas Power & Light Company, Texas Power & Light Company, and Houston Light & Power Company. The Dallas Power & Light Company is a company engaged in the generation and distribution of electric energy in the metropolitan area of the City of Dallas. The Texas Power & Light Company is an electric utility which transports electric energy by means of transmission lines and then distributes it in a large number of cities and towns located in North Texas and Central Texas.

Waco, Hillsboro, Belton, Cleburne, and towns generally located in that territory are supplied by the Texas Power [fol. 2059] & Light Company. The Houston Light & Power Company is a similar company to the Dallas Power & Light Company and generates and distributes electrical energy in the metropolitan area of the city of Houston. The yield of the first mortgage securities of these companies is as follows: Dallas Power & Light Company first mortgage sinking fund "A" six per cent bonds yield to maturity 5.18. Dallas Power & Light Company first mortgage sinking fund "B" six and one-half per cent bonds yield to maturity 6.62. Dallas Power & Light Company first mortgage sinking fund "C" five per cent bonds yield to maturity 4.61. Dallas Power & Light Company first mortgage sinking fund "D" five and one-half per cent bonds yield to maturity 5.25. When I state the letter following the designation, that letter should have quotations to indicate the serial numbers——

[fol. 2060] Q. The series of the bonds?

A. The series of the bonds under discussion. The Texas Power and Light Company, First Sinking Fund, five per cent bonds, yield to maturity 4.21. Texas Power & Light Company, First and Refunding Bonds—by "First" I mean first mortgage—yield to maturity 5.69. Houston Light & Power Company, First Mortgage and Refunding "A", five per cent Bonds, yield to maturity 4.73. Houston Light & Power Company, First Mortgage and Refunding, "D", four and one-half per cent, yield to maturity 4.57. Houston Light & Power Company, First Mortgage and Refunding "E" Bonds, four and one-half per cent, yield to maturity 4.57.

Q. Mr. Connor, have you prepared a compilation of the average yield to maturity on the First Mortgage Bonds of the several natural gas producing and pipe line companies operating in the United States whose property and business is substantially similar to the property and business of the defendant Lone Star Gas Company?

A. I have.

Q. What are the names of those companies?

A. The Cities Service Gas Company, Southern Natural Gas Company, El Paso Natural Gas Company, The Mississippi River Fuel Company, and the Oklahoma Natural Gas Company.

[fols. 2061-2062] Q. What is the average yield to maturity of the first mortgage bonds of those producing and pipe line companies?

A. 10.18 per cent.

Q. Mr. Connor, are you familiar with the net rate of return which has heretofore been allowed by the Railroad Commission of Texas involving natural gas properties and rates for service?

A. I am.

* * * * * * *

[fol. 2063] Q. Prior to September 13, 1933, when the Railroad Commission of Texas entered its order against Lone Star Gas Company in Gas Utilities Docket No. 75, what was the lowest net annual rate of return which had been fixed by the Railroad Commission of Texas in connection with its determination of rates for natural gas service?

A. Seven per cent.

Mr. Stout: We make this objection, that this is a pipe line. Any rate heretofore fixed for any utility is no more than a local rate for a city; that conditions were different; that it is a legislative—rate-making body; that times and conditions, which courts take judicial knowledge of, have materially changed—what might have been a good rate last year or in the wake of the middle of the greatest economic depression on earth, would not hold good now.

The Court: I will overrule the objection.

Mr. Stout: Exception.

A. Seven per cent per annum.

Q. Upon the fair value or rate-base determined?

A. That is correct.

Q. Mr. Connor, do investors in natural gas producing and pipe line enterprises expect, demand and receive higher [fol. 2064] yields on investments than they do in the way of yields on similar securities of companies engaged in the ownership and operation of natural gas distributing plants?

A. They do if the distributing plant in question is located in a city sufficiently large to justify the operation of a manufactured gas plant, should the supply of natural gas be exhausted. In smaller cities and towns where that condition would not prevail, the feeling of the investor toward

that investment is practically the same as toward the pipe line portion of the business.

Q. Mr. Connor, you have given some prices of bonds and senior securities of the Texas Cities Gas Company, County Gas Company, Dallas Gas Company, and Municipal Gas Company. Are those companies, which you have mentioned and testified about, well-managed and well-operated public utilities?

A. They are.

Q. Are they solvent and going concerns?

A. They are.

Q. In your opinion, are their senior securities regarded as prime public utility securities, in so far as the natural gas business is concerned?

A. That is correct.

[fol. 2065] Q. Mr. Connor, what is the cheapest money that a public utility enterprise can get?

A. The money secured by a first mortgage on its property and business.

Q. What is the next cheapest money that a public utility enterprise can get?

A. The money secured through the sale of preferred shares—that is shares whose return is superior to the return to the common stockholders.

Q. And what is the most expensive money that a public utility enterprise can get, in so far as its capital structure is concerned?

A. The money secured through the sale of common shares.

Q. Now, Mr. Connor, on yesterday you stated that, in your opinion, a net annual rate of return of ten per cent per annum would be necessary to constitute a fair rate of return for the Lone Star Gas Company. Did you mean to apply that ten per cent net per annum after the payment of all proper operating expenses, including all proper depreciation reserves and accruals?

A. That is correct.

Q. And your ten per cent net per annum was applicable to what?

A. To the fair value of the property.

Q. As determined?

[fol. 2066] A. That is correct.

Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Connor, your entire Exhibit No. 42 is introduced for the purpose of showing what the annual requirements of the Company for depreciation are,—is that correct?

A. That is correct, and the term "depreciation" being construed as defined by me in my direct testimony.

Q. Now, to justify the importance of this exhibit which you ascribe to it, Mr. Connor, assuming your rate base of $75,000,000.00, plus——

Mr. Griffith: Mr. Fitzhugh, there had been no rate base of seventy-five million.

Q. Well, your fair rate of property of seventy-five million as estimated by you, Mr. Steinberger, and Mr. Biddison, collectively, and the rate of return of a minimum of ten per cent which you say would be in order, and which would give annually on the fair value of the property, if allowed, an income of some seven and one-half million,—this amount which you allow for depreciation is about half [fol. 2067] of that amount, isn't it, being in excess of three million, five hundred thousand, or slightly under three million, five hundred thousand—three million, four hundred and sixty-five thousand, plus?

A. It is just what the exhibit shows, Mr. Fitzhugh.

Q. Well, this exhibit here, just to sum up the thing, represents about half of the rate of return that they would get on the fair value as found by you and Mr. Biddison, doesn't it?

A. That is approximately correct, yes.

Q. And if, on the other hand, instead of accepting the fair value as found by you and Mr. Biddison, some amount should be—less than fifty million dollars should be the value of your property, and a rate of return assumed such as the Railroad Commission found of six per cent, your depreciation requirements would be even more than the return on the value of the property, would they not?

A. I would have to make an application of the different rates to the units of property, but I believe that the rates would probably be in excess of six per cent as found by the Commission. I am not sure.

Q. Now, then, Mr. Connor, the word "depreciation" has

been used in several senses in this hearing. In the broad [fol. 2068] sense, Mr. Connor, depreciation means simply a loss of value, does it not?

A. That is what I would say; yes, Mr. Fitzhugh.

Q. Now, we have constructed in connection with Mr. Biddison's testimony on the per cent condition the depreciation—the accrued depreciation or the loss of value that now exists in the property as it stands to-day, due to its wearing out in service, have we not?

A. Yes, sir, that is correct.

Q. That type of depreciation, we might distinguish as being the accrued depreciation, and it is so called, is it not, ordinarily?

A. That is correct.

Q. Now, there is another type of depreciation which represents the depreciation reserve which has been built up, as shown by the books of the Company, by laying aside annually certain amounts to take care of the wearing out of property in service?

A. No, sir.

Q. What is your answer?

A. No, sir.

Q. You say depreciation is not properly used in that sense?

A. No, sir.

[fol. 2069] Q. You mean the Company has no depreciation reserve?

A. No.

Q. What do you mean?

A. I mean that what is in the reserve account has nothing to do with depreciation.

Q. Well, I don't think you understand my question, Mr. Connor. There is such a thing as a depreciation reserve, isn't there?

A. Yes, sir, that is a bookkeeping designation, yes, sir.

Q. And as it appears on the books of the Company now, there is a credit balance in that reserve of some fourteen million dollars, is there not?

A. I am not sure as to the amount, but I am certain that there is——

Q. Some credit balance?

A. —some credit balance.

Q. Well, now, that credit balance represents the total sums of money that have been put away in the past, an-

nually, to take care of the wearing out of property,—isn't that right?

A. They represent the bookkeeping entries set up on the books for the purpose of making that distinction with reference to the money received by the Company from the service.

[fol. 2070] Q. Yes, sir; and "depreciation," as the word occurs when you use it in the phrase "depreciation reserve" there, has no relation to the accrued depreciation that Mr. Biddison talked about, does it?

A. Absolutely not.

Q. And you get at that sort of depreciation reserve by accounting testimony, ordinarily, do you not?

A. Yes, sir.

Q. Whereas the other is engineering testimony, is it not?

A. Yes, sir.

Q. The type of depreciation you are talking about here is entirely separate and apart from the other two matters, isn't it?

A. No.

Q. Well, what is the connection, if there is any?

A. I take into account, as I testified yesterday repeatedly on direct testimony—I take into account the decline of new condition which will take place in the property, and that is the type of depreciation which Mr. Biddison testified concerning; but that is only one of the things which would be required of a depreciation reserve accrual.

Q. Well, is there any connection between the accrued depreciation, or the per cent condition of property today, and the annual requirements for depreciation?

A. None whatever.

Q. Now, Mr. Biddison found a reproduction cost new [fol. 2071] value of $73,983,405.57; he found the overall per cent condition of the property to be 94.26 per cent; or the depreciated present value of $69,738,021.16. In other words, the total accrued depreciation which has taken place from the time the company was organized up to date, in his appraisal, was about $4,200,000.00, in round figures; is that correct?

A. That is correct; with this further explanation, which, I think Mr. Biddison made, and that is that there were certain accrued depreciations which he would have found on gas well construction and equipment had it not been an immaterial matter in view of the manner in which Mr.

Hulcy made his determination of the value of the gas reserves; and the reason for that, of course, being that Mr. Hulcy deducted from the gross value of his estimated gas reserves the hundred per cent reproduction cost of gas well construction and equipment; so the fact that he did that relieved Mr. Biddison of the necessity of making a determination of the per cent of new condition of the gas wells. With that exception, your statement is correct.

Q. As a matter of fact, Mr. Connor, gas well equipment does not appear in the appraisal at all, does it, the way the thing has been handled—it has been put in one place and taken out another?

A. Yes; but it is in Exhibit 28.

[fol. 2072] Q. But the way the whole thing ends up, the final value found in the appraisal, there is no gas well equipment in it, is there?

A. Yes; there is a definite determination of the reproduction cost of gas well construction and equipment.

Q. Really there is nothing in it but gas reserves—if you put in your gas well equipment in your inventory, then you take it out again when you get your gas reserves?

A. Oh, there is a deduction of that; but there is a specific finding in Exhibit 28, and that finding is definitely set out.

Q. But your end result, so far as it applies to gas reserves, is just a washout?

A. That is correct.

Q. So that while Mr. Biddison found that at the present time, or at the date of his appraisal, there was only $4,200,000.00 depreciation that had occurred on the property during all its operation from 1909 down to this time, your amount is almost as much as that total depreciation per annum, isn't it?

A. That is correct.

Q. Page 1 in your Exhibit No. 41 is the first sheet of your summary, is it not?

A. That is correct, yes, sir.

Q. The first item is developed leaseholds—that is the [fol. 2073] first item which you find deserves some consideration as far as annual depreciation is concerned?

A. That is correct.

Q. The amount you figure for this type of property is $146,000.00 annually?

A. That is correct.

Q. Now, in your text a discussion of this class of property appears on page 311, does it not?

A. That is correct.

Q. This amount of depreciation of $146,000.00 per year is based upon a withdrawal of twenty million thousand cubic feet?

A. If you will permit me to correct you, Mr. Fitzhugh, that is depletion allowance, rather than depreciation; there is a distinction.

Q. Well, depletion is simply depreciation of gas wells?

A. No.

Q. What is the difference?

A. Depletion is the waste of a capital asset, which is being used up—like taking gravel out of a gravel pit, or coal out of a mine.

Q. Well, that is loss of value, isn't it?

A. It is loss of the use of a thing in existence, yes, sir.

Q. Depreciation is also a loss of value.

[fol. 2074] A. Yes; but brought about by entirely different causes, and so differently construed.

Q. Call it what you will, you have figured this amount on a withdrawal of twenty million thousand cubic feet per year, have you not?

A. That is correct.

Q. What were the actual withdrawals of gas in 1933 by the Company?

A. From their own wells?

Q. Yes, sir.

A. I don't know exactly; I would think approximately six billion cubic feet of gas.

Q. Wasn't it more nearly five billion?

A. I don't know definitely; I would say it was somewhere between five and six billion feet.

Q. At any rate, the withdrawal rate that you have assumed is from three to four times as much as was actually withdrawn in 1933, was it not?

A. You are absolutely correct.

Q. Or in the year 1932 or 1931?

A. That is correct, also.

Q. At the rate your Company is withdrawing gas in 1934, the final withdrawal figure will be pretty close to the 1933 figure, will it not?

A. I have not made a check on those figures.

Q. There will not be any great variation, will there?

5331

[fol. 2075] A. There might be.

Q. To what extent?

A. The withdrawal from Company wells may increase the 1934 over the 1933.

Q. Do you know what the withdrawals thus far have been?

A. No; I don't.

Q. It is safe to say that you won't withdraw more than seven billion cubic feet from your wells this year, isn't it?

A. That might be a very good estimate.

Q. That is the most they would withdraw?

A. No; I would not say it would be the most they would withdraw, or that they might withdraw.

Q. Why is it that you think, Mr. Connor, when your Company at the present time is only withdrawing five to six billion cubic feet of gas per year that the rates ought to be so fixed as to assume that there is a withdrawal of twenty billion cubic feet?

A. Because, after having made a study of every source of supply available to Lone Star Gas Company, which study was made in conjunction with Mr. J. H. Dunn, and was extremely careful and comprehensive, I reached the conclusion that the figures that I had put into this exhibit will be the average rate of withdrawal during the next nineteen years of the Company's operation from its own gas reserves, and as defined by Mr. J. H. Dunn.

[fol. 2076] Q. Do you mean that you obtain your twenty billion withdrawal figure by averaging nineteen years as estimated by Mr. Dunn as to withdrawals?

A. Mr. Dunn did not make the estimate; I made it.

Q. Where did you get your twenty billion figure—is it a calculation?

A. It is an estimate, based on all of the information available relative to the behavior of the sources of supply of Lone Star Gas Company, and which sources of supply would be the determining factors of the rate at which Lone Star Gas Company would withdraw it.

Q. Why wouldn't it be a fairer proposition, Mr. Connor, to readjust the rates, or to readjust the depreciation or the depletion allowances for gas reserves to take care of an annual consumption of that amount, rather than to apply at the present time that enormous consumption?

A. For the reason, I believe, Mr. Fitzhugh, that the total sales per annum of Lone Star Gas Company in the future

will in no way correspond to the variation from year to year which will take place in the volume of gas withdrawn from the Company's own resources.

Q. Is there any reason why the depletion allowance could not be readjusted to take care of the depletion rate when that increased depletion comes about?

A. Certainly not, if it is deemed that that is the proper [fol. 2077] way to do it; but I just don't believe that is the proper way to do it.

Q. At any rate, the $146,000.00, which you say should be covered by present rates, is based on a withdrawal of three or four times what is being presently withdrawn?

A. That is correct, and the estimate which I have made covering that point is backed up by a most comprehensive and extensive study of what those future withdrawals will in all probability actually be.

Q. Well, they are just comprehensive prophecies, aren't they—no facts about them?

A. About three hundred typewritten pages of facts.

Q. You can't prove a thing by the number of typewritten sheets can you?

A. But I would prove it by the information contained therein, and the reliability thereof.

Q. You couldn't prove black is white if you had a whole library introduced as an exhibit to prove it, could you?

A. No; but I have proved very definitely and concisely that, for instance, the casinghead plants in Central West Texas, from which Lone Star Gas Company has in the past secured——

[fol. 2078] Q. Take up the next——

A. I haven't finished my answer.

Q. Pardon me.

A. —as high as seventeen billion feet per annum have declined to such a point that there is no expectation on the part of Lone Star Gas Company of receiving a substantial amount of gas from that source in the future.

Q. Yesterday, if I understood you correctly, Mr. Connor, when you gave the figure of 3.98 years for the life of gas wells, you meant that that applied only to company-owned wells; is that right?

* * * * * * *

A. No, Mr. Fitzhugh. You misunderstood my answer. If reference is made to page 230 of Exhibit 42 the tabulation shown on that page as indicated by the total tabulation shows the weighted age of gas wells now serving the system of Lone Star Gas Company, exclusive of the Petrolia field; in other words, the 531 wells which are shown as of the date of this appraisal to be connected to the Lone Star Gas Company system are all the wells, both company-owned and other-owned wells, and the figure 3.98 is the weighted age of the wells in question.

Q. Well, now, on page 231 of the tabulation you have just [fol. 2079] referred to you show the weighted age to be 8.8697, do you not?

A. Yes, and that is an entirely different determination, and, as indicated by the title of that tabulation, that determination is the weighted age of abandoned gas wells that have served the system of Lone Star Gas Company, exclusive of the Petrolia field. Assuming that each and every one of those wells which have been abandoned throughout the history of the company was still actively serving the system;—in other words, that every well which has hitherto been attached to the system of Lone Star Gas Company was still serving the company as a producing well—the age of all these wells combined and weighted out would be an average of 8.67 years.

Q. Well, now, where is the supporting data for the 3.98 years average life? Does that appear in your exhibit anywhere?

A. I don't believe that I have the details here.

Q. Well, what is this tabulation on page 230?—is that what that is supposed to be—page 230?

A. Isn't what supposed to be

Q. Isn't the tabulation on page 230 supposed to be the underlying data for the 3.98 years average life of gas wells?

A. It is the summary which shows two wells still connected to the system which were connected in 1920 and five still connected to the system which were connected in 1921, and so forth.

Q. Now, in these calculations to find the average life of gas wells you left out wells in the Petrolia field, the oldest field that the company operates in, did you not?

[fol. 2080] A. Yes.

Q. Some of those wells are over twenty years old, are they not?

A. I do not believe, Mr. Fitzhugh, that there are any wells in the Petrolia field that old. There have been a large number of wells abandoned in the Petrolia field from time to time and along with the years there have been no wells drilled in the Petrolia field.

Q. Well, are any of the wells now in the Petrolia field twenty years old or approximately that age?

A. There may be.

Q. Well, why did you lease those out in finding the average life of the wells?

A. My reason for that is specifically covered and set out in the exhibit.

Q. Well, what is your reason?

A. My reason for the omission of wells from the study I was making is simply this: that the Petrolia field is in the back yard, so to speak, of a main line compressor station—that is, a compressor station which will remain in that location without reference to a supply of gas locally provided for the station. Now, with the compressor station in the middle of a gas field of that kind and a main line station, wells can be and are operated long after those wells would be operated if they were away from a compressor station or if they were adjacent to a compressor station which by its design and purpose would be one which would be subject to removal to a larger gas supply. Those wells do not have any rela- [fol. 2081] tion on account of that fact to the normal behavior and experience of gas wells not so located.

Q. The average life of wells in the Petrolia field as shown by the history of those wells works out about fifteen years, does it not?

A. It might. I have made no study of the average life of the wells in the Petrolia field for the reason which I have given.

Q. Now, regardless of what may be the reason for the prolonged life of the wells in the Petrolia field, the company does have those wells and they do form a part of the gas reserves of the company, as testified to by various other witnesses. Now, if you wanted to give a typical figure for the average life of the wells wouldn't you have to include those wells?

A. I would not, for the reason that that is only one situation on the entire system of the Lone Star Gas Company where there is a main line station anywhere near a gas field, and there is no proba--lity of a repetition of any such situation elsewhere in the system.

Q. Well, just what is the figure, Mr. Connor, you are trying to give the jury, now, which you say will represent the average life of gas wells of Lone Star Gas Company system?

A. I have not attempted, Mr. Fitzhugh, to give any estimate of the average life of gas wells. What I have done is simply to tell by means of this exhibit how old these wells are.

Q. Well, what is the purpose of all these determinations unless you are trying to find how long the wells are going to last—find what the average life of gas wells is?

[fol. 2082] A. The purpose of that is to show the age of the wells which are now serving the system and the age of the wells which have served the system, assuming that they were still in service. I have also set out very clearly and definitely the wells which have been abandoned and the rate at which they have been abandoned by years. Now, as for an attempt to determine the average life of gas wells, that is something which I am not able to do and I don't think anybody else is able to do.

Q. Suppose you had a house, Mr. Connor, and you knew that that house was three years old and that houses of the same kind as the one you had usually last about ten years and you knew the present value of the house new and that it would be nil or zero at the end of the ten-year life. You would then know what sum to set aside annually to retire that investment, would you not?

A. That is correct.

Q. But what good would it do you, Mr. Connor, to know the age of the house new if you didn't know how long it was going to last?

A. I don't think it would do you any good at all. I have stated that fact very clearly in connection with the determination which I have made for gas well construction and equipment.

Q. On this gas well proposition, Mr. Connor, what good does it do you to know your wells unless you figure out what their probable life will be so as to know what sum of money per annum would be required to retire the investment at some future date.

[fol. 2083] A. I have used this information, Mr. Fitzhugh, somewhat along the lines you suggest, and have incorporated the results of my investigation in the report itself; but I frankly stated in connection with it that I didn't think it had any particular weight, for the very reason that you have suggested, that nobody can tell how long a gas well is going to last, because it does not depend upon the passage of time; it depends upon other factors which can not be definitely foreseen.

Q. Is it your testimony now, Mr. Connor, that you don't know the probable life on the average of gas wells of the company?

A. Do you mean those that have expired, or those that are still in service?

Q. No, the ones in existence right now.

* * * * * * *

Q. Now in existence?

A. I do not.

Q. In the hearing before the Railroad Commission you testified for several days on that very matter, though, did you not?

A. I made some estimate along that line, yes, Mr. Fitzhugh.

Q. What were the estimates you made then for the probable life of gas wells in existence as of that date?

A. I don't recall. If you have a copy of the report there you can probably give me the information.

[fol. 2084] Q. Isn't it a fact, Mr. Connor, that at that hearing, page 83 of the exhibit you introduced at that hearing, Exhibit 18, entitled Depreciation Analysis Determination of Annual Reserve Accruals for Various Items of Depreciable Property, that you testified for the combined Oklahoma and Texas wells in reference to a consideration of 347 wells times 13.86 years and 100 wells times 9.80 years that you found a weighted life expectancy of 12.95 years?

A. That is no doubt correct as to the statement found in the exhibit, but the estimate was made upon certain assumptions and after——

Q. Well,——

A. Wait a minute. And after spending about six months trying to work out some rational analysis which could be used to make a reasonable determination of the average life

of gas wells which would be more than a mere assumption I gave it up as a bad job.

Q. I will ask you if at the same hearing, Mr. Connor, in testifying as to the Texas wells if you did not find the total life expectancy to be 13.86 years?

A. I am quite sure that what you say is correct, based upon the assumption set out in the report.

Q. Now, then, on yesterday, Mr. Connor, you criticized the finding of the Railroad Commission on page 55, where they said: "We find the weighted average life of the Lone Star Gas Company gas wells to be not less than thirteen years", and I will ask you this question, Mr. Connor: [fol. 2085] Wasn't the finding of the Railroad Commission just as exact as it could be, based upon your own testimony?

A. No, sir; I don't think so.

Q. You don't deny that your exhibit shows 13.86 average life for Texas wells and 12.95 weighted life expectancy for combined Texas and Oklahoma wells, do you?

A. I would have to refer to the exhibit before I could answer your question, Mr. Fitzhugh, as to what actually was determined by me. I recall that there was quite a little bit of controversy as to what that exhibit was intended to show. As I recall, without referring to the exhibit, I made an estimate based purely upon certain assumptions——

Q. Isn't it a fact——

A. Well, now, wait a minute, Mr. Fitzhugh.—that a certain number of wells would be drilled and that each of those wells would have an average life of a certain number of years and that a certain per cent of wells would be drilled and that those wells would have a certain average life, and there was a great difference in the conclusions which I drew from my own conclusions and those which Mr. Freese drew.

Q. Well, now, frankly, Mr. Connor, you know how the hearing before the Railroad Commission went, don't you?

A. Yes, sir.

Q. You were the only one that testified on this particular matter?

A. Yes.

Q. Didn't the Railroad Commission have to accept the [fol. 2086] figures to find that thirteen year average?

A. Yes; but what I am trying to explain, Mr. Fitzhugh, is this: that there was a great deal of difference between an

arithmetical average and a calculation based upon the repetition of a certain occurrence as applied to a certain proportion of a total sum or the repetition of an occurrence in connection with the other portion of the other item, and that can be very easily demonstrated mathematically.

Q. At the bottom of page 55 of the Commission's order this sentence occurs: "We find the weighted average life of the Lone Star Gas Company gas wells to be not less than thirteen years." Now, Mr. Connor, isn't it a fact that after having gotten the Railroad Commission to make this finding based on your testimony at the other hearing you are now changing the whole thing and trying to vary your testimony?

A. I am trying to vary my testimony?

Q. Yes.

A. Absolutely not. I am frank to state that after the hearing in Fort Worth I am—I completely abandoned any effort to determine the average life of gas wells, because I found that there wasn't any way in the world to do it.

Q. You have now adopted an entirely new, different and separate method from the one you used at the other hearing?

A. That is correct, and I think I have properly done so.

Q. Well, now, make clear, Mr. Connor, just exactly what the impression is you are trying to leave the jury about this 3.98 average of wells.

[fol. 2087] A. I am not trying to leave any impression with the jury, Mr. Fitzhugh, other than clearly disclosed by the previous exhibit itself, which I have read into the record verbatim.

Q. Yesterday your testimony on this matter was as follows: "Answer: Mr. Griffith, exclusive of the wells in Petrolia field, and covering 531 wells which are now attached to the system, the average life of this well or these wells up to this time—and that is all the experience that we have in connection with this particular subject—has been 3.98 years." Now, as I understand you, you don't intend for that figure to represent in any way the average life of wells?

A. No, sir.

Q. Or what is to be expected of the wells now in existence?

A. No, and there was never any intention to leave that impression.

Q. So all this means is that that is probably the age of some of the wells now in existence?

A. No; that is the weighted age of the wells now serving the Lone Star Gas Company, and that is all it intends.

* * * * * * *

[fol. 2088] Q. Now, Mr. Connor, if I understand you correctly, you do not attempt now to find any average life of the gas wells now in existence.

A. I don't quite understand what you mean by that question, Mr. Fitzhugh. If you mean the average life of the wells up to this time, I do.

Q. No, sir, I mean the average life that may be expected —the life expectancy, if you please, of the wells now in existence and connected to the System as of to-day, or as of the date of the appraisal?

A. That is correct.

Q. And I believe you say you don't believe that anybody could make that finding?

A. I am quite sure they could not.

Q. Now, Mr. Hulcy in finding his value for gas reserves found the number of wells that were operated each year, did he not, and the number of wells that would be operated each year for about the next twenty years?

A. Well, now, Mr. Fitzhugh, my recollection of just exactly what Mr. Hulcy did in connection with that exhibit may be not altogether exact, and so I wouldn't like to be taken as expressing a definite opinion as to just exactly what Mr. Hulcy did. I know in general the method that [fol. 2089] Mr. Hulcy used; I am familiar with it because I worked with Mr. Hulcy in connection with the preparation of the exhibit, and I think that what he did was to make a schedule of the probably drilling determined largely upon the advice of Mr. J. H. Dunn, the Production Engineer of Lone Star Gas Company, and that schedule of drilling was based upon what Mr. Dunn's estimate of the number of wells, variously located, which would be required, throughout the period of the depletion of the reserves, to physically withdraw the gas from the reserves. Now, is that approximately what your interpretation of the exhibit shows? Now, that is my recollection of it.

Q. Well, you had to know all about Mr. Hulcy's method in order to find your depletion charge of $.0073 per 1000

cubic feet; which is found on page 312 of your exhibit, did you not?

A. Not necessarily, Mr. Fitzhugh, because that information was, of course, furnished me by Mr. Hulcy, based upon his independent determination of the unit value present worth basis of the gas in the ground under the reserves of Lone Star Gas Company. I took that figure from Mr. Hulcy and accepted it.

[fol. 2090] Q. All right. Now, Mr. Connor, if you will look at Mr. Hulcy's Exhibit 31, page 5, you will find that he estimated that there would — 135 wells drilled; and that the drilling of those wells would be necessary, I believe he said, to fully develop the gas reserves as they now exist,— is that correct?

A. How many additional wells?

Q. 135. That is, he shows on that page the total of gas wells now owned and operated at 262, and then he finds that additional wells will have to be drilled to recover the gas reserves, in the amount of 135, to get the total of 397 wells that he finds to be necessary for the development——

A. I presume that your statement is absolutely correct, and it confirms exactly or almost exactly the estimate which I have used on page 199 of Exhibit 42, wherein I show that the number of wells now in actual use are 261.44. Now, the reason for having a fractional part of a well in service (which appears rather ridiculous on the face of it) is due to the fact that Lone Star Gas Company has part interest in certain wells, and the summation of those fractional interests results in the figure shown, of 261.44 gas wells; and I also show that the additional wells which will be required to recover the reserves are 140, contrasted with the 135 [fol. 2091] used by Mr. Hulcy, but I made a note in connection with that figure, which states that included in the 140 wells are 5 wells now producing gas, but not included in the current appraisal; in other words, we checked out exactly.

Q. What is the purpose of the estimate that you are talking about there?

A. The purpose of the estimate which I show on page 199, Exhibit 42?

Q. Yes, sir.

A. That is to determine the money cost of the wells now attached to the System of the Lone Star Gas Company,

together with the undistributed costs and the estimated cost of the future wells which will be required to recover the gas.

Q. Did you work out this table shown on page 199 yourself?

A. No.

Q. Where did you get that?

A. The first part of the determination or tabulation was taken from the appraisal which represents the reproduction cost new of the wells as determined by the appraisal, plus the undistributed overheads allocated to the wells, and the second tabulation which——.

Q. Which is the one I am talking about.

A. Which includes the future drilling, together with the [fol. 2092] five wells, as explained by the tabulation, which were put into service subsequent to January 1st, 1933, was furnished by Mr. J. H. Dunn, the Production Engineer of Lone Star Gas Company.

Q. Did Mr. Dunn, in order to get this tabulation, assume any average life of wells?

A. I don't think—no, what Mr. Dunn did was to estimate the production which could be secured by means of a well, and that production might be secured over a long period of time or it might be secured over a very short period of time, and in that case the average life of a well, on the one hand, would be long, and under the other assumption it would be very short.

Q. Well, on page 199, where you show that Mr. Dunn has estimated 86 additional wells for the Panhandle Field, that number, 86, is not based on any average life of wells, but is simply Mr. Dunn's estimate of how many wells would have to be drilled to give a certain amount of gas, isn't that right?

A. That is right; and that is based upon a certain ratable delivery of gas, as well as volume.

Q. All right. Now, to go back to Mr. Hulcy's exhibit—page 5, Mr. Hulcy has found the number of wells now in existence, the number of wells that will have to be drilled, [fol. 2093] the cost of drilling and of all operation, the exact amount of gas down to the cubic foot that will be withdrawn from these wells, by periods, and he had to find, to do all this business, the average life of his wells, did he not?

A. No, I don't think so.

Q. Doesn't he show on page 5 that the estimated number of years the wells will be operated to recover the gas reserves is twenty?

A. That is correct; the total period of time to recover the reserves is estimated to be twenty years. Now, some of these wells might last a month——

Q. Well, how could he find the operating expenses unless he knew the length of time the wells were supposed to run?

A. I don't know, Mr. Fitzhugh. You are cross examining me about an exhibit that I didn't prepare.

Q. I know, but you have adopted his figures, and I want to know how much you understand about his exhibit, to see what basis you had for adopting his figures.

A. Well——

Q. To make myself clear, Mr. Connor, in your exhibit, where you find that there should annually be accounted for in the rates for depletion—or for depreciation and depletion requirements on gas wells, you find the amount of [fol. 2094] $421,316.00, do you not?

A. That is correct.

Q. Isn't that based entirely on Mr. Hulcy's exhibit?

A. Absolutely not.

Q. Well, the depletion charge that you find in the last sheet in your exhibit, on page 312 of Exhibit 42, of $.0073 per 1000 cubic feet, is a direct calculation, is it not, from Mr. Hulcy's Exhibit 31?

A. You are exactly correct.

Q. And you use all of Mr. Hulcy's figures, notwithstanding you do not understand how he got them, is that it?

A. I understand, in a general way, how he got them, yes; I don't know the details of Mr. Hulcy's calculations, but I know the method very precisely, as to how he went about it.

Q. All right; that is all I wanted to know. Now, doesn't Mr. Hulcy's method include the carrying forward into his calculations all assumed operating expenses of the wells, by years, and in order to get those wouldn't Mr. Hulcy have to know how many years the wells were going to operate?

A. You would have to assume that an exact number of wells were operated each year, yes.

Q. And doesn't his whole calculation of gas reserves depend upon the length of life of the wells?

[fol. 2095] A. No, I wouldn't say so.

Q. If he assumed a long life for his wells, his gas reserves would be inevitably a smaller amount in dollars and cents, wouldn't they?

A. If he assumed that each and every well which is in service to-day would remain in service throughout the entire recovery period of the reserves, is that what you mean?

Q. No, sir, I mean exactly what I said.

A. Well, that is a long life; that would be the longest life they could have.

Q. All right, if you assumed that, he wouldn't get any accrual for gas reserves, would he?

A. Oh, he certainly would.

Q. If each well lasted up until 1954, the operating expenses would be so great by that time that the accrual for gas reserves would be wiped out, wouldn't it?

A. I don't know just how that calculation would work out, Mr. Fitzhugh. As I said before, you are cross examining me about an exhibit that I didn't prepare.

Q. I know, but it is one you are adopting for the purpose——

A. Oh, yes, I think it is perfectly proper for me to accept [fol. 2096] the findings of a man who was specifically engaged in making a specific determination. I made no determination of the unit costs and of the unit value of the recoverable reserves of the Lone Star Gas Company.

Q. Now, besides depending on Mr. Hulcy's exhibit to get your depletion rate of $.0073 per 1000 cubic feet, as shown on page 312 of your Exhibit 42, you also assume the twenty billion dollar—I mean the twenty billion cubic foot consumption per year, do you not—as shown on the same page of your exhibit?

A. No.

Q. Well, what did you assume as the withdrawal rate?

A. I made a very careful calculation of what the average annual withdrawal rate would be, and I made that calculation myself.

Q. Well, the one you got is the twenty billion figure?

A. That is the one I am referring to, yes.

Q. What did Mr. Hulcy get?

A. I don't recall.

Q. Now, in order for you to be justified in accepting Mr. Hulcy's value for his gas reserves, or to figure from his value for gas reserves, your $.0073 per 1000 cubic feet as a

depletion charge, you should have assumed, should you not, [fol. 2097] Mr. Connor, the same withdrawal rate as the one assumed by Mr. Hulcy; in other words, if you used twenty billion cubic feet as the annual withdrawal rate, that should coincide exactly with the withdrawal rate used by Mr. Hulcy—isn't that true?

A. I think that is substantially correct, and I think, as a matter of fact, that Mr. Hulcy's withdrawal rate was very largely fixed by the calculations and determinations which he had made. So there could be no real serious disagreement between Mr. Hulcy and me on that point.

[fol. 2098] Q. But in these cases, whether Mr. Hulcy made the assumption or not, and adopted the same figure as used by you of twenty billion cubic feet annual withdrawal, that is three or four times the present amount being withdrawn?

A. That is absolutely correct.

Q. And if you have incorrectly computed the withdrawal, and your twenty billion cubic feet is wrong, then it is inevitable that the amount of $421,316.00, which you call for the annual depreciation on gas wells, would have to be wrong?

A. No, sir.

Q. Why do you say that?

A. Because if Mr. Dunn's calculations of the amount of gas which Lone Star Gas Company will recover from its reserves designated as proven and developed is greater than the amount of gas which they will actually recover from those same reserves, then the $412,000.00 that you refer to, will be found by a lesser annual average withdrawal.

Q. Whereabouts in your exhibit do you show how you derived the $421,316.00 for Gas Wells?

A. It is shown on page 207, Mr. Fitzhugh.

Q. Now, as shown under your paragraph heading "Conclusion, on page 207, you show that the annual allowance for Recovery of Physical Property and General Costs, $.0206 times 20,000,000, to get the $412,000.00 appearing in the margin?

[fol. 2099] A. That is correct.

Q. Now, doesn't that show that you used in calculating this figure the 20 billion cubic feet withdrawals?

A. Absolutely.

Q. Now, suppose you had assumed only five billion, as

is actually being withdrawn, what would be the amount computed?

A. Something in excess of one hundred thousand dollars.

Q. About $103,000, instead of $412,000, wouldn't it?

A. That is correct.

Q. Then, the $.0206 just referred to, is a depletion allowance per thousand cubic feet, isn't it?

A. It is an allowance per thousand cubic feet of production by means of a certain piece of physical equipment set up for the purpose of retiring the reproduction cost of that equipment.

Q. It covers all depreciation on gas wells, doesn't it?

A. No; it does not, Mr. Connor. I might state in that connection I have made no inclusion for current replacements which are charged to the depreciation reserve account of Lone Star Gas Company by reason of actual physical replacements on gas wells. That is not a large amount of money, but I have made an analysis of that account for the past six or seven years, and even though the gas wells of Lone Star Gas Company are comparatively new, that account averages around five thousand a year, but I have made no allowance in this estimate for them. However, that is an actual out-of-pocket charge to the depreciation [fol. 2100] reserve account represented by current replacements to gas well equipment, so that figure I show there does not include that item.

Q. After applying this unit cost per thousand cubic feet of $.0206 to the twenty billion cubic feet withdrawals, or rather to the twenty million thousand cubic feet, doesn't that retire one hundred per cent and return to the Company one hundred per cent of the cost of those gas wells?

A. It is intended to do that, yes.

Q. All right. Now, if it actually does it, Mr. Connor—returns the whole investment in gas wells one hundred per cent, why would there be any annual allowance for the decline in per cent of condition new of $38,943.00, which you added in to find your total?

A. Because I have subtracted that, Mr. Fitzhugh, from the—The gas well construction and equipment is deducted from the amount of property which will ultimately be amortized, and the per cent of new condition which Mr. Fitzhugh has applied applies to the property as a whole. In other words, that rate of decline, Mr. Fitzhugh, represents ap-

proximately one per cent per annum of weighted age, as applied to the whole property. Now, if I had taken out the gas well construction and equipment account from the whole property and applied the per cent to the rest of the property, the one per cent would have been increased in [fol. 2101] an amount equal to the part applicable to gas well construction and equipment. It is six of one and a half-dozen of the other; and I have taken through this appraisal one per cent on all of the equipment, because the rate of decline that Mr. Biddison has shown as applied to all of the equipment is one per cent. Had I segregated from the property accounts certain items, and not charged a decline in per cent of new condition to them, there would have been a corresponding increase in the amount estimated for the other.

Q. If I understand you, you say the reason you put in this $38,943 is because it is taken out some other place?

A. It is equivalent to that. In other words, had I not had it here, I would have increased slightly the rates I applied to the other items of property.

Q. It is included here?

A. Yes, sir.

Q. Where did you say it is taken out—I didn't quite understand you?

A. If we had one hundred thousand dollars worth of property, and there was a determination that the decline in per cent of new condition of that property was, taken as a whole, one per cent per annum, that would be one thousand dollars a year represented by decline in per cent of new condition. If I apply one per cent to each item in that [fol. 2102] one hundred thousand dollar property account in proportion to the amounts of money represented by them, I would come out again with one thousand dollars. Now, if we would say that on ten per cent of that property that the decline in per cent of new condition would not be applicable to that, but the overall cost required was still one thousand dollars, and I wanted to make a definite segregation of those property items, I might not charge anything against the ten thousand dollars I referred to, but I would have to increase the rate on the ninety thousand dollars remaining by a percentage which would in the total equal one thousand dollars.

Q. Well, on each item, then, where you are applying de-

preciation, are you going to have to go back and add in this one per cent for decline in per cent of condition new?

A. I have attempted to do it on each item, yes, sir, where it would be applicable, except in the case of lands.

Q. You don't on leaseholds either, do you?

A. Leaseholds were determined in an entirely different way.

Q. Well now, then, to try to go back and sum this thing up, Mr. Connor, if I understood you when we first started talking about the gas well figure that you secured for annual depreciation, you said you did not have to depend on the twenty billion cubic feet removals per year. Now, as [fol. 2103] shown on page 207, it shows that you did have to consider that, doesn't it?

A. I don't recall that I said that I did not have to depend on that figure. I said that I did not have to depend on anybody else to give it to me, because I have it myself.

Q. This much is shown, though, that you could not find your depreciation allowance of $421,316 without assuming the twenty billion cubic feet of removals per year?

A. Without making a study and an estimate that that would be the average rate of withdrawals in the future.

Q. And without taking that same figure?

A. Oh, yes, I had to take that figure; but I did not take it from anybody else.

Q. And your amount of $421,316 is based entirely on an assumed rate of removal of twenty billion cubic feet of gas per year?

A. No; on an estimated rate of removal.

Q. Well, on an estimated, then. In just the same way, the figure of $146,000 for the developed leaseholds depended upon this withdrawal rate as estimated?

A. In so far as the withdrawal factor is concerned, that is absolutely correct.

Q. Now, if these two figures, the $146,000 for developed leaseholds, and the $421,316 for gas wells—what would have been the difference in your final depletion and depre- [fol. 2104] ciation amounts if you had assumed withdrawals of only five million?

A. There would have been obviously one-fourth, in so far as the item of $412,000 is concerned. The $38,943 would have remained the same.

Q. Isn't that method that you have adopted in using wenty million thousand cubic feet tantamount to making he present consumers of gas pay for the cost of future vithdrawals?

A. No; I don't think that is altogether true, Mr. Fitzugh.

Q. Well, if the present consumers are only using five illion cubic feet, but are paying rates based on an assumed r estimated use of twenty billion cubic feet, doesn't that esult in the present consumers having to pay in their rates or the future withdrawals?

A. In so far as the company's own production is conerned, your statement would hold true to the extent of he reserve accrual for gas well construction and equipnent, and for depletion; but the very purpose of a reserve s to equalize and make uniform those very charges which re extremely variable in their nature.

Q. Well now, the things you just referred to are the hings we are talking about, in your $146,000 for developed easeholds, and your $421,316 for gas wells; so your answer vould be "yes", wouldn't it?

A. That is correct.

fol. 2105] Q. Now, the next item is Other Production Sysem Structures, the annual amount being $878.88. Do you appen to know what page in your text you show that on?

A. Which particular item is that?

Q. Other Production System Structures.

A. What is the annual rate?

Q. Nine point three.

A. That is shown on page 287, Mr. Fitzhugh.

Q. As shown on page 287, for Production System Strucures, as a part of the 9.3 annual rate of reserve accrual ou show Current Replacements at 2 per cent per annum?

A. That is correct.

Q. What were the actual amounts charged to the depreiation reserve for current replacements of Production Sysem Structures in 1933?

A. I don't know, Mr. Fitzhugh.

Q. Do you know for 1932 or 1931?

A. No; I do not.

fol. 2106] Q. Do you know whether the costs of current eplacements for Production System Structures in 1931,

1932, and 1933 and up to the present time were being charged as maintenance or as charges to depreciation reserve on the books of the Company?

A. I do not know, specifically, Mr. Fitzhugh, with reference to the Production System Structures, but I do know that on Other Structures, concerning which I did make an investigation, that all charges properly chargeable to depreciation reserve in connection with the current replacements and maintenance of the structures have been charged to the reserve account.

Q. Well, without knowing those matters with certainty, Mr. Connor, how were you able to find the 2 per cent per annum for current replacements?

A. That is merely an estimate on my part, Mr. Fitzhugh, and is not supported by any record disclosed by the Company's books.

Q. Well, how did you go about making the estimate even?

A. Well, it is difficult for me to give you the mental process through which I went in making that estimate. That represents my judgment of what over the years the current replacements and proper items to charge to the reserve account would cost the Company. I do not think as a matter of fact, Mr. Fitzhugh, if I had made an investigation of the Company's records with reference to the Production System Structures that I would have secured a very accurate figure for the determination of the reserve accrual, for the reason that the Production System Struc- [fol. 2107] tures of Lone Star Gas Company are relatively new.

Q. If you had, Mr. Connor, all the charges that were made on the books of the Company for maintenance of those structures for a period of years and all the charges that represented replacements and repairs that were charged to depreciation reserve, you would have a record of the costs of keeping those structures up to their now condition, would you not?

A. That would be charged up to this time, but it might not afford any indication of what the future might hold in connection with those particular items.

Q. If you had such records for any considerable number of years, it would be almost certain proof of what the future costs would be, would it not?

A. It might give you an indication if you had sufficient information over a sufficient period of time; that is true.

Q. In any event in finding your allowance of 2 per cent per annum for replacements you have not resorted to any sort of study at all, but simply used an estimate of your own?

A. I have made a study of charges to depreciation reserve accrual on gas farms, which would, of course, include repairs to gas wells.

Q. Well, you don't have anything as to Production System Structures.

A. Production System Structures are included in the proper account of gas farms.

Q. All right. Are they segregated from other property—gas farms?

A. Are gas farms segregated from other property?

[fol. 2108] Q. I say, are Production System Structures separated from other property that is in gas farms?

A. Yes, I have right here before me, Mr. Fitzhugh, the average per year for the last six years of the charges to the reserve account brought about by charges originating in the account of gas farms of Lone Star Gas Company and the average per year of the actual charges to the reserve account for structures on the gas farms is considerably in excess of my total allowance for the structures as shown on page 1 of Exhibit 41.

Q. Well, where on the sheet there in Production System Structures did you give the amount of repairs or costs of replacements that were charged to depreciation reserve?

A. The year 1919, repairs to structures charges to reserve account were $1172.56; the costs of painting structures charge to reserve account was $3444.14, compared to my allowance of eight hundred odd dollars for all items which I have included. The year 1930, the charge to reserve account for repairs to structures was $2277.75.

Q. That was 1930? You gave 1919 before.

A. I meant 1929.

Q. You meant 1929. The next year was 1930?

A. Yes.

Mr. Griffith: I believe the witness did say 1919.

A. I want to make a correction there because I did not go back that far.

Q. Now, for the year 1920, what did you say the repairs were?

A. I have got the net amount $277.75 and there was a [fol. 2109] credit on that year of $27.00. In 1931, there was no charge. In 1932, the repairs on structures were $90.00. The year, 1933, the charges to repairs on structures were $324.79, and on storage tanks $72.26. The average per year for the four years to repairs on structures was $310.84 and the average per year to paint structures was $569.52. The sum total of those is approxiately $880.00 per year for that item which I have included in my estimate at 2 per cent. In other words, after referring to my notes I found that I had made an investigation of the actual charges to the reserve account of these particular items. I overlooked the fact when I answered your question the first time. By the accounting methods of the Lone Star Gas Company the charges to the reserve for these items are included in the property account gas farms.

Q. Did the $569.00 for painting occur all in one year?

A. I think it did, Mr. Fitzhugh. I think all occurred in the year 1929.

Q. Now, what was it they painted—what is covered by that amount?

A. I don't know. I assume that they painted the cottages.

Q. Well, now, you could not tell from that sort of notation, could you, Mr. Connor, whether it was cottages, or what structures were painted, could you?

A. No; they are just what we call Production System Structures—that is all. I did not attempt to find out which cottages had been painted.

Q. How did you know that the structures painted were not Measuring Station Structures—that would be in the gas [fol. 2110] farm account, wouldn't it?

A. It might be. The 2 per cent which I have allowed would be sufficient—I mean is no more than sufficient to cover those costs, assuming that the Field Measuring Station cottages and the other items were included in the account.

Q. Now, the notes that you are reading from were taken from sheets that cover Account 61-A-10; is that right?

A. I don't know what the account number is.

Q. Well, at any rate, it is the account that covers everything in gas farms?

A. That is right.

Q. Now, your gas farm account includes all sorts of structures, does it not?

A. Yes, and so does Production System Structures include all structures.

Q. What, in addition to Production System Structures, does the gas farm account cover?

A. Gas well equipment.

Q. And what else?

A. Derricks.

Q. What else?

A. Pumping equipment.

Q. Does it include Field Measuring Station structures?

A. I believe that it would, I am not certain.

Q. And the pumping house structures?

A. Pumping equipment I have already mentioned.

Q. Yes, sir—and the structures that cover pumping equipment?

A. Yes, sir; that is correct.

[fol. 2111] Q. So, if you found an item for painting in your Company's farm account you would not know without a very careful analysis, if you know at all, just what structures it applied to?

A. No; I did not attempt to find out which cottages had been painted or which storage tanks had been painted.

Q. But what you did was take the total amount of painting shown in the account and assume that it applied to Production System Structures?

A. I don't know of anything else they could have painted out there.

Q. Well, at any rate, you assumed it was all upon Production System Structures?

A. I didn't do anything of the kind.

Q. You did if you used your actual study to compute it.

A. I did not use the actual study. I made that very clear. However, I did have the information.

Q. But you would not have any information at all, even after what you have described, that would allow you to compute the correct per cent for current replacements, would you?

A. No, and I would not compute current replacements on charges which have taken place in the past on Lone Star Gas Company Production System Structures, because they are

too relatively new to form a conclusion as to what the future would have.

Q. Suppose all the charges for current replacements on this type of property were charged to maintenance and taken care of currently through maintenance charges, would [fol. 2112] you then include the 2 per cent per annum for current replacement which you have on page 287?

A. I would not include it if Mr. Hulcy's accounting exhibits were based on the method of accounting—no, I would not include it.

Q. As shown on page 287, you assume that there will be a complete amortization in twelve years. Where did you get your twelve years?

A. That was merely an estimate on my part, Mr. Fitzhugh.

Q. In order for that to be a correct assumption, you have to assume that the average life of these structures is twelve years, do you not?

A. I assume that total life would be twelve years.

Q. Isn't it true, Mr. Connor, that a substantial part of the Production System Structures of the Company as of this date is considerably over twelve years old?

A. I could not tell you; I don't think so.

Q. Did you have this same sort of a set-up in testifying before the Railroad Commission?

A. I don't recall; I imagine that it was somewhat similar.

Q. Your exhibit shows that you used 5 per cent as an annuity basis. Isn't it a fact that you used 7 per cent for your annuity basis before the Railroad Commission?

A. I think that that is correct.

Q. Why was the change made?

A. Because 5 per cent is correct and 7 per cent is wrong.

Q. Well, how did you find out it was right—what was the consideration that made you make the change or decide [fol. 2113] that one was right and that the other was wrong?

A. Because it is absurd on the face of it to assume that any annuity could be accrued and proper security surround an annuity wherein the interest rate was 7 per cent. My use of the figure in the Fort Worth hearing—I would have to construe it as a gesture of generosity but not the result of my judgment.

Q. Now, Mr. Connor, if you have a fund in money at this time and you want to use up that fund and distribute it by

years so that at the end of, say, a ten year period the entire fund would be used up, it can be calculated mathematically, can it not, the amounts that could be given away year by year to finally dissipate the entire fund, taking into consideration all of the interest that the fund might draw in the meantime?

A. You mean to go to zero at a certain number of years?

Q. Yes.

A. Oh, yes.

Q. Now, those payments made by years to accomplish a result of that sort are properly called annuities, aren't they?

A. What I thought you had in mind was the disappearing balances where you get down to zero at the end?

Q. That is it exactly. Where you use payments for years to retire at the end of a certain time the balance which you had to begin with, those payments along the line are called annuities?

A. Oh, yes. I misunderstood what you meant.

[fol. 2114] Q. Suppose you had a thousand dollars and you wanted to arrange so that it will be paid to you in equal installments until so that at the end of ten years there will be no fund on hand; that could be worked out to get those installments methematical and the installments would be called annunities?

A. Yes, but they would not be worth a thousand dollars in the end.

Q. I am just talking about that definition of the term. Those amounts that you would get by years, would be called annunities; isn't that correct?

A. That might be correct. I am not exactly clear what you are talking about.

Q. Suppose, on the other hand, Mr. Connor, that you had no money at this time and you want to find out what amount you would have to lay aside until so as to give you a thousand dollars at the end of ten years. Now, that is a process which you properly call amortization?

A. Well, I think it is usually termed amortization.

[fol. 2115] Q. Amortization is the providing of some future time for the retirement to take place in, isn't it?

A. That is correct.

Q. And building up a fund sufficient to take care of it?

A. That is correct.

Q. Now, as you have used the term "annuity" in connection wtih amortization in twelve years on a five per

cent annuity basis of 6.30 per cent per annum, as found on page 287 of Exhibit 42,—haven't you incorrectly used that term?

A. I may have. The purpose of it is clear, however.

Q. At any rate, what you mean there is that you are building up a fund that will be sufficient at a future time—twelve years to be exact—to take care of retirement one hundred per cent.

A. That is correct, upon the assumption that the annual accumulations will be compounded at the rate of five per cent, and the interest so accumulated will be added to the principal sum each year.

Q. When you reduced in this exhibit what you had formerly taken before the Railroad Commission—a five per cent annuity basis, I mean a seven per cent annuity basis to the present five per cent annuity basis, you increased the per annum per cent quite materially, did you not?

[fol. 2116] A. Quite naturally the per annum per cent increases as the interest rate accumulated on the annual accrual decreases, I think if you will recall, Mr. Fitzhugh, my testimony before the Commission in the hearing, I stated that I didn't believe that an annuity should be calculated upon a rate of interest as high as seven per cent, but the amortization accrual——

Q. At any rate, the change gets a figure for depletion in this exhibit which is considerably higher than that which you found before the Commission?

A. I don't think that the amount would be substantial, but it would certainly increase it—yes, you are correct.

Q. Wouldn't almost double the amount?

A. It might, depending upon the period of years over which the amortization accrual would extend.

Q. Now, your Company owes the Lone Star Gas Corporation quite a substantial sum, which at the present time is drawing six per cent interest,—isn't that correct?

A. That is correct.

Q. As long as you can make payments on the principal to retire that debt, you will always have a safe place to put your investments, will you not, and draw at least six per cent?

[fol. 2117] A. Absolutely not.

Q. Why?

A. Because the minute you retire a part of your current debt you are investing that money with which you retire

that current debt right back in the natural gas business.

Q. That is all right; isn't that a safe business?

A. It isn't a safe business in which to create an amortization accrual; absolutely not. I think it would be the last one a life insurance company or anybody would permit you to put funds in for that purpose.

Q. So you have to assume in your calculations that the funds or the amounts coming in to build up the fund will be invested in something else besides your own company, your own securities, or your own financial obligations?

A. Absolutely.

Q. So you resort to something like savings bank deposits or other securities to make your investments in for this fund?

A. Absolutely.

Q. And that is what accounts for the low rate of interest that you have changed to, is it?

A. Yes; I don't think the rate of interest used here [fol. 2118] is low enough.

Q. Now, you estimate, do you not, that the application of the 6.3 per cent per annum for amortization in twelve years on a five per cent annuity basis, as you say on page 287, will retire one hundred per cent the investment in this class of property in twelve years?

A. That is correct.

Q. Now, that being true, Mr. Connor, why do you add in the one per cent for Decline in per cent of New Condition?

A. For exactly the same reason I explained in connection with gas well construction and equipment.

Q. Well, if you are going to get back the whole amount of your investment at the time when the property represented by the investment goes out of service, why would you have to include in here any calculation——

A. Mr. Freese (Fitzhugh), I can not add anything in connection with this item to the explanation I made in regard to the same identical thing in connection with gas well construction and equipment.

Q. Well, you don't mean that the addition of one per cent for the Decline in per cent of New Condition, as shown on page 287 is here added because at some place else in the [fol. 2119] appraisal the same amount is deducted, do you?

A. No, I don't; but I do put it in there in lieu of increasing the one per cent on other items of property.

Q. When you get through the whole appraisal, Mr. Connor, using this same sort of method you will have arranged to amortize the whole investment as represented by the Company's property, at some future time, will you not?

A. Yes; but I do that by a distinct and separate process, which is clearly set out and has no relation whatever to the matters which you are discussing.

Q. Well, you mean you arrange to amortize the items separately, but when you get through your whole appraisal you will have retired the whole investment one hundred per cent at some date?

A. Absolutely; I hope so.

Q. Do you discuss anywhere in your exhibit, Mr. Connor, the way the appraisal works out, so far as the adding in of this one per cent for Decline in per cent of New Condition is concerned?

A. How the appraisal works out, Mr. Fitzhugh?

Q. Yes, sir, or how your allowances for annual depreciation work out.

[fol. 2120] A. You are referring to my exhibit, and not the appraisal—Exhibit 42?

Q. Yes, sir.

A. I think that is set out, Mr. Fitzhugh, both in Exhibits 41 and 42. The 41 exhibit has two pages in it which are, for all practical purposes, taken verbatim from the latter part of Exhibit 42. I show in connection with the allowance for Decline in per cent of New Condition that I deduct the amount accrued for that by the application to the various property accounts, together with an allowance of fifteen per cent for salvage value from such items as I estimate will ultimately be amortized; but even before I reach that conclusion I make a substantial reduction from the total property account for items of property which I think have been fully provided for in the appraisal—in the estimate itself. For instance, I show on page 3 and page 4 of Exhibit 41, that of the total reproduction cost I estimate that a capital sum of $15,421,714.31, representing the reproduction cost of certain specific items included in the appraisal have already been provided for—the complete retirement of those items has already been provided for in the accruals which I set up. Then I also pick out certain items on which I think there would be no loss on account of Lone [fol. 2121] Star Gas Company going out of business as a natural gas company, such as a portion of the Measuring

Station Land and Improvements. However, I doubt if they would make any recovery on those items. And the Main Line Compressor Stations—the land and real estate in connection with those; the General Office Building Land, and Other General Land, and items of that sort; I have assumed that at the time the Company went out of business that they would recover the reproduction cost, in part at least, of those items. In Column "D" I set out the Decline in per cent of New Condition, which I have provided for as heretofore explained. That, in turn, is deducted from the amount which I think would be subject to amortization, because of its already having been provided for, and there certainly wouldn't be any necessity of providing for it again; and I have also assumed that there would be a net salvage of fifteen per cent in the end of the life of this property—and when I say "end of the life of this property" I mean only this property which was in existence as of January 1, 1934; and those two pages cover very carefully and very fully how I treat the Decline in per cent of New Condition, and there is a complete and full explana-
[fol. 2122] tion of it in the text of the report itself, beginning at page 209 and extending through page 305.

Q. You do know, do you not, Mr. Connor, the actual replacements of transmission line pipe for 1933?

A. No, sir.

Q. Do you for 1932?

A. Yes.

Q. How much?

A. I know what they were for six months during the year 1933, and it might be that some pipe had been retired prior to the date at which I made my determination as of June 1st—July 1st, 1933.

Q. You know the amount for 1932, do you not?

A. Yes, sir.

Q. How much was it?

A. What class of property do you refer to?

Q. Transmission line equipment.

A. Well, now, Mr. Fitzhugh, if you don't object, I would prefer to read that for both transmission line and tap line, because they have been consolidated.

Q. Yes, sir.

A. 27,374 feet of 3-inch equivalent pipe.

Q. That covers both transmission lines and tap lines?

A. That is correct.

[fol. 2123] Q. And that includes the replacements, retirements, and abandonments, does it?

A. It includes everything of that nature, yes, sir.

Q. Now, when you testified before the Railroad Commission, in your Exhibit 18 on the chart shown at page 45, the curve used by you on that page shows that for 1932 the main line replacements and abandonments would be 420,000 instead of the 27,374——

A. That is no doubt correct.

Q. —actually incurred?

A. That is no doubt correct.

Q. Now, what are your figures for the six months in 1933?

A. 211,853 feet for the six months period.

Q. Your prediction when testifying before the Railroad Commission for that period used was for the year, 540,000, was it not?

A. I don't recall; you are no doubt correct.

Mr. Griffith: The figure 211,000 which you gave was for the first six months of the years?

The Witness: That is correct.

Q. Well, the first six months period usually catches most of the replacements, does it not?

A. I wouldn't say so.

[fol. 2124] A. Approximately; that would be a fair assumption.

Q. Could you find out by the time we meet again Monday, Mr. Connor, the replacements for the full year 1933?

A. I doubt if I could, Mr. Fitzhugh; I will try to do so.

* * * * * * *

[fol. 2125] Q. Mr. Connor, at the last session, in testifying on your depletion rate or the annual rate for depletion on the developed leaseholds and on the annual depreciation amount on gas wells, you testified that you had estimated that the withdrawals from the gas reserves would be about twenty million feet—twenty million thousand cubic feet, except the five million actually being withdrawn in 1923—1933, rather.

A. I don't know what the actual withdrawals were for the year 1933.

Q. Well, they approximate five billion.

A. Between five and six billion, I imagine.

[fol. 2126] Q. Yes, sir; and you testified also that you used a price per thousand cubic feet, or a depletion allow-

ance per thousand cubic feet of $.0023 per thousand in getting your depleted leaseholds depletion?

A. No, I think you have the wrong figure on that, Mr. Fitzhugh, I think that the depletion unit used, Mr. Fitzhugh, was the $.007——

Q. $.0073?

A. I think so; yes, that is correct.

Q. All right, sir; and that was worked out from Mr. Hulcy's exhibit?

A. That is correct.

Q. Now, then, did you use these two—this depletion allowance per thousand cubic feet or the assumption of the twenty billion cubic feet withdrawals per year, on any other class of property than these two?

A. No, they were the only ones to which it applied.

Q. Just before we quit Saturday you were asked, Mr. Connor, if you could give the total amount of 3-inch equivalent—that is, the total feet of 3-inch equivalent mortalities for main line replacements and abandonments for the full year 1933, and I believe you said you would give us that this morning, if possible.

A. I said I would give it to you as soon as possible.

[fol. 2127] Q. You don't have that yet?

A. Why, no, Mr. Fitzhugh; that is quite a task, and when I got back to Dallas yesterday there was nobody—the records of all the departments were under lock and key, and there was nobody in the building; so it was impossible to get that information for you. That information will be secured, and the work has been started this morning.

Q. You did give the amount for the six-months period—the first six months in 1933.

A. That is correct.

Q. Are you able to tell, Mr. Connor, the lines that that 211,853 feet of 3-inch equivalent covers?

A. I imagine I will be able to give you that, yes. (Witness consults data.) This is all expressed in terms of 3-inch diameter, Mr. Fitzhugh. Line C, 252 feet; Line K, 8682 feet——

A. Line K-C, 45 feet; Line L, 118,190 feet; Line O, 66,-365 feet; Line 45, 1162 feet; Line J-2, 17,067.

Q. Mr. Connor, are the replacements that you have just given on Lines L and O on the 16-inch?

A. I think the replacements on Line L are 16-inch, and I think the replacements on Like K are 18-inch.

[fol. 2128] Q. I mean Line O.

A. I said 18-inch.

Q. Line O is 18-inch?

A. I think it is, yes, sir; I am pretty sure.

Q. And Line L is 16-inch?

A. Yes, sir; I think that is all that I can see from making a rather hasty check on those lines; there might be one or two small items that I have omitted.

Q. When you have a mile of 18-inch pipe and you want to reduce it to 3-inch equivalent, that would be six miles of 3-inch equivalent, would it not?

A. That is correct; everything in the report, both the length of pipe in service and the length of pipe replaced, is all reduced to the same equivalent, so that the relation is constant between the two.

Q. Now, the next classification of property after the production structures and equipment is rights of way. Now, in the handling of rights of way, Mr. Biddison, in the appraisal, left them in at 100 per cent condition, did he not?

A. That is correct.

Q. And they appear in the appraisal at full value—100 per cent, do they not?

A. That is correct.

Q. That value was estimated by Mr. Biddison at three times the actual cost, as per the books, was it not?

[fol. 2129] A. I don't know whether it was or not.

Q. Now, then, you come along in your calculations and estimate that there should be a depreciation allowance of 8.6 per cent of the value of rights of way on the gathering system property, don't you?

A. Yes; in the manner in which I made the calculation that is necessary in order to correctly reflect the calculations set out in my exhibit and to prove for the necessary money.

Q. Well, now, if Mr. Biddison regards the rights of way that the Company now owns, regardless of how long the Company has owned them, or how long the rights of way will probably be in existence, at 100 per cent, why do you think, Mr. Connor, that there would be any depreciation of those rights of way?

A. Well, Mr. Fitzhugh, I will explain that as briefly as I can. In working out the annual rate which I determined for the main transmission system, and the explanation for

the main transmission system will apply with equal force to the other applications of the reserve accrual to rights of way,—I determined, as set out in Exhibit 42, the method whereby I made that determination, in Part 2. If reference is made to pages 151 and 152, it will be noted that the full statement is made, if it is assumed that the main lines [fol. 2130] and tap lines of Lone Star Gas Company in service as of January 1st, 1933, will remain in their original locations throughout their service life, the items included in a reproduction cost estimate of direct structural costs that would be unaffected by the factor of replacements, removals, and abandonments that would be unaffected by decline in per cent of new condition, and that would not be reincurred in piecemeal replacements, are as follows: first, value of lines owned in fee; second, rights of way costs, exclusive of construction damages; reproduction costs of clearing rights of way. I specifically set out that those items will not be met, or those expenses will not be met in the piecemeal replacement of a line which is assumed to remain in service in its original location. I determine the reproduction cost of those specific items as set out by Mr. P. McDonald Biddison in Exhibit 28. I, then, determine the ratio that those items bear to the total cost of the line, and I find that the ratio is approximately 4 per cent, the actual calculation being 3.78 per cent; in other words, 96 per cent of the total line, including the costs of right of way, expressed in dollars, the reproduction cost basis is the cost of the property which will be subject to replacements, re- [fol. 2131] movals, and abandonments, and so forth. I get my annual rate of reserve accrual independent of that factor. Had I used the rate which I determined independent of that factor without modification, it then should have been applied only to that portion of the account main transmission system represented by those items of property which would have to be replaced; but I didn't do that. To that factor I applied .96, thereby reducing the factor which I applied, or the annual rate which I applied by that factor, as is clearly shown on page 168, Exhibit 42, Table 4-A, wherein all items are reduced by the application of the factor, .96, except in the case of Column C, which is the removal factor, which is, multiplied by—which is the removal accrual, which is multiplied by the factor .70; in other words, the result is just exactly the same, Mr. Fitzhugh, as

if I had applied the entire reserve accrual which I estimate is applicable to the specific property items, to the property items, and excluded the rights of way and other items, or to have reduced the accrual by multiplying it by .96 and then applying it to the total property account.

[fol. 2132] Q. Now, that may explain to your satisfaction, Mr. Connor, how you found this figure, but it doesn't to mine. The per cent that you actually used was 8.6 per cent of the total value as a depletion or depreciation charge?

A. That is correct.

Q. Now, this Table 4-A that you refer to, on page 168 of your Exhibit 42, does not show how you derived that, does it?

A. No, I don't think the table does, but the text does.

[fol. 2133] Q. Now, to go back to the question I originally put to you, Mr. Connor. Bearing in mind the way Mr. Biddison has made his evaluation, and bearing in mind that in that evaluation he has included the gathering system rights of way at 100 per cent, with no depreciation whatsoever, don't you think it is improper for you to consider that the rates ought to refund to the Company in the amount of the value of those rights of way as a depreciation charge annually?

A. Absolutely not, as I have tried to explain, and as I will try to explain to you again if you wish.

Q. Your answer is good enough if it suits you.

A. Let's assume the original cost of the property to be $1000.00, and that in that $1000.00 there was $100.00 not subject to depreciation. That would mean there was 90 per cent of that property subject to replacement, removal, and abandonment. Now, suppose I determined that for the part subject to replacement, removal and abandonment, the rate of depreciation should be five per cent. Five times ninety is 450—that is, applying five per cent to ninety per cent of $1000.00 and you have $450.00. Now, let's assume that, instead of doing that, you reduce the 5 per cent to 4½ per cent, and apply it to the whole $1000.00, instead of the $900.00, and you would still get $450.00.

Q. Suppose you have a $100.00 right of way, and that is a fair value of the Company's property, upon which it gets a fair return, and assume that a six per cent return should [fol. 2134] be the final determination; you would earn six

dollars a year on that by including that 100 per cent property value in the total value of the Company's property?

A. That is correct.

Q. All right; Now, your proposition is that in spite of the fact you are going to get a full return on the 100 per cent property value you ought to also have some depreciation charge, in spite of the fact that in the rate base it is 100 per cent?

A. No.

Q. Now, suppose that your 8.6 per cent is applied to that $100 piece of right of way that I just referred to; in addition to the six dollars it would earn as rate of return, it would also get $8.60 as an annual depreciation charge, wouldn't it?

A. That is true, Mr. Fitzhugh; but it must be clear in view of my explanation that instead of multiplying the much larger proportion of the property account by some higher annual rate, I have reduced that annual rate which applies to the much higher portion of the property by the proportionate amount represented by the non-depreciable property, and the answer would be just exactly the same as if I had put zero opposite the right of way and increased the annual rate of reserve accrual on the other parts of the property, just as if I applied 4½ per cent to a hundred dollars on the one hand, and 0 per cent to $10 and 5 per cent to $90.

[fol. 2135] Q. To carry it back to the $100 illustration, you mean you would have come out the same in the end if you had regarded the rights of way as worth 0 instead of using a 14.6 annual depreciation charge?

A. No; because the proportionate part that rights of way bear to the total is so small.

Q. I am talking about just as applied to rights of way.

A. I am frank to say I don't quite understand your question, Mr. Fitzhugh.

Q. If I understand you, it is this, that you used the 8.6 per cent value of rights of way in lieu of some higher figure that you might have used, because of the particular treatment you have given it?

A. No; had I used a slightly higher per cent on the rest of *to* property there would have been no reserve accrual applied to the costs of rights of way. It was just a method

of treating it and the manner it was set out was largely due to the sequence of the work in the report that was prepared. It would have been a simple manner to handle it to have left the rights of way out altogether and applied a slightly higher per cent to the other parts of the property.

Q. You would have come out at the same place if you had left out of consideration property values entirely, forgetting about letting the Company earn a per cent of return on its property, and finding nothing but a depreciation charge, if you had made the depreciation charge high enough, at 14.6 per cent?

A. If you had been disposed to proceed in that fashion, I suppose so.

[fol. 2136] Q. The next classification is Measuring Station Structures. To Measuring Station Structures you applied 10.5 per cent, did you not?

A. Yes, sir; that is correct.

Q. Now, that shows up on page 287, of your Exhibit 42, does it not?

A. Yes.

Q. You also show this same per cent on the Field Line Measuring Station Structures, did you not?

A. Yes; that is correct.

Q. And found the same way. Now, in finding this 10.5 per cent, as shown on page 287, you included for Current Replacements and Paint 2.0 per cent per annum?

A. That is correct.

Q. How did you find that two per cent?

A. That is an amount, Mr. Fitzhugh,——

Q. Is it based on any factual data of any sort?

A. Not particularly, no, other than the studies I made on current repairs to gas farm equipment and main transmission line equipment.

Q. Did the Company actually charge on its book to the depreciation reserve account the current replacements and Paint on Field Measuring Station Structures?

A. I am informed and have reason to believe by reason [fol. 2137] of the personal study I have made of the vouchers of the Company that the most minute charges are made to the reserve account covering the items you mention.

Q. Can you refer us to any item that appears on the books of the Company for 1931, 1932, and 1933 that would show a charge for current replacements and paint on these structures that was made to the depreciation reserve?

A. I don't know, Mr. Fitzhugh, that I can get the exact structures to which you refer; but the policy of the Company will be clearly indicated by a number of items to which I can call your attention.

Q. There are hundreds of these field measuring station structures, aren't there?

A. Yes, sir; just like there are of city gate measuring station structures.

Q. And this two per cent as applied to all these measuring stations is quite a sizable item, isn't it?

A. Comparatively speaking, it is not.

Q. At any rate, you ought to be pretty certain as to how the thing is being handled on the books before you put in two per cent per annum for depreciation in your calculation?

A. I am pretty certain.

Q. Well, just read out, if you will, any replacements and painting done on these particular structures.

A. I said, Mr. Fitzhugh, in answering your question, that [fol. 2138] I didn't believe I had anything for this classification of property. I have detailed analyses of charges to the reserve account for almost identical property, which indicates absolutely the policy of the Company with reference to making charges to the reserve account.

Q. But on these particular structures you don't have anything?

A. No; I don't think it would be necessary to demonstrate to my own satisfaction what the policy of the company was with reference to charging such replacements to the reserve account, when I found in the analyses that identical structures were being handled in that way.

Q. In the Railroad Commission's order, on page 57, under Field Measuring Station Structures, this statement occurs: "Current Replacements on Field Measuring Station Structures are charged to Operating Expenses by the Company. The year 1931 was no exception in this particular." Do you take issue with that statement?

A. No; I would not take issue with that statement, except to state that in examining the records of the Company with reference to similar structures I found that minute replacements, sometimes as small as 16 cents were charged specifically to the reserve account. Now, the Company may make an exception with that particular class of property, and if they do, and Mr. Hulcy's exhibit so reflects Operat- [fol. 2139] ing Expenses as applicable covering the items

to which you refer, then my report should be amended to that extent, but I don't believe that what you say is actually in accord with the policy of the Company. Mr. Hulcy is here and he is more familiar with that than I am.

Q. This statement made with reference to 1931, as to Field Measuring Station Structure Replacements being charged to Operating Expenses is also true as to 1932 and 1933, and thus far in 1934, is it not?

A. What statement?

Q. That Current Replacements on Field Measuring Station Structures are charged to Operating Expenses by the Company?

A. I don't know.

Q. Now, then, we are talking about Field Measuring Station Structures and no other structures, Mr. Connor.

A. That is correct.

Q. Now, why do you feel justified in deciding how to handle the Current Replacements and the Painting on these structures by a consideration of some other structures?

A. Because the other structures are almost identical in all respects with these particular structures.

Q. What are the structures that—what painting and what current replacements on what structures is it you are now talking about?

[fol. 2140] A. We discussed last Saturday the current replacements and painting of the structures on the gas farms, which certainly have been charged.

Q. You are talking about Other Production System Structures now?

A. That is correct. Now, in the case of the Measuring Station Structures——

Q. Now, Mr. Connor,——

A. Wait a minute. On all Compressor Station Structures, similar repairs and replacements have been charged to the reserve. Similar charges have been made to the city gate measuring stations; and that is as far as my investigation relative to these particular property items went.

Q. Now, on page 56 of the Railroad Commission's order, under Other Production System Structures, the Railroad Commission adopted the two per cent that you have testified was the proper allowance for those structures, did it not?

A. I assume that it did.

Q. The exact words being: "We are adopting an annual rate for current replacements of 2.0% as suggested by Mr. Connor (Exhibit 18, page 113)." Now, the Railroad Commission did allow the two per cent per annum on Other Production System Structures; but cut it out on Field Measuring Station Structures and Field Measuring Station Equipment, because those things had always been taken care of as Maintenance; isn't that right?

[fol. 2141] A. There is no argument between you and me if that is relative to the inclusion of an allowance for a reserve accrual which the Company has currently proveded as a direct operating charge.

Q. Now, there are current replacements and painting on these Field Measuring Station Structures going on all the time, isn't there?

A. Oh, yes.

Q. And that is true in 1932 and 1933 and this year?

A. That is correct.

Q. Yet you are not able to refer on your charges to the Depreciation Reserve Account to a single instance where a segregation is made and charged as two per cent for Current Replacements and Paint?

A. That is correct, in connection with this specific item of property.

Q. The same thing is true of the Field Measuring Station Equipment, is it not?

A. That is correct.

Q. And the Gathering System Measuring Station Equipment?

A. That is correct.

Q. Now, another part of this 10.5 annual accrual rate, which you have applied to Gathering System Measuring Station Structures and Gathering System Measuring Station Equipment, and Field Measuring Station Structures and Field Measuring Station Equipment, you have included [fol. 2142] for costs of Removals and Abandonment 7.5 per cent per annum?

A. That is correct.

Q. On page 287, in discussing how you arrived at this 7.5 per cent for the cost of removal and abandonment, this sentence occurs: "This analysis indicates a loss of 150 per cent of the reproduction cost of the structures during a service life of twenty years or an annual reserve accrual of 7.5 per cent to provide for the loss on removals and

ultimate abandonment''. Previously in the text you have stated that the average life of gas wells is approximately six years. Is this 7.5 per cent obtained by dividing the six years, the life of gas wells, into the twenty years, the approximate life of the structures?

A. The whole estimate, Mr. Fitzhugh, is an approximate estimate, of course. I merely assumed that there would be a period of removal of those Measuring Stations from one location to another on which there would be a loss incurred on each removal.

Q. Well, where did you get the 150 per cent?

A. Well, there would be about 25 per cent loss, or 75 per cent loss on three removals, or two removals—there would be two removals approximately before the final abandonment of the structure at its final location, which would account for fifty per cent, and then approximately 100 per cent of the total cost would have to be taken care of at the final abandonment, which would give you 150 per cent, taking into account intermediate loss on removal plus final loss on abandonment.

Q. Now, when a well runs out and the Measuring Station [fol. 2143] Structure that is on the well line is no longer of any use on that particular well, they take up the line and use the pipe in some other location and take up the little structure and put it on a wagon and move it to the new line, don't they?

A. That is correct.

Q. Now, all the cost of making that move, changing the position of that Measuring Station Structure, is charged as operating expenses, is it not, or as maintenance?

A. If it is, then it is improper, as I stated before in connection with these specific items of property, to include any reserve accrual allowance for it. If my understanding is wrong, then this item should be eliminated.

Q. All right. But in the sheets you have before you which indicates charges to depreciation reserve you are unable to find any of these particular items, are you?

A. No. I have only analyzed the charges to reserve on certain specific items of property, Compressor Station, Main Line Stations, gas farms.

Q. Now, you used the same 150 per cent loss of the reproduction cost on the field line Measuring Station Equipment?

A. That is correct.

Q. And on the Gathering System Line Equipment, did you not?

A. Gathering System Line Equipment? No.

Q. No, that is right. Now, that equipment is mostly composed of meters and fittings, isn't it?

A. That is right.

Q. How would there be any 150 per cent loss on that sort of property simply caused by removal?

[fol. 2144] A. There probably would not be so much loss in connection with the property itself, but in reconditioning and handling that Measuring Station Equipment, taking it out of the line and putting it in service at another location, would be at least 25 per cent of the material, assuming that no material was lost.

Q. Well, you didn't have any factual basis for that—you just made a guess?

A. No. I had information; Mr. Steinberger and Mr. Biddison had made studies of what it cost to install that equipment.

Q. Well, have you made any analysis or study of what it costs to remove meters and equipment and install it at another place?

A. No, but the actual labor in taking down those meters and devices and cleaning them up, together with such loss of fittings as takes place, would be more than 25 per cent of the value of the fittings.

Q. Well, your estimate that it is 150 per cent of the reproduction cost ought to be reduced to about 50 per cent, should it not?

A. No.

Q. Well, at any rate, that estimate is just a guess?

A. No.

Q. Can you pick out any particular installation anywhere on the company's system for the year 1932, 1933 or 1934 and state how much it cost to move it from the old situation to the new site?

[fol. 2145] A. No, I can't.

Q. And you don't know how those charges were taken care of on the company's books?

A. No. I think I have testified to that before, Mr. Fitzhugh, that I did not.

Q. On the Measuring Station Line Equipment and on the Field Line Equipment you used 8.6 per cent?

A. That is correct—a consolidated figure for both classes of property.

Q. And this per cent is applied to property that comes pretty close to being five million dollars, doesn't it?

A. That is correct.

Q. Whereabouts in your exhibit do you show the curve that you had to find this per cent or the derivation of that per cent?

A. Two of them. One is shown on page 57 and the other one is shown on page 68.

Q. Now, on page 68, where you have plotted the curve for the replacements, removals and abandonments of that steel pipe of field and well lines, where did you get your basic data for that?

A. By a study of the records of Lone Star Gas Company from 1909 to mid-year 1933.

Q. On your line A-B on this sheet, does the basic data for the plotting of that line show up anywhere in your exhibit?

A. I think I have a very complete and full explanation, Mr. Fitzhugh, ever to the most minute details, as to how [fol. 2146] that curve was developed. Now, I will have to go through the exhibit to see if I can point it out to you exactly, if you will give me just a minute or two.

Q. Well, without going into some long, complicated harangue on that, didn't you just find this curve by taking your thirty-three year life of pipe and drawing a line from the 100 per cent mark on that per cent axis to the thirty-three year point on your year axis?

A. Absolutely not, Mr. Fitzhugh.

Q. Well, it is a most unusual thing to see a straight line for the actual mortalities, is it not?

A. Not with reference to mortalities due to some particular thing which is not as variable as comes in the corrosion of pipe.

Q. Well, this has nothing to do with corrosion, but deals only with removals and abandonment?

A. That is correct.

Q. And this curve, if correct, shows an absolutely uniform rate of removals and abandonments, doesn't it?

A. No. It does not mean, Mr. Fitzhugh, at all that the actual experience of the company in the matter of these things would be absolutely uniform from year to year—

far from it; but it means that the manner in which a calculation can be made to anticipate and smooth out those irregularities, which will occur from year to year, in my opinion should be determined as I have shown it on page 68.

Q. Well, tell just as simply as you can, Mr. Connor, how you did get up your curve.

[fol. 2147] A. Well, there were a certain number of replacements, removals and abandonments which I had ascertained by a study of the records of the company, which have taken place up to and including mid-year 1933, in the field lines and well lines of Lone Star Gas Company. Now, the manner in which I made that determination was as follows: From the total replacements, removals and abandonments from all causes I made a calculation setting out my estimate of what per cent of those replacements, removals and abandonments had been caused primarily by reason of the condition of the pipe. That determination having been made from the study of the main lines and tap lines, wherein it was possible to determine more accurately just why the pipe had been removed, I deducted that estimate of these replacements, removals and abandonments which had been caused by the condition of the pipe from the total removals, replacements and abandonments which had taken place in the field lines and well lines of the company.

Mr. Griffith: From all causes?

A. From all causes, leaving me what I have estimated to be replacements, removals and abandonments which had been caused primarily by changed operating conditions or public employment, and in this case almost wholly by reason of changed operating conditions. I then determined the weighted age of those lines, including such lines as I could identify, and I was able to identify the age of prac-

[fol. 2148] tically all the lines. Having the weighted age of those lines and the years they had been in service, I divided the total rate of replacement of the total replacements by the weighted age and determined what the rate of replacement was on pipe in the particular service which had a weighted age indicated by the age of the individual property unit. I then devised a curve which, giving effect to the replacements, removals and abandonments, would pass through the indicated percentage point at the point indicated by the actual weighted age of the pipe. Curve C-D shown on page 68 is such a curve, and the rate of re-

placements shown is almost identical with the actual rate of replacements, removals and abandonments which has taken place in the field lines and well lines of Lone Star Gas Company.

Q. What was the weighted age that you decided these lines had?

A. 6.32 years.

Q. That means that the weighted age in any one location was 6.32 years. Is that right?

A. No; the weighted age, taking all the pipe into consideration, including the first pipe ever laid for that purpose.

Q. Well, that applies only to field and well lines, doesn't it?

A. That is correct.

Q. Well, you intend to show by that, Mr. Connor, that the average life of the field and well lines is 6.32 years?

A. Oh, no. The average life—let's understand each other, because the word "average" life is something that is subject to two interpretations. That means average life [fol. 2149] to date in so far as the age of the unit is concerned and how long it has been in service, as distinguished from what might be considered average life determined upon either failure or replacement.

Q. What is your estimated total life of the field and well lines in any one location?

A. The calculations so far as the curve is concerned would indicate a total life of thirty-three years, but in so far as the rates of replacement are concerned, of pipe, that indicated average life of pipe has nothing in the world to do with the actual rates of replacement.

Q. Well, now, as shown by your curve, the average service years in any one location would be half your total life; that would be thirty-three and a third, or sixteen and a fraction years, would it not?

A. That would be taken from the curve A-B, but, as I said before and I wish to repeat, that the average life of a group of property units, such as steel pipe, has no relation whatever to the probable or possible rate of replacement of that pipe. Had I differentiated in this exhibit between field lines and well lines, the indicated life of the well lines would have been much less than this curve indicates.

[fol. 2150] Q. Now, you say this graph C. D. Prime, and A. B. as derived from C. D. Prime, is computed from actual data?

A. I said the direction of the curve was determined by an interpretation of actual data.

Q. But in order to get these curves plotted, you had to make several estimates and make several assumptions of your own along the line, didn't you?

A. I think just exactly what I did, Mr. Fitzhugh, is set out in detail in the text of the report.

Q. Well, just as you explained a minute ago, you had to make several estimates, didn't you, in order to get your basic figures to plot this curve C. D. Prime, and for that matter, A. B.?

A. No, I would not call them estimates.

Q. Well, you had to make some assumptions of your own, didn't you Mr. Connor?

A. I had to make certain calculations.

Q. Well, in making the calculations, you had to assume certain matters that were not matters actually known. Isn't that true?

A. Not with reference to what had actually happened, no.

Q. Were you—where is the page that gives the text on this matter?

A. I had it a minute ago, Mr. Fitzhugh, but I let it get away from me. I will have it for you in just a second. I think you will find that explanation set out, Mr. Fitzhugh, on pages 123—and all of the calculations which are made in connection with the determination—through page 135. From page 123 to page 135.

[fol. 2151] Q. Now, on page 136 where you give the figures on your historic mortalities for the field and well lines shown in your outline as "B" mortalities due to changed operating conditions, you used the 1,715,688 feet of three inch equivalent pipe in arriving at your curve, did you not?

A. Yes. I think that is correct; that is shown on page 123.

Mr. Griffith: Of Exhibit 42?

A. Of Exhibit 42.

Q. Now, in using this curve as a basis, you finally wind up with your 8.6 per cent for your annual rate of reserve accrual?

A. Yes.

Q. How did you use that curve to get to your percentage?

A. The future annual rates were predicated upon, or were projected by a series of calculations beyond the year 1933, as in the case of those curves. I am referring now specifically to the curve designated mortality curve No. 3. Is that the one to which you refer, Mr. Fitzhugh?

Q. Well, you took this curve and your basic mortality curve and from the two worked out your percentage, didn't you?

A. For the future years, beginning with 1934.

Q. Now, where do you show the details on that?

A. The calculations for field lines and well lines?

Q. Yes, where you find the reserve accrual rate of 8.6 per cent for your gathering system line equipment, and your field line, line equipment.

A. I think that begins on page 171, Mr. Fitzhugh, of Exhibit 42.

[fol. 2152] Q. Is the calculation on page 186 a part of the application you made of this 8.6 per cent of the annual reserve accrual rate?

A. Yes, that is merely a check on the application of it; that is correct, Mr. Fitzhugh.

Q. Have you anywhere, in finding this per cent, taken into consideration the fact that the company has built up a reserve in the past for pipe, since the time the pipe was installed, which would be available for retirements and replacements?

A. I have not.

Q. In other words, the application of this 8.6 per cent per annum to the total value of this particular sort of equipment would be sufficient to make all retirements and replacements that occur in the future, as the pipe wears out, if they didn't have a cent of reserve already built up?

A. That is my estimate of what would be required in the future from January 1, 1933, to maintain the present property of Lone Star Gas Company throughout its service life.

Q. And your rate assumes, does it not, Mr. Connor, that there is a zero amount on hand at the present time for future depreciation requirements on this class of property?

A. I made no assumption, whatever, Mr. Fitzhugh, as to what is on hand at this time. I simply made a determination of what would be required from January 1, 1934,

into the future, as is clearly disclosed by the exhibit itself.

Q. Well, the application of this rate would be sufficient to make all future retirements and replacements if a zero [fol. 2153] amount was on hand at this time; isn't that true?

A. That is correct.

Q. So it is the same as assuming, isn't it, that there is absolutely not a cent on hand, available to the company now, for making replacements and retirements and repairs to this class of property?

A. That is correct. I have made my estimate upon the basis, or without reference to whether or not Lone Star Gas Company had set up a credit balance, or whether they had not earned enough to even pay operating expenses. The calculations I made would be just exactly the same in either event.

Q. A number of these lines have been in for quite a while, have they not?

A. Some of them have been in for quite a while, and some of them are comparatively new, Mr. Fitzhugh.

Q. And the wearing out of these lines has already taken place to some extent?

A. The physical wear?

Q. Yes.

A. That is true of all pipe in the ground, depending very largely upon the location of the pipe, as to what the extent of it is.

Q. And assuming the company has been making proper depreciation provision in the past, there now should exist a fund in some amount built up to take care of the wearing out of the property that has been in service for some years. Isn't that true?

A. There should of course be accrued a depreciation re- [fol. 2154] serve accrual. There should be a reserve set up, but the fact that there might be one or might not be one has not been taken into consideration by me in making this estimate. I have assumed that the moneys received in the past by the company were moneys that they received for the service that they rendered, and that the moneys they received in the past for their service rendered did not constitute contributions on the part of the consumers to any particular account of the company, whether it was to the capital account, the operating expenses of the company, or the depreciation reserve; and I felt in making this estimate

that the property that the company had acquired by the reinvestment of its funds secured from its service in the past could not be used to supplement any calculated reserve accruals which would not provide for the actual cost of current and future replacements, removals and abandonments and other charges to the reserve account.

Q. But Mr. Connor, if the company has been making property depreciation provision in the past, it now has on hand a right substantial credit reserve in the depreciation reserve account which is available at this time for making repairs and replacements as they become necessary; isn't that right?

A. If such a reserve has been accrued and set aside, it would be available, but you must also bear in mind, Mr. Fitzhugh, that there has been a decrement of a substantial amount in the present worth of the reproduction cost of the property of Lone Star Gas Company as set out by the [fol. 2155] examination and report of Mr. P. McDonald Biddison, and whether the reserve accrual in the past has been large enough or too small or too large, I gave no consideration to it whatsoever.

Q. And you gave no consideration whatsoever to the fact, did you Mr. Connor, that there is about a Fourteen Million Dollar accrual in the depreciation reserve of the company right now?

A. I did not.

Q. On page 63 of the Railroad Commission's opinion and order, this statement appears:

"Mr. Connor makes no allowance for the use of the several millions of dollars of reserve which would be built up for this item (main line pipe) during the next few years. Under Mr. Connor's set-up the current gas consumer would be paying the company rates sufficient to retire (or replace) pipe used up in the service of past consumers and not used in the service of the consumer currently paying rates. We are of the opinion that the cost of retiring (or replacing) an item of property should be spread evenly over the life of the item of property."

I will ask you, Mr. Connor, isn't it a fact that under your method wherein you disregard the credit balance in the depreciation reserve, and include amounts that are sufficient to take care of repairs and replacements in the

future in themselves, that you are now making the present gas consumers pay rates sufficient to retire or replace pipe used up in the service of the past consumers, and not used [fol. 2156] in the service of the consumers presently paying the rates?

A. Absolutely not.

Q. Are you of the opinion, Mr. Connor, that the cost of retiring or replacing an item of property should be spread evenly over the life of the item of property?

A. I believe, Mr. Fitzhugh, as is shown in this exhibit, that beginning January 1, 1933, as of the date of this inquiry or at least as of the date of this investigation that I made, that the rates for reserve accruals must be calculated independently of anything that has happened in the past except in so far as this history of the past will give you a proper basis upon which to make a determination of the rates of accrual in the future.

Q. Well now, some of this depreciation that you are taking care of in your rates, Mr. Connor, has already occurred, hasn't it?

A. Yes, and Mr. Biddison has taken care of that or has taken account of that fact in reducing the rate base, too.

Q. And some of the pipe has already worn out?

A. Yes, and the per cent condition put into this record by Mr. Biddison takes account of that very thing.

Q. Yes, but presumably your depreciation rates in the past have been sufficient to cover all the losses in value due to that wearing out—isn't that true?—and you now have that cash or its equivalent in the depreciation reserve of the company?

A. I trust that the company has done that, but if it had not and if its rates had been inadequate in the past, and [fol. 2157] if the company had suffered a loss every single day and every year from the date they first built this property, and if they didn't have a single penny of reserve, it wouldn't make a bit of difference in the basis of my determination or in the determination of a proper reserve here; and what you have indicated in your questions to me and from what you have read from the order and opinion of the Railroad Commission as to what I had done with reference to imposing upon the future consumers the cost of making future replacements of property and also paying for property theretofore used up, is absolutely not correct.

Q. Why isn't it correct, Mr. Connor? You disregard the fact that some of the property is already worn out, and you have already collected and put into your depreciation reserve an amount of money equivalent to the value of the property which has worn out. Now you disregard all of that and you compute a depreciation rate which, applied to this property, will be sufficient to take care of all wearing out, repairs and replacements when and as they occur in the future?

A. That is correct, but if you had interpreted clearly and correctly the very clear and definite manner in which I made those calculations, you would have found that if a property unit in service in the Lone Star Gas Company's system was 22 years old as of January 1, 1933, and the probable life of that unit of property was only going to be 24 years, the users who would come on or the consumers of gas as of January 1, 1933, would only be required to [fol. 2158] make such replacements as would occur in that property unit from January 1, 1933, to January 1, 1935, and there is not one calculation or not one assumption in this whole exhibit that can be construed as interpreting that I would impose on anybody coming on this system as of January 1, 1933, any burden in making retirements and replacements in that property up to January 1, 1933.

Q. All right now, take that very illustration, Mr. Connor, where you assume a pipe 23 years old, with a 24 year life as of the date of your appraisal. That means from January 1, 1933, that pipe will have one year of life remaining?

A. That is correct.

Q. In other words, one year after your appraisal, that pipe would be replaced 100 per cent, wouldn't it, and the 100 per cent value would be charged as a part of your depreciation allowance; isn't that correct?

A. Absolutely not, Mr. Fitzhugh.

Q. Well now, explain why that is not true?

A. Because the annual charges alone, the only replacement charges which would apply to the reserve accrual which I have made for the year 1934 would be that proportionate part of that unit of property which would be retired during that current year, and would have absolutely nothing to do with past wear. In other words, the calculations assume that the property has been already replaced by the prior consumers, up to the date of the

inquiry. It is simply a misinterpretation of the entire purport of the calculation.

[fol. 2159] Q. Well now, this piece of pipe we are talking about, Mr. Connor, has to be put into the system and paid for. How is the replacement of that particular piece of pipe taken care of? If your depreciation reserve doesn't bear the cost of that replacement 100 per cent, what does?

A. Mr. Fitzhugh, in making these calculations with reference to annual replacement rates—and that is what we are talking about—I have not assumed that Line B, for instance, is going to last thirty years, or that Line A will last forty years or fifty years, as the case may be. I am assuming that so far as these calculations are concerned, that that line will last indefinitely. The individual items of property which go to make up that line will have to be replaced and renewed at varying rates per annum. There will be no replacement of line A, but there will be merely a replacement of the integral units of property which go to make up Line A, and those replacement rates will vary with the passage of time, if the laws of probability prevail. It is exactly like the T. P. Railroad from Dallas to Fort Worth, built in 1872. The Line is probably in better condition today than it was in 1873, and it is more than 50 years old. I don't suppose there is a single piece of the original line laid in 1872 that can be found now on the right of way of the T. P. Railway, but the T. P. Railway between Dallas and Fort Worth is still a unit of property; and it is the same with these lines. But so far as applying to the year beginning as of the date of this report, I [fol. 2160] have simply determined those rates of replacement which would actually occur from that time forward. As to everything which had taken place from that time backward, I make no accumulation of those and include them in my future calculations. I do not think the exhibit could be construed to mean that, if anybody had made a very careful analysis of it.

Q. Now, Mr. Connor, will you please answer the question that I asked you?

A. You asked me if I had not applied to the future user the entire responsibility of retiring that line.

Q. No.

A. And you asked me to explain why, and I said I had not.

Q. I will ask my question over. I asked you in the case of

this 23 year pipe which would last one year after the date of your appraisal, and which was going to be replaced 100 per cent by a new piece of pipe, if the charge was not charged to depreciation reserve 100 per cent, then what is it charged to?

A. It is not calculated that way, Mr. Fitzhugh. If the last section of the original piece of that line is going to be replaced in the 24th year, that proportionate part only which would be replaced in the 24th year is included in this appraisal.

Q. Can you tell me in that particular instance what the charge to depreciation reserve would be?

A. No sir, because there is not a single case in here where a thing of that kind occurs. If you will refer to this series of calculations, and take for instance a very typical one. Take [fol. 2161] page 161, Mr. Fitzhugh; here we have a typical case of the very thing we have been talking about. In Column A, I show the main line pipe and the tap line pipe on the basis of the age at which that pipe was originally installed, and I applied successively from the year 1934 forward to each one of those installations of pipe the calculated replacement rate which would be applicable to that year of service, assuming that the pipe were to remain in service continuously, and those calculations are carried forward on pages 162 and 163. Now, as a matter of fact, it is shown that in the year 1934, the calculated replacement rate for the pipe laid in 1910 would be 7.3 per cent, yet in 1950 the calculated replacement rate for that same pipe would be 2.75 per cent.

Q. Do you assume, Mr. Connor, that the amount set aside in the past for depreciation requirements, have been enough to take care of the actual wearing out of the property in service?

A. I do not make any assumption at all in that particular, Mr. Fitzhugh.

Q. Well, is it not a fact, Mr. Connor, that the actual amount set aside in the past for depreciation requirements by the company have been sufficient to take care of the wearing out of the property in service?

A. I believe that they have.

* * * * * * *

[fol. 2162] Q. Now, just to sum this thing up, Mr. Connor—in spite of the fact that the Company has been in the

past setting aside annual amounts which were sufficient to take care of the wearing out of property in service, and in spite of the fact that they now have on hand some $14,000,000.00 as credit balances in depreciation reserve, which presumably is pledged to the Company for making retirements and replacements, in your calculations as shown in your Exhibit 42, and in the finding of your rates for annual rate of reserve accruals, you have absolutely disregarded those facts?

A. If you mean I have disregarded those facts in so far as the calculation of the future rate of replacement is concerned, that is absolutely correct.

Q. Now, on page 186 of your Exhibit 42, and as shown in Column B of the tabulation appearing on that page, the actual replacements which you expect for the year 1934 on the Gathering System Line Equipment and Field Line [fol. 2163] Equipment will be 4.54 per cent of the value of that property.

A. That is correct.

Q. In spite of the fact that you anticipate that there will only be a little over 4.5 per cent of the value necessary to be replaced, you have assumed a replacement rate of 8.6 per cent, have you not?

A. No, sir, I have not assumed a replacement rate of 8.6 per cent.

Q. Well, applying your per cent——

A. I have assumed a replacement rate of 4.54 per cent.

Q. But you are asking for an amount to be set aside for the use of your Company, amounting to 8.6 per cent of the value of this property.

A. That is correct.

Q. Now, what happens to that difference between the 4.5 per cent actual replacements, and the 8.6 that you actually ask for to be included in your annual depreciation amount?

A. It would accrue as a credit balance for the current year.

Q. Well, now, if you are correct, Mr. Connor, that the amounts already collected and put in the depreciation reserve should not be resorted to in finding the rates—the annual accrual rates, and the amounts which will be necessary [fol. 2164] to take care of the future, what would be the sense of collecting any more than what the actual requirements are?

A. Because I have made a determination of what the future—the current and future costs of replacements, removals and abandonments would be, and I have set up a provision to uniformly take care of them.

Q. In other words, you start setting up now a reserve, do you not?

A. Well, as indicated by the calculation, Mr. Fitzhugh, the reserve, even if compounded upon a sinking fund basis, which is not the proper way to accrue a reserve or a credit balance, because it would be required and needed for the future decline in per cent of new condition, would never materially become a credit balance beyond the necessary provisions or the necessary requirements of the decline in person of condition factor. In other words, the credit balances which would accrue, even if compounded, which they should not be, will not ultimately be sufficient to provide for the decline in per cent of new condition which is going to take place in this property, and which I have deducted from the amount to be ultimately amortized.

Q. All right. Now, in 1934 you think that the actual [fol. 2165] retirements and replacements will be 4.5 per cent, plus; in 1935 you say it will be 4.759 per cent, and in gradually increasing amounts on through the years until you get up to about 1944, where you come to 8.044 per cent. Through all those years you have not come anywhere close to the actual replacements equaling the actual provision until you get to 1944, have you?

A. That is correct—with this explanation of the question: these indicated replacement rates by years, as shown in Column B, are not expected to conform with any degree of exactitude to the individual replacements, removals and abandonments had in any future year, but are a calculation of the normal average of those things.

Q. All right. Now, then, by the end of—at the end of about 1946 you will have built up then in your reserve about $2,000,000.00 for these particular items of property more than the actual retirements and replacements have been—isn't that true?

A. That is, if you assume that there is—that the credit balances so indicated will be set aside in a sinking fund, and compounded. Now, I have explained many times before that it would be necessary, in order to protect the owners of this property, at the end of the year 1944, or thereabouts, [fol. 2166] to have a credit balance in the reserve account

represented by approximately 22 per cent of the reproduction cost of the property, because the property is going to be worth that much less on a reproduction cost basis less accrued depreciation than it would be worth at this time on the same basis. Now, that money—that 22 per cent—must be free capital to the owners of this property, because in any rate investigation the value of their property is going to be reduced by the amount of the accrued depreciation. The calculation in Column E does not assume that that would be free capital. It depreives the owners of the use of one penny of that money throughout the entire accrual of that reserve, and they would never have the spending or the use of it, because it is necessary to put the five per cent back every year into the fund in order for it to reach the figure shown; and if the computation should be continued that credit balance in Column E would entirely disappear, and in the meanwhile the owners of the property would never have had the use or benefit of one penny of it, under the method which I have set in Exhibit 42.

Q. Isn't it a fact, Mr. Connor, that the excess of the amounts actually set aside in your proposal as depreciation [fol. 2167] rate in the amount of 8.6 per cent over the actual retirements and replacements, by years, is to be used for the purpose of taking care of the increased actual replacement rate, which you show begins about 1944 and continues up through 1963?

A. That is correct; that credit balance should be sufficient to do that. In addition to that, it must be sufficient to also provide for the decline in worth of this property from January 1st, 1933, up to the time that that decline will become static. I don't believe that the credit balances as indicated by this exhibit are sufficient to make that provision, which is absolutely right and proper.

Q. Now, isn't it a fact, Mr. Connor, that using the methods you have used for your Company, that in a rate case in 1944, and if you proceeded upon the same method that you advocate here, that you will come in then and say, "Well, now, let's forget all this credit balance business and this $2,000,000.00 that has been built up that has not been necessary to use yet, and let's start all over, and instead of having 8.6 per cent as the annual amount, we will increase that enough to take care of the $2,000,000.00 already in reserve which we are now going to disregard."?

A. I think that perhaps what you say is correct, and [fol. 2168] that the credit balance in the reserve account at that time would be insufficient to provide for the loss in value which has taken place in the property since this date and the date which you suggest.

Q. But the depreciation allowance is supposed to be enough to keep your properties in the same sort of operating condition through the years up until 1944 as they are in now,—isn't that right?

A. That is correct; and I believe, Mr. Fitzhugh, if the business—if this property of Lone Star Gas Company, as it is to-day, was not amplified and not increased by net capital additions, which would upset its present capital arrangement, but if we had only this property as it exists to-day, and I came into a rate case at some future time, substantially in the future, when these things had reached the point—these annual replacements had reached the point with reference to these specific property items wherein the annual rates of replacement had become more or less uniform, I might suggest at that time that in lieu of a depreciation reserve accrual to provide for the cost of replacements, removals, and abandonments, that those things be charged direct to current operating expenses.

Q. Well, that wouldn't change things any, would it?

[fol. 2169] A. No, I don't think it would influence it particularly, but it would be an entirely different method of handling the situation.

Q. If your method works out as expected, when 1944 rolls around you will have the property in just as good operating condition—have the property in just as good operating condition then as it is to-day, because you will have those amounts to apply to the property as it wears out from time to time, to take in new property units, isn't that right?

A. I think that the operating condition of the property would probably be just about the same, yes, sir.

Q. Yes, sir, and you will, in addition, build up a balance of some $2,000,000.00 in your depreciation reserve?

A. No, sir, I wouldn't say that.

Q. On the field lines and the measuring stations?

A. No, sir, because if the credit balance that would actually accrue would not be compounded, as I have indicated in Column E, the credit balance would be without reference to any accumulation of interest, and would be approximately

what the decline in per cent of new condition had taken place in the property between 1933 and 1944.

Q. Well, it doesn't make any difference, does it, Mr. [fol. 2170] Connor, whether you fund those amounts that are coming into depreciation reserve and regard them as a fund all the time and bearing interest, and whether you just pay them out to the owners of the business and let them put them in their pockets and spend them as they see fit?

A. Well, it makes all the difference in the world.

Q. Why does it?

A. Because the reserve accruals fixed up like I have calculated them in Column E, the owners of the property, so far as that money is concerned, might just as well be in South Africa, because they wouldn't get a penny of it.

Q. They still own the business, don't they,—the owners of the property?

A. Yes, but they wouldn't get the use or benefit of the money as reflected by the rate at which it is accrued.

Q. Well, it wouldn't make any difference to the owners, would it, Mr. Connor, whether the amounts were funded and regarded as a fund and kept intact, and allowed to earn money as a fund, or whether the owners were given the amounts for—by years, and which amounts were reinvested by themselves to earn interest?

[fol. 2171] A. Why, it certainly would make a difference.

Q. Well, at any rate, if in 1944 you came to a rate case and used the general theory that you have outlined, this $2,000,000.00 lying there in the depreciation reserve would just about amount to clear profit, wouldn't it?

A. Absolutely not.

Q. Well, you have got it lying there and still you disregard that it is lying there and assume a depreciation rate, disregarding that fact, don't you?

A. Why, Mr. Fitzhugh, I have explained numerous times that the decline in per cent of new condition of this property between the periods of time that you suggest would be no more than the credit balance which would have accrued in that reserve, without reference to compounding it upon a five per cent sinking fund basis, and the owners of the property would be entitled to have that money.

Q. Yes, but at the same time you said, Mr. Connor, that there would not be any decline in per cent of property because the properties would be in about the same condition in 1944 as they are now.

A. I said no such thing. I said the properties would be in about the same operating condition, yes; but I didn't [fol. 2172] say they would be in the same per cent of new condition.

Q. So you say that $2,000,000.00 would represent a decline in per cent of new condition.

A. It would not be $2,000,000.00, Mr. Fitzhugh, if it were accumulated without reference to——

Q. Well, fund it and let it bear compound interest.

A. Well, if you funded it, then you can't take any depreciation on the property into account, and I take it that anybody who comes in to evaluate this property in the future will take it as shown.

Q. I am talking about what it represents lying there in the depreciation reserve, whether you fund it or not. If it is in the depreciation reserve it amounts to and covers the depreciation and the per cent condition of the property, is that it?

A. I say it is there to provide for that, among other things; but in so far as the calculation shown on page 186, by funding that credit balance, that is merely for the purpose of illustration.

[fol. 2173] Q. On the Transmission System Property, for the Measuring Station Structures, Other Structures, and Measuring Station Equipment, you used 5.1 per cent?

A. That is correct.

Q. As the annual reserve rate of accrual?

A. That is correct.

Q. This covers pretty close to $700,000 worth of property, doesn't it, in these three items?

A. Yes; it is the sum of two items of $245,000 each approximately, and another item of $402,000.

Q. The detail of this 5.1 per cent figure is found on page 288 of your exhibit, is it not?

A. That is correct.

Q. There you use again a two per cent per annum for Current Replacements, Painting and Removals?

A. That is correct.

Q. Now, where did you get that amount in this case, Mr. Connor?

A. That is an estimate, Mr. Fitzhugh, of what those charges will be averaged over the future.

Q. Have you made any study of the actual charges made to depreciation reserve for this item?

A. Yes.

Q. Have you included that in your exhibit?

A. No.

[fol. 2174] Q. Now, what does this study that you made show?

A. It shows that for the six years—for the five years prior to January 1, 1933 that the charges to the reserve account for this item have been approximately $18,000—something in excess of $18,000, or about thirty-six to thirty-seven hundred dollars a year for this account.

Q. For which account?

A. The account that we are referring to.

Q. That is Transmission System Station Structures and Equipment?

A. That is correct.

Q. And does that include other structures?

A. That would include the warehouses on the main line system, too.

Q. Now, then, two per cent of the $145,000 for Measuring Station Structures and of the $145,000 for Other Structures, and of the $402,000 for Measuring Station Equipment, would be around $14,000 per annum, would it not, instead of the $3700 per annum that you actually found to have been spent?

A. Yes; that is correct.

Q. Do you mean, Mr. Connor, that you have assumed a rate that would produce $14,000 per year when only $3700 would be actually needed?

A. Yes; when the stations during the time I took them into consideration were practically brand new.

[fol. 2175] Q. What is the average life of the Measuring Station Structures?

A. I don't know exactly what the average life of the Measuring Station Structures is, Mr. Fitzhugh; but it would be very close to the average life of the tap lines, because they are constructed in connection with the tap lines, which are the lines which go from the main lines to the measuring station at the city gate.

Q. Do you know the average life of the tap lines?

A. As of the year 1925, fifteen per cent of the tap lines now in service of Lone Star Gas Company were in service; and from the year 1925 until the year 1931, a period of six years, eighty-five per cent of the entire tap lines of Lone

1393

Star Gas Company were constructed; and I would say that a logical conclusion to draw from that fact would be that eighty-five per cent approximately of the total city gate measuring station structures and equipment have been constructed within that same period. Now, the weighted age of those particular units, I may have, Mr. Fitzhugh, and I may not.

Q. Well, that is all right; that is all I am asking for.

A. If I don't have the weighted age, the nearest facts that would give you an indication of what the age of those lines is would be the date at which they were installed, and that is what I was attempting to give you. Mr. Fitzhugh, [fol. 2176] I am very sorry that I can't give you the specific weighted age of the tap lines, because it would show that the tap lines measured in that manner, have been in service a very short period of time. I have, however, on page 114, a tabulation which sets out the weighted age of all tap lines and main lines. The main lines of the system are older, as a whole, substantially, than the tap lines, and they form substantially a larger proportion of the combined figure of main lines and tap lines; but the weighted age of main lines and tap lines together is 8.9 years, as of January 1, 1933; but I have no independent calculation with reference to the tap lines.

Q. Notwithstanding that you were not sure about the average age of the tap lines, or for that matter of the Measuring Station Structures and Other Structures, and Measuring Station Equipment of the Transmission System Property, you did use on page 288 a total life of twenty-five years in figuring out your amortization allowance?

A. That is true I used that figure, but I would not subscribe to the fact or statement that I had no knowledge of the age of these structures and equipment.

Q. Well, what is the average age of them?

A. I don't know what the average age is, but I know that approximately eighty-five per cent of them have been installed since the year 1925, and I have the percentage in [fol. 2177] service for each year since the date of the construction of Lone Star Gas Company's property, and that in itself is very definite information upon which to make a determination of how old a group of property units is, and it contains the elements by which I could make an exact determination of the weighted age.

Q. Well, how did you justify, Mr. Connor, your wanting $14,000 a year put aside for retirements and replacements when only $3700 is currently being needed for such things?

A. Upon the principle that a man buying an automobile and running the automobile when it is brand new would not expect his tire expense during the first thousand miles of use of that car, or during the second thousand miles of the use of that car, or during the third thousand miles of use of the car, to be any fair criterion of facts, upon the basis of which he should make a provision for replacement of those tires. In fact, if he did go upon the assumption that what he had to pay for the first thousand miles, or the second thousand miles, or the third thousand miles was the proper basis, then he would reach the absurd conclusion that he would not have to buy any tires.

Q. Or to sum it up, you sort of stretched out your pipe about the same way you would rubber on an automobile?

A. No; that is not correct.

Q. But in addition to all this, you have an amortization in [fol. 2178] twenty-five years, on a five per cent annuity basis, amounting to 2.1 per cent per annum?

A. That is correct.

Q. Which is intended to replace the whole amount of this property one hundred per cent in twenty-five years?

A. That is correct. The annuity basis is for the complete retirement or replacement of the unit, despite the fact that it requires material in the meanwhile to keep it in proper and serviceable condition.

Q. Now, if the average age of these items of property at the present time is approximately ten years,—and it is approximately that, isn't it?

A. Absolutely not.

Q. Well, you figured out 8.9 on the tap lines, and other lines, and you say these structures are about the same as the tap lines?

A. Yes; that is exactly what I said.

Q. What do you figure would be an estimate of the average life——

A. You mean, the life up to this time?

Q. Yes, of the Measuring Station Structures, Other Structures, and Measuring Station Equipment?

A. I have not made a calculation, but I say this: It is clearly indicated by the records I have before me that those

items taken as a property group are the youngest items [fol. 2179] in service in the property account of Lone Star Gas Company.

Q. Well, they have at least an average age of five years, don't they?

A. I don't know whether they have or not, Mr. Fitzhugh. I doubt it very seriously.

Q. When was the last Measuring Station Structure built?

A. I can give you the percentage of these tap lines by years—the accumulated percentage.

Q. Hasn't the youngest Measuring Station Structure been in service at least five years?

A. No; I would not say so. There was in 1922 twelve per cent of tap lines of Lone Star Gas Company in service; in 1923, only 13 per cent were in service; and in 1924, only 13.6 per cent were in service; in 1925, only 15.7 per cent were in service. Now, a large increase took place between the years 1926 and 1927; approximately 30 per cent of the tap lines in the System were constructed between the years—or during the year 1927, thirty-two per cent; in the year 1928, there was approximately 13 per cent constructed; in the year 1929, there was approximately 24 per cent constructed; in 1930, there was approximately 5 per cent constructed. So, as of January 1, 1933, there was 5 per cent constructed in the year 1930. I am referring now, specifically, to the tap lines of Lone Star Gas Company. [fol. 2180] Those percentages of the tap lines indicate the total average of 3-inch equivalent diameter pipe in approximate percentages which have been installed during each year from 1927 through 1930; so, it is very clear that a very substantial part of those property units are comparatively young.

Q. Can you tell from that what the weighted age is?

A. No; I cannot, without making a calculation and giving effect to the footage of the pipe in service each year, and it would be an extended calculation.

Q. What are the oldest transmission lines in the Lone Star Gas Company system?

A. Lines B and C.

Q. When was Line B installed?

A. The latter part of 1909.

Q. When was Line C installed?

A. A little later, but during the same construction period.

Q. In 1909 or 1910?

A. It may have been the latter part of 1909, or the early part of 1910; I am not quite sure. They were constructed and put into service the early part of the year 1910.

Q. What is the number of 3-inch equivalent feet of pipe in Line B and Line C?

A. Approximately, Mr. Fitzhugh, I would say 646 miles of 3-inch equivalent diameter pipe. Yes, I said about 646 miles of 3-inch equivalent diameter pipe.

[fol. 2181] Q. That is the combined two lines?

A. Yes, sir.

Q. What would it be separately on Line "B" and Line "C"?

A. I don't know whether I have it separately, Mr. Fitzhugh. No. I have the footage.

Q. All right. The footage is all right.

A. Let's see if I have that. No; I haven't it separately. I have that separate for different sizes of pipe, but I haven't reduced that—I made a reduction of three inch equivalent diameter and got it in the mileage basis, so I haven't even the three inch diameter separated by sizes of line, even, expressed in feet.

Q. What have been the actual mortalities on pipe on Lines "B" and "C" from the time they were originally installed to date?

A. On the "B" system, exclusive of Line Second "B", the replacements, removals and abandonments of that pipe have been 1,631,000 million feet equivalent three inch diameter pipe.

Q. Is that due to wearing out of the pipe only?

A. The largest part of that, Mr. Fitzhugh, is the major removal, which included 1,463,590 feet equivalent of three inch diameter pipe.

Q. Well, now your curve that you find on page 57 deals only with the actual wear and tear, doesn't it?

A. That is correct.

Q. Wearing out in service?

A. That is right.

Q. Now, give me the figure that represents on Line "B" [fol. 2182] and Line "C" the actual replacements due to wearing out of pipe in service.

A. I don't believe I have that specifically calculated for each line, Mr. Fitzhugh. The table on page 79 shows a de-

tailed breakdown of the mortalities for various causes, as far as I was able to ascertain those causes from an inspection of all the records of Lone Star Gas Company from the date of its organization.

Q. Now, to make that table you had to have the figures on Line "B" and "C", didn't you?

A. Yes; but, inasmuch as I was not dealing with individual lines in making my calculation, I simply carried into this table a segregation of the mortalities for various causes as I was able to determine them.

Q. Well, you had the actual mortalities due to wearing out of lines in service, did you not?

A. No; I made no determination of those things for individual lines, because, such things as that, I could not have done it in the first place, and it wouldn't have meant anything in the second place.

Q. Well, in making any sort of a pipe study or trying to find a curve that will show mortalities of pipe, the oldest lines naturally become the most important lines in the study?

A. Yes, in some cases and in some cases, no.

Q. Did it happen in the case of Line "B" and Line "C"?

A. No, sir.

Q. Why?

A. Well, for several reasons. Line "B" and Line "C" [fol. 2183] in 1917 were taken up out of the ground, cleaned, scraped, the paint removed, given an entirely new application of protective costing, turned over and put back in the line. That act alone, I would say, reduced the rate of those lines five or six years or more. Furthermore, the location of Line Second "B" along the limestone ridge north of Fort Worth, with the exception of a very short stretch of line in the neighborhood of Henrietta and Bowie, is located in the most favorable situation for the long life of steel pipe of any piece of pipe in the Lone Star Gas Company system.

Q. Now, as to the pipe being taken out and cleaned, Mr. Connor, and its life being prolonged on that account you have allowed for all that cost in your allowances, have you not?

A. Yes; in making my calculation for future replacements I have reduced the age of that pipe correspondingly and made an adjustment for that very thing.

Q. Well, Line "B" runs through Clay County, doesn't it?

A. Yes, sir.

Q. Isn't that alkali and gyp soil we have heard so much about?

A. There is a short stretch of Line "B" which is in a situation which is not particularly good for pipe. Compared to the length of the line as a whole, it is comparatively short.

Q. Well, isn't it a fact that the same sort of conditions are found on Line "B"?

A. Absolutely not.

Q. That is your testimony?

A. That is my testimony. There are some conditions on Line "B" that are worse than others.

[fol. 2184] Q. In the Railroad Commission's order, page 61, Mr. Connor, this language is found: "Lines B and C, which were the first lines laid in the Lone Star Transmission System and which were laid in 1910, contained 646 miles of three-inch equivalent pipe. Lines B and C are 16-inch lines and run from Dallas to Petrolia (near Wichita Falls) via Fort Worth, a distance of approximately 650,000 feet (125 miles). Some of the most severe soil conditions to be found on the whole Lone Star Gas Company system are on those lines (Line B in Clay County)." I will ask if those statements as they appear in the Railroad Commission's order were not taken directly from your testimony before the Railroad Commission?

A. If that is correct, then I made a mis-statement when I testified before the Railroad Commission, because the facts are that no such condition exists relative to Line "B" and Line "C", and to state that that is the most severe condition on the Lone Star Gas Company system can be refuted by actual expreience in a thousand cases.

Q. Reading further in the same portion of the Commission's order Mr. Connor, this language appears: "These, the oldest lines (laid in 1910) in the Lone Star Transmission System, were 21 years old as of December 31, 1931, have a total of 646 miles of three-inch equivalent pipe (650,000 feet of 16-inch), and had actually experienced mortal-ties from all causes of 57 miles (301,260 feet of three-inch equivalent pipe) up to December 31, 1931. The total

[fol. 2185] mortalities in the 21 years, therefore, amounted to nine per cent. The estimated average life of pipe in these lines is 40 years plus." Now, I will ask you if all those figures and facts were not taken from your testimony just exactly as you testified before the Railroad Commission?

A. I do not recall, Mr. Fitzhugh, all the figures to which I testified before the Railroad Commission, but I do not wish it to be construed as an interpretation of anything I stated before the Railroad Commission as reflected by the order of the Commission to which you refer. You are probably correct exactly that the number of feet of pipe which have been removed, replaced or abandoned in those lines, exclusive of about a million and a half feet, to which you make reference, is, so far as Line "B" is concerned, and it may be that the per cent set out is nine per cent, and it may be that the indicated average life based on that replacement is forty or fifty years or five hundred years. My statement is that the average life of pipe will have nothing to do with the rate of replacement and the rate of replacement of that pipe will have nothing to do with the average life of that pipe.

Q. On December 31, 1931, which was the date of your appraisal as testified to before the Railroad Commission, isn't it a fact that the actual mortalities of lines "B" and "C" on their twenty-one years of life up to that time was actually nine per cent?

[fol. 2186] A. I don't doubt it at all. I just said that it is correct, and it goes to show that it doesn't mean anything.

Q. Now, referring to your curve on page 57 and as shown in the tabulation on page 62 of the Railroad Commission's order, the actual mortalities at the end of twenty-one years was 25 per cent?

A. You mean calculated?

Q. Yes. I mean the calculated mortalities as per your curve.

A. Yes, that is probably correct.

Q. As against the actual mortalities of nine per cent?

A. Yes, that is correct.

Q. So your curve shows to be off from the actual mortalities for that twenty-one year period the difference between nine and twenty-five per cent?

A. Absolutely not.

Q. You don't deny, do you, Mr. Connor, that nine per cent is the correct amount of actual mortalities for twenty-one years?

A. No.

Q. Or that twenty-five per cent is the calculated mortalities for twenty-one years?

A. No.

Q. The difference between those is how much?

A. About sixteen per cent.

Q. Doesn't that represent the difference between your curve and what actually happened?

[fol. 2187] A. You mean the specific items?

Q. On the oldest lines, I am talking about, in the system, "B" and "C".

A. Why, yes.

Q. Now, then, coming to the 5.4 per cent annual rate of reserve accrual which you apply to Transmission Line Equipment, that is derived from what pages in your exhibit?

A. I think, Mr. Fitzhugh, that that is set out on page 142 to and including page 170.

[fol. 2188] Q. Now, this is the same type of tabulation on page 169 as you had in finding this 8.6 per cent figure for the field line and gathering line equipment, isn't it?

A. What page is that, Mr. Fitzhugh?

Q. Page 169.

A. Yes, it corresponds to the tabulation shown on page 186, which latter tabulation refers specifically to field lines and well lines.

Q. And in this case also you have an annual accrual that exceeds considerably the first few years the actual requirements?

A. That is correct. There would not have been any necessity for an annual accrual if that fact had not been apparent. That is what accruals are made for.

Q. The application of this 5.4 per cent to the transmission line equipment, reproduction cost new in the amount of $28,524,682.42 results in an annual amount being set up of $1,540,332.82, does it not?

A. That is correct, as shown by page 1 of Exhibit 41.

Q. Now, how does this $1,540,332.82 compare with the

actual predicted amount necessary to take care of replacements and removals for the year 1934?

A. I don't know, Mr. Fitzhugh, to what extent it will provide—you mean as relative to the percentage?

Q. Yes.

A. You don't mean the actual expenditures, do you; you just mean the calculation shown on page 169?

[fol. 2189] Q. You want to collection One and One-half Million Dollars, approximately, and I want to know in 1934 what the actual retirements and replacements in money will be, in dollars and cents, as shown by you on page 169.

A. Something in excess of half of that amount, taking into consideration the provision for the future costs of removals due to public requirements and changed operating conditions and the current decline in per cent of new condition, or the current average rate of the decline in per cent of new condition.

Q. How many feet of three inch equivalent are there in the system?

A. I don't know that I have that figured out, Mr. Fitzhugh; I may have it here.

Q. Well, you had to have that figure, didn't you, Mr. Connor, in order to make those computations on page 169?

A. No, I used miles of three inch equivalent.

Q. Well, miles will do.

A. Well, there's 11,867.19 miles of equivalent three inch diameter pipe.

Q. Now, if you apply the 2.882 per cent which you say will be the actual replacements for the year 1934 to the total mileage of three inch equivalent, how much would you have as representing the replacements and retirements for the year 1934?

A. I don't know, Mr. Fitzhugh; but when did I say that 2.882 was the actual rate of replacements?

Q. Isn't that figure on page 169?

A. No. Refer please to page 168. The actual rate of replacements I figure is .99 per cent, and not 2.882 per cent.

[fol. 2190] Q. Well now, in Column C, for the same year, you have .86?

A. That is correct.

Q. Which represents the annual renewal rate from your mortality curve No. 2?

A. That is correct; add those two together and you will have a correct statement.

Q. Well, don't you also have .2 in column F, the annual rate for major rehabilitations added in?

A. That's right, but that is a rate which contemplates the cost of items which occur at infrequent intervals, and which are not likely to be found in any particular given year, and so the actual figure which should be used in that connection would be the sum of .99 and .86?

Q. Or 1.85?

A. That's right; 1.85 per cent.

Q. Now, applying that to the 11,000 plus miles of three inch equivalent, Mr. Connor, what do you get?

A. I am not going to carry those odd feet out, Mr. Fitzhugh; but it would be about 219½ miles.

Q. That is over a million feet of pipe, isn't it?

A. Yes. We are talking about 1934 now?

Q. Yes. Now, the actual replacements in 1933 were around 250,000 feet; isn't that right?

A. I don't know that they were. I have it for the first six months.

Q. Well, it was 211,000 feet for the first six months, I believe you gave us?

[fol. 2191] A. That was for the main lines and the tap lines, I believe.

Q. What was it for 1932?

A. A very small amount, Mr. Fitzhugh; 27,374 feet.

Q. Now then, Mr. Connor, where the actual replacements in 1932 were 27,000 feet.

A. That's right.

Q. And the actual replacements for the year 1933 are shown to be around 250,000 feet.

A. Where are they shown in that exhibit, Mr. Fitzhugh?

Q. Well, those figures are not shown in your exhibit, but they are the correct figures as we have them, and we have asked you for those figures. If you check them you will find, I believe, that they are correct.

A. They may be.

Q. Would it seem reasonable, if those are the correct figures, Mr. Connor, for you to compute your figures in your exhibit here so as to jump up the actual retirements and replacements to over a million feet in 1934?

A. Yes, and I feel I have excellent reasons for doing that.

Q. And in spite of the fact that you have shown on your table 4-A the actual mortalities for 1934 will be less than one per cent you want the depreciation rate to be applied to this class of property to be 5.4 per cent?

Q. Now, what's that now—I didn't get the question.

Q. I say, Mr. Connor, in spite of the fact that on your table 4-A you show that the annual actual renewal rate for [fol. 2192] 1934 will be less than one per cent—being .99 per cent, to be exact; yet for that same year you are suggesting that an amount of 5.4 per cent be applied to transmission line equipment?

A. Why, certainly. Because the age of this property is such that the rate of replacements at this time are no indication of what the rate of replacements that must be provided for in the future will be.

Q. Now, on this same page, table 4-A, in your explanation of your Column B.

A. Which page is that, Mr. Fitzhugh?

Q. Page 168; your explanation shows that you obtained Column B by multiplying Column A by .96 x 1.18?

A. That is correct.

Q. Now the .96 has been explained as being the ratio between the transmission line equipment and the whole property, I believe?

A. Yes, that is the explanation I attempted to give this morning, Mr. Fitzhugh, as to why, in order to make it even, I had to apply the same rate to non-depreciable items as to depreciable items, because I had applied that factor on this page, which is page 168 of Exhibit 42.

Q. Now, the factor of 1.18 which you included is put in there to take care of the cost of piecemeal construction, over and above wholesale construction; is that right?

A. Yes, after making a further adjustment for the effect of the salvage value of the pipe removed.

Q. Where is the page where you derive this 1.18 factor? [fol. 2193] A. I think that is set out in detail on page 157, Mr. Fitzhugh.

Q. Before any allowance for salvage value you find that the cost of piecemeal replacements over wholesale construction would be 1.5; is that correct?

A. Yes, that is a figure which was arrived at by a study of individual jobs which reflected a higher ratio than that,

but I felt that in those replacement jobs there had been some incidental charges for minor repair work in connection with that replacement which caused me to reduce that to 1.5; that's right.

Q. Do you have that study with you?

A. I have my notes, on that study; yes, all of them.

Q. That is the study where you got the 1.5?

A. Yes.

Q. Now refer to those notes will you please, Mr. Connor, and pick out the biggest charge that forms a part of that study.

A. I find one analysis which covered 25,000 feet in one job.

Q. Is that the biggest one, now?

A. I don't know; I think there was one longer than that, Mr. Fitzhugh.

Q. Well, will you look about that, Mr. Connor, over the noon hour so we can ask you a question or two about it after lunch?

A. Yes, I will be glad to.

* * * * * * *

[fol. 2194] Q. Mr. Connor, just before noon you were asked to find the biggest replacement on the study that you made from which you derived your 1.18 factor, as used in your Column B calculation on the table appearing on page 168 of your Exhibit 42.

A. The 1.16, you mean?

Q. No;—1.18.

A. Oh, yes; 1.18; that was what it was finally reduced to, that is correct. I haven't only the longest line, Mr. Fitzhugh, but I have the amount of footage and the number of jobs analysed for 100 feet or less; 100 to 200 feet; 200 feet to 500 feet; 500 feet to 1000 feet; 1000 feet to 1500 feet; 1500 feet to 2000 feet; 2000 feet to 3000 feet; 3000 feet to 4000 feet; 4000 feet to 5000 feet; 5000 feet to 6000 feet; 6000 feet to 7000 feet; 7000 feet to 8000 feet; 8000 feet to [fol. 2195] 9000 feet; 9000 feet to 10,000 feet; and 10,000 feet to 11,000 feet; and the excess of those.

Q. Did you find a separate factor for each one of those different classes?

A. No; I took the average for the total. The longest job analyzed, and the largest footage of pipe was E. R. 9505, covering the removal of 34,938 feet of 16-inch pipe on Line J.

Q. When you say you took the average of those different classes to get your final figure, what do you mean?

A. I took into account only the cost of labor——

Q. Well, did you average all of the labor?

A. Six-inch pipe; four-inch pipe, sixteen-inch pipe, ten-inch pipe, and so forth.

Q. On every replacement?

A. No; I wouldn't say every replacement; but all of the replacements upon which I could get any very accurate information that had been replaced in recent years—a very large number—as much as the number of men I had working on it could get together in the time I had to make the study.

Q. Is it an average by size of pipe, or length of replacements, or what sort of average—I don't understand?

A. The way it finally works out is the weighted average. I took the number of feet of pipe in the analysis, which was 186,413, and for the specific sizes of pipe and specific [fol. 2196] lengths of pipe involved in the analysis, I applied the reproduction cost, labor and job costs found by the appraisal made by Mr. E. A. Steinberger and myself as of December 31, 1931, and I got thereby the amount of money which would be involved in direct labor and job costs for the number of feet of pipe for the various sizes; I added that cost up; it was $285,522.43. The actual labor cost of installing that number of feet of pipe in the manner in which it was actually installed in making the replacements was $461,073.37.

Q. Did this study of yours cover the 1933 replacements?

A. No; it did not.

Q. Now, give the data on the largest replacement that you have, Mr. Connor.

A. Line J, 16-inch, cost of the labor, trucking and traveling expense, teaming, automobile expense, and insurance, and miscellaneous expenses, was $59.94 per lineal foot of pipe, which was the lowest cost of any job included in the study.

Q. In your 1931 appraisal what did you and Mr. Steinberger find to be the cost of installation per foot?

Mr. Griffith: Do you mean for the 16-inch pipe, Mr. Fitzhugh?

Q. Now, if you found 59 cents plus on this 16-inch, covering all these different items that you called off, how in

the world could you compare that with any other costs, [fol. 2197] without knowing the installation costs?

A. Well, I did at the time I made this comparison.

Q. What did you compare this 59 cents with?

A. I did not compare the 59 cents with any other figure; but I had included in the Line J 16-inch pipe replacements numerous items that cost as much as $5.83 per foot, $5.66 per foot, $4.70 per foot, $4.30 per foot, and $3.48 per foot. I was not going to take the cheapest job, because it would not have been a representative example.

Q. What was your total cost on this J-16-inch?

A. The charge to the reserve for depreciation on Line J was $82,488.97, which was subject to a correction of $32,113, which grew out of the fact that the depreciation reserve was credited with the salvage value of 32,113 feet of 16-inch pipe at the rate of one dollar per foot, or $32,113. I am now referring to the original charge to the depreciation reserve account. This $32,113, which was a credit at the time of the preparation of the original voucher was found to be an error, for the reason that on further examination of the pipe salvage it was determined that it was not worth anything; and in order to secure the effect of that adjustment you would have to add to the cost of that job, as a charge to the depreciation reserve account, the sum of $32,113, which brings the total cost of the job as reflected by the other charges to the depreciation reserve account to something in excess of $112,000.00.

[fol. 2198] Q. Now, this factor we are talking about—this 1.5 factor that represents the difference between piece-meal —what you call piece-meal construction and wholesale construction——

A. Yes, sir.

Q. —would have to be taken into consideration on this J 16-inch?

A. It would have to be taken into consideration on all replacements made, taking into account the medium, the short, and the long ones.

Q. This 59 cents per foot on Line J represents the actual cost, doesn't it?

A. No; that is the actual cost in so far as the actual charge to depreciation reserve for labor is concerned.

Q. And covering all the items you named in the record a while ago. That is piece-meal construction?

A. No; I would not say so, because they took a ditching machine and went down Line J just like they would in wholesale construction.

Q. But that is what you consider in your study as piece-meal construction?

A. I took all of them. Some of the replacements made would partake of the nature of wholesale construction, and I took those along with the piece-meal.

Q. Is this Line J considered as wholesale construction?

A. It was in effect wholesale construction; but I included [fol. 2199] it in my studies of replacement costs along with the smaller ones in order to get a fair, reasonable average.

Q. If you worked out your study that way, including both wholesale and piece-meal construction in trying to get a factor that would make a correction as between piece-meal construction and wholesale construction, wouldn't your study be of no use whatsoever——

A. Absolutely not.

Q. —by mixing up both in the study itself?

A. Absolutely not, for the very reason that we find in making replacements that very frequently we run into replacements that partake of the nature of wholesale construction. If I had left Line J out I would have increased the average costs very materially, but I don't think that would have been a proper thing to do.

Q. Now, to get to your factor, Mr. Connor, you compared a computed amount of $205,520 something dollars with the actual expenditure of $461,073?

A. That is right.

Q. The 59 cents per foot for Line J, that went into the $461,073 figure, didn't it?

A. That is right.

Q. Now, what would be the corresponding figure that you used to compare with this that went into the $205,520 figure?

A. The wholesale reproduction cost of 16-inch pipe as used in the appraisal.

[fol. 2200] Q. Well, what was that?

A. I don't recall; but that is what I did.

Q. Do you know how you got the $205,000 figure, don't you?

A. Yes.

Q. How did you get it for 16-inch pipe?

A. Took the average cost of construction for 16-inch pipe and applied it to the number of feet of pipe involved in this analysis of 16-inch pipe.

Q. But you don't know what price per foot you applied?

A. No; not at this time; but the figures I used are correct and represent the actual figures used in the appraisal.

Q. Have you any detail at all on this $205,000 figure?

A. No more than I have explained that I applied.

Q. Well, without knowing what prices you applied for different sizes of pipe to get this $205,000 figure, it is utterly impossible for us to check your computation at all, isn't it?

A. I don't know whether you can check my computation or not, but I am giving you the facts concerning the manner in which I prepared it.

Q. Can you tell what part of the $205,000 figure your 16-inch pipe played?

A. Can I tell you what?

Q. You have some 16-inch pipe that goes into this $205,000 figure, haven't you? Can you tell how much it is in dollars and cents for 16-inch pipe?

[fol. 2201] A. No; I would have to divide 59,440 into 130,000—oh, yes, the weighted cost per foot is $2.1893, and adding the excess labor costs—I am very sorry, Mr. Fitzhugh, that I did not notice that I had those figures right before me; it has been quite a little while since I looked at this.

Q. All right, then.

A. Now, adding the excess labor costs as found by the analysis of these jobs to that figure,—the excess labor costs only, because I am assuming in each case that the labor costs would be the same—I get a per foot figure of $3.18, which is 1.45 times the reproduction cost.

Q. Where did you get the excess labor that you added to your unit cost?

A. From this analysis of the various and sundry jobs that I have heretofore explained.

Q. Now, what was the amount of the excess labor?

A. For the 16-inch pipe?

Q. Yes.

A. 99.4 cents per foot.

Q. Now, that probably came from Line J and some other lines, too?

A. Included Line J, but the excess labor costs probably might have been—the average excess labor cost was mate-

rially reduced by the inclusion of Line J in the study, because it was a large job, and the actual cost of making the replacements on Line J would not materially differ from [fol. 2202] the actual costs in doing original construction work, because the length of that job justified the use of a ditching machine, and the extra costs, which become a proportionately large part of small replacements, were distributed over a considerable amount of work.

Q. Now, let's see if I am getting anywhere. You took this $2.1893 per foot for the 16-inch, which is an average figure that Mr. Steinberger found in his appraisal?

A. That is correct.

Q. You added 99.4 cents per foot for the excess labor cost that you found from these studies?

A. That is right.

Q. That gives you a unit price per foot for 16-inch, which multiplied by the amount of 16-inch pipe, gives you the amount that you included in this $461,073 figure?

A. That is right.

Q. Now, to compare that with the 16-inch in this $205,000 figure, you included the J 16-inch at 59 cents per foot, and some other 16-inch, too, didn't you?

A. That is right.

Q. Now, then, can you tell us, so we will have a comparable figure, how the 16-inch included in your $205,000 figure finally worked out? What was the average price per foot for 16-inch?

A. I think I have told you—$3.18.

Q. In the $205,000 figure?

A. No; it was simply weighed in with all the rest of it. [fol. 2203] Q. The 16-inch and the $461,000.00 figure is in there at about $3.19 something per foot, isn't it?

A. $3.18, that is correct.

Q. $3.18 per foot. Now, can you tell what the 16-inch, when the $205,000.00 figure is in there—at what figure it appears in the cost per foot?

A. Yes, approximately $2.19 per foot.

Q. That is $2.19 as against $3.18?

A. That is right, direct structural cost.

Q. Now, then, will you explain, Mr. Connor, why you added to Mr. Steinberger's cost, as found in his previous appraisal, this 99.4 cents for extra labor cost?

A. Because on the analysis of the extra labor jobs—the very thing I was trying to find out—I found it cost on the

average for 16-inch pipe 99.4 cents more on labor cost than Mr. Steinberger computed.

Q. Now, how did you get that 99.4 cents.

A. By taking each construction job that I could have an analysis made on—(Witness consults data)—74 jobs were analyzed, Mr. Fitzhugh. A very large part of it was dresser couplings—practically all of it.

Q. You have the sheets in your study before you, don't you?

A. Yes, sir.

* * * * * * *

[fol. 2204] Q. Now, then, Mr. Connor, looking at your study, don't you find that you found that the average cost per foot for all 16-inch replacements which were actual installations turned out to be $1.41?

A. That is for certain specific items, yes.

Q. That covers all the labor cost, doesn't it?

A. It covers labor, trucking, traveling, teaming, automobile, clerical, insurance, and in some cases miscellaneous expenses. It does not include the structural overheads which are direct overheads.

Q. Now, then you say that——

A. Those items, then, were—they were treated in connection with the exact comparable items included in Mr. [fol. 2205] Steinberger's reproduction cost estimate.

Q. Then, from this $1.41 per foot you reasoned that that was 99.4 cents more than Mr. Steinberger had used in his appraisal?

A. For the identical items, yes, the expenses.

Q. Now, if you are correct in that, the price that Mr. Steinberger used per foot would have been about 42 cents, would it not?

A. For those specific items, yes.

Q. Well, is it your testimony, now, Mr. Connor, reasoning back in this way, that Mr. Steinberger did use 42 cents for his cost in his previous appraisal?

A. For the specific items which I have enumerated, yes, or approximately that amount, because in some cases these charges to the actual piecemeal replacements do not show any costs included for some items.

Q. Well, this whole thing depends upon the correctness of Mr. Steinberger's calculations, does it not?

A. Well, it depends upon the correctness of Mr. Steinberger's calculations for the determination of a ratio between the actual cost and Mr. Steinberger's appraisal. Now, if some fellow would come along here and make a much lower reproduction cost than Mr. Steinberger made, then the actual cost would be correspondingly higher than that figure.

Q. Well, what I mean, you never could have found a factor without using Mr. Steinberger's figures which he——

[fol. 2206] A. Why, certainly; I could have made another factor half again as big as that if I had used Mr. Freese's figures.

Q. And you could have made it half again as low if you had used some other figures?

A. Of course, you are correct, absolutely.

Q. Of course; you could have found an infinite number of factors if you wanted to?

A. That is right, depending on who made the reproduction cost estimate.

Q. You found an average salvage value of 50 per cent of the cost of new pipe and fittings, did you not?

A. No, sir, I assumed it.

Q. Did you have any reason for making that assumption?

A. No, sir, other than the fact that I wanted to be on the safe side.

Q. Well, one other question back about that study we were just talking about, Mr. Connor, where rock excavation was actually encountered in the original construction,—of course, you wouldn't have to bother with that in the replacements, would you?

A. No—no.

Q. Well, what correction did you make in your figures to take that fact into consideration, that the original rock excavation would not again be encountered?

[fol. 2207] A. I didn't have to take it into account, because on my replacements, even though there was no rock —solid rock to be removed, by reason of the fact that it had already been broken up in the original construction, despite that fact, I found that the ratio of cost of making piecemeal replacements was what it was; in other words, if I had made a correction factor for that point it would have increased the ratio*n*; but it would not have been proper to do so, because there was no rock encountered in

those cuts that had already—in the ditches which had already been blasted out.

Q. This figure as found by you was, however, applied to all of the construction that actually did have rock excavation, was it not?

A. Why, yes, certainly, because the replacements included in this study probably were made where originally there had been rock, but, of course, in estimating the cost of this—in taking the cost of these actual replacements there was no rock excavation involved, because there was no rock to take out.

Q. Now, starting again on this salvable value?

A. Which page, Mr. Fitzhugh, please?

Q. On page 157,—where you assume that 50 per cent of the value new of pipe and fittings can be salvaged; you [fol. 2208] then compute from that to get the 21.35 per cent of the total cost for piecemeal replacements. How did you obtain that?

A. Well, the detail is set out on page 157, exactly how I got it. If you wish me to read it into the record I will be glad to do so.

Q. Well, did you multiply your 50 per cent by this 42.7, or how did you get that?

A. Well, I made an analysis of what the per cent of the total installed cost of—or the actual cost of a large number of lines was, represented by the cost of pipe and fittings; and that study is shown in Table 3-A, on page 167.

Mr. Griffith: Of Exhibit 42?

A. Of Exhibit 42, and it was found that 64 per cent of the total installed cost was pipe and fittings. Now, 64 per cent of 100 per cent is 64 per cent, but when you increase that to 1.5 per cent—no, when you increase your 100 to 150 per cent, and let your material and equipment stand, which it would in the case of a replacement, that 64 per cent then becomes 42 per cent of the cost of piecemeal jobs, because labor on those jobs has become a larger portion of the [fol. 2209] proportionate cost of the whole job. If it is assumed that the pipe and fittings are removed and are in 50 per cent condition, then this salvable value becomes 21.35 per cent of the total cost.

Q. Mr. Connor, so we can follow you, would you mind working out on this blackboard up here the multiplications you made on these various percentages to finally come at this 1.18 factor that you show at the bottom of page 157?

A. If you will permit me, Mr. Fitzhugh, I would prefer to do it here, and then, if it is necessary, I can go to the blackboard and delineate them later, if that is satisfactory.

Q. Anyway, just so it is explained.

A. It is explained, however, in detail on page 157.

Q. I know, but nobody can follow your multiplications from this explanation—at least, I can't.

A. I might not be able to repeat them.

* * * * * * *

[fol. 2210] A. Now, Mr. Fitzhugh, I will take just the first calculation, how I got the 42.7—divide 64 by 150 and you get 42.7 per cent.

Q. All right.

A. Now, divide that by 2 and you get 21.35 per cent,—is that clear?

[fol. 2211] Q. Yes, sir. Now, incidentally, that division was on account of the assumption you made that there would be 50 per cent salvable value; is that correct?

A. That is correct. The total salvable value becomes 21.35 per cent.

Q. Now, what do you do with that 21.35?

A. Well, I take one more step right there, and I can't say just as this second what happened. However, I can figure that out at the next recess.

Q. Well, you will admit that nobody can read those papers of yours and learn what you finally concluded about it?

A. Well, it is difficult to make a clean-cut statement.

Q. At any rate, you can't read your own book there now and tell us that?

A. Not right now. It has been six months since I put the figures in the book.

Q. Now, on page 168, your table 4-A——

A. Mr. Fitzhugh; before we go any further, all that I did there was to subtract that 21.35; but I don't believe that that simple calculation is correct.

Q. You are not sure about that?

A. No, I am not sure. If it is, it ought to be increased by ten per cent.

Q. If you made a correction of about ten per cent it would only amount to about one hundred thousand dollars a year; wouldn't it?

[fol. 2212] A. Yes, and I think if it is an error it would be proper to make the correction.

Q. All right. Now, on this same page, your column D as shown in the detail——

A. Which page is that, Mr. Fitzhugh?

Q. Page 168; that is your Table 4-A. Your column D is column C times factor .7. Now, this .7 is also a salvable factor, isn't it?

A. That is correct.

Q. Now, how did you find that?

A. That is shown in detail on page 167, Exhibit 42.

Q. This factor is derived from your mortality curve 2, isn't it?

A. Which factor?

Q. This .7.

A. No. .7 is derived from a study of the determination of salvable value and major removals.

Q. That is right, but your column C, to which .7 is derived, is derived from your mortality curve 2?

A. That is correct.

Q. What is the total number of feet of major removals that have been made since the company strated business?

A. You mean those that I have designated as major removals?

Q. Yes.

A. It is set out in detail on page 79.

Q. And what is the total?

A. 2,699,972, and 1,590,452 set out in Column D is the pipe [fol. 2213] replaced in major replacements caused by change of operating conditions. As a matter of fact, those two segregations might very well have been left together.

Q. In order to get the results shown in Column C on page 168 you made an analysis on the removal of this 1,590,452 feet, did you not?

A. What is that?

Q. I say, in order to get column C shown on page 168, you made an analysis of the removals of this 1,590,452 feet that you just mentioned?

A. No.

Q. Well, what did you use to get that?

A. Oh, I subtracted column B from column A.

Q. Look at page 168. Do you have it?

A. I have it now.

Q. Now, your column C is based on mortality curve 2?

A. That is correct.

Q. Now, isn't mortality curve 2 based on this 1,590,452 feet of removals?

A. No.

Q. Well, what is your mortality curve 2 based on?

A. Based on the sum of columns B and D.

Q. Well, can you explain so that the jury can understand it, and maybe I will understand it while you are doing it, what you have got in columns B and D?

A. It is clearly set out on page 79 of Exhibit 42.

Q. Just like this other thing was clearly set out?

[fol. 2214] A. That is, as most of it was clearly set out. Column B, feet of three inch equivalent diameter pipe removal in major removals. Column D, feet of three inch equivalent diameter pipe replaced in major replacements caused by changed operating conditions.

Q. Now, you are talking about the tabulation on page 79?

A. Yes, sir, because that is the one that sets all this out.

Q. As shown in this table, the biggest replacement occurred in 1923; is that right?

A. You mean in this column B?

Q. Yes, shown as a major removal?

A. Yes, that is right.

Q. And the next largest in 1928?

A. That is right.

Q. And there was a large one in 1912?

A. That is right.

Q. All these that we have mentioned so far are in excess of two hundred thousand feet; is that correct?

A. Two hundred thousand feet equivalent three inch diameter pipe.

Q. Well, what is the average per year?

A. I don't know.

Q. In round numbers it is around seventy thousand feet of three inch equivalent?

A. Yes, but I didn't make my calculation on the arithmetical average. I took the average weighted age.

Q. Well, now, just to get back to your theory here, Mr. [fol. 2215] Connor, what do the major removals have to do with the age of property?

A. Nothing in particular.

Q. Why was it necessary to state the major removals in connection with finding a depreciated amount as an annual charge?

A. Well, to get some idea of how those things actually behave.

Q. Now, since these removals occur in varying amounts by years, wouldn't you have to reduce it to some common basis and find an average?

A. No, I don't think so. What you have got to determine is the probable rate on those occurrences, if you can. I admit that it is difficult for anything to occur with any great degree of regularity, but I did the most logical thing I could.

Q. Well, now, you show in 1912 two hundred thousand feet removed and in 1933 only 13,700 feet removed, in spite of the fact that the whole system in 1933 was a great deal older than it was back in 1912. In order to secure some fair sort of conclusions wouldn't you have to average up the years?

A. No. I have taken the age the pipe had been in service. In 1934 there is going to be one million five hundred thousand feet of three-inch equivalent diameter pipe replaced and removed.

Q. What line is that going to be on—Line H?

A. Line H and Line K-A.

Q. Well, now, that is an unusual circumstance, isn't it?

[fol. 2216] A. Why, no, it is not unusual in the natural gas business; it is a thing you have to anticipate and provide for.

Q. You mean there is nothing unusual in the removal of one million five hundred thousand feet of pipe in one year?

A. No, sir. We removed 2,890,000 feet in 1917.

Q. Have you done it any other year?

A. I think the possibility is that these removals will continue. Furthermore, Line H is a removal of a removal.

Q. Now, still on page 168, you have got another addition for the major rehabilitations as shown in Column F of two per cent?

A. Two-tenths of one per cent.

Q. Two-tenths of one per cent. Now, to get that figure you used an average, didn't you?

A. I divided the gross expenditures by the miles of service that the pipe had had.

Q. So that the result that you reached gives you an average per service year, does it not?

A. That is correct, expressed in terms of dollars per foot.

Q. Now, if you used an average on this, why couldn't you use an average on the other?

A. Well, I don't think the two things are comparable at all.

Q. Is that the only reason you can give?

A. It is about as good a reason as I can give, yes.

Q. Just by changing the name from rehabilitation to removal, or vice versa, you get a different method of doing it?

A. No; I didn't change the name. The operation is entirely different. It comes about by reason of different conditions.

[fol. 2217] Q. All right, going to the next classification of property we find that you have estimated 6.216 per cent for compressor station property. Will you turn to the part of your exhibit that shows this rate?

A. That is found, Mr. Fitzhugh, in part 4, beginning at page 236.

Q. Where do you finally arrive at the final per cent?

A. Where do I what?

Q. Page 255, I guess, isn't it?

A. Yes, that's correct, Mr. Fitzhugh.

Q. On page 255 in the tabulation on the main line stations, you show the annual rate for current replacements of one per cent. Is that an estimate or a calculation of some sort?

A. That is an estimate based upon an analysis of the actual charges to the depreciation reserve account, or at least fixed in conformity with the conclusions that I reached from an analysis of the actual charges to the depreciation reserve account for those items.

Q. Do you have that analysis with you?

A. I have the result of it, yes.

Q. Can you tell by looking at your analysis, just how the replacements of the piping for water supply or the equipment for cooling towers or water storage tanks was handled?

A. Yes.

Q. How was it handled?

A. It was handled by charges to the reserve account.

Q. Do you have any sheets that show those charges?

[fol. 2218] A. Yes.

Q. Will you read from those and show how replacements of equipment of this sort were handled?

A. Those are charges to the reserve for depreciation. Is that clear?

Q. You mean you took off the amount you show in your exhibit from the books of the company?

A. No, I did not.

Q. Where did you get that?

A. I got them from the books of the company, but they do not appear in my exhibit.

Q. Do you have that underlying data with you?

A. Yes, it is right here before me.

Q. Well, read from it.

A. I am getting ready to read from it now. We will take the item of repairs to cooling coils, charges to the depreciation reserve account in 1929, $12,027.04. Painting class A and class B structures, charges to depreciation reserve account for that item in 1929 amounted to $23,420.36. Major repairs to main units for that same year of 1929 were $6,702.96; and for 1930 charges for the same thing amounted to $15,822.67.

Q. Do you have any segregation there for the main line stations?

A. Oh, yes.

Q. Well, turn to page 236. Which of the items detailed on that page would cooling coils come under?

A. Cooling coils would come under the plant piping.

[fol. 2219] Q. Now on that class of property, you estimate a twenty year life, do you not?

A. Yes.

Q. In other words, you figure that cooling coils will be replaced every 20 years; is that right?

A. No, they will be replaced much more often than that, I believe.

Q. But that goes into the annual rate of reserve of five per cent you have set up here?

A. That is right, on the average. Some of the items would last much longer than that, and some would last only a very short period of time.

Q. Now, after finding out how the cooling coils were being handled on the books and what the amounts as shown on the books were, how did you let that enter into this finding of five per cent?

A. I didn't. At least, I did not let it enter into it.

Q. Why.

A. Because that was an entirely different matter.

Q. These cooling coils would have been included in the one per cent annual rate for current replacements as shown on page 255, would they not?

A. No. Those are current replacements of parts of units, and not replacements of the unit as a whole.

Q. Well, didn't you just read that you used those to get these annual percentages?

[fol. 2220] A. Yes, but you must not have listened to what I said, Mr. Fitzhugh; I said repairs to cooling coils, and not replacements of cooling coils.

Q. What is the difference between repairs and replacements, in the matter of cooling coils?

A. There's all the difference in the world. If you make a replacement of a unit, that is one thing; and if you repair it that is another thing; when you replace something, you don't repair it; you replace it.

Q. When you replace these coils, Mr. Connor; when they get out of fix, don't you replace them 100 per cent?

A. No.

Q. What are these coils you are talking about, Mr. Connor; how big are they?

A. I don't know, Mr. Fitzhugh.

Q. Have you ever seen one of them?

A. Hundreds of times.

Q. You know what you are talking about, don't you?

A. Yes; oh yes.

Q. Is the pipe a very large pipe?

A. No; the piping is not very large pipe.

Q. When the pipe in the cooling coils gets bad, you don't take a soldering iron and go out and fix them, do you?

A. No, but you repair them. The item of repairs to cooling coils is a clear-cut accounting description of what is going to be done. If they are going to be replaced——

[fol. 2221] Q. At any rate, the way you have handled cooling coils, just for example, you have included here then, one per cent for repairs?

A. That is right.

Q. And five per cent for replacements?

A. That is correct.

Q. And you have, in a like manner, you have done the same thing for every other class of equipment you have listed on page 246, have you not?

A. Yes, that is correct.

Q. Now, of this per cent that you apply to compressor station property of 6.216 per cent, what was the part that you used for field stations?

A. 4.5447, being the weighted per cent derived by multiplying 66.53 per cent, which represented the proportionate part of the reproduction cost of compressor stations, of the field stations, times the rate determined for the field stations, which was 6.831 per cent; and multiplying the 66.53 per cent by 6.831 per cent, I get 4.5447 per cent, which represents the weighted proportion of the total annual reserve required for compressor stations represented by the reserve required for the field stations.

Q. Of this 6.831 per cent, what part is for removals of the field stations?

Mr. Griffith: Do you refer to removals of units, or a station as a whole, Mr. Fitzhugh?

Q. Well, probably it would be both; the removal of the station——

[fol. 2222] Mr. Griffith: Well, I mean did you mean that kind of a removal?

Q. Yes.

A. The manner in which that is developed is fully set out on pages 247, 248, 249, 250 and 251 of Exhibit 42. I determined the weighted age of the units and the rate at which the removals had been made, expressed as a per cent per year of weighted age. I then developed a curve, or a straight line slope, which would develop a replacement curve which would equal the indicated rate of replacement at the weighted age period, and that uniform slope was at the rate of 3.3 per cent per annum. After giving effect to the removals of removals calculated over a period of years, the result is shown on page 249.

Q. Do you show in your exhibit the weighted age of the horsepower now installed?

A. I do, yes.

Q. On page what?

A. The tabulation is on page 265.

Q. Now, in finding your weighted age for compressor stations, how did you handle the Eastland station, which was installed by the Texas Company in 1925; the Moran station, installed by The Texas Company in 1918; the Park Station, installed by The Texas Company in 1923; the Pueblo station, installed by Moody-Dyer Corporation in 1927; the Winniewood station, installed by Ouichita Valley Gas Company in 1926; and the Tiffin station installed by [fol. 2223] Southern Gasoline Corporation in 1923?

A. The compressing department made inquiries of each of the companies from which Lone Star Gas Company had purchased compressing stations and ascertained the original date at which these stations were installed and placed them in the proper age classification with reference to the proper service life.

Q. These date- I just read are the dates when the stations were originally installed, and not the dates when purchased by the Lone Star Gas Company?

A. No, the weighted age was determined there. The actual original weighted ages were attempted to be placed on the stations. However, I do not think that would be material because the question of those stations in the service of Lone Star Gas Company with reference to their removal might be affected largely by the manner in which they are operated by Lone Star Gas Company rather than by somebody else.

Q. But you have used their total life from the time they were originally installed, even if installed by some one other than the Lone Star Gas Company?

A. That is correct. We endeavored very carefully to get that information. We phoned all over the State of Texas and the state of Oklahoma trying to get definite information concerning that point.

Q. Now, in considering your removal rates, you have taken into consideration the Moran station, have you not?

A. Oh, yes.

Q. Now that was a station which you purchased along [fol. 2224] with some lines that you bought from The Texas Company, wasn't it?

A. Yes, that's right.

Q. Now, while the Moran station was necessary to the efficient operation of the lines owned by The Texas Company while owned by The Texas Company, there was no need at all for the Moran station after it became a part of the Lone Star Gas Company, was there?

A. No particularly valuable service could be developed from it; that is correct.

Q. And the Moran station was dismantled right after its purchase and it is now out of commission, isn't it?

A. I do not believe the Moran station is now operating, and I do not believe it is included in Mr. Biddison's appraisal.

Q. And the same applies to the Park station, which was also purchased along with lines acquired from The Texas Company?

A. I will have to make reference to these specific stations, Mr. Fitzhugh. It is clearly set out in the report just what happened to each of these stations, and in connection with the Park station, it says that it was retired in 1929, due to the depleted gas supply; this station was operated one month after it was purchased. Engines were removed to the Sipe Springs compressing station.

Q. You have included the Moran station and the Park station in your study of the removals, though, have you not?

A. That is correct.

Q. Now, Mr. Connor, doesn't it seem unfair to you to include in any study made to find the amount of removals or [fol. 2225] replacements that will take place in the future, two stations that have been junked, simply because they happened to be purchased along with another property separately operated, and which upon the consolidation had no service at all in the combined property's operation?

A. That might be true, Mr. Fitzhugh, if I did not know that even after giving consideration or taking into account those two stations which you mentioned and which are not large relatively taken in connection with all the stations of the company, that the removals of compressor stations in the future of Lone Star Gas Company's operations are going to be materially greater than those which I have indicated in this study.

Q. Is it your opinion, Mr. Connor, that there will be a number of these compressor stations that have to be abandoned and removed, as in the case of the Moran and Park stations, in the near future?

A. No, they will not be abandoned.

Q. Well, they will be moved, won't they?

A. That is right, and the cost of removing them will be a charge to the depreciation reserve account. They will be set up in another location and they will be just as good when set up in another location as they are today. If you would come along a year from now and make a reproduction cost estimate of this property, you would probably find the same number of horse power in service, possibly in another or in different locations, with no additions to capital than you found in 1932.

[fol. 2226] Q. When a compressor station is moved to another site, Mr. Connor, the foundations for the compressor engines, forming a substantial cost in themselves, are left behind, aren't they?

A. That is correct.

Q. And all the piping and underground equipment, so far as pipe is concerned, are left behind also, are they not?

A. Some are salvaged and some are lost.

Q. Nevertheless, notwithstanding the fact that there may be some compressor stations now in existence that will have to be moved in the near future, you are familiar with the fact, are you not, Mr. Connor, that Mr. Biddison did not take that into consideration in the finding of his per cent condition on compressor stations?

A. I am, and I agree with him absolutely.

Q. Now the next per cent for annual rate of reserve accrual which you find is 3.3 as applied to general office structures. That appears in your text on page 285, doesn't it?

A. Well, we skipped the telephone line, Mr. Fitzhugh.

Q. No, I am talking about the 3.3 per cent for the general office structure.

A. I beg your pardon; I was looking at one book and you were looking at another.

Q. How did you figure out the repairs on the building?

A. I made an estimate that it would be necessary in the future on the average to spend one per cent of the reproduction cost of the structure for current repairs, chargeable to the depreciation reserve account.

[fol. 2227] Q. Do you know what the actual repairs to the building were in 1932?

A. No, I don't.

Q. Do you know it for 1933?

A. I may have it here, but I don't know offhand. The average per year for the past five years has been approximately $2100.00 per year.

Q. The amount that you actually allow in your calculation, though, as shown on page 286, instead of $2100.00 is $4,821.57, is it not?

A. No.

Q. What is that amount then?

A. Yes, that is correct; but the rate is one-and one-half per cent, and not one per cent as you indicated.

* * * * * * *

[fol. 2228] Q. Where did you get, Mr. Connor, on page 286, the probable life years for the different items entering into General Office structure?

A. Most of those, Mr. Fitzhugh, were taken from the rates prescribed by the Bureau of Internal Revenue for similar property on Income Tax depreciation deductions.

Q. You mean the Bureau of Internal Revenue puts out a handbook of some sort?

A. Yes, sir.

Q. And you copied these probable life years item *item* by item from that compilation?

A. That is correct.

Q. So this does not represent your engineering judgment in any sense of the word, does it?

A. Yes, to a certain extent, because several of the items were not included—I don't remember just which ones; and I have been engaged in the matter of constructing building, operating buildings, and owning buildings over a period of twenty or more years, and I have had some experience in the matter of the life of items of this kind. However, as I previously stated, my judgment was influenced by the recommendations of the Department.

Q. And you have estimated, have you not, that the whole cost of the General Office Structure would be retired in forty years, using a 5 per cent annuity basis?

[fol. 2229] A. That is correct.

Q. And in addition to that, you have allowed for the replacing of elevators every twenty years?

A. Yes.

Q. And the Venetian Blinds every ten years?

A. That is right.

Q. Now, if you are going to retire the total value of this building in forty years by some sort of an annuity calculation, you should deduct from that amount the value of the elevators, shouldn't you, which are going to be replaced in twenty years?

A. I don't know, Mr. Fitzhugh, that the elevators would be replaced in twenty years. The figure indicates that the average cost of keeping those elevators in operation and making such replacements during the life of those elevators as would be necessary, would be equivalent to the annual sum represented by the application of five per cent, rather than to assume that every twenty years you would take out an elevator.

Q. In the allowance of one and a half per cent that you made in your depreciation rate for removals and changes, didn't you include the repairs to elevators in that?

A. There is a charge of $950 for the replacement of a generator.

Q. Well, that is part of the elevator equipment?

A. That is a replacement of a piece of elevator equip-
[fol. 2230] ment; but the figure I used and gave you of $2100 approximately, which included that, did not determine my estimate of the cost of removals and changes and repairs to the building as a whole, for the reason that the period of time covered by those actual expenses, Mr. Fitzhugh, was the period of time when that building was brand new.

Q. And in addition to all these other provisions you have made, you have put down an additional one per cent for decline in per cent of new condition?

A. Yes; because the figures, as disclosed by Mr. Biddison's estimate, shows that on the average the building, along with all the other property, has declined uniformly at that rate, based upon its weighted age. The amortization accrual, however, takes that factor into account; and, also, I think provides for a probable salvage value of 15 per cent, which is something I don't think would be possible in the case of the office building.

Q. Just how did you arrive at that .8 per cent for the retirement of all costs on a forty-year basis, 5 per cent annuity?

A. That is just an estimate. I don't believe there is an office building in Dallas today forty years old.

Q. How did you get the rate of .8 per cent?

A. That is the annual sum, which compounded at 5 per cent annually, would equal the 100 per cent cost of the building, as contrasted with the 2.5 per cent straight line fund
[fol. 2231] accrual.

Q. Does that take into consideration salvage?

A. I think it does. I may be wrong, but I think that it does.

Q. It should, should it not?

A. I don't think there would be any net salvage on a building of that kind. I think it would cost you more to tear it down than you could get out of it. No; I have made no provision for net salvage on the office building at the end of forty years.

Q. All right. Show how this method of yours works out on the elevators, assuming that they have a life of twenty years, you have included a 5 per cent annual allowance to take care of the replacement every twenty years?

A. That is right, on the average; that might be made by replacements like the $950 charge for elevators.

Q. But every twenty years you will get back the full value of those elevators?

A. Yes; and will probably be out that much in connection with the elevators.

Q. Of course, you are supposed to be out that much, or it would not be a proper charge?

A. That is correct.

Q. Theoretical. In addition to that, you are going to receive at the end of forty years one hundred per cent of the value of the elevators?

[fol. 2232] A. That is right. You might be out 100 per cent of those elevators every twenty years, and still have the same elevators at the end of the forty years.

Q. In addition to that, you are going to receive one per cent per annum, or forty per cent of their value in forty years, for the decline in per cent of condition?

A. Absolutely not.

Q. At that rate you will receive one per cent now, will you not?

A. That is correct.

Q. In addition to all of this, you are going to charge the repairs at 1.5 per cent per annum?

A. On the average, throughout the life of the building, yes.

Q. And besides all this, the actual history of the Company is that the cost of maintaining these elevators is charged to Operating Expenses and not to Depreciation Reserve?

A. That is not correct.

Q. Well, how about—if I am mistaken in the matter of elevators—how about in the matter of maintenance of Linoleum, Venetian Blinds, Lighting System Wiring and Fixtures, Heating System and Plumbing, and so forth—aren't all those charged currently as charges to Maintenance and not to depreciation reserve?

A. Repairs to electric fans charged to depreciation reserve; replacing cables charged to depreciation reserve——

[fol. 2233] Q. What kind of cables are those?

A. I presume cables for the dictagraphs; replace burner on boiler charged to depreciation reserve; replace generator on elevator charged to depreciation reserve.

Q. What else have you got?

A. That is all.

Q. Those are things that enter into this $2100 per year?

A. That is right—in a practically new building.

Q. Now, the linoleum is being replaced in a practically new building, is it not?

A. I don't think they have replaced any yet.

Q. Not any at all?

A. Not that I know of.

Q. How about Venetian Blinds?

A. I don't think they have replaced any yet.

Q. Not a single one?

A. They have not been in service but four or five years.

Q. They only have a life of eight years and you have seventeen thousand dollars worth of those blinds?

A. And the time is coming around when we are going to have to replace them. That is pretty evident from the looks of those in the office I am in.

Q. Did you use the same method on the Other General Structures?

A. Very similar, yes, sir. I gave the life of the Other General Structures somewhat less than I did the General Office Building.

[fol. 2234] Q. Now, on The Other General Structures what was your allowance for repairs?

A. One per cent per annum.

Q. That is an estimate, isn't it?

A. That is absolutely an estimate.

Q. Now, the repairs on this class of property are currently, and have been in the past, charged to Operating Expenses, have they not, as Maintenance Charges?

A. I don't know.

Q. Can't you look in your notes and find out?

A. No, sir.

Q. Well now, you made the study on the other items of property, such as General Office. Why didn't you find out about this?

A. Well, sir, I don't know. I made a lot of studies in connection with the property of Lone Star Gas Company, and there may be one or two things I overlooked.

Q. Just one or two?

A. That's right.

Q. You are familiar with the statement in the Railroad Commission's order with reference to Other General Structures, are you not?

A. With reference to depreciation reserve?

Q. Current replacements.

A. I have read the order carefully, and I heard Mr. Freese's testimony in Fort Worth.

[fol. 2235] Q. The statement in the order appearing on page 67 states: "Mr. Connor amortizes Other General Structures over a period of 25 years on a 7 per cent sinking fund basis resulting in an annuity of 1.58 per cent. An annuity of 1.823 per cent is necessary on a 6 per cent sinking fund basis." In other words, they increased the allowance that you had given, did they not?

A. No; they decreased it.

Q. The accrual was increased from 1.58 per cent to 1.82 per cent, was it not—isn't that an increase?

A. I don't see how it works out.

Q. Isn't a six per cent allowance on the sinking fund basis a more liberal allowance so far as the Company is concerned than a seven per cent sinking fund rate?

A. Yes; that is right; that is correct.

Q. That accounts for the increased rate, doesn't it? Now, this statement appears: "Alterations, repairs, current renewals, etc., are charged to Operating Expenses. We find an annual rate of 1.823 per cent." After noticing that sentence in the Railroad Commission's order, Mr. Connor, you still did not make any effort to find out how your Company handled these charges?

A. That is correct. I did not develop my exhibit in this case by any reference to the Commission's order whatsoever.

[fol. 2236] Q. And notwithstanding you were put on notice by this statement in the Commission's order, you, nevertheless, without making any investigation, assumed for the purposes of your computation that all charges were made to depreciation reserve?

A. No; I didn't imagine all charges were made to depreciation reserve; but I imagine there will be sufficient charges made to depreciation reserve to justify the inclusion of one per cent for such items.

Q. I am talking about charges for alterations, repairs, and current renewals, as mentioned in the Commission's order?

A. I did not base this estimate of mine on anything found in the Commission's order—far from it.

Q. Now, all right. On General Office Furniture and Fixtures, and Other General Furniture and Fixtures, you used 9.7 per cent per annum. In other words, you figure every year that 9.7 per cent will have to be put aside to keep this property in a good state of repair?

A. And replace the units when they come to the end of their useful life.

Q. Did this figure likewise come from the Bureau of Internal Revenue?

A. Some parts of it did, and some parts are based upon the advice of department heads of Lone Star Gas Company who had charge of—responsible charge of the various machines—typewriters, and so forth, calculating machines, which were used in their departments.

[fols. 2237-2238] Q. Where did you get the rate to use on those hand-made draperies, oriental rugs, and that sort of thing?

A. I don't know, Mr. Fitzhugh.

* * * * * * *

[fol. 2239] Q. On the General Shop Equipment you use a flat ten per cent per annum?

A. That is correct.

Q. That is an estimate, is it not?

A. That is absolutely correct.

Q. Is there any underlying data in your exhibit, about that?

A. No, except that I have had considerable experience with shop equipment; I was a contractor for about nine years, and it is my opinion that ten year life for equipment of this kind is approximately correct.

Q. Would you say the lathes and machines of that type owned by the Company and included as part of its General Shop Equipment, only have a ten year life?

A. No, I would say that they have a longer life than ten years.

Q. This is the highest per cent for annual rate of reserve accrual of any class of property included in your appraisal, is it not?

A. That is correct.

[fol. 2240] Q. Now, on your Telephone Equipment you have used 3.340 per cent. How was that found?

A. It is set out in detail, Mr. Fitzhugh, on pages 278 to 284, inclusive. I use an average life for treated poles of approximately ten years; I assume that 50 per cent of the poles will be salvaged when removed, and I assume that 50 per cent of the replacements made will be charged to operating expenses.

Q. In finding the life of poles you used a study made on 248,707 treated poles in Germany, did you not?

A. That is correct. I think that is perhaps the most complete study of that kind that is available.

Q. Hasn't the American Telephone and Telegraph Company right here in Texas made studies of the life of more poles, under conditions as they actually exist here in Texas, which are available to you at the present time?

A. No, I don't know that they are.

Q. Well, you know those studies have been made, don't you?

A. I imagine that the Bell Telephone Company keeps a very complete record of all of their property.

Q. Well, Mr. Connor, why would you go and take the study of some poles that were used up and exhausted in service in Germany, rather than take the poles that were [fol. 2241] used up and exhausted in service under Texas conditions?

A. Well, I don't think the service life of a treated pole will be very different in one place as against another. They will probably last a little longer in—I don't think they would suffer from the lost of their protection as much in Germany as they would in Texas.

Q. You don't think that differences in wood or climate would have anything to do with the life of poles?

A. Not materially; in fact, I gave so many other considerations to the determination, that the actual amount set up by the mortality studies could hardly be recognized when it was finally used.

Q. Now, then, on page 2 of your Exhibit 41, after going through all these classes of property and getting the per cent for each class, you find an annual rate of reserve accrual of .828 per cent to be applied to $42,332,671.62 to amortize 100 per cent that property value?

A. That is correct.

Q. What is the life you have estimated that property to have, to use the .828 per cent amortization factor?

A. I have estimated forty years. I think that discussion is set out in detail in the exhibit.

Q. The weighted age of the property at the present time is something in excess of ten years, is it not?

[fol. 2242] A. No, I wouldn't say so.

Q. What would you say is the correct figure?

A. I would say about seven or eight years.

Q. Well, that is what you testified to in the previous hearing.

A. No, I testified about the age of the main lines, I think. I never testified about the weighted age of the property as a whole, because I have never made any exact determination of that factor.

Q. But you would say it is around seven or eight years?

A. That is correct.

Q. In other words, the life of a property of this sort—the total life would be between forty-seven and fifty years?

A. That is something that no person could anticipate. I have made an estimate which I think is a reasonable estimate to make, in view of all of the factors controlling the probable ultimate life of the Lone Star Gas Company. I think it would be improvident and improper not to make such a provision.

Q. Well, now, suppose that thirty years from now, Mr. Connor, another rate investigation should come up; in the meantime you would have had returned to you through this amortization allowance practically three-fourths of the value of your property?

[fol. 2243] A. Oh, no, you wouldn't, Mr. Fitzhugh.

Q. Why wouldn't you?

A. Because amortization accruals of that kind don't work out that way.

Q. Well, you would have had a substantial part any way—over half, would you not?

A. On a five per cent basis?

Q. Well, on the 8.28—the point 828 per cent factor you use on page 2, wouldn't you?

A. Well, I have calculated it on a forty year basis, but I will give you an indication of how badly off a person might be on what it would be, say, on a fifty year basis. Now, if at the end of twenty-five years——

Q. Wait a minute, Mr. Connor——

A. I am just giving you an example——

Q. Well, I don't care to go into that.

A. I would like to explain it to you.

Q. What I am asking you now is, what it would be at the end of thirty years, when there would be only ten years of the life of the property left——

A. You said about three-fourths, didn't you?

Q. Well, I said three-fourths, but——

A. Well, I said it wouldn't be three-fourths.

[fol. 2244] Q. I don't care what the amount would be, but there would be a substantial sum returned, would there not?

A. Yes; but in the meanwhile the property might have been lost and the Company not be in position to have a rate case thirty years from now, and then that situation is equally as possible and equally as probable as the assumption you make, that there might be a rate case at the end of thirty years.

Q. Well, just assume for the purpose of this law suit that there is another gas case that comes up in thirty years. In the meantime you will have received a depreciation allowance that will keep your property in good operating condition; you will also have gotten a rate of return on your property all of that time based on your property values, and you will have had returned through this amortization factor applied to the value of depreciable property, or rather to the property subject to amortization you will have had returned the value of that property. Now, then, when this hypothetical case comes up thirty years from now, you will be back in court again, won't you, Mr. Connor, asking for amortization of the full value of the property?

A. No, and as a matter of fact throughout all of that time and until such time as the amortization accrual is complete and fulfilled the owners of this property would [fol. 2245] never enjoy the use or benefit of one penny of that accrual.

Q. Well, now, Mr. Connor, if the property is approximately of the weighted age of eight years at the present time, why don't you consider that during those eight years there has been returned a portion of the investment to the

owners on which the rate-payers are entitled to a credit now——

A. Because——

Q. Or for which the rate-payers are entitled to credit?

A. For the simple reason that the determination of what the reserve accruals for this Company for the current and future requirements of this Company can not be properly supplemented by any withdrawals from an actual or an assumed credit balance existing at the date of this inquiry.

Q. At any rate, Mr. Connor, you come out with the amount of $3,465,123.36, the amount which you say must be provided annually during the future years to take care of the wearing out of property in service?

A. Oh, no.

Q. Well, you say it must be provided for some reason.

A. Yes, but there are a great many more reasons.

Q. What besides wearing out of property in service does that cover?

[fol. 2246] A. Costs of replacements, the losses in value, which usually develop in this property in the future years of its use, and the ultimate loss which will come at the time when the gas reserves available to this Company shall have been depleted.

Q. Does it cover the obsolescence of property due to improved methods?

A. I have given no consideration to that factor. I believe that the factor of obsolescence should be accrued after the obsolescence has taken place or has been realized.

Q. It *ode*s include all removals that will be made for public reasons or governmental reasons, isn't that right?

A. That is correct, and changed operating conditions, as well.

Q. All right. We come now to your exhibits on Rate of Return. Now, Mr. Connor, suppose that the rate-making authorities should adopt 100 per cent upon your theories as applied to the regulation of your Company.

A. You mean that company that I am retained by?

Q. Yes, sir, the Lone Star Gas Company. Suppose that they adopted the $75,000,000.00 rate base as proposed in Exhibit 28.

[fol. 2247] A. Mr. Fitzhugh, I don't believe there is a rate base proposed in Exhibit 28.

Q. Well, the value of property as shown by that exhibit. Well, in round figures it is around $75,000,000.00, isn't it?

A. I think Mr. Biddison's reproduction cost new less depreciation was approximately $69,800,000.00.

Q. All right. Now, suppose that that should be adopted as the value of the Company's property. If your theory is adopted, you would be entitled to earn ten per cent upon the value of that property, in addition to getting the $3,465,-123.36 per year for depreciation requirements, which, incidentally, would include an allowance to retire the value of all property which you say should be amortized in forty years, plus whatever is finally determined to be the proper operating expenses. Now, all those things would be allowed, would they not?

A. Yes, and following my theory, as you suggest, Mr. Fitzhugh, and the findings of my theory, the idea I have attempted to set out is that the Company should not be deprived of the right to earn ten per cent upon the fair value of its property engaged in the transportation of natural gas.

[fol. 2248] Q. Well, granted that the traffic will bear all this cost, you think as a matter of right the company ought to have that, do you not?

A. No, not necessarily. I think the company ought to have the right to earn it if it can do so with rates that are reasonable.

Q. Well, now, if your theory is adhered to, Mr. Connor, the total value of the property is returned, along with the return on the property all the time, along with an allowance that will keep the property in as good condition from an operating standpoint as it is now, along with an allowance for return on the value of the gas reserves at the time they are used up, why is it you say the gas business is a hazardous business?

A. You mention one item which would, as evidenced by the order of the Commission, the language of the Commission's order, be interpreted to remove the hazards of the natural gas business, and that is the allowance of an amortization accrual which at the end of a given period of time might return the value of the property to the owners. I can not conceive of how the allowance of an amortization accrual has anything to do with the hazards of the natural gas business. The hazards of the natural gas business grow out of the fact that a natural gas pipe line and production company is engaged in the most hazardous of mining ventures. Certainly if you could insure the return of the

property at any given time, then you would remove the [fol. 2249] hazards of the natural gas business; but to lay a goal forty years in the future, only to be attained under a series of circumstances which will be favorable in every event for the culmination of that proposition, certainly does not remove the hazards of the natural gas business, that the natural gas business might play out in twenty years or fifteen years, and there is no way to know nor to prevent such a catastrophe by merely having an amortization accrual of something less than one per cent per annum.

Q. Well, Mr. Dunn estimated the withdrawals of gas that would take place from the present gas reserves of the company and when Mr. Hulcy found the value of those withdrawals to get the total value of the gas reserves all the hazards of the withdrawal of gas and the uncertainty of a gas supply were taken into consideration in figuring that value, were they not?

A. No; I think hazards have arisen since that report was made that, if there is not something done about it, will create a situation which will be very serious. I refer to the wastage of gas in the Panhandle area.

Q. "Hazard", as you use the word in talking about the rate of return and the hazards of the business, refers to the uncertainty in dollars and cents of the investment in the company's property, did it not?

A. Yes, together with the attitude of the public mind with reference to the natural gas business. Everybody views it as a hazardous business, and for that reason it is more difficult for a natural gas enterprise to secure funds [fol. 2250] at reasonable rates than is the case with any other public utility.

Q. Now, when you found back in the overheads the total value or going value at $7,792,888.00 you set up as one of the reasons why the company was allowed this going value the fact that they had a large number of customers and had a pipe line system in operation and had an advantageous gas supply substantially in excess of the present maximum requirements of the market, and you assumed that this would continue for a long period of time, did you not?

A. I don't think there is a statement in there as to how long the situation will continue.

Q. Well, nowhere in finding the amount of going value did you consider any risks of the business, did you?

A. No. I made an estimate of cost.

Q. As a matter of fact you found that, being a going concern, it was worth a whole lot more money?

A. I said it would be worth more with a business that is complete and ready to do business than one without customers.

Q. And without a gas supply?

A. A gas supply is a thing of importance, but Lone Star Gas Company has today a gas supply which is in excess of the current maximum demand of its markets; but that gas supply over a twenty year period which is in sight and [fol. 2251] which Mr. Dunn estimates will be recovered will be only a small per cent of the total gas required to fulfill the market requirements of Lone Star Gas Company over twenty year period.

Q. All right. Now, refer to your exhibit of current quotations of bonds and other senior securities of natural gas, manufactured gas and electric utilities.

Mr. Fitzhugh: What is the number of that exhibit?

Mr. Griffith: It is No. 43.

Q. Now, all the securities you have listed, I believe you say, you took from Fitch's Manual?

A. As of the date indicated.

Q. What is an over-the-counter sale?

A. That is a sale which is not made by the means of the medium regularly established stock exchange.

Q. You are familiar with the fact, are you not, Mr. Connor, that Fitch's Manual does not include any over-the-counter sales?

A. That is correct.

Q. But includes only sales made on the exchanges?

A. That is right.

Q. Fitch's, therefore, reflects only a part of the market securities?

A. Yes, and this exhibit only reflects a part of the securities which might be ascribed to the various classes of utili-[fol. 2252] ties set out.

Q. Now, the first bond that you have listed is the Alleghany Gas Corporation first and collateral sinking fund six and one-half, w-w. What does that mean?

A. With warrants.

Q. With warrants. In other words, this bond represents a bond secured by collateral stock, doesn't it?

A. I don't know what the collateral behind the issue is, but it is a first mortgage.

Q. Why, haven't you looked up this issue?

A. No.

Q. Don't you know even what the bond represents, whether it a mortgage or whether it is a collateral trust?

A. It is a first and sinking fund.

Q. That means it is simply the first of a number of issues?

A. That is correct. I paid no attention to that issue, because the interest has defaulted and is without interest.

Q. Does this bond represent a mortgage?

A. It is secured by collateral as distinguished from a mortgage on the property itself.

Q. All right. It has got nothing behind it except stock?

A. That might be collateral which is behind the issue.

Q. That notation which stands for "with warrant", you say, means that there is attached to this bond a slip of paper or an option which entitles the holder of the bond [fol. 2253] to cash in, probably, at some future time a warrant in exchange for shares in stock?

A. That is correct.

Q. Now, is there any connection between this bond and the first mortgage bonds that you included as a method of raising funds for the reconstruction of the Lone Star Gas Company in your hypothetical set-up?

A. Absolutely not, no.

Q. Now, will you pick out anywhere in this sheet of yours any gas utility bond which corresponds in some measure to the set-up of the Lone Star Gas Company and pick out, if you will, some first mortgage bond of a pipe line company?

A. What do you mean, to conform to the situation of Lone Star Gas Company? Lone Star Gas Company has no bonds.

Q. I know, but you have assumed that reconstruction will take place and will be based on the sale of first mortgage bonds and preferred stock, have you not?

A. Yes, sir.

Q. Well, now, to test the validity of the assumption you made in that respect, pick out some bond that corresponds to the type of bond you think Lone Star Gas Company would

A. El Paso Natural Gas Company first and then Oklahoma——

Q. Wait a moment—take them one at a time. What is the total value of El Paso Natural Gas Company property? [fol. 2254] A. I don't know.

Q. What was it at the time this bond issue was put out?

A. I don't know. I have not looked up the equity behind the individual issues on these sheets. I am familiar with some of them in this territory.

Q. What were the El Paso Natural Gas Company's sinking fund six and a half, maturity date 1943, originally sold for?

A. I don't know what they were marketed for.

Q. You don't know whether they were sold at a discount or at a premium?

A. I am quite sure they were sold at a discount.

Q. How much?

A. I don't know.

Q. What was the amount of that issue?

A. I don't know.

Q. Do you know whether this represents a mortgage on the property?

A. It is so set out in Fitch's Manual as representing a first mortgage.

Q. Do you know what the amount of the mortgage is as compared with the actual value of the property?

A. No, I do not.

Q. Or what it was at the time the mortgage was placed on the property?

A. No, I do not.

Q. So you are not able to say, are you, Mr. Connor, [fol. 2255] whether the amount of the loan obtained by the El Paso Natural Gas Company was a large amount as compared to the value of the property or a small amount?

A. That is correct.

Q. Do you know anything about the earnings of the El Paso Natural Gas Company?

A. No, I do not.

Q. Are you familiar with the fact, Mr. Connor, that they built a line west from El Paso upon which they are losing considerable money?

A. No; I know nothing of the operations of the company.

Q. Well, is that a fact that would have a bearing upon

A. Oh, yes; every factor you have mentioned has a bearing upon the market value of the securities.

Q. As a matter of fact, Mr. Connor, is there any relationship at all between the market price of securities and the amount of interest rate that it would take to float a new loan on the organization of some new company?

A. I think that statement would be absolutely correct, Mr. Fitzhugh, if you took the situation and confined it to one issue of securities, but when you take practically every security of a certain type which is on the market of the United States of America and find that the yield on those securities is substantially higher than on practically all other similar securities issued by other types of public [fol. 2256] utilities, I think you are confronted with a very significant fact.

Q. Now, you talk about yield, Mr. Connor. Suppose you have a bond that is to be matured ten years from the first of this July; an interest payment came due the first of July and comes due every six months—that is, interest is payable semi-annually. The bond currently sells at 92.50, we will say. The coupon rate is six per cent. Can you tell what the yield to maturity of this bond is?

A. No, I can't. It is a calculation which would be made upon the present worth of a future payment.

Q. Well, now, Mr. Connor, you have got all through this exhibit yields to maturity calculated out here. Where did you get those?

A. They are calculated and set out in Fitch's Manual.

Q. Oh, you took those out of Fitch's?

A. Yes, sir; they are calculated yields to maturity from Fitch's Manual.

Q. You don't know how to calculate it yourself?

A. Yes; I know how to calculate it on any rate of interest. If I want to get a dollar ten years from now, and I have a fixed interest rate, it is easy to calculate the present worth of it—it isn't easy, but it can be done.

Q. As a matter of fact isn't it a fact that you could not find it except by the use of a discount table?

[fol. 2257] A. Well, I could calculate the present worth of future payments, which would give me the determination of what the yield to maturity would be worth.

Q. Well, now, Mr. Connor, do you think you know how to figure this? I want you to figure it, and I will bring in a bond table in the morning and compare it.

A. I have never figured one in my life, Mr. Fitzhugh.

Q. All right. Now, one of the securities you have listed here is debentures. What do you mean by "debentures"?

A. I mean a bond secured by the earnings of the company, with the right to take the earnings of the company for the payment of the bond.

Q. Well, a debenture does not have any collateral bond or mortgage or anything else, does it?

A. Now, I don't know. There may be other stipulations in the indenture which may make it very binding upon the corporation.

[fol. 2258] Q. An ordinary debenture as the term is ordinarily used, is an absolutely unsecured promise, just as a promissory note is, is it not?

A. Secured by the company's revenue.

Q. But no more secured than an ordinary promissory note, is it?

A. Yes, there would be certain stipulations covering the issue of those debentures relative to the way the revenues of the company might be used, which might not be in a promissory note.

Q. Suppose that the company defaulted on the payment of these debentures; what could the holders, the people who bought those bonds in the market, look to for the payment of the principal amount of the bonds?

A. I don't know, other than the current earnings of the company, unless there were certain specific provisions in the debentures themselves.

Q. Now, you have listed here, Lone Star Gas Corporation, fifteen year, S. F. debentures, fives. In other words, the Lone Star Gas Corporation has issued some bonds that are to run fifteen years, and mature in 1942. They are debenture bonds and bear a coupon rate of five per cent per annum, do they not?

A. That is correct.

Q. That S. F. means sinking fund?

A. Yes.

Q. And a sinking fund as included in your description simply means that some provision has been made to annually set aside some money so that at the end of fifteen [fol. 2259] years it will retire the issue?

A. That is correct.

Q. Now, what is the yield on the present market price of these bonds to maturity that you show?

A. 5.79 per cent.

Q. That is, if I should buy one of these bonds at the last sale price which you show on your sheet of 95, I would get on my investment only 5.79 per cent to maturity?

A. That is correct if the current market price of that security is approximately 95.

Q. Now, you have listed a lot of other securities in here besides gas company securities?

A. That's right.

Q. You have a bunch of electric companies. There is not much in common between the furnishing of electrical energy and gas as a commodity to gas consumers, except the fact that they are both subject to public regulation. Isn't that right?

A. No, there's a very great similarity between them in a great many respects.

Q. Just explain what the points of similarity are that you mean, Mr. Connor?

A. Between the transportation and the production of natural gas, and the production and transportation of electrical energy?

Q. Yes.

A. First I will point out or remind you of the dissimilarity which grows out of the fact that you can always build an electric plant wherever you want to build one, provided [fol. 2260] you have enough water to provide for your cooling and condensing, while of course the natural gas business must be determined, in its location, by a discovery and the existence of a natural resource. The production on the part of a power company corresponds very closely to the production of natural gas on the part of a natural gas company. The high voltage transmission lines of the light and power company correspond very closely to the high pressure gas transmission lines of the natural gas company. The compressors of the natural gas company correspond almost identically in their functions with the transformers—the step-up transformers of the power and light company. The regulators of the natural gas business which reduce the pressure of the gas for final distribution correspond to the step-down transformers of the electrical company. Each company has peaks, and each company must hold itself in readiness and keep in readiness facilities with which to meet instantaneous demands; and the only difference there is that the electrical company can get paid

for the capital required to meet the demands on the basis of the demand rate, and the gas company can not do so.

Q. The kinds of units of property, though, that enter into the total properties of both companies are different, are they not?

A. Yes; but they have a very unusual similarity in the functions they perform.

Q. And the depreciation rates that would be applied to generators for instance, and electrical equipment, are en-
[fol. 2261] tirely different from the depreciation rates you would apply to pipe lines, gas wells and so forth?

A. Oh, yes, that is quite true.

Q. The costs of operation are in no way related, are they?

A. No.

Q. If you knew the cost of operating a gas property worth Ten Million Dollars, that wouldn't be any criterion in judging what the costs of operation of an electric company worth Ten Million Dollars would be?

A. No, that is correct.

Q. The sales of gas companies are directly affected by temperature changes, are they not?

A. Some sales are and some are not.

Q. The domestic sales are?

A. That is correct.

Q. On the other hand, temperature has absolutely no effect at all on the amounts of electrical consumption for domestic consumers, has it?

A. Oh, yes, indirectly quite a bit, because they have much longer hours of use in the winter time.

Q. That has nothing to do with temperature; that is a seasonal proposition.

A. Well, they go together; they are both seasonal. Of course, directly, it has nothing to do with temperature; that is correct.

Q. All right.

* * * * * * *

[fol. 2262] Q. Now, Mr. Connor, starting with the first bond listed in your exhibit, the Allegheney Gas Corporation, First and Collateral Sinking Fund Six and a half's; and going through the gas company bonds as listed through the rest of your exhibit, will you tell for each bond, where you can, the total value of the property at the time the bond

was issued; the type of the bond, and the mortgage or the security, the amount of which was put up for the bond?

A. I have a general familiarity and if I had an opportunity to refresh my memory, but I haven't those exact figures with me, as to the total assets of Lone Star Gas Corporation, Texas Cities Gas Company, Municipal Gas Company, County Gas Company and the Dallas Gas Company.

Q. Now those all are affiliated companies, aren't they?

A. That is correct, and perhaps would have a more direct bearing upon this question than any other securities that are listed.

Q. Do you know for the West Virginia Gas Corporation, first sinking fund six and a half's?

A. No, I do not.

Q. Or the Ohio Valley Gas Corporation, first sinking fund six and a half's?

A. No, I do not.

[fol. 2263] Q. Or the Ohio Valley Gas Corporation, first sinking fund, six and a half's?

A. No, I don't.

Q. Or Wayne Gas Company first convertible sinking fund six and a half's, or do you know for Texas Gas Utilities, first exchangeable sinking fund sixes?

A. No, I do not know the details of the issue.

Q. Or Ohio Kentucky Gas Company, first sinking fund A six and a half's?

A. No.

Q. Or the Cities Service Company's first pipe line company five and a half's?

A. No.

Q. Or Cities Service Gas Company's first pipe line company sixes?

A. No.

Q. Do you know anything about the details of the issue of the Littlerock Gas & Fuel, refunding sixes?

A. No.

Q. Or Consolidated Gas & Electric Company, first and collateral sixes, and the convertible debentures six and a half?

A. No.

Q. You don't know about any of these gas company bonds then, except the Lone Star Gas Corporation or its affiliated companies?

A. Oh yes, I know what the bonds are selling for and approximately what they yield to the investor.

Q. Yes, but you don't know, do you Mr. Connor, what the [fol. 2264] investor is getting for his money. You don't know what the amount of the security is or what the value of the property is or what the securities are or what the earnings are, do you?

A. Yes, I said that I knew and in fact I have in my office a detail of the set up of each of the issues of the Dallas Gas Company, County Gas Company, Texas Cities Gas Company, Municipal Gas Company, and the debentures of Lone Star Gas Corporation. It would be a very easy matter to get the others, and just go to any of the manuals, Moody's or any one else, and pick out these securities and make the determinations you have suggested.

Q. All right now, you have listed the Municipal Gas Company's bonds, you say?

A. Yes.

Q. That is on your second sheet, isn't it?

A. That is correct.

Q. Municipal Gas Company, First A sixes. Is that a mortgage on the property of the Municipal Gas Company?

A. It is.

Q. A first Mortgage?

A. Yes, a first mortgage.

Q. What are those properties worth or what were they appraised as being worth at the time the mortgage was put upon them?

A. I think approximately Five Million Dollars.

Q. What was the amount of the mortgage?

A. I don't recall; it is approximately $1,800,000.00, I think.

[fol. 2265] Q. Are you sure about that?

A. Pretty sure, yes.

Q. Doesn't the indication here, First A Sixes, show there's more than one issue?

A. This is a first mortgage.

Q. Well, what does the A mean? Does that indicate that there was an A issue and probably a B and a C issue?

A. There are no other issues of bonds against the properties of Municipal Gas Company. These are the only bonds outstanding.

Q. You say that issue was for how much?

A. Approximately $1,800,000.00, and I think the issue was authorized for Two Million Dollars. It may be that they issued $1,900,000.00, but I do not think all of those bonds were issued. I can give you the exact details on each of those issues in the morning.

Q. What was the selling price on these bonds?

A. The last sale was at 94.

Q. I mean what was the selling price at the time they were originally marketed?

A. I do not recall at this time, but I have all this information in my notes.

Q. Who handled the loan?

A. I do not recall at this time.

Q. Was it a Texas company?

A. No, I think the bonds were sold in Boston.

Q. In Boston. You don't know what the selling price [fol. 2266] of the bond was or what the selling price to the broker was either?

A. No. It might have been that those bonds were issued for the purchase of property, and I think that was exactly what happened. I do not think there was any discount or brokerage on those bonds, except the incidental cost connected with the transfer. In other words, those bonds were not placed on the open market, as I recall.

Q. Now, this company is a distributing company, isn't it?

A. Yes, that is correct.

Q. And the Texas Cities Gas Company is also a distributing company is it not?

A. That is correct.

Q. And County Gas Company is a distributing company?

A. That is correct.

Q. And so is the Dallas Gas Company?

A. That is correct.

Q. Now, then, is there any connection between the bonds of distributing company and the bonds of pipe line companies, as to prices that each would be able to hold in the market?

A. Yes. There is a difference, I think.

Q. Suppose that the Lone Star Gas Company, which supplies gas to all of these companies, should accept the price at the city gate as provided by the order of the Railroad Commission, of thirty-two cents per thousand, for domestic gas. Wouldn't the market position of these bonds be immediately improved?

A. I don't know.

[fol. 2267] Q. Wouldn't the earnings of these distributing companies go up?

A. You mean if the Lone Star Gas Company delivered them gas at a lesser price?

Q. Yes.

A. Why certainly.

Q. And as soon as the earnings of the distributing companies went up, wouldn't people want those bonds more, and wouldn't the price of the bonds rise?

A. Well, I don't know that that would particularly stimulate those particular bonds.

Q. Why, Mr. Connor, isn't it a matter of common knowledge that if the pipe line company makes all the money, that the distributing company bonds will be in bad shape, and if on the other hand, the distributing companies are the ones that are allowed to make the money through the pipe line companies charging small rates, that this will result in the earnings of the distributing companies being more and that people will want those bonds of the distributing companies and the bonds will sell higher on the market?

A. Yes, as a matter of fact all those conditions that you are talking about, Mr. Fitzhugh, might transpire, theoretically at least, but the situation with reference to these specific securities, is this: that the earnings of the companies, the Dallas Gas Company, County Gas Company and the Municipal Gas Company and the Texas Cities Gas Company, taken in connection with the relatively small amount [fol. 2268] of the issues in question, has been such that the earnings have been sufficient to put those bonds in a good rating class. In other words, the interest on those bonds has been earned more than two times by these respective companies.

Q. Take the case of the Texas Cities Gas Company, first fives, which you show to have a last sales price of 55. Now these are about the worst bonds, so far as their market position is concerned, of any of the affiliated companies of the Lone Star Gas Company; isn't that right?

A. That is correct, and yet the interest on these bonds has been substantially earned by Texas Cities Gas Company.

Q. Now, in 1933, how many times interest requirements were the earnings of this company?

A. I don't know. I can furnish you with that information in the morning.

Q. Well, do you know it approximately?

A. I think it is approximately two times.

Q. Two times the interest requirements?

A. That's right.

Q. Now, suppose the rates at the gate for the Texas Cities Gas Company, at the various towns composing that company, were cut to allow it to earn four times its interest requirements; don't you know as a matter of fact that these bonds would shoot up in the market?

A. They would probably increase if they were put in a position to earn four times the bond interest requirements. [fol. 2269] Q. It is not your opinion, is it, Mr. Connor, that your company ought to be allowed to earn huge sums of money, when other companies of the same sort of business risk are making comparatively low amounts of money?

A. I think that hasn't anything to do with it.

Q. What are some of the comparable businesses?—Well, for example now, Mr. Connor, the oil pipe lines represent a business similar in many respects to the gas pipe line business; isn't that right?

A. That is correct. They transport a commodity by means of a round steel medium, but they have no relation one to the other as to the matter of the services they render. None whatever.

Q. Isn't it a fact, Mr. Connor, that some of the oil pipe lines operating in this section of the country where your company is operating its business, in 1932 were unable to make any return at all on their investments?

A. I don't think that has any bearing at all on what constitutes a fair return to Lone Star Gas Company.

Q. But that is a fact, isn't it?

A. Yes, and I imagine in some years some of those pipe lines earned fifty per cent on their investment.

Q. And a lot of other private businesses in this same section as your company operates had a hard time in making any money at all in these past years; isn't that correct?

A. That is correct; but it is not true that the State of Texas, through the Railroad Commission of Texas, will [fol. 2270] come to a private business when it is making a high return, and come along and reduce the sales price of the commodities of any private business.

Q. Are the oil pipe lines subject to any regulation in Texas?

A. I don't know to what extent they are subject to regulation, but I know that the private business you mentioned in making a comparison between Lone Star Gas Company and that private business, is not subject to regulation.

Q. And on the other hand, private concerns do not have the same guarantee as to constitutional immunities that you have, either, do they?

A. I don't know of any guarantee a public utility has, except that it may have a right to earn a fair return.

Q. And that with an allowance for all these depreciation reserves and operating expenses, and upon the fair value of its property, and everything else?

A. That is correct.

Q. Now, what are the considerations you say, Mr. Connor, that makes you decide that ten per cent is a correct amount for your company to earn?

A. Because it is fairly evident, looking over even the mortgages against the property, that the yield on natural gas pipe line mortgages is approximately ten per cent. Now, the yield on a mortgage for a property is the cheapest money that a company can get. Now, the thing which constitutes a fair rate of return is that rate of return which [fol. 2271] would induce people, without any duress, to come in and put their money into a business. Now if a person could get a mortgage on a natural gas pipe line business and the sum of money advanced for that mortgage only represented a part of the total value of the property, and he can get substantial interest rates on his money with that mortgage investment, substantially in excess of six per cent, then I can not conceive of any reason in the world why a man would take his money and go into a natural gas business, unprotected by a mortgage and expect to be limited to a six per cent return.

Q. Don't you think, Mr. Connor, that your company should share along with the general business distress that everybody has been under during the last few years, and take a little less return now than you ordinarily try to get?

A. I think Lone Star Gas Company has suffered, and I think every operating statement of the last four years clearly indicates that they have suffered.

Q. You are still making a comfortable return, aren't you?

A. No.

Q. What do you call a comfortable return—a full ten per cent?

A. I think the company is entitled to that, but when it is restricted to a rate of return which is actually equal to what it has to pay to get a small portion of the total money invested in that property—in other words, merely swapping dollars—and in that case, not in the open market, but by means of the Lone Star Gas Corporation, I think Lone Star Gas Company could not get six per cent money in the open [fol. 2272] market today if it had to do any financing whatever, and yet the rate of return fixed by the Railroad Commission is less than that rate of interest which Lone Star Gas Company would have to go out and pay on a first mortgage of its property.

Q. Mr. Connor, don't you think, in view of the hardships of the last few years, that have hit the people of Texas, that a six per cent return ought to satisfy your company for at least these years?

A. I do not think six per cent is a fair and reasonable return for money invested in a public utility subject to public regulation and surrounded by the hazards that are inherent in the natural gas business, no sir; because just as truly when prosperity comes, this return to this utility is going to be likewise depressed below that which ordinary business secures, and that is clearly indicated by the rate of return allowed the Fort Worth Gas Company by the Texas Railroad Commission in the era of the greatest prosperity.

[fol. 2273] Q. Now, at the time the Railroad Commission had this hearing, Mr. Connor, the market was all shot to pieces, wasn't it?

Mr. Griffith: What market, Mr. Fitzhugh?

Q. The market for securities that Mr. Connor knows so much about.

A. I say that the market has been unsettled for sometime.

Q. Those Texas Cities Bonds now selling at 55, at the time of the Commission's hearing were selling at 32, weren't they?

A. I know it got pretty low.

Q. And all these other bonds were down proportionately?

A. No; the yield on the artificial gas bonds and the electrical bonds was about the same now as then.

Q. Well, that is only on the most stable ones—the ones recognized as being in the best shape?

A. And perhaps in the best business.

Q. And on all these speculative or semi-speculative bonds the yields were considerably in excess of what they show in your exhibit?

A. No; I don't think so. I would have to get a copy of the other exhibit and make a comparison.

Q. All right. Now, on these Texas City Gas Company bonds the present yield to maturity is about how much?

A. Oh, I would say about 11½ per cent—in that neighborhood.

Q. At 32, what was the yield?

[fol. 2274] A. Probably about fourteen, or twelve per cent.

Q. More than that, wasn't it?

A. Well, I don't know.

Q. Wasn't in excess of twenty per cent to maturity?

A. Yes; taking into consideration the coupon yield itself, that is true.

Q. In spite of the fact that a number of bonds of that same nature had yields way up twenty per cent or more, your testimony before the Railroad Commission then was that ten per cent was the yield your Company should have, wasn't it?

A. Yes; I think that always a natural gas pipe line company engaged in the production and transportation of natural gas should be permitted to earn, if it can do so at reasonable rates, not less than ten per cent per annum.

Q. Now, since the yield on securities in the market has been materially reduced since you testified before the Railroad Commission, you still ask for the same rate of return, don't you?

A. Yes; and I testified before the Railroad Commission, if you recall, that I did not at that time give any consideration to those unusual conditions which, if applied strictly to the situation then existing, would indicate that a higher yield than ten per cent would be justified in order to attract capital into the business.

1451

[fol. 2275] Redirect examination.

Questions by Mr. Griffith:

Q. Mr. Connor, in connection with your testimony on cross-examination, regarding your depletion allowance, as set forth in Exhibits 41 and 42, respectively, you made some reference to the falling off of the gas supply from the casinghead gasoline plants in the East Texas area?

A. That is correct.

Q. I will ask you if the residue gas from the casinghead plants in the West Texas area has been a considerable source of gas supply to the Company since 1923 or 1924?

A. It has. Beginning in 1923 Lone Star Gas Company secured its first deliveries of residue gas from casinghead plants—secured that supply in the latter part of the year and it was relatively small, 186,682,000 cubic feet. In 1924 that had increased to 11,699,183,000 cubic feet. It reached a maximum in 1927 of 17,643,453,000 cubic feet, or 47.23 per cent of the total gas purchased and/or produced by Lone Star Gas Company during that year.

Q. What is the situation today, and what situation has prevailed in the last year or so, relative to the volume of casinghead gas from casinghead gas plants, which is available to Lone Star Gas Company?

A. There has been a very substantial decline in the volume of casinghead residue gas available to Lone Star Gas [fol. 2276] Company. During the period of time at which Lone Star Gas Company first secured its casinghead supply there have been a few plants which have been continuously attached to the system. There have been other plants which have been added to the supply, and have, therefore, maintained the amount of supply available out of relation to the decline which has taken place in the casinghead gas supply. The casinghead gas supply, based upon an actual picture of the decline of the plants which have remained in service, and which constitute approximately 95 per cent of the maximum deliveries which the Lone Star Gas Company once secured from casinghead plants, has declined from 100 per cent in the year 1925 to 31 per cent relatively in 1932.

Q. Now, Mr. Connor, what does that indicate in respect of the future source of gas supply available to the company's lines and pipe line system?

A. It indicates, after a study of the history of the production of each casinghead plant available to Lone Star Gas

2541

Company, which investigation took into account the production from individual wells and leases from the date of their maximum production until the date of the investigation, together with the percentage of the gas which Lone Star Gas Company might secure from these plants, because Lone Star Gas Company cannot secure 100 per cent of the total production of the wells—certainly, in view of the amount lost in the production of gasoline, percentage returned to [fol. 2277] lease, and so forth; but it is a very clearly defined decline, which can be set out with almost mathematical exactitude, that within a period of time not far in the future Lone Star Gas Company will be without a source of supply which in the past has furnished it almost fifty per cent of its total requirements, and as much as seventeen billion feet of natural gas.

Q. And is that one of the factors that you have taken into consideration in determining that over a period of years in the future Lone Star Gas Company will produce twenty billion cubic feet of gas per annum from its own reserves?

A. That is correct. Lone Star Gas Company has got to supplement a source of supply which has furnished as much as seventeen billion cubic feet of its past supplies; and that calculation is based upon, as I said before, analysis of every plant which produces casinghead gas and furnishes residue gas to Lone Star Gas Company. The decline curves for each individual group of wells, and each individual group of leases, has been worked out from the date they went into operation until the date of the investigation.

Q. Mr. Connor, did you make any checks on your determined mortality curves in connection with steel pipe, and did you make any calculations reflecting the actual as against the calculated replacements, abandonments, retirements, and removals of steel pipe?

A. I did.

[fol. 2278] Q. Is that set forth in Defendant's Exhibit 42?

A. That is correct.

Q. At what page?

A. It is set out at various sections in the report, beginning at page 99 and extending through page 138. However, summarizing the results of the various checks the following facts are developed: That if Lone Star Gas Company's pipe had been replaced, and its main lines, tap lines, field lines, and well lines, in conformity with the calculated replace-

ments, removals, and abandonments, which I have set out in this exhibit, there would have been replaced, removed, or abandoned in the system of Lone Star Gas Company from the year 1910 through the first six months of 1933, 8,088,591 feet of 3-inch equivalent diameter pipe. That is the footage of pipe which would have been removed, replaced, and abandoned, if no history was available, and the replacements, removals, and abandonments had followed exactly the calculations which I have made.

Q. What were the actual historical mortalities, or the historical removals, retirements, and abandonment of steel pipe in the system from 1909 to July 1, 1933?

A. 8,130,290 feet of equivalent 3-inch diameter pipe.

Q. In other words, the actual removals were in excess [fol. 2279] of the removals you had calculated?

A. They were almost exactly the same.

Q. But the actual removals were slightly in excess?

A. That is correct.

Q. Now, Mr. Connor, sometime this afternoon, Mr. Fitzhugh asked you to make a calculation showing a detail of some factors which you had set forth in your Exhibit 18, and the factor used was 1.18 per cent?

A. That is correct.

Q. Will you now explain to the jury and to Mr. Fitzhugh just how you arrived at that calculation?

A. Yes. It was not 1.18 per cent; it was 118 per cent, Mr. Griffith. I determined that of a number of pipe line installations on which I had the actual cost involving the expenditure of more than four and a half million dollars pipe and fittings in the line constituted 64 per cent of the total cost. I previously estimated or determined from analysis, of all these jobs of smaller replacements of pipe—small and large—that these cost about 150 per cent of the estimate of wholesale construction to actually replace pipe in small lots and in small sections, and under the conditions which would have to be overcome in connection with that class of work. Therefore, 64 per cent of 100 per cent, or 64 with reference to 100, becomes 42.7 with reference to 150; and that is merely determined by dividing 64 by 150; you then get 42.7. [fol. 2280] I then estimated that the worth of material taken out of pipe lines by reason of the fact that the pipe was no longer any good would still be worth 50 per cent of new. Therefore, if it was worth 50 per cent of new, it would

be worth one-half of 42.7, or 21.35 per cent of the entire cost of the job. Well the entire cost of the job is 100 per cent; so subtracting 21.35 from 100 per cent, I get 78.65 as the factor to apply to 150 per cent. Multiplying 78.65 by 150 and you get 117.970. I used 118.

Q. And that is the figure used and adopted by you in Defendant's Exhibit 42?

A. That is correct.

Q. Mr. Connor, is the public service plant and property of the Lone Star Gas Company relatively old or new?

A. Relatively new.

Q. Well, now, you make that statement in spite of the fact that the company has had a corporate existence commencing in 1909?

A. That is correct.

Q. Well, then, how can the property be relatively new?

A. Because the amounts of property which have been added in recent years is greatly out of proportion to the amount of property originally constructed. A very large per cent of the Lone Star Gas Company's pipe line system, compressor system structures, and other appurtenant equip-[fol. 2281] ment, has been built within very recent years.

Q. Mr. Fitzhugh suggested to you that the determined replacements on a relatively new property would not be as great as on a relatively old property, and you concurred in that statement?

A. That is correct.

Q. Mr. Connor, if we took an automobile that cost $1000, and it was known that that automobile would go 100,000 miles and then be junked or salvaged, what straight line depreciation would you charge per mile on that automobile?

A. One thousand dollars——

Q. And one hundred thousand miles.

A. One cent a mile.

Q. One cent a mile. Now, in the first ten to twenty thousand miles of the life of that automobile, would it be expected that there would be replacements of parts of that automobile which would consume the depreciation allowance of one cent per mile?

A. No; there would not.

Q. As a matter of fact, there probably would not be any material replacements in the early life of that automobile?

A. That is correct.

* * * * * * *

[fols. 2282-2283] Q. Well, would it be reasonable to assume that the retirance of the automobile at the end of the 100,000th mile would be made upon some basis which did not presuppose that the depreciation accrual would commence with the first mile that the automobile traveled?

A. Oh, that is correct, yes.

Q. And would that be true so that at the end of the 100,000th mile the cost of the automobile would be returned to the owner less any salvage or trade-in value?

A. That is correct.

* * * * * * *

[fol. 2284] Q. Mr. Connor, please refer to Defendant's Exhibit 43. In the several columns stating the maturity date as set forth in that exhibit, commencing, for example, with Allegheny Gas Corporation, the figure "43" appears?

A. That is correct.

Q. Do all of the numbers appearing under maturity date in that exhibit have reference to the present century—that is, should there be a figure "19" in front of each one of those numbers?

A. That is correct, with the sole exception found on the last page where the maturity date is 2022.

Q. In connection with the debentures of Texas Power & Light Company?

A. That is correct, yes, sir.

* * * * * * *

[fol. 2284-A] Reporter's certificate to foregoing transcript omitted in printing.

[fol. 2285] Ed. C. Connor, resumed his testimony and testified as follows:

Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Connor, assuming that you are correct, that the withdrawals will be in a yearly amount of about twenty billion cubic feets of gas per year, and assuming the 20-year period taken by Mr. Hulcy in his exhibit, that would show

that there would be about 40,000,000,000 cubit feet of gas withdrawn in the 20-year period, would it not, or rather——

Judge Powell: Four hundred billion.

Q. Yes, four hundred billion cubic feet.

A. My estimate, Mr. Fitzhugh, would show that the withdrawals would deplete the reserves in slightly less than [fol. 2286] twenty years, and at the rate of twenty billion cubic feet a year.

Q. Well, twenty billion cubic feet would be about four hundred billion cubic feet in twenty years.

A. It would be something less than twenty years. I approximated twenty billion feet a year because the reserves—the calculated reserves do not equal four hundred billion; they are slightly less than that.

Q. Well, it would work out about 386,000,000,000 cubic feet for the period, would it not?

A. That is correct; and the period would be slightly less than twenty years.

Q. Now, then, assume, Mr. Connor, that you were selling 400 bales of cotton, instead of gas, and that you were going to sell those 400 bales as they were produced during a 20-year period at the rate of about 20 bales per year. Applying the same method to the sale of these bales of cotton, you would assume that on the first sale for the first of the 20 bales the entire amount for the purchase of the whole 400 bales would be paid, would you not?

A. No, I don't think that the purchaser of the property would—the purchaser of natural gas delivered by Lone Star Gas Company is not making specific contributions to the various operating expenses of the Company; he is simply [fol. 2287] paying for the service rendered by Lone Star Gas Company, and what I was endeavoring to do was to distribute the costs of that service uniformly over the period of time in which the particular part of the property represented by gas well construction and equipment would be used up in the service.

Q. Well, if my illustration is bad, then I will change it, Mr. Connor. Suppose that you were to purchase these 400 bales in equal installments through a 20-year period—that is, 20 bales a year,—then your installments would be equal throughout the life of the contract, so to speak, would they not?

A. That is correct, yes.

Q. But instead, if you only took three the first year, four the second year, and six the third year, there would be some sort of readjustment in the last few years to take up the difference between that amount and twenty, would there not?

A. Naturally, the average would be the figure which would determine under those conditions.

Q. But, now, by analogy, if you used the same method as you have used on the consumption of gas, regardless of how many bales were taken in the first few years, they would pay for the full twenty, would they not?

A. That is correct, under your assumption.

Q. In other words, you are only taking five or six billion [fol. 2288] cubic feet now, but you assume, nevertheless, that they are taking twenty billion, for the purposes of your computation?

A. That is correct. However, Mr. Fitzhugh, this factor is to be taken into consideration, that the method that I was using was the only one which appeared to me to be the rational one to recover the cost of gas well construction and equipment. Now, as a matter of fact, the actual gas wells which Lone Star Gas Company has had to abandon during the last few years and the prospects of the wells which they will actually have to abandon during the few years that we can really anticipate the rate of abandonment of wells would indicate a capital loss substantially in excess of the calculation made upon the basis which you have suggested—that is, applying the ratable deliveries to the unit costs; in other words, the actual loss of gas well construction and equipment which this reserve accrual is intended to cover will be considerably greater during the next few years, even with the lower rates of delivery, than the twenty billion——

Q. Well, you could have——

A. —than the exact application of the deliveries to the unit costs; and after all, what we are trying to do is to develop an accrual which will pay for that capital loss.

[fol. 2289] Q. Well, Mr. Connor, you could have adopted some method, could you not, that would have made the present consumer pay only for the actual consumption of gas at this present time, could you not?

A. That is correct; that is true of all costs of operation, however, Mr. Fitzhugh, which include reserve accruals for

other purposes; and reserve accruals are not, to my knowledge, ever calculated or set up upon that basis.

* * * * * * *

E. F. SCHMIDT, a witness for defendant, having been duly sworn, testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. What is your name?
A. E. F. Schmidt.
[fol. 2290] Q. Where do you live?
A. Dallas, Texas.
Q. In what business are you engaged?
A. I am in the business of transporting and selling natural gas.
Q. Are you identified or connected with the defendant, Lone Star Gas Company?
A. I am General Superintendent of the Lone Star Gas Company.
Q. How long have you been General Superintendent of Lone Star Gas Company?
A. About ten years.
Q. How long have you been employed by or identified with the operations of the Company?
A. Since April, 1918, or approximately sixteen years.
Q. Are you an engineer, Mr. Schmidt?
A. I am.
Q. Are you a graduate of any accredited Engineering School?
A. Yes, I am a graduate of Cornell University, at Ithaca, New York.
Q. Did you receive a degree from that institution?
A. The degree of Civil Engineering.
Q. Mr. Schmidt, will you please relate to the jury, in a general way, what has been your experience in the natural [fol. 2291] gas business?
A. I started in the natural gas business in 1912, in West Virginia, particularly at that time on inventory work—

that is, valuation of gas properties. I spent about a year and a half in West Virginia, and then made a complete——

* * * * * * *

A. I spent about a year and a half in West Virginia, and then spent about two years in Toledo, Ohio, making a complete inventory survey of the City of Toledo's gas properties. From there I went to Pennsylvania and made a valuation of the Fayette County Gas Company.

Q. Doing business at what place?

A. Well, the principal points of business were Uniontown and Connellsville, but all through that part of Pennsylvania; from there I went to Columbus, Ohio, and for a number of years was in the Engineering Department of the Ohio Fuel Supply Company.

Q. What was the Ohio Fuel Supply Company?

A. The Ohio Fuel Supply Company operated through Ohio, supplying the cities—the principal cities of Columbus, Cincinnati, Zanesville, and a large number of smaller towns through Ohio.

Q. Was it a large natural gas producing, transporting and [fol. 2292] distributing company?

A. At that time one of the largest, if not the largest.

Q. What was the general nature of your work in the Engineering Department of the Ohio Fuel Supply Company?

A. I had charge of well locations and surveys for new transmission lines, and quite a little inventory work. From the Engineering Department I was transferred to the Gas Measurement Department at about the time that the orifice meter came into use, and had quite a little to do with the development of the differential gauge used for the transmission of large volumes of gas by an orifice meter.

Q. The method which is now utilized?

A. Yes, sir. At the same time, while in connection with the measurement work, I experiment- a great deal with the methods in use at that time for determining the specific gravity of gas, and in connection with Mr. P. McDonald Biddison and T. H. Kerr, and the Bureau of Mines, we developed an apparatus for the accurate determination of specific gravity.

Q. By what name is that apparatus known?

A. Of course, it is called now by various names, but at that time it was called the Edwards Gas Density Balance.

Mr. Edwards had charge of the Department of the Bureau that conducted the investigations.

[fol. 2293] Q. When you refer to the Bureau of Mines, do you mean the Bureau of Mines of the United States?

A. Yes, sir. The first instruments that were made I had a great deal to do with, and one of these instruments was used in the Bureau of Mines laboratory in Washington, for making determinations of specific gravity for a number of years, until the apparatus was improved further. The apparatus now can be purchased from a number of manufacturers, the principal one being known as the Acme——

* * * * * * *

Q. Mr. Schmidt, in what further work were you engaged while connected with the Ohio Fuel Supply Company?

A. I laid out their compressor stations and gasoline plants and gasoline drying plants.

Q. And by laying them out, do you mean you designed [fol. 2294] and supervised the construction of such?

A. Yes, sir.

Q. Now, does that generally detail the nature of the work that you did while you were with the Ohio Fuel Supply Company?

A. That is correct.

Q. When did you come to Texas?

A. April, 1918.

Q. April, 1918, and did you go to work immediately for the Lone Star Gas Company?

A. I did.

Q. In what capacity?

A. At that time the Lone Star Gas Company had decided to put in a main line measuring system for the measurement of gas flowing through the main lines at various points through the system, and I had charge of picking the locations and the installation of these high pressure main line measuring stations, and at the same time had charge of the Gas Measurement Department, which computed the—all of the measurements made by the Lone Star Gas Company, city gate deliveries, industrial measurements, and main line measurements.

Q. Following the completion of that work, in what work did you engage?

A. Well, it was soon after that that Lone Star Gas Company began to expand its system, and I became Chief Engi-
[fol. 2295] neer of the Company, and had charge of the surveys and laying out of the various lines going to points of distribution throughout the System, and charge of the construction of these lines as they were built.

Q. You state that you became General Superintendent of the Company about ten years ago?

A. About nine or ten years ago, yes, sir.

Q. Now, since you have been General Superintendent of Lone Star Gas Company, what has been the general nature of the work which you have been called upon to perform?

A. Well, of course, in the beginning some of the lines that I refer to that were built in the expansion of our System, I was Superintendent during that time, and I had charge of the operation of these lines, the operation of the gasoline plants, the operation of the compressor stations, and the measurement of the gas throughout the System.

Q. Mr. Schmidt, from your general experience and from your particular experience in connection with the operation of the Lone Star Gas Company, would you say that you are familiar with all of the ramifications of the Company's business, in so far as construction and operations are concerned?

A. I am.

[fol. 2296] Q. Mr. Schmidt, is the Lone Star Gas Company engaged in the transportation of gas from and through the State of Oklahoma into the State of Texas?

A. They are.

Q. Have you prepared a compilation covering a period of years showing the amount of gas transported from and through the State of Oklahoma and into the State of Texas?

A. I have.

Q. Is this the compilation to which you refer?

A. It is.

Mr. Griffith: We offer the compilation so identified by the witness in evidence.

(Thereupon the compilation above referred to was marked for identification as Defendant's Exhibit No. 44.)

Q. Mr. Schmidt, please refer to the first page of Defendant's Exhibit 44. What do you show on that page?

A. The first page is a summary—five year summary of

gas transportation in the Lone Star Gas Company system, beginning with the year 1929, through the year 1933.

Q. When you state "Transported from and through Oklahoma", or in the column so headed, do you specify the amount of gas expressed in thousands of feet which have been transported from the Company's pipe lines, or in the Company's pipe lines, from the State of Oklahoma into the State of Texas?

A. That is correct.

Q. Does that cover and include such gas as is transported [fol. 2297] through Oklahoma from the Shamrock Field in Texas?

A. It does.

Q. Or from the Texas Panhandle area?

A. That is correct.

Q. Under the column headed "Total Transported", do you show the total amount of gas transported in the entire pipe line system of Lone Star Gas Company, regardless of the origin of the gas?

A. I do.

Q. And in the column headed "Per cent Transported thru Oklahoma", do you show the percentage relation of gas transported from and through Oklahoma to the total amount of gas transported originating from every source?

A. That is correct.

Q. At the bottom of page 1 you show "Weighted Average Per cent Transported thru Oklahoma"; what do you mean by Weighted Average Per Cent, shown to be 28.9 per cent?

A. That is the weighted average for the five-year period, arrived at by dividing the total gas transported from and through Oklahoma into Texas by the total gas transported for the five-year period on the entire system, showing 28.9 per cent.

Q. Refer please to page 2 of Defendant's Exhibit 44, where a schedule for the year 1929 appears to be shown, and please give us an explanation of the subject-matter appearing on that page.

[fol. 2298] A. This data indicates the amount of gas produced in the Oklahoma fields proper, and each field is enumerated separately; that is the Chickasha and Nellie Field, showing 2,981,876,000 cubic feet for the year 1929; the Duncan Field, 936,554,000 cubic feet; the Loco Field, 474,937,000 cubic feet; the Fox Field, 3,393,734,000 cubic feet; the Rob-

berson Field, 997,965,000 cubic feet; or a total from the Oklahoma field, produced and purchased, of 8,785,166,000 cubic feet.

Q. Now, Mr. Schmidt, are all of these fields,—that is, the Chickasha and Nellie, the Duncan, Loco, Fox, and Robberson fields—located in the State of Oklahoma?

A. They are.

* * * * * * *

[fol. 2299] Q. Now, Mr. Schmidt, will you please show to the jury by reference to the map which has been introduced in evidence, and styled Defendant's Exhibit 29, the general route of travel of the gas produced and/or purchased by the Lone Star Gas Company in these several gas fields?

A. From the Fox, Loco, and Robberson area, in Stephens and Carter counties——

Q. And also from the Palacine Field?

A. Yes—gas travels in a southeasterly direction through Line G through Carter and Love Counties, leaving the State of Oklahoma and coming into Texas at a point north of the city of Gainesville. The gas from the Duncan Field and the Chickasha Field, in Stephens County——

Q. Also the Nellie Field.

A. —and the Nellie Field, travels in a southerly direction through Cotton County, Oklahoma, crossing the state line at a point north of Petrolia, Texas, coming into the lines [fol. 2300] that feed from there into the various lines of the Lone Star Gas Company in Texas.

Q. What are the lines through which gas is transported from the Chickasha, Nellie and Duncan fields into the State of Texas, to a point which you say is near Petrolia, Texas?

A. Lines H and 2nd H.

Q. Are those two 12-inch lines?

A. Those are two twelve-inch lines.

Q. Are they high pressure pipe lines?

A. They are.

Q. You referred to Line G running in a southerly direction through Carter and Love Counties in Oklahoma and coming into Texas at a point north of Gainesville; what size line is that?

A. A 16-inch high pressure gas line.

Q. Now, Mr. Schmidt, in addition to this gas which has been transported from Oklahoma into the State of Texas

through the pipe line system of the Lone Star Gas Company, is any other gas transported through the State of Oklahoma and then into the State of Texas?

A. There is.

Q. Where does that gas originate?

A. That gas originates in Wheeler County, Texas, or in the Panhandle of Texas.

Q. Sometimes referred to as the Shamrock area?

A. The Shamrock area, yes, sir.

[fol. 2301] Q. And what is the general route of travel of that gas?

A. That gas leaves the field going in a southeasterly direction, entering the State of Oklahoma, in Beckham County, traveling south through Oklahoma, leaving the State of Oklahoma and coming into Texas at a point northwest of Quanah, Texas. This gas is transported through Line A, which is an 18-inch high pressure gas line.

Q. And where the line re-enters the State of Texas near Quanah, what is the general route of the line following its re-entry into Texas?

A. In a general southeasterly direction through Vernon, and Wichita Falls, to Petrolia, Texas, where it joins the lines from the Chickasha, Duncan, and Nellie Fields, and is transported from there on south to Fort Worth and Dallas and other communities.

Q. If we refer to page 2 of Defendant's Exhibit 44, it is noted that you show the total Oklahoma deliveries in the amount of 726,990,000 cubic feet for the year 1929?

A. Yes, sir.

Q. And you make a reference to a note at the bottom of the page?

A. Yes, sir.

Q. What do you mean by the total Oklahoma deliveries?

A. That figure of 726,990,000 represents the gas sold in Oklahoma city gate deliveries and towns enumerated in the note at the bottom of the page, Note I, as well as main line [fol. 2302] sales, and fuel used at the Loco, Fox and Gas City compressor stations.

Q. Does the Lone Star Gas Company sell gas wholesale at the city gates of the various towns and cities which are enumerated in Note I at the bottom of the page, showing gas transported for the year 1929?

A. They do.

Q. In exactly the same manner it sells gas wholesale at the city gates of numerous towns and cities in the State of Texas?

A. That is correct.

Q. Mr. Schmidt, again referring to page 2 of Defendant's Exhibit 44, you show the net amount of Oklahoma gas transported into Texas. Is that amount, which is 8,058,176,000, obtained by taking the total production and purchases of gas in the Oklahoma fields and deducting from that amount the total deliveries in Oklahoma of the Oklahoma gas produced and/or purchased?

A. That is correct.

Q. Now, you have just identified on the map styled Defendant's Exhibit 29 the Shamrock area, and you have shown the total amount of gas produced and/or purchased by the company in the year 1929 in the Shamrock area of Wheeler County, Texas?

A. That is correct.

[fol. 2303] Q. Do you next show under the year 1929, the gas transported by Lone Star Gas Company, the amount produced and/or purchased in the Shamrock territory?

A. I do, in the amount of 7,044,965,000 cubic feet.

Q. Now, was any of that gas transported by the Company from the State of Texas into the State of Oklahoma and there sold?

A. There was.

Q. And do you account on this page for those sales?

A. I do.

Q. In note 2 at the bottom of the pages?

A. Yes, sir; that sets out the towns in Oklahoma who were supplied with gas from the Shamrock area.

Q. Now, in connection with some of those towns, Mr. Schmidt, was the gas transported through Line A from the State of Texas into the State of Oklahoma, out of the State of Oklahoma, and into the State of Texas, and thence back into the State of Oklahoma?

A. That is correct.

Q. In respect of what towns?

A. Davidson, Frederick, Tipton, and Snyder.

Q. Now, what was the total of deliveries of Shamrock gas in Oklahoma which was transported through Line A, as shown by page 2 of the Exhibit?

A. 379,351,000 cubic feet.

[fol. 2304] Q. By deducting that amount from the total of gas produced and/or purchased in the Shamrock area do you get the net amount of Shamrock gas transported through the State of Oklahoma?

A. Yes; in the amount of 6,625,614,000.

Q. By adding that net amount to the total of the net amount of Oklahoma gas produced and/or purchased and transported into Texas, do you then get 14,683,790,000 cubic feet, as representing the total amount of gas transported by the Company from and through the state of Oklahoma into the State of Texas?

A. That is correct.

Q. You then show the total amount of gas transported from all sources?

A. Yes, sir.

Q. During the year 1929, in what amount?

A. 44,625,913,000.

Q. Now, what was the per cent relation of the total amount of gas transported from and through Oklahoma to the total amount of gas transported from all sources?

A. In the year 1929, 32.9 per cent.

Q. Mr. Schmidt, in a manner similar to the manner in which you have prepared the compilations appearing on page 2 of Defendant's Exhibit 44, covering the 1929 operations of the Company, have you prepared a statement showing the gas transported by the Company for the years 1930, 1931, 1932, and 1933?

A. I have.

Q. And is that information so compiled set forth in consecutive order in Defendant's Exhibit 44?

[fol. 2305] A. That is correct.

Q. Then you have carried over to page 1 of Defendant's Exhibit 44 the summarized calculations?

A. That is correct.

Q. Now, Mr. Schmidt, refer, please, to the map which appears at the close of Defendant's Exhibit 44. Does that map disclose the pipe line system of the Lone Star Gas Company?

A. It does.

Q. Please explain the colored markings upon this map.

A. The yellow line on this map — the Oklahoma-Texas border line. The red lines indicate the pipe lines transporting gas from Oklahoma into Texas or from Texas through Oklahoma into Texas. The towns in Texas which are cir-

cled in red are cities and towns in Texas which received their gas wholly from the Shamrock area, or a mixture of gas from Shamrock, Texas, and Oklahoma gas, during the year 1933.

Q. And may they also receive a mixture of gas from the Central West Texas area?

A. That is correct.

Q. But do all of the towns which are circled in red—did all of those towns receive gas during the year 1933 which was transported by the company from or through the State of Oklahoma into the State of Texas?

A. That is correct. They all do.

Q. In the usual course of operations of the company are there any towns which are exclusively or wholly supplied with gas which has been transported by the company from the Wheeler County area or the Shamrock territory through [fol. 2306] the State of Oklahoma and into the State of Texas?

A. There are.

Q. Will you please enumerate those towns or cities?

A. Chillicothe, Tolbert, Vernon, Oklaunion, Harrold, Electra, Iowa Park and Wichita Falls.

Q. In the usual course of the company's operations and at the present time are there any towns supplied with gas which is purchased wholly—or exclusively supplied with gas which is purchased and/or produced by the company in the Carter, Loco, Robberson, Fox and Palacine fields?

A. Towns on the line known as G-3, which takes off of Line G at a point just north of Gainesville, are supplied usually from gas produced and purchased in the State of Oklahoma.

Q. Transported through Line G through Jefferson, Carter and Love Counties into the State of Texas?

A. That is correct.

Q. What are those towns?

A. Those towns are: Saint Jo, Muenster, Myra, and Lindsay.

Q. Is there any other town?

A. Yes; the towns of Petrolia and Byers, on the H. System, get their gas almost exclusively from Oklahoma, transported from Oklahoma into Texas on the H System.

Q. Through what lines?

A. Through Lines H and Second H.

Q. What is the usual and ordinary source of supply of gas for the City of Gainesville?

A. Gainesville gets a mixtures of gases, sometimes wholly [fol. 2307] from Oklahoma and sometimes almost one hundred per cent from the Central West Texas fields.

Q. At the present time is the City of Gainesville and for quite a period of time has the City of Gainesville been receiving gas which has been wholly produced in the State of Oklahoma?

A. That is correct.

Q. Now, all of the towns which are circled in red and which are south or east of Petrolia, Texas, may at some time or other receive substantially all of their gas from the Oklahoma gas fields?

A. That is correct.

Q. Or from gas which has been produced and/or purchased by the company in the Wheeler or Shamrock territory?

A. That is right.

Q. But which has been transported through the State of Oklahoma and back into the State of Texas?

A. That is correct.

Q. At any time are the cities of Dallas and Fort Worth exclusively supplied with gas transported from the State of Oklahoma?

A. No, they are not.

Q. They are not?

A. No, sir.

Q. Those cities receive at any time only a part of the gas transported from or through Oklahoma into the State of Texas?

A. That is correct.

Q. Mr. Schmidt, will you please relate to the jury gener- [fol. 2308] ally how gas travels from the well to the city gate station where a wholesale delivery is made by the Lone Star Gas Company?

A. The gas is taken from the well at high pressure and transported through the lines at high pressure to the city gate delivery points. At those points the pressure is reduced through regulators which are devices for automatically carrying and reducing the high pressure to a lower pressure, and at the discharge side of these regulators the gas is measured, and that measurement is the total gas delivered to any particular city. The pressures in the field at

the wells and in the pipe lines may vary from 300 to 450 pounds, and at the inlet of the regulators at the city gate stations the pressure varies, depending upon the location or distance of those towns from the source of supply. That pressure will vary from 150 to as high as 300 pounds, or in some cases 350 pounds. The gas travels uninterruptedly from the wells to the delivery points at the city gates.

Q. To what pressure is the gas transported in the high pressure pipe lines of the company reduced at the city gate measuring stations and for what purpose is that reduction in pressure made?

A. The pressure is reduced at those city gates stations through the regulators to a pressure there of twenty-five or thirty pounds. This is done in order to supply gas at a [fol. 2309] pressure which is safe to transport it through the city lines, the city distribution system, and it is done to accommodate the distribution plants in their operations.

Q. And it is done solely for that purpose, in so far as the Lone Star Gas Company is concerned?

A. That is correct.

Q. Where does the title to the gas pass out of or from the Lone Star Gas Company to the local distributing company at the city gate measuring station?

A. At the outlet of the meter, which is usually the outlet header of the orifice meter measuring station.

Q. Is there ever any period of time, Mr. Schmidt, when the gas transported by the company from and through the State of Oklahoma in its high pressure pipe line, when that forward movement of the gas is arrested?

A. There is not.

Q. What is the last act of the Lone Star Gas Company in connection with the actual delivery of the gas by it at the city gate to the local distributing company?

A. The measurement of the gas is the last operation.

* * * * * * * *

The Court: Mr. Schmidt, I think I understood some one—[fol. 2310] I don't remember who it was—to say that sometimes gas is moved north through your line into Oklahoma and at other times moved south from Oklahoma into Texas. Is that correct?

A. Well, that could happen, Judge, under very unusual conditions.

The Court: Well, does that happen? I thought I understood it, but maybe I misunderstood it. I am not saying that anybody did say it.

A. I can't say that it ever happens. I don't believe so.

The Court: All right. I may have misunderstood it.

Mr. Griffith: I think I know what the Court has in mind.

Direct examination resumed.

Questions by Mr. Griffith:

Q. Mr. Schmidt, refer, please, to the map introduced in evidence, styled 29. If you refer to the line running north from Denison, Texas, to Durant and Caddo, Oklahoma, is gas moved forward from the State of Texas into the State of Oklahoma to supply Durant and Caddo, Texas.

A. That is correct.

Mr. Fitzhugh: You said Caddo, Texas.

Mr. Griffith: I meant Caddo, Oklahoma.

Q. Gas also moves north in the company's pipe line system in the State of Texas to a point near Paris, Texas, into the State of Oklahoma, to supply the town of Hugh? [fol. 2311] A. That is correct.

The Court: Now, so everybody will understand me, I understand you to say now, so far as you know, there is no line in which and through which gas some days moves south into Texas and on other days in the same line is moved north into Oklahoma?

A. That is correct.

Q. Of course, in the case of a line break or an emergency gas can be transported north through the pipe lines?

A. Yes; it can move in any direction in the case of an emergency.

Cross-examination.

Questions by Mr. Fitzhugh:

Q. Now, Mr. Schmidt, the line of Texas gas from Wheeler County, Texas, the Shamrock field, south to supply the towns of Wichita Falls, Dallas and Fort Worth and other towns in Texas is known as Line A?

A. That is correct.

* * * * * * *

Q. Now, then, the most direct route from the center of the Shamrock field to intersect the lines of the company near Quanah, Texas, would not pass through the State of Oklahoma, would it?

A. I think it would.

Q. It would?

[fol. 2312] A. Yes, sir.

Q. Show on the map here how you think that direct route would ever pass through the State of Oklahoma?

A. From the east part of Wheeler County to Quanah you can take it in the most direct line and it will cut through the corner of Oklahoma.

Q. Here is the corner of the State of Oklahoma, isn't it?

A. Yes, sir.

Q. A line could be constructed to intersect the line at about this point north of Quanah that would cut the center of the Wheeler County field and take a direct route without passing through the State of Oklahoma?

A. No, the straight line you drew cuts into Oklahoma; you are cutting it now.

Q. Well, it could very easily miss the corner of Oklahoma?

A. No, sir, not with the excavating we would get on that line, which I will be glad to explain.

Q. You are acquainted with all this country in Texas here (indicating on map)?

A. Certainly.

Q. What is the character of excavation the company would encounter in putting a line in there?

A. In Collingsworth County, particularly in the northern part of the county, we would encounter country that is quite badly washed, gulches and ravines, which is very difficult and expensive for the construction of an eighteen inch pipe line. South of there, in Childress County, south of Prairie [fol. 2313] Dog Fork of the Trinity River, you get into a territory——

The Court: Do you mean the Trinity River?

A. No, I believe it is——

The Court: That is a long ways from home. It is the Prairie Dog Fork of the Red River.

A. Yes, it is the Prairie Dog Fork of the Red River. South of the river the territory is largely blow- sand; in

ther words, it is sane that is not stable; it moves with igh winds, and a line constructed through that territory night be uncovered any time by a heavy wind, which would e very dangerous for a high pressure line, and the next lay it might have ten feet of sand on top of it.

Q. Are you still talking about Collingsworth County?

A. No, I said Childress County.

Q. Now, then it is a fact that all the creeks and rivers that riginate in Collingsworth County and Childress County ow east?

A. No, sir.

Q. It is not?

A. No, sir. The main rivers flow east.

Q. Well, this fork of the Red River does?

A. Yes.

Q. So if you put your line through Oklahoma, as you ave, you would encounter the river at a downstream point?

A. Yes, sir.

Q. And your river crossings would be larger, wouldn't hey?

A. No, sir.

fol. 2314] Q. Well, as a general thing you expect a smaller reek at the souree of a river than you do farther down?

A. Yes, sir, but not on these rivers.

Q. Well, isn't it a matter of fact, Mr. Schmidt, that you ncounter just as much bad crossings and doesn't it show n your inventory on Line A that in Oklahoma you would ncounter as much as you would encounter in this part of exas?

A. No, sir; it is not.

Q. Now, this sand you speak of is easy of excavation?

A. Well, to lay a pipe line through it you would have to emove some of those sand hills entirely.

fol. 2315] Q. Well, it is easy excavation though, isn't it?

A. Well, it is easy excavation but it is very hard to keep ditch in that sandy territory from caving on you.

Q. It is much easier territory to run a ditching machine n and to do the ditching than in territory where you will ncounter considerable rock, isn't it?

A. Yes, it is easier for the ditching machine, but it is ot less expensive, I would say, on the total construction f the pipe line.

Q. Now Mr. Schmidt, you are an engineer; don't you now as a matter of fact that you could construct a line

through Collingsworth and Childress counties, Texas, to intersect this line near Quanah, at considerably less cost than you did construct it to run through Oklahoma?

A. I know as a matter of fact that you could not.

Q. And that is your sworn testimony?

A. I swear to it.

Q. You do know as a matter of fact that you encountered considerable rock in that line as it was actually constructed into Oklahoma, do you not?

A. We found some rock along that line, yes, and we would have had some on the other line too.

Q. Well, you had considerable rock, didn't you?

A. We had quite a little rock, yes.

Q. Now then, Mr. Schmidt, as is shown by your map, anybody can see that this line takes a fairly direct line to the [fol. 2316] Oklahoma line from the field?

A. Yes.

Q. If you ran it as straight to the line as you could have gone, just as straight a line as you could have gotten there, you wouldn't have saved but about two miles, would you?

A. I would say about two miles.

Q. Now, after it goes into Oklahoma, it is inside of Oklahoma about how much?

A. Oh, from nothing up to about four miles.

Q. And at the very farthest point, it is not more than four miles in Oklahoma?

A. Something like that.

Q. It almost parallels the Oklahoma line, doesn't it?

A. That's right.

Q. Now you were the general superintendent or the chief engineer or something like that for the Lone Star Gas Company at the time the line was built, were you not?

A. I was.

Q. You were there at all the conferences where the discussions as to the construction of this line took place?

A. Yes.

Q. Don't you know, as a matter of fact, Mr. Schmidt, that the line was designed to run through Oklahoma for the express purpose of trying to make an interstate line out of it?

A. I know that that was not discussed.

Q. That is your sworn testimony?

A. Yes.

[fol. 2317] Q. Do you mean to say, Mr. Schmidt, that at the discussions about the building of this line there was no mention made as to the legal advantages that would attach to the building of this line through Oklahoma?

A. That is correct. That line was constructed entirely on engineering principles, and nothing else.

Q. Do you mean to say, Mr. Schmidt, that you never had a conversation with Mr. Griffith or the other legal advisors of the company, where that was discussed?

A. That's what I said.

Q. All right now, the next line east of line A, which you say brings gas from Oklahoma into Texas, is Line H, and I believe Second H, which parallels H?

A. That is correct.

Q. I believe Mr. Connor said that they expected to take up, some time within the near future, one of these H lines. Is that right?

A. That's right.

Q. You expect to leave one of them, do you?

A. Yes, we may recondition the line and put it back in place.

Q. Now then, Mr. Schmidt, is it your testimony that no gas ever travels North from Texas into Oklahoma in either Line H or Line Second H?

A. That is correct.

Q. Never does?

A. Except under extreme conditions or emergencies; [fol. 2318] such as a break in the line some place north of the river; and we have to take gas up there to supply perhaps Temple, or some town in the south of the state of Oklahoma.

Q. There have been times, have there not, when gas has moved North into Oklahoma from Texas thru those lines?

A. To my knowledge, that has never happened?

Q. Do you know about it?

A. Yes, I know.

Q. You are positive what you are talking about?

A. Yes.

Q. And you are willing to say that at no time has there ever been a movement in either Line H or Line Second H, north from Texas into Oklahoma?

A. That's right.

Q. Now, on Line G, which is the next line east of H and Second H, I believe you say that gas has passed from Texas into Oklahoma through that line?

A. Well, the same thing is true there as of Line H. It would only be in the case of an emergency.

Q. Well, has there ever been any movement of gas from Texas into Oklahoma?

A. Well, I believe on that line there has been at times, when gas moved into Oklahoma.

Q. There has been on Line G?

A. Yes, but it was only in case of a break, and lasted for a very short time.

[fol. 2319] Q. Now, what is the line just West of H and Second H, that goes from Texas into Oklahoma?

A. That is A-1.

Q. Line A-1?

A. Yes.

Q. Now, Mr. Schmidt, through Line A-1, the gas always moves from Texas into Oklahoma, doesn't it?

A. That is correct.

Q. What is the line just east of Line G?

A. Do you refer to the line going into Oklahoma from Texas?

Q. Yes.

A. That is E-5.

Q. On Line E-5 the gas always moves from Texas into Oklahoma, doesn't it?

A. That is correct.

Q. What is the next line, just east of that line?

A. Line E-16.

Q. On Line E-16, the gas always moves from Texas into Oklahoma does it not?

A. That is correct.

Q. Is there a single town in the state of Texas, Mr. Schmidt, that doesn't receive some Texas gas some of the time?

A. Oh, yes.

Q. Which town?

A. Well, all the towns on Line A, west of Petrolia; they receive gas from the Shamrock field, through Oklahoma into Texas.

[fol. 2320] Q. Well, isn't all the Shamrock gas Texas gas?

A. It is produced in Texas, yes.

Q. All those towns use gas exclusively from the Shamrock field, do they not?

A. Yes.

Q. Which is Texas gas?

A. That's right.

Q. Now is there a single town in Texas that doesn't get some Texas gas, Gainesville included?

A. Yes.

Q. What towns?

A. Petrolia and Byers.

Q. Isn't Petrolia and Byers right in the Petrolia field, in the state of Texas?

A. Yes, but it gets its gas from Line H and Second H.

Q. Well, isn't that mixed with some of the Petrolia gas?

A. No, sir.

Q. How big is Petrolia?

A. The town of Petrolia?

Q. That's the place where they say they don't even have a hotel any more, isn't it?

A. Oh, I think you can get a room.

Q. Oh, have they built that hotel back again?

A. No, they haven't built it back again, but you can get room and board there.

Mr. Griffith: You are referring to the town of Petrolia and not the company's compressing station?

[fol. 2321] A. Yes, and I presume that is what you are talking about, isn't it, Mr. Fitzhugh?

Q. Yes.

A. The town of Petrolia has a population of 806.

Q. How much is Byers?

A. 621.

Q. So there's about a total population then, of 1600 people in the State of Texas, that never get any Texas gas. Is that right?

* * * * * * *

A. That's right.

Q. Now it has already been testified to in this case, Mr. Schmidt, that all the gas stored in the Miller lease at Petrolia comes from Line H and Line Second H. That is correct, isn't it?

A. Well, I don't know what the testimony was.

Q. Well, you know what the facts are, don't you?

A. Yes.

Q. Well, what are the facts?

A. Well, that gas—not exactly 100 per cent of it comes from Line H and Second H.

Q. If there is any previous testimony to that effect, then, it is in error, is it?

[fol. 2322] A. I would say it is in error to some extent, yes.

Q. Where does that gas come from that is stored on the Miller lease?

A. Most of it comes from that source, but some of it comes from the Shamrock field, and some of it is Petrolia gas itself.

Q. Now, the gas on the Miller lease is used up during the winter months. Isn't it stored in the summer and used up again in the winter?

A. Not always.

Q. Well, there is no seasonal proposition about that Miller lease then, is there?

A. No sir; some times we put it in and take it out, at the same time.

Q. Now all the gas that comes through Line A goes through the compressor station at Petrolia, does it not?

A. Not all of it. There are times during the summer time when Petrolia is by-passed, and gas from Line A goes direct down into the lines south of Petrolia.

Q. But most of the time that gas does go through the compressor plant, doesn't it?

A. Yes, a good share of the time it does.

Q. And the pressure is what, when it comes into the Plant?

A. That varies from about 250 pounds, to about 100 pounds, or 110, something like that.

Q. And when it leaves the plant, what is its pressure?

A. That will vary too, from around 250 pounds to 300 pounds or 325.

[fol. 2323] Q. Is there a gasoline plant at Petrolia, Mr. Schmidt?

A. Yes.

Q. Does all the gas that comes through Line A go through that gasoline plant?

A. No, sir.

Q. It does a good bit of the time, though?

A. No, sir.

Q. Or a great part of the time?

A. No, sir; it doesn't.

Q. Where do you get the gas that you get your gasoline from?

A. From the Petrolia field, and from the Oklahoma fields, north of Petrolia.

Q. From Lines H and Second H?

A. That's right.

Q. Now, what is done at the gasoline plant?

A. At the gasoline plant, certain heavy hydrocarbons are removed and condensed by a method known as an absorption method, and the gas enters the bottom of large cylindrical tanks and comes in touch or in contact with a petroleum oil known as mineral seal oil, which has a high attraction for the hydrocarbons, and by means of this contact the hydro-carbons are then absorbed and the gas passes out of the absorbers directly into the line again, with no interruption.

Q. Through Line H and Second H, you bring the gas about a hundred miles from the fields in Oklahoma into the State of Texas, to the gasoline plant, where you extract the volatile gases or gasoline?

[fol. 2324] A. It's not 100 miles; it's about 60 miles.

Q. The scale on your map would show about 100, wouldn't it?

A. Yes, from Chickasha it would be about one hundred miles; you are correct.

Q. Now, after the volatile gasoline, or the heavy hydrocarbons, as you want to call it, is absorbed, the residue gas that is left is of a different composition, isn't it?

A. The composition is practically the same. There is such a small proportion of these hydro-carbons removed, that the composition is almost identical.

Q. When you extract gasoline vapors from natural gas, that is present in the line before it goes to the gasoline plant, and then pass on through the residue gas, it has a different heating value, doesn't it?

A. The heating value is lowered by possible three per cent, but that is not the entire facts of the matter, because most of these hydro-carbons would condense in the lines anyhow, and you would have the same condition, besides giving us considerable operating troubles; these gases freeze up and cause stoppages in the line.

Q. You could take out the gasoline vapors by drips, couldn't you?

A. We could at considerably more expense, and possibly we would not get it all anyway.

Q. But the main reason for putting in a gasoline plant, is to make money out of the gasoline, isn't it?

A. We haven't made any money out of them for many [fol. 2325] years; the main reason is to make the gas more suitable for domestic consumption.

Q. At the time you built these gasoline plants, gasoline was selling pretty high, and you made a pretty nice profit on that gasoline at that time?

A. On some plants we made a profit, yes, but on some of them we never made a profit.

Q. Now, the gas that comes from Line G goes through a gasoline plant at Gainesville, doesn't it?

A. That is correct.

Q. And the same sort of process takes place at Gainesville as you described as to the Petrolia plant, for the treatment of the gas coming through Lines H and Second H?

A. That's right.

Q. Now, those three lines, H and Second H and Line G, bring all the gas that is produced in Oklahoma, do they not?

A. That is right.

Q. And it is all processed at gasoline plants?

A. It all passes through gasoline plants, and these hydrocarbons are removed from the gas in order to make the gas more suitable for domestic consumption.

Q. And all this gas is also recompressed, isn't it, in the case of Lines H and Second H, at the compressing station at Petrolia?

A. That is correct.

Q. And at Gainesville, in the case of Line G?

A. No, the compressing station at Gainesville is only used to compress the gas going east through line E.

[fol. 2326] Q. It does occasionally pick up some Oklahoma gas, doesn't it, for compression?

A. It does not pick up all the gas from Oklahoma, no sir.

Q. Some of it.

A. Sometimes it does pick up some of it.

Q. And it does compress a certain part of that Oklahoma gas, does it not?

A. Yes, the part going through Line E, which is only a small part most of the time.

Q. Now, referring to your Exhibit 44, on the page headed year 1929, you show 8,785,166 M. C. F. for the total for Oklahoma fields?

A. That is correct.

Q. And for 1933, on the sheet that you show for 1933, the total from the Oklahoma fields is only 1,690,342 M. C. F.?

A. That is correct.

Q. What has been the average falling off per year of this Oklahoma gas?

A. Do you mean the average amount taken from the source?

Q. I mean how much has it dropped off by years, since 1929, on the average?

A. Well, it varies; there seems to be a gradual reduction in the amount of gas that we have taken from that source.

Q. Well, it has dropped off about 1,750,000 M. C. F. per year, hasn't it?

A. Something around that, yes.

Q. Now, if it keeps dropping off at the same rate for the [fol. 2327] year 1934 you won't have any Oklahoma gas, will you?

A. If that continues, sure.

Q. Or a very little amount. In the year 1933 what was the total amount of gas used in Oklahoma?

A. Something over a billion cubic feet, total gas used in Oklahoma.

Q. Is that industrial as well as domestic?

A. That is all gas, yes.

Q. Can you by referring to the exhibit give the exact figure?

A. No, sir; that doesn't show all the gas used in Oklahoma.

Q. It doesn't show Hugo, Oklahoma, does it?

A. No, sir.

Q. Or Durant, Oklahoma?

A. No, sir; it does not.

Q. Or Caddo?

A. That is correct.

Q. Or Achille?

A. That's right.

Q. And how much did those towns use in the year 1933?

A. About 300 million.

Q. Why was it that you didn't include those towns?

A. Well, those towns get the gas off of Line E, which can be either at some times entirely Texas gas, and sometimes entirely Oklahoma gas, and sometimes a mixture.

Q. Well, you did include Mountain Park and Manitou and Frederick and Tipton and some other town there that I [fol. 2328] don't know the name of, that used exclusively Texas gas, didn't you?

A. Yes, but that gas was transported from Texas into Oklahoma and back into Texas, and finally into Oklahoma again.

Q. Well now, Durant and Hugo and Caddo and Achille also get exclusively Texas gas, don't they?

A. No, sir.

Q. Well, if they don't, they get some gas that comes from Oklahoma do they not?

A. Yes, they get some from Oklahoma.

Q. Do you know the amount of gas used in Oklahoma, for the year 1933, from all sources?

A. I don't have the exact figure, but it is slightly over a billion feet.

The Court: You mean as affecting the Lone Star Gas Company, don't you?

Q. Yes. Now, if you take the total Oklahoma delivers as appearing on your sheet 6, where you have the notation, "Note 1", and the total delivery of Shamrock gas into Oklahoma where you say "See Note 2", and add to that the 300 million cubic feet for Hugo and these other towns, you would have a total of about 1,200,000 M. C. F. wouldn't you?

A. Something around there, yes.

Q. For 1933?

A. Yes.

Q. How much is the total amount of Oklahoma gas put into storage at the Miller lease for 1933?

[fol. 2329] A. I haven't any figures on that.

Q. Well now, if it was 500 million cubic feet, the amount that has already been testified to in this case—Well, I may be in error about that, because I don't believe it has been testified to, but if the amount is about 500,000,000 cubic feet for stores gas, plus the 1,200,000 for gas used in Oklahoma, you would have had all the gas used in Oklahoma accounted for, wouldn't you?

A. No sir.

Q. Well, you certainly would for the year 1933, wouldn't you?

A. I don't know what the testimony is, but gas that went into storage on the Miller lease undoubtedly was again removed during some part of the year 1933.

Q. Well, if you assume for the purpose of this question, Mr. Schmidt, that the storage, the net storage on the Miller lease was 500,000 M. C. F. for the year 1933, that would account for all the Oklahoma gas, wouldn't it?

A. Why not assume a million instead of 500,000?

Q. Well, what was the correct amount of that?

A. I don't know.

Q. Can't you estimate, Mr. Schmidt, what the amount of gas was from Oklahoma for the year 1934 will be?

A. No, sir.

Q. Do you know then what it is thus far in 1934?

A. No, I do not. I would say that it is very apt to be considerably in excess of what is shown in 1933, from our [fol. 2330] operations of this year, for the first six months.

Q. Would you still say that, if you didn't have a rate case going on, Mr. Schmidt?

A. That is the condition that exists.

Q. Do you know, Mr. Schmidt, whether or not for the year 1934 there will be as much gas produced in Oklahoma as will be consumed in Oklahoma?

A. Yes. Oh, yes, there will be more gas produced in Oklahoma than is consumed in Oklahoma.

Q. How much more?

A. I have no idea. I have no way of figuring that.

Q. Now, you say that the forward movement of this gas, Mr. Schmidt, is never arrested?

A. That is correct.

Q. Mr. Schmidt, you know good and well that gas which is stored at the Miller lease is arrested; isn't it?

A. Not necessarily. That gas is very often put into one well and taken out of another. It just circulates through the sand.

Q. Then what is the use of doing that. It costs you something to put it in there?

A. Yes.

Q. And it costs you something else to get it out?

A. Yes.

Q. What is the purpose of doing it?

A. One of the purposes is to take some gas from contracts wells that we would not otherwise be able to do in the sum-
[fol. 2331] mer months, and another reason is to saturate that gas with the gasoline vapors in the Petrolia field, and later to extract them from that gas.

Q. Now, you have to repressure every cubic foot of gas that you put into wells at the Miller lease, don't you?

A. Yes.

Q. And you have to in some cases use suction to get it out, do you not?

A. Yes.

Q. Now then, the forward movement is to some extent checked whenever the gas passes through a gasoline plant too; isn't that correct?

A. It is not.

Q. Well now, you know that it is stopped to some extent, don't you, Mr. Schmidt?

A. It does not stop at all.

Q. Well Mr. Schmidt, does the whole gasoline process not depend upon arresting the forward movement of that gas, and getting it into a static condition, where the vapors can be condensed out?

A. No sir; as I said before, the gas enters the bottom of these large tanks, through openings sufficient to carry the capacity of the pipe lines, and that gas passes up through these tanks and out the top, and right back into the pipe line, without any interruption whatever.

Q. What is the diameter of those tanks?

A. Generally about thirty inches.

[fol. 2332] Q. And what is the diameter of the pipe line, generally? About eighteen inches, isn't it?

A. That's right.

Q. And doesn't that allow an expansion of the gas, in those cylinders or tanks?

A. Yes, to some extent.

Q. And of course there is a forward process, but you do arrest the movement of the gas forward, long enough to get the gasoline out of it?

A. No. It is never stopped—never stopped.

* * * * * * *

[fol. 2333] Q. Mr. Schmidt, how much gas was lost in the year 1933 from the Company's system through leakage?

A. I haven't any figures available here upon that.

. Could you approximate it?
. No, I really couldn't.
. Could you for 1932?
. No, sir.
. Do you know approximately the percentage of gas
?
. Why, it varies, of course. The percentage on our
em is rather small, possibly not more than two per
.
. Now, if I understand you, Mr. Schmidt, you are not
to say the amount of gas that was actually consumed
Oklahoma in the year 1933?
. The total amount of gas consumed?
. Yes, sir.
. It was slightly over a billion cubic feet in 1933.
. Was it in excess of 1,200,000,000?
. No, it was less than 1,200,000,000.
. And you don't know the amount of Oklahoma gas that
put in storage in Texas?
. No, sir.
2334] Q. That is the net storage I am talking about.
. No, sir, I do not.
. And you don't know whether those two exceed the
unt of gas actually consumed in Oklahoma—produced
purchased, I mean, in Oklahoma for the year 1933?
. Well, I am sure that they don't.
. Well, you don't know the figures, do you?
. Well, I have given credit in '33 to gas sold in Okla-
a that is produced in Texas, according to your state-
t. All the towns on the Frederick System, some——
. Well, can you give the net amounts?
. Yes, sir, the gas consumed in Oklahoma off of Line A
479,551,000.
. Are you talking about Line A-5 now?
. A-5, at Hollis.
. All right; now, what was used by the Oklahoma towns
ines H and Second H?
. 334,938,000.
. And how much was used on Line G?
. That is the total of Lines H and G, the last figure that
ned.
. How much was used on Line E-5?
. Just a second; I have misinterpreted this entirely.
gas deliveries in Oklahoma from the A System is 334,-

938,000, and the total deliveries in Oklahoma from the H [fol. 2335] and G System is 479,551,000.

Q. Now, how much were the deliveries from Line E-5 and E-16?

A. Around 300,000,000 feet, as I recall it.

Q. What was the total amount produced in 1933 and purchased in Oklahoma?

A. 1,690,342,000 from the Oklahoma fields directly.

Q. Now, then, if you take the 1,115,000 which these figures add up to be, plus 500,000 for storage, you will account for practically the whole of the 1,690,000 M. C. F. produced and purchased in Oklahoma, will you not?

A. No, sir.

Q. Why won't you?

A. Because 334,938,000 was produced in the Shamrock area and transported into Texas and back into Oklahoma.

Q. Well, if you consider the net amount of gas used in Oklahoma, my statement would be true, would it not?

A. No, sir.

Q. Well, as a matter of fact, Mr. Connor, the thing adds up that way——

A. No, sir, it doesn't.

Q. I mean Mr. Schmidt. It adds up that way, regardless of whether you exclude the Shamrock gas or not?

[fol. 2336] A. Not according to my figures.

Q. Well, if you add three hundred thousand, which you say is to be attributed to these Oklahoma towns you didn't include, and the four hundred and seventy-nine thousand for the H and G System, and the three hundred and thirty-four thousand for the A System, doesn't that all add up to about one million one hundred and fifteen thousand used in Oklahoma?

A. Yes, but all of that gas wasn't produced in Oklahoma.

Q. Well, regardless of that fact, it is consumed in Oklahoma, isn't it?

A. I beg pardon.

Q. It is consumed in Oklahoma, isn't it?

A. Yes, sir.

Q. Now, then, if you add to that the five hundred thousand M. C. F. that is stored in Texas, you will get the total amount, approximately, produced and purchased in Oklahoma, will you not?

A. I don't know whether the five hundred thousand is anywhere near right as representing——

Q. Well, assume that is right, I say, for the purposes of this question,—you would then get the total amount produced and purchased in Oklahoma, wouldn't you?

A. Well, it is entirely a hypothetical question, and I don't see that it has anything to do with it.

[fol. 2337] Q. Well, just answer the question, Mr. Schmidt, even if you don't want to.

A. Those figures total about the same amount, yes, sir.

Q. All right.

Redirect examination.

Questions by Mr. Griffith:

Q. Mr. Schmidt, you were asked about the surveys on Line A, and your familiarity with that territory generally wherein Line A is located. I wish you would relate to the jury your general familiarity with the country and the surveys that were made for the location of the pipe line route where Line A is now situated.

A. I had charge of all of that work—all of the surveys, and went over all of the surveys that were made, personally, on the ground. Recently I took the field-notes which our engineers made on the various surveys that were made covering this line, from a point near Quanah to the Texas—to the Shamrock Field. I platted those lines on a map, which I have before me. The original survey started from a point near Quanah and headed northwest to a point near Childress, [fol. 2338] and at that point it started—in fact, we staked that line, made the survey and staked the line to that point, and we ran a fly line from that point north—almost due north, to the east side of the Shamrock Field——

Q. What do you mean by a fly line?

A. A fly line is a line that you don't stake—you run the course of the line with instruments, by flagging high spots along the route, and from those high spots you can travel along the route that the line would go. That survey on the south end, just north of Childress, getting up into the Prairie Dog Town Fork of the Red River went through some fairly rough country—that is, it was full of bad washes; and from Prairie Dog Town north we got into a good many sand hills. By the time this fly line was completed we found out that we were not going to supply gas to the town of Childress—another company had already received the franchise both at Childress and Wellington,

and the route was not a very suitable route for a pipe line, and it was considerably longer than a route passing more directly from Quanah to the Shamrock Field. We abandoned that survey and dropped back to a point just west of Quanah, and started a line almost direct, you might say [fol. 2339] to the town of Shamrock. which was then about the eastern part of the field. The first line we ran hit the Prairie Dog Town Fork of Red River quite close to the corner of the State of Oklahoma, and at that particular point the river was 7,238 feet wide; it was a very bad crossing, the river at that point, during flood stage, might be on one side of the river one time or on the other side the next, or maybe in the middle—it just traveled back and forth; that river is composed, largely, of quicksand, and quicksand is not a very good foundation for a pipe line. This was such a poor crossing that we immediately found that it was going to be necessary to make a pretty complete survey of that river, and we made surveys up and down the river, east and west, for a stretch of approximately nine or ten miles. The best crossing that we could find was at a point where our line now crosses Prairie Dog Town Fork of Red River, and that is about four or five miles east of the Oklahoma State line. At that point the river was only 1334 feet, downstream from the point which I just mentioned was 7238 feet wide. The banks of the river at this point, particularly on the south side were partly rock, where very substantial foundations could be secured; and [fol. 2340] we built a bridge across the river at that point to carry the pipe line. That determined the south end of that line, and was still on a direct route from the point west of Quanah to Shamrock. We made three different surveys from that point up through Childress County and Collingsworth County to the Shamrock Field; each of them was rather bad territory for a large diameter pipe line,—sand hills in Childress County and the southern part of Collingsworth County, and a very rough country in the northern part of Collingsworth County.

Q. Does that sand consist of the blow sand which you have previously described?

A. A good share of it was the blow sand which I have described. We traveled that country east and west, trying to find a better location for a pipe line, and we found by going almost due north from the point that we crossed

rairie Dog Town Fork of Red River entering Okla-
, particularly after we passed the Salt Fork of Red
, we got down to a divide or a hog-back, as they call
hat country.
Sometimes referred to as a ridge?
A ridge. And it was extremely good right of way
2341-2342] for a pipe line, ever so much better than
survey we made through Collingsworth County or
ress County; and, as a matter of fact, that survey
through Oklahoma and back into Texas increased
ngth of the shortest line that we could have laid from
ah to the Panhandle—to the Shamrock Field less than
miles in length, and the territory covered by the line
it is now located required so much less right of way
and was ever so much easier for pipe line construction,
he increased length was easily compensated for by the
tion in cost of laying the line.
And for the reasons you have detailed, Line A was
n its present location?
That is the only reason Line A was laid in that di-
n.
Now, were there any other reasons which dictated the
judgment of yourself and associates in the location
ne A?

* * * * * * *

2343] A. Line A cuts a corner of Beckham County
enters the *the* State of Oklahoma, and in Beckham
y at the time this line was laid there was consider-
roduction of gas in what is known as the Sayre Field.
production was high pressure gas, and the line located
have it will make that gas accessible to that line at
er cost at some future date when it is necessary that
uld had the line been located direct from Quanah to
hamrock Field. Since the line has been built other
ction has come in in Beckham County even closer to
ne—not enough as yet to indicate the size of the field,
ps, but there are indications that there may be an
sive field close to our line of high pressure gas. This
vell has a flow of about 14 million feet, and about 1000
ls rock pressure, and that higher rock pressure makes
as somewhat more desirable than the gas in the Sham-
rea.

Q. Does the Company own any undeveloped gas acreage in this Sayre gas territory?

A. They do own considerable gas acreage held in reserve [fol. 2344] in that territory.

Q. Now, was the Company conducting any drilling operations in any other county in Oklahoma adjoining Line A at the time it was constructed?

A. In Harmon County, which is due south of Beckham County, and the county in which Hollis is located, the Company drilled two wells about that time. It so happened that both of them were dry holes, but I understand from geologists that that territory still may be productive of gas.

Q. At the time Line A was built the Company was hopeful of getting some gas production from these wells which were drilling in Harmon County, Oklahoma?

A. That is correct.

Q. Mr. Schmidt,—possibly you have already testified to this—but is the forward movement of the gas transported through the state of Oklahoma into the state of Texas ever arrested until delivery is made to the local distributing companies at the city gate measuring stations?

A. It is not.

Q. One more question, if the Court please. Mr. Schmidt, what is the line capacity, or the delivery capacity of Line A?

A. Line A, about fifty-five million.

Q. For what period of time?

A. For twenty-four hours.

Q. Fifty-five million cubic feet in a twenty-four hour period?

A. That's right.

[fol. 2345] Q. What is the capacity for Line H and Line Second H in a period of 24 hours?

A. Fifty million per day.

Q. What is the delivery capacity of Line G over a period of 24 hours?

A. Fifty-five million, or fifty-six million.

Q. That could be in round figures, 160 million cubic feet of gas a day?

A. That is correct.

Q. Has the Company actually transported that amount of gas through those lines in recent years?

A. They have.

Q. On a daily basis?
A. Yes, sir.
Q. Has the utilization of Line A, Line H, Line 2nd H, nd Line G been necessary to enable the Lone Star Gas Company to supply the gas required for industrial and lomestic consumption by consumers in the numerous towns nd cities supplied at wholesale by it in the State of Texas?
A. They certainly are.
Q. In times of extreme cold weather are all of those facilties needed to supply the demands put upon the public ervice facilities of the Company?
A. In times of severe cold weather those lines are carried o capacity.
[fol. 2346] Q. Mr. Schmidt, is there any compressor station on Line A between the Shamrock Field and the Petrolia Compressor Station at Petrolia, Texas?
A. There is not.
Q. Does the gas travel under high pressure from the vells to the Petrolia Compressor Station?
A. That is correct.
Q. And you have previously testified that the gas so ransported does not go through a gas drier or gasoline lant at Petrolia——
A. That is correct.
Q. —in the ordinary conduct of its business?
A. That is right.
Q. Is a gas drier application given to that gas transported through Line A in the state of Oklahoma?
A. Yes, sir; at Hollis, Oklahoma.
Q. At Hollis, Oklahoma?
A. Yes, sir.
Q. That is where the gasoline hydrocarbons are removed rom the Shamrock gas?
A. That is correct.

[fol. 2347] Recross-examination.

Questions by Mr. Fitzhugh:

Q. What was the average amount of deliveries through Line A for 1933?
A. Well, the average amount through Line A was probably rather low.
Q. Do you know what it was?
A. In 1933?

Q. Yes.

A. I can calculate it.

Q. Well, approximate it?

A. Something in excess of twenty million feet a day.

Q. What were the average deliveries through lines H and 2nd H?

A. Something in excess of two million feet a day.

Q. What were the average deliveries through Line G?

A. A little less than three million feet a day.

Q. What were the average deliveries through Line A-1 six-inch?

A. I haven't the figures to show that.

Q. What were they on Line E-5?

A. I haven't any figures on that.

Q. What were they on Line E-16?

A. I haven't any figures here to show that.

Q. Well, you will admit, won't you, that there is no relation at all between the actual deliveries that may come through these lines and what their capacity is?

[fol. 2348] A. Oh, a very definite relation,—the necessity of having the capacity to take care of our peak demands.

Q. Well, the capacity of Line H and Line 2nd H, I believe you said, was around 50 million cubic feet per 24-hour period?

A. That is correct.

Q. But your average actual deliveries through that line were only two thousand——

Mr. Griffith: Two million.

Q. —M. C. F. per 24-hour period?

A. That is about right.

Q. Now, then, you say your Company has a few leases over in Oklahoma in Beckham County?

A. Yes, sir.

Q. I will ask you, Mr. Schmidt, if the holdings of the Company in Beckham County,—or for that matter in all the Oklahoma counties anywhere close to Line A,—are not insignificant as compared with the leases you hold in Gray County, the county just west of Wheeler County?

A. I don't know.

Q. Do you know the amounts of your leases in Gray County, Texas?

A. I know approximately what we hold there—not in figures; but I know we have considerable holdings.

Q. You have very extensive holdings in Gray County, do you not?

A. Yes, sir.

Q. And compared with those extensive holdings in Gray [fol. 2349] County, the Oklahoma leases you have are very in*gis*nificant?

A. So far as the volume of gas contained under those leases, I don't know whether they are insignificant or not.

Q. It is, from an acreage standpoint, isn't it?

A. That is no basis necessarily of the gas under the ground.

Q. It is a well-known fact that the Wheeler County, or the Shamrock Area, represents probably the biggest gas field in the world?

A. Not the Shamrock Area, no.

Q. This Panhandle Field up here is generally recognized by geologists as being the biggest gas field in the world, isn't it?

A. It is one of the largest; there are others that they feel are just as large.

Q. If you had built your Line A so as to get to the wells you now have and hit the center of those wells, together with those you expect to develop in Gray County, your line would have come down following the county lines of Wheeler and Collingsworth counties due south, wouldn't it, so as to split those leases?

A. I don't believe I understand your question.

Q. If you had wanted to construct a line, Mr. Schmidt, that would hit these leases that you already have developed in Wheeler County, as well as to provide an outlet for the leases you expect to develop in Gray County, your line would have come down along the western lines of Wheeler and Collingsworth Counties?

[fol. 2350] A. That would have lengthened our line a great deal—the original line.

Q. Now, you say you worked out a plan for a line wholly in Texas. What was the length of that line as compared with the one you finally did build?

A. That line from a point at Quanah to the same point—that is, from a point here to a point here (indicating on map)—that line was 82½ miles, compared to 72 miles in that direction.

Q. You don't mean, Mr. Schmidt, that this line as it has been run would be shorter than a more direct line down here (indicating on map)?

A. It is ten miles shorter.

Q. Point out how your line ran. Did your line run from Quanah practically due west to Wheeler County?

A. No; it ran northwest from a point west of Quanah to a point northeast of Childress where it went almost due north to a point at the gathering system in the Wheeler County area.

Q. But there is no doubt, Mr. Schmidt, if you had taken a direct or air-line route from a position about the southwestern corner of Wheeler County direct to Quanah, you would have gotten a shorter line?

A. No; a longer, because you went farther west with the beginning of your line, and you can't go farther west without lengthening the line.

Q. You would not have had all this bulge in here?

[fol. 2351] A. That bulge in that line as it goes now is less than three miles longer than a perfectly straight line from up there to Quanah.

Q. Are you trying to say that if the line had been built straight down from the center of the Wheeler County area, in a route wholly in Texas, to a point a little north of Quanah, that it would still be longer than the route you followed?

A. I say it would not have been more than two miles shorter.

Q. Well, it would have been that much shorter?

A. It would have been shorter by that amount; but it would have cost us considerably more to construct, because of the rock.

Q. How much rock excavation did you find from your preliminary survey that the wholly in Texas route would have had?

A. Well, we didn't make any excavations.

Q. Didn't you study what your excavation costs would have been?

A. Yes, sir.

Q. How much rock did you figure?

A. We had considerable rock.

Q. Well, how much?

A. You mean in yards?

Q. Yes.

A. I haven't it in yards.

Q. What per cent of the total excavation would have been rock?

A. I could not estimate it now. It has been a good many years *years* since that line was laid.

[fol. 2352] Q. Doesn't anybody who pretends to know anything about pipe and the deterioration of pipe know that pipe laid in this sandy land of the Panhandle area of Texas suffers less deterioration than any pipe anywhere else in the world?

A. We have sandy land on the present location.

Q. Just answer the question.

A. Sandy land is ordinarily easy on pipe.

Q. Instead of laying it in sandy land in Texas you got on this ridge in Oklahoma and laid your line thru gyp-rock?

A. We would have had gyp-rock in the other counties to the same extent.

Q. And gyp-rock is just about the worst soil there is for steel deterioration?

A. As a matter of fact, we had more real soil on the survey finally adopted than on any survey through Collingsworth County.

Q. Can you tell us how much gyp-rock you would have found on the route fully in Texas?

A. We would have found considerable.

Q. How much in percentage?

A. I couldn't tell you.

Q. Did you make any surveys?

A. Yes, sir.

Q. Well, can't you tell us the amount?

[fol. 2353] A. I would say it was at least as much as we got in the other survey. On either side of this ridge we traveled the gyp-rock is a lot worse than on the ridge we were on; I know that is a fact.

Q. You say on the final river crossing you went farther down stream?

A. Yes, sir.

Q. Isn't that unusual?

A. Not on those rivers. The crossing we selected was only 1300 feet wide, as compared to a 7,000 foot width at a point upstream.

Q. Isn't it a fact that if you had picked out a river crossing for the Prairie Dog Town Fork of the Red River about

at western line of Childress County that you would have had a far better crossing than the one you did take?

A. I doubt very much if that would be true.

Q. Do you know anything about it at all?

A. I don't know that far west, no, sir; but that would not have been a proper line for the line to take; it would have lengthened the line.

Q. I believe you say you measure the gas through meters and pass it through regulators before you deliver it to the distributing companies?

A. We pass it through regulators and then measure it.

Q. What is the pressure of the gas before it is metered [fol. 2354] to the distributing companies?

A. Before it enters the regulators?

Q. Yes, sir.

A. From one hundred pounds to as high as three hundred pounds, depending upon the location of the town on the pipe line.

Q. But it comes out of the regulator approximately at forty pounds?

A. Twenty-five, thirty, and thirty-five pounds, yes, sir.

Q. Now, you say you regard the title as passing at what point?

A. At the outlet of the meter.

Q. After the pressure reduction has taken place?

A. That is correct.

* * * * * * *

[fol. 2355] Mr. Shannon: Your Honor, we have now concluded our direct testimony on all points involved in this case except the point involving a segregation of the Lone Star Gas Company's property as between property used in intrastate commerce and in the conduct of its intrastate business and that used in interstate commerce and the conduct of its interstate business, as well as testimony showing the net amount available for return to Lone Star Gas Company on the property identified as being used and useful in the conduct of its intrastate business. It has been our position in this case, beginning originally with our pleas, demurrers and exceptions, that the issue to which this testimony is relevant is not properly raised in this case because this suit purports to be an appeal of a rate found by the Railroad Commission in its order. A determination of this issue involves a determination of the

easonableness of a rate which, we say, the Commission has ever found to be reasonable—that is to say, the reasonableess of the charge of 32 cents for gas delivered by Lone tar Gas Company at various city gates of towns and cities ol. 2356] served by Lone Star Gas Company in intrastate ommerce. It is also our position in this case that, inasmuch s the opinion of the Railroad Commission has been offered evidence, inasmuch as testimony of the interstate busiess of the Lone Star Gas Company has been offered in vidence, that at this time the burden of going forward to ow the segregation is upon the plaintiffs as a matter of w. However, the witnesses that we would expect to use the matter of segregation are here, and, without waiving intending to waive any of our pleas, demurrers or exceptons, and without admitting that there is any legal obligaon or duty on us imposed by law to do so, we are prepared go forward with testimony relative to the matter of egregation; and with this statement we will tender our itnesses on that point.

. . . . . .

E. F. SCHMIDT, a witness for defendant, was recalled and stified further as follows:

ol. 2357] Redirect examination.

Questions by Mr. Griffith:

Q. Mr. Schmidt, what is the specific gravity of gas?
A. The specific gravity of gas is the weight of a given olume of that gas as compared to a similar volume of air nder like conditions of temperature and pressure.

. . . . . .

A. In other words, if you have a certain volume of gas nder a given temperature and pressure, and you deterine the weight of that volume of gas, and divide that into e weight of the same amount of air under exactly the me conditions of pressure and temperature, you get the avity.
The Court: Does elevation have anything to do with it?

A. Temperature and pressure have to be the same; the elevation and all other elements have to be the same; in other words, it is a relative proposition.

Q. Is there a specific gravity in connection with solids as well as gases?

A. Yes, sir.

Q. And liquids?

A. In other words, as to solids and liquids, their specific gravity is in relation to an equal weight of water instead of air.

* * * * * * *

[fol. 2358] Q. If in a certain volumetric container it is determined that there are two gases contained and that the specific gravity of the two gases in the container is seven-tenths, is it possible to determine the quantity of each gas in the volumetric container?

A. If the specific gravity of each of the gases that go into the mixture is known and the specific gravity be in a similar proportion, you can determine the amounts of the two gases that are contained in the container.

Q. Assume, Mr. Schmidt, that there are two gases in the container and that the specific gravity of one is six-tenths and the specific gravity of the other is known to be eight-tenths, how would you determine the relative per cent in the volumetric container?

* * * * * * *

[fol. 2359] A. If you have a container containing gas at a specific gravity of seven-tenths and you know that one of the gases that are in this container has a specific gravity of six-tenths and the other gas in the container has a specific gravity of eight-tenths, you know that the quantities of each of these gases is fifty per cent.

Q. Because that is the average of the two specific gravities?

A. That is the proportion of the two gases.

Q. Mr. Schmidt, in the measurement of natural gas what factors are taken into consideration in the matter of measurement?

A. Pressure—that is, the static pressure, the main line pressure of the gases, which is the pressure above atmospheric pressure, the differential pressure in the case of an

orifice meter, which is the pressure between one side of an orifice place and the other side of the orifice plate, which is generally indicated in inches of water, and the specific gravity of the gas itself, are the principal items. Of course, the pressure base, the sale base, the temperature of the gas, and the barometrical pressure at that location are also used in determining the volume of gas passing the orifice meter.

Q. Is it absolutely necessary as one of the prime factors in measurement to make a determination of the specific gravity and to apply that specific gravity determination in the calculation of measurement?

A. It is, and the specific gravity will make a difference in the volume in the relation of the inverse portion of the [fol. 2360] square root of the gravity.

Q. Mr. Schmidt, does the gas produced and/or purchased by the Lone Star Gas Company and transported in its pipe line system have the same specific gravity regardless of the source of origin of the gas?

A. It does not.

Q. What is the specific gravity of the gas produced and/or purchased by the company in the State of Oklahoma from the Oklahoma gas fields?

A. From the Oklahoma gas fields in the Fox, Robberson and Loco area the average specific gravity of gas from those wells is about .63, which is six-tenths as heavy as air.

Q. And the Nellie field?

A. The Nellie field, it is almost the same, about .62 to .63. From the Shamrock field the gas is again almost the same specific gravity. The average of those would be very close to .63.

Q. Now, what is the specific gravity of the gas produced and/or purchased by the company and transported from the Central West Texas area?

A. The gas varies through a little wider range. It will average through a range of about .785 to about .83 as a maximum.

Q. Now, Mr. Schmidt, you state that the company necessarily knows the specific gravity of the gas delivered at any city gate station in order to compute the amount of gas delivered?

A. That is correct.

Q. Do the records of the company so reflect those specific gravities?

[fol. 2361] A. That is correct. They do.

Q. And they are applied in the measurement calculations?

A. Yes, sir.

Q. Mr. Schmidt, that being known, has it been possible for you, working in association with Mr. Ed C. Connor and others, to determine what portions of the company's pipe line system are jointly and/or concurrently used and separately used as well for the transportation on the one hand of gas produced and/or purchased by the company in the State of Oklahoma, and on the other hand of gas produced and/or purchased by the company in the Central West Texas area?

A. It has been possible to do that.

Q. And upon the basis of that knowledge have you and Mr. Ed C. Connor prepared a report to be presented as an exhibit in this case showing the facilities which are jointly and/or concurrently used in the transportation of gas on the one hand from the State of Oklahoma into the State of Texas and on the other hand the facilities which are used for the transportation of gas from the Central West Texas area?

A. We have.

Q. Mr. Schmidt, is this the report to which you refer, being styled on the title cover "Lone Star Gas Company—Analysis of Transportation and Sale of Gas Produced in Central West Texas and Gas Produced in Shamrock Area and Southern Oklahoma—Year 1933—E. F. Schmidt—Ed C. Connor"?

A. That is correct.

Mr. Griffith: We offer the report so identified by the witness in evidence.

[fol. 2362] (Thereupon the report above referred to was marked as Defendant's Exhibit No. 45.)

Mr. Fitzhugh: May I ask a few questions, Your Honor?

The Court: Yes, sir.

Examination by Mr. Fitzhugh:

Q. Mr. Schmidt, in making your segregation of the gas and the property used in the transportation of gas I believe you say you have used a method dependent upon specific gravity?

A. To some extent; yes, sir.

Q. Now, all this Oklahoma gas that comes into Texas goes through gasoline plants, doesn't it?

A. Not all of it; no, sir.

Q. Well, practically all of it?

A. A good share of it; yes, sir.

Q. What is the specific gravity of the gas which comes from Line H and Second H before it goes into a gasoline plant?

A. Approximately the same; there is practically no change in the specific gravity in going through a gasoline plant.

Q. Do you mean to say, Mr. Schmidt, that that does not change it?

A. The change is very small, because of the heavy amount of hydrocarbon in it; it changes it slightly.

Q. And the same is true of gas through Line G?

A. Yes, sir.

[fol. 2363] Q. Now, at the Petrolia Compressor Station the compressors are run by gas themselves?

A. Yes, sir.

Q. Isn't it true that the exhaust from those engines is put back into the line?

A. No, sir.

Q. Is that true of the Compressor Station at Gainesville?

A. No, it is not true. There is no exhaust from any gas engine put into the lines.

Q. That is true of the Compressor Station at Joshua, isn't it?

A. No, sir.

Q. What do they do at Joshua with the exhaust gas from the compressor engines?

A. They go into the air like the exhaust from any other gas engine.

Mr. Griffith: If the Court please, I don't see the materiality of this in connection with the examination of the witness at this time.

The Court: I don't see it, either. Maybe he can see it. But, like I said a while ago, I will let it go.

Q. Well, you do introduce at Joshua some inert gas into the gas line?

A. Yes; we do stabilize it.

[fol. 2364] Q. And that changes its specific gravity, doesn't it?

A. Yes.

Q. You do the same thing at Petrolia, don't you?

A. No, sir.

Q. You do at Gainesville, don't you?

A. No, sir.

Q. Now, all the West Texas gas, or approximately all the West Texas gas does go through the Joshua plant, doesn't it?

A. None of it goes through the Joshua plant; it goes past there.

Q. None of it?

A. No, sir.

Q. Well, where does the gas that goes into the Joshua compressor station come from?

A. The gas for fuel comes out of the line.

Q. The gas that is compressed at the station?

A. That is flu gas.

Q. I mean, where does the gas that is compressed at the Joshua station come from?

A. Well; the small compressing station at Joshua that compresses natural gas, it is used solely for compressing gas that is going South of Joshua entirely, and that gas goes through Lines L and M, to points south of the Joshua station.

Q. Well, that's West Texas gas?

A. Yes.

Q. Now, didn't you get a little bit balled up, Mr. Schmidt, when you were explaining specific gravity, when you said the [fol. 2365] specific gravity of the gas as compared with air, which is in turn compared with the weight of a similar volume of water——

A. I didn't say that.

Q. Well, to make the matter clear, the comparison is as between volumes all the way through?

A. Yes.

Q. And the weight of the volume?

A. That's right.

Q. The weight of the volume of gas as compared with the equivalent weight of the volume of air——

A. That's right.

Q. Comparing the weight and volume of gas and the equivalent weight and volume of air.

A. Yes.

Q. And the equivalent weight and volume of water?

A. No sir; water has nothing to do with the specific gravity of gases.

Q. All right. Now, we make this objection, your Honor, that the separation, or that the whole exhibit sought to be introduced here depends upon the specific gravity of gases; and the witness has already testify that the gases that come from Oklahoma into Texas are treated in various manners after coming into this state, and its specific gravity has somewhat changed after it comes into Texas, and so that throws the whole calculation off, and we do not think in view of the testimony that has already come in, that this exhibit should be allowed to come in at all. It's bound to be wrong.

[fol. 2366] Mr. Griffith: I thought this is what you wanted, Mr. Fitzhugh?

Mr. Fitzhugh: We do, but we want it made right, Mr. Griffith, and that's the difference.

The Court: Well, I think your objection, Mr. Fitzhugh, goes to the weight of it rather than the admissibility of the exhibit, and I will overrule your objection.

Questions by Mr. Griffith:

Q. Mr. Schmidt, please relate in a general way what was the method used in connection with the preparation of this report, and where technical terms are involved, endeavor to relate the matter in a way that will be understandable to all of us.

A. This report is prepared for the purpose of fixing a basis for the proper allocation or division of fixed charges, operating expenses and revenues of the Lone Star Gas Company system, involved in the transportation and sale of gas wholly within the boundaries of the State of Texas, and gas which was transported from the State of Oklahoma into the State of Texas, and a division is made of those lines which were used jointly or concurrently for the transportation of this mixed gas.

The report was divided into three main sections. In the first section, we determined the relative per cents and volumes of gas produced and purchased from the West Texas or Central West Texas area in the lines jointly or concurrently used for the transportation of mixed gas. In the second division, we allocated the property of the company [fol. 2367] which was jointly used, jointly or concurrently used, for the transportation and delivery of gas produced from the West Texas area; and in the third division, the

allocation of sales of this gas was set out—that is, between domestic and industrial, a division of those sales.

Q. In the forepart of the report, which has been styled Defendant's Exhibit 45, you set out a letter, and which letter is signed by yourself and Mr. Ed C. Connor, detailing the development of the report?

A. That is correct.

Q. And in the forepart, have you set forth a table of contents, giving ready reference to the various tables and sections of the report?

A. That is correct.

Q. What appears at page 1 of Defendant's Exhibit 45?

A. Page 1 of this report shows a map of the pipe line system of the Lone Star Gas Company, which is composed of the main lines and tap lines used jointly and/or concurrently for the transportation of and sale of gas produced and purchased in the Texas and Oklahoma fields.

Q. Now, Mr. Schmidt, it is not possible to give to each member of the jury a copy of this exhibit, but I wish you would step down out of the witness stand, and point to the map which is in evidence here and labeled Defendant's Exhibit 29, and show generally the facilities of the company which are used jointly and/or concurrently in the transportation and sale of gas from all sources.

[fol. 2368] A. On the eastern part of the map, all of Line E, and the branches thereof.

Q. And running generally from what points to what points?

A. From Gainesville, Texas, West through Paris and on to Clarkesville.

The Court: That would be east, wouldn't it?

A. That's right, east to Clarkesville.

Q. And that is Line E?

A. Yes, Line E. The lines from Gainesville, south; Line F and a small portion of Line G, north of Gainesville Junction, where Line E comes off of F, south to Dallas. Line C, which runs from Dallas to Fort Worth. Line B, which extends from Fort Worth northwesterly to Petrolia. Those are the principal lines, and then also there is Line J, which runs from Haines to Dallas.

Q. Now, in addition to the specific lines which you have mentioned, Mr. Schmidt, are there various tap lines which go off of these various lines?

A. Yes, all of the tap lines going off of those lines are considered in this report.

Q. Now, again referring to the map which is in evidence and styled Defendant's Exhibit 29, does any gas which is transported through the State of Oklahoma into the State of Texas, in the ordinary course of the company's operations—is it distributed at points south of Fort Worth and Dallas?

A. No, sir.

[fol. 2369] Q. It can be?

A. It can be, yes.

Q. But in the ordinary course of operations, that is not done?

A. That is correct.

Q. And what about the sales of gas from Joshua station, just immediately south of Fort Worth, on the western division of the company's pipe line property?

A. From that point west, all the sales in that district are all of gas produced in the Central West Texas area.

Q. Now, from Joshua station south, and south of Dallas and Fort Worth, in the ordinary conduct of the company's business, all of those sales are of gas produced and/or purchased in the central west Texas area, of Stephens, Eastland, Erath, Shackelford and Palo Pinto counties?

A. Yes, and even east of Dallas, extending on over to Greenville, that line is supplied wholly from the west Texas area.

Q. On page 1 of Exhibit 45, have you set forth a map showing the main lines and the tap lines which are used jointly and/or concurrently for the transportation of gas produced in Texas and the Oklahoma fields by the Lone Star Gas Company, in the year 1933?

A. I have.

Q. And that map is in accordance with the general outline on the big map, which you have just pointed out to the jury, and which is Defendant's Exhibit 29?

A. That is correct.

Q. Mr. Schmidt, does the Lone Star Gas Company main-

[fol. 2370] tain and operate recording gravitometers, which make a continuous record of the specific gravity of the gas transported and sold by it?

A. They do.

Q. What are these recording gravitometers?

A. The recording gravitometers continuously record the specific gravity of the gas passing the point at which they

are installed. In simple terms, the principle of this machine is something like a hydrometer. In a hydrometer, with which most everybody is familiar, you have a glass bulb, air tight, which when immersed or placed in a fluid will sink to a certain level, depending on the specific gravity of the fluid. In the case of gas, we have a container which is fastened to a beam supported by a bearing about half way between the container and a counter-weight, which counterbalances the weight of the tank, and gas passes through this tank by means of flexible tubes, which do not interfere with the movement of the tank, and the gas passes through at such a slow rate that it is practically in a static condition, and as the gas varies in specific gravity, if it becomes heavier or of higher gravity the weight of the gas in that container will cause it to lower and if the gas becomes lighter, the container will rise, and those movements of the container are transmitted by proper mechanism to a chart, which is calibrated according to the specific gravity of the gas.

Q. And are those charts taken off of the recording gravitometers and included in the records of the company?

A. They are.

[fol. 2371] Q. And those records of course are available to the State of Texas and the Railroad Commission of Texas?

A. Yes.

Q. Now, Mr. Schmidt, you previously testified that the specific gravity of the gas produced and/or purchased in the Panhandle field and in the several Oklahoma fields, was approximately .63?

A. That is correct.

Q. Or 63/100 as related to air?

A. That is right.

Q. When the recording gravitometers of the company show a specific gravity of gas being delivered and transported in the company's pipe line system in excess of .63, what does that indicate?

A. That indicates that there is a certain percentage of gas passing that point that comes from the central west Texas area.

Q. Now, is that indication a theory or is this a matter of scientific fact?

A. It is a matter of scientific fact.

Q. And are recording gravitometers generally recognized and accepted as the accredited means of making these determinations?

A. They are; and they are used entirely in the gas industry as one of the factors in the basis of measuring gas, both for purchase and sale.

Q. As an example, Mr. Schmidt, if you found that the specific gravity of a gas being delivered at the Irving measuring station, was .70, what fact would that indicate?

[fol. 2372] A. That would indicate that there was a percentage of gas in that gas of central west Texas gas, and in order to determine the amount of West Texas gas in the gas at any point where the specific gravity shows to be .7 it is only necessary to make a simple proportionment since you know that the two gases making up this gas of .7 gravity on the one hand is .63 and on the other hand is approximately .825.

Q. Refer please to the graphs appearing at pages 46 to 57, inclusive, of Defendant's Exhibit 45. What do those graphs reflect?

A. These graphs are a copy of the graphs that we use in determining the percentages of west Texas gas for any particular point to simplify the long-hand method of making proportions and to speed up the work. A curve is made for each month, principally because the specific gravity of the west Texas gas varies by a few points each month during the year, and it was necessary therefore to determine the average specific gravity of the West Texas gas by months, and plot a curve for each month instead of making a curve that might apply for a year.

Q. Was that for the purpose of insuring greater accuracy in the preparation of this report?

A. That is correct.

Q. Commencing at page 46, do you show a determination of the percentage of west Texas gas for different specific gravities, for the month of January, 1933?

A. For the west Texas gas in January, 1933, the curve indicates that the average gas at that point was about .795.

[fol. 2373] Q. .795 specific gravity?

A. Yes.

Q. And the specific gravity of the Oklahoma and Shamrock gas remained a constant?

A. Yes .63.

Q. And you made similar determinations for each and every month in the calendar year of 1933?

A. That is correct.

* * * * * * *

[fol. 2374] Q. Mr. Schmidt, please refer to page 5 of Defendant's Exhibit 45. On that page and on the succeeding pages have you outlined the method of making the per cent determination of West Texas Gas in Line B?

A. I have.

Q. What was the general method followed?

A. In Line B, which starts at Fort Worth, and goes north to Petrolia, we have a meter on the south end of the line that measures gas that may go in either direction. The north flow on this meter is tabulated on page 7 in the first column; and in the next column, the per cent of West Texas gas of the north flow is shown,—that is, as a percentage. That is taken from page 14, which shows the percentage in the right-hand column of West Texas gas in the gas passing that point.

[fol. 2375] Q. Now, how does gas get into Line B from the Central West Texas fields?

A. The gas comes north—comes east, of course, from the Central West Texas area, through Lines K, N, and O, and north through Line J from Joshua to Line C, west from Line C to Fort Worth, and north into Line B at that point. At the North Fort Worth Measuring Station, which is the same point at which gas is taken off for Fort Worth, and also the gas that passes north through Line B, we have a recording gravitometer. From these records, the percentage, as shown on page 14, of West Texas gas was determined; and that percentage during the time that gas flowed north in Line B is shown on page 7, in Column 2. Multiplying the total north flow by the percentage of West Texas gas, we arrive at the total volume of West Texas gas flowing north in Line B. They are set out in the third column. We found on examining the gravitometer charts that during the months of May, June, July, August, September, October, and December—strike that, please—in the fourth column, on page 7, we show the quantity of gas originating in West Texas that was delivered, by months, to the Trinity Portland Cement Company, located almost at the south terminus of Line B.

Q. Is that a large industrial customer?

A. That is a large industrial customer. The quantities as set out in this column were determined from the gravi-
[fol. 2376] tometer records and the volume of the actual delivery to the cement plant, for those months where gas was used in any quantity, and that was deducted from the total gas in Line B for those months, which is represented by West Texas gas, because we felt that no allocation of property, or operating expenses, or any other fixed charges, should be charged to Line B for transporting that gas that short distance. The fifth column then shows the net amount of West Texas gas, which is the algebraic sum of the third and fourth columns, sold in Line B during the months that gas flowed north.

Q. You are still referring to page 7 of Defendant's Exhibit Number 45?

A. That is correct. The next to the last column on that page shows the total sales of Line B by months during those months that gas was transported through that line from West Texas; and the last column shows the net per cent of West Texas gas handled in Line B during those months.

Q. That is described as Net Per cent Joshua;—is Joshua synonymous with Central West Texas gas?

A. It is; all of the gas from West Texas passes by the Joshua plant.

Q. Now, as stated on page 5——

A. Just a minute. There is an error on this sheet that I might call attention to. During the month of July, in the third column, the figure of 173,000 should be 1,733,000, as shown in the first column for July, since 100 per cent of
[fol. 2377] the gas in Line B at that time was West Texas gas.

Q. How would that change the percentage in the column headed "Net per cent Joshua"?

A. That would change that per cent from 5.10 to 51.09.

Q. On page 5 of the exhibit you said that during the months of May, June, July, August, September, October, and December, the daily amount of gas used and unaccounted for in Line B was determined by subtracting the outlet volume from the inlet volume?

A. That means that the south flow was subtracted from the north flow to determine the net amount of gas that went north in Line B at that time.

9051

Q. In other words, in accounting for the gas, did you state you later classified the sales as between domestic and industrial?

A. Yes, sir.

Q. But you also determined the amount of lost and unaccounted for gas?

A. That is correct.

Q. Now, refer to pages 8 and 9. What have you set forth on those pages?

A. On page 8 is a description of the method used for determining the per cent of West Texas gas of the total transported in Line C, which is the line between Fort Worth and Dallas.

Q. Now, on page 8 of Defendant's Exhibit 45, you mentioned several measuring stations and several points of [fol. 2378] measurement. I wish you would take the pointer and indicate to the jury on Defendant's map Exhibit 29 these several points of measurement, giving a reference to the nearest town or city?

A. The first delivery mentioned in the report is the Central City Gate Station at Dallas, which is at a point about the middle of Dallas. Gas is delivered from Irving Station through a 16-inch line to that point out of Line C—it is really an extension of Line C to that point. The next station is the Hudnall City Gate Station of Dallas, which is near the northwest corner of Dallas. The North City Gate Station of Fort Worth is located on Line C just north of Fort Worth, and the principal deliveries of gas to Fort Worth are passed through that station. The South End—Line B, is the point that I referred to a few moments ago, and is identical almost with the take-off for the North Fort Worth Measuring Station. Line F comes off Line C at a point near Irving, and gas flows through it to consumers on the E and F systems. Line C-2 also comes off at Irving and supplies a part of the West Dallas District, as well as part of the gas used in J-2, the line between Haines and Oak Cliff; and also gas to the Boundary Measuring Station, which is also one of the measuring stations measuring gas into the City of Fort Worth.

Q. Is Oak Cliff a subdivision of the City of Dallas?

A. That is in the south part of Dallas—a subdivision of the City of Dallas.

[fol. 2379] Q. How did you go about making the determination for the West Texas gas that was transported through Line C?

A. All of the West Texas gas reaching these various points of outlet from Line C is transported through Line C. The actual volume of West Texas gas delivered through those various points was determined by applying the specific gravity as recorded at these various locations to the total volume delivered through these stations, which gave—those deliveries added together would give the total amount of West Texas gas delivered out of Line C. And on page 9 is tabulated in the first column the deliveries out of Line C; the next column the determination at each point of the West Texas gas; and in the last column is the ratio of the West Texas gas to the total gas delivered through each of those stations. This is tabulated by months.

Q. On pages 10 and 11 do you show the development of the per cent of West Texas gas to the total deliveries at the Central and Hudnall City Gate Stations of Dallas for the year?

A. I do; but before I go into that, if the Court will permit, I would like to show a check that we made on Line C to show that our method is correct.

Q. Go ahead. What was the check?

A. Just north of Haines, which is one of the delivery points to Fort Worth, we have a main line meter on Line J. This meter measures all of the gas from the Central West [fol. 2380] Texas area that goes north into the C system, and eventually to these other systems. We have a measurement for the total supply of gas that went through that meter, which shows to be 7,717,000,000. This gas is measured at high pressure. A large part of the gas delivered out of Line C—the Fort Worth delivery, and the City Gate deliveries at Dallas, Central Station, Hudnall Station, and C-2—are low pressure deliveries. The sum of all the deliveries out of line C totals 8,253,000,000, which is in excess of the measurement on the meter on Line J. This is due largely to the difference in pressure with which the measurements were mad-. Gas being compressible, it does not follow Boyle's Law exactly.

Q. Are there what is known as deviation from Boyle's Law in the measurement of gas at various pressures?

A. There is; and the deviation from Boyle's Law for gas passing through the J Line meter, that factor is 1.041, and

when applied to the measurement gives a delivery through that meter of 8,033,000,000, which is only 2.7 per cent lower than the West Texas gas determined by the volumes and gravitometer readings on all the deliveries out of Line C, which I feel is a remarkable check on the accuracy of this method.

Q. And is the difference of 2.7 per cent within the range of tolerance allowed on meters of this character?

[fol. 2381] A. It is. Three per cent is usually allowed on measurements of large volumes of gas—a three per cent variation in the accuracy of the meters.

Q. Have you finished your answer?

A. Yes, sir.

Q. Will you refer then, please, to pages 10 and 11 of Defendant's Exhibit 45, and state what you show on those pages?

A. On pages 10 and 11, I show the method and results indicating the per cent of West Texas gas delivered to the Central and Hudnall City Gate Stations at Dallas. At the point of delivery of this gas we have a recording specific gravity apparatus. It was found that during the months of January, February, March, April, November and December, that by using the average specific gravity for the month we would have been in error, as the gravity varied considerably; so we took the daily average and applied that to the daily delivery through those meters, and in the appendix of the report beginning at page 3 and continuing to page 13 inclusive, are set out the calculations by days of the per cents and volumes of West Texas gas delivered through each of these stations. The monthly results are tabulated on page 11. In the first column on page 11 is shown the total volumes of gas delivered by months through the Central City Gate Station at Dallas; in the second column, the total West Texas; in the third column, is the per cent of West Texas gas, which is determined by the records of the [fol. 2382] gravitometer, which applied to the total delivery in millions, gives the second column, representing the volumes of West Texas gas delivered through the Central City Gate Station of Dallas by months. On page 12, the per cents and volumes of the Hudnall City Gate Station are shown by months.

Q. And were they determined in exactly the same manner as for the Central City Gate Station, set forth on page 11?

A. That is correct; they were.

Q. On pages 13 and 14, what do you show?

A. On pages 13 and 14, I show the per cent of West Texas gas of the total delivered through the North Fort Worth Measuring Station into the city of Fort Worth. On page 13 the method is outlined, which is exactly the same as used for the Hudnall and Central Stations at Dallas, except that in this case we used the gravitometer installed at the North Fort Worth Measuring Station, and it was necessary in this case also to determine the daily average for the months of January, February, March, April, October, November, and December in order to get the weighted average for those months, on account of the wide variation of the specific gravities recorded during those months.

Q. From day to day?

A. From day to day.

[fol. 2383] Q. If we refer to pages 14 to 20, inclusive, in the Appendix to this report, do we find set forth in detail the specific gravity determinations, the West Texas gas determinations, and the volume of West Texas gas handled for each particular day?

A. That is correct.

Q. Refer, please, to pages 15 and 16, Mr. Schmidt.

A. On pages 15 and 16 I have set out the gas—the West Texas gas delivered to the town of Irving, which comes off of Line C.

Q. Where is that town located, with respect to the City of Dallas?

A. It is just west of the City of Dallas, and just west of the location of the gravitometer used on Line C-2, which comes off at almost the same place.

* * * * * * * *

Q. It might be called northwest of the City of Dallas, might it not?

A. Yes, it is a little northwest. It is almost at the point where the main deliveries to Dallas are taken off from our [fol. 2384] system. The gravitometer—on page 16, in the first column is indicated the total delivery to the town of Irving, by months; in the last column the per cent of West Texas gas, as determined by the C-2 gravitometer, is tabulated by months, and the first column multiplied by the

last gives the middle column, which represents the West Texas gas delivered into the city of Irving, by months.

Q. For the calendar year of 1933?

A. This is all for the calendar year of 1933.

Q. Now, Mr. Schmidt, several times you have spoken of the workings of the recording gravitometer. How does the Company continuously know that those gravitometers are functioning and recording correctly?

A. The gravitometers are inspected twice a month and tested with a indicating gravitometer, which is accurate to the fourth or fifth decimal point. These determinations are made at the same point at which the recording gravitometer is located, and by that means we are certain that the gravitometers are recording correctly continuously.

Q. On page 17 you make reference to the Marathon Oil Company's plant, and on page 18 you give a tabulation showing the per cent of West Texas gas delivered to the Marathon Oil Company. Is that a large industrial customer?

[fol. 2385] A. It is rather a large industrial customer. They use an average of about 3,000,000 feet a month, and it is a delivery directly off of Line C, very close to Fort Worth, and in order to give the proper allocation of West Texas gas as sole to this customer, we treated it as a delivery off of Line C, and applied the specific gravity as recorded at the North Fort Worth measuring station to this delivery. Those quantities are tabulated on page 18.

Q. Now, previously, you have spoken of the plant of the Trinity Portland Cement Company. Does the Lone Star Gas Company deliver gas to more than one plant of the Trinity Portland Cement Company?

A. They have one at Fort Worth and one at Dallas.

Q. On page 19 and 20 do you disclose the determination of the per cent of West Texas gas delivered to the Trinity Portland Cement Company at its Dallas plant for the year 1933?

A. That is correct.

Q. And how was that determination made?

A. The Trinity Portland Cement at Dallas receives its gas from Line C-2, which is the line that extends from Irving in a south direction through the West Dallas area, and connects at its terminus with Line J-2. We used the gravitometer records on C-2 as representing the gravities

[fol. 2386] of the gas delivered to the Trinity Portland Cement at Dallas, and applied the per cent as determined from the gravitometer records to the total volume of gas delivered to the Trinity Portland Cement, to arrive at the volume of West Texas gas which was consumed by the Trinity Portland Cement at Dallas, by months.

Q. And that tabulation is shown on page 22 of the exhibit?

A. On page 20.

Q. On pages 21 and 22 what do you show?

A. We show the deliveries to the Trinity Portland Cement at Fort Worth. This plant is located at the southern terminus of Line B, and gets its gas almost from the same point that the North Fort Worth measuring station gets its supply. The gravitometer records—However, we have located at the Trinity Portland Cement a gravitometer in this plant, and the gravitometer was used—the records from the gravitometer were used in determining the per cent of West Texas gas as delivered to the Trinity Portland Cement Company at Fort Worth. These volumes are tabulated on page 22.

[fol. 2387] Q. Where is Line C-2 located, Mr. Schmidt?

A. Line C-2 comes off of Line C just west of Dallas, and goes in a southerly direction through the West Dallas district and connects with Line J-2 at a point southwest of Dallas.

Q. On pages 23 and 24 of Defendant's Exhibit 45, do you show the method used and the per cent of West Texas gas determined which was transported in Line C-2 during the year 1933?

A. I do.

Q. Please relate in a general way how that determination was made?

A. This determination is made exactly in the same manner as the other determinations—that is, on page 24 we have tabulated the total volume of gas delivered into Line C-2, and in the last column the per cent of West Texas gas as determined by the records of the gravitometer located on Line C-2 at the delivery point. This per cent multiplied by the total millions delivered gives the central column, which shows the total West Texas gas delivered into Line C-2. For the——

. . . . . .

A. Similarly, for the months of January, February, March, April, October, November, and December, daily de-
[fol. 2388] terminations were made in order to arrive at the weighted average specific gravity for those months on account of the variation of both the specific gravity and the volumes during those particular months.

Q. If we refer to pages 26 to 32, inclusive, of Defendant's Exhibit 45, do we find those specific gravity determinations for each day for each of the months that you have mentioned?

A. Pages 26 to 32, inclusive.

Q. Of the Appendix?

A. That is correct.

Q. Where is Line E located? Please refer to it on the Defendant's Pipe Line Map, Exhibit 29.

A. Line E comes off of Line F at a point south of Gainesville, Texas, and goes in an easterly direction, supplying Sherman, Denison, Paris, and east as far as Clarksville, and a number of towns in between there.

Q. Of course, it has various tap lines?

A. Yes, sir.

Q. Now, what do you disclose on pages 25 and '6 of Defendant's Exhibit 45?

A. On pages 25 and 26 is set out a method and a tabulation of the volume of West Texas gas transported and sold
[fol. 2389] through the E System, by months, during the year 1933. On page 26, the column represents the total millions of cubic feet delivered into Line E, and at the location of this measurement we have a recording gravitometer, and from the records of that recording gravitometer the per cent of West Texas gas, as shown in the last column, was determined, and multiplying the total volume by the per cent of West Texas gas gives the total volume of West Texas gas distributed through Line E, by months, during the year 1933.

Q. Now, Mr. Schmidt, where is Line F located?

A. Line F begins at Gainesville, and goes in a southerly direction to Dallas.

Q. Terminating at what point?

A. Terminating at Irving, approximately at the Irving Station, just west of——

Q. And that is near the town of Irving which you have just mentioned?

A. Yes, sir.

Q. Now, what do you set forth on pages 27, 28, and 29, in relation to Line F?

A. On pages 27 to 29, inclusive, I show the method used in determining the percentage of West Texas gas transported and sold in the F System, and on page 29 are tabu-
[fol. 2390] lated the results of this investigation. In the first column as shown the net north flow at Irving into Line F, less the deliveries out of Line E. In determining the per cents of West Texas gas as transported in Line F we used a gravitometer located about the central point in the length of this line at the McKinney tap line. We felt that since gas was flowing or going into Line F both from the north and the south that this gravitometer would give us a more accurate determination of the relative amounts of the West Texas gas in that line. The per cents of West Texas gas as determined from this gravitometer are shown in the last column on page 29, which, multiplied by the first column on page 29, gives the center column, which indicates the total West Texas gas delivered through Line F and sold off of Line F.

Q. Now, have you fully described how you have made your determinations in respect of the per cent of West Texas gas which is transported and sold, or unaccounted for in connection with all of the facilities which are jointly and/or concurrently used for the transportation and sale of gas, whether produced in the State of Oklahoma or in the State of Texas?

A. All with the exception of Line J-2.

[fol. 2391] Q. And the J-2 taps?

A. And the J-2 taps, yes, sir.

Q. Is that determination shown on page 55 of Defendant's Exhibit 45?

A. It is.

Q. Will you please relate briefly the method of making that determination?

A. On page 55, in the first column, is shown the total sales off of Line J-2, by months, for the year 1933. During part of the time all of the gas sold on Line J-2 was delivered into J-2 from Line J at Haynes, which would be 100 per cent West Texas gas. Whenever the sales on Line J-2 were less than the delivery through the J-2 meter at Haynes, which was West Texas gas, the difference came from Line C-2. Line C-2 gas, as previously determined, carried a certain percentage of West Texas gas. Following out the table

on page 55, the second column shows the deliveries from Line C-2 into Line J-2, by months. This is taken from page 49, which shows the—in the fifth column, the balance of the amount of gas sold on the J-2 System as coming from C-2, by months.

[fol. 2392] Q. In other words, these towns of Arlington, Handley, Dalworth and Arcadia Park are sold off of the J-2 line?

A. That is correct. The third column shows the per cent of gas coming from Line C-2 into Line J-2. This is arrived at by dividing the second column by the first column. The fourth column shows the percentages of Shamrock and Oklahoma gas in Line C-2 as determined on page 24 of this report. The next column is the product of the per cent of Shamrock and Oklahoma gas times the per cent of the C-2 gas in Line J-2, which gives the next to the last column, the per cent of Shamrock and Oklahoma gas in the total gas delivered to Line J-2. The last column is the per cent of West Texas gas in the total.

Q. For each month of the year?

A. For each month of the year.

Q. Does the calculation at the bottom of page 55 have to do with the allocation of property?

A. Yes.

Q. Have you now concluded a description, Mr. Schmidt, of your method of determining the relative percents of west Texas gas which were transported and sold through these facilities which are jointly and/or concurrently used?

A. That is correct.

Q. Mr. Schmidt, commencing with page 30 and running through page 38, what do you show in respect of the application of the determination of the per cent of west Texas gas which was transported through facilities jointly and/or concurrently used?

[fol. 2393] A. I show the allocation of property which we set up due to the transportation of this West Texas gas through the lines that were jointly or concurrently used.

Q. Now, on page 31 do you show the lines and equipment and the compressor stations which were jointly and/or concurrently used in connection with the transportation and sale of gas from all sources of supply?

A. With the exception of Line J-2, which is not enumerated on that page.

Q. But which is a part of those joint and/or concurrent facilities?

A. That is correct.

Q. Now you then attempted an allocation of the property, based upon the respective use to which the property was devoted, did you not?

A. That is correct.

Q. In making this allocation, do you set forth the method, commencing at page 32 and running through page 35 of Defendant's Exhibit 45?

A. I do.

Q. Now please relate to the jury in a general way the method of allocation which was used, and your reasons therefor.

A. There are certain fixed charges, including interest and return, ad valorem taxes, depreciation, amortization and operating charges, which are a function of time rather than volume of gas transported. That is, I mean to say that regardless of whether we transport ten million feet of fifty [fol. 2394] million feet through any particular line at any particular time, these fixed charges are continuous, regardless of the volume. They are a function of time. In order to properly apply these fixed charges, we applied a factor of 8.33 which is one-twelfth of one hundred per cent, giving the per cent by months of these fixed charges, and applied to that the percentage determined of west Texas gas handled through the various system lines and tap lines.

Q. And that was the method of allocation of this property which you have described?

A. That is correct.

Q. On pages 36, 37 and 38 do you show the allocation of property by individual lines and systems?

A. I do.

Q. Please explain, for example, the allocation of Line B and B Taps, appearing at the top of page 36 of the exhibit.

A. On page 36 I have tabulated in the right-hand column the per cent, one-twelfth of 100 per cent, represent the per cent for each month of those fixed charges. In the next column are the percentages of west Texas gas delivered on the B and B Tap system, as determined on page 7 of the report. These two columns multiplied together give the per cent by months of property allocations and per cents which should be applied to all of the various fixed charges each month.

Q. And also to the property?

A. And also to the property, yes.

[fol. 2395] Q. And is the same true in respect of all of the other allocations which appear on pages 36, 37 and 38?

A. That is true, and in addition, on the bottom of page 55 is shown the allocation on Line J-2.

Q. Is there any further explanation which you desire to make in respect of this allocation of the various property?

A. Well, we kind of called this method a time-volume method, which ties both the time and the volume together.

Q. All right; what do you mean by the time-volume method? Just explain it to the jury.

A. The time element is contained in the factor 8.33, which is the monthly per cent or total per cent of the annual charges, and the volume per cent is determined from the actual records of the company, gravitometers and volumes delivered at these various systems.

Q. Do you believe that that was the proper method to apply in the determination of the fixed charges and the allocation of the fixed charges and the allocation of property?

A. I do.

Q. Do you believe it is the rational method to pursue in making that allocation?

A. That is correct.

Q. Has any more rational or sensible method of allocation occurred to you?

A. No, sir, there has not.

Q. Now, Mr. Schmidt, having made the determinations [fol. 2396] of the per cent of West Texas gas which were transported and sold through these various facilities which are jointly and/or concurrently used, and having determined the allocation of fixed charges and property, did you next proceed to make an allocation of sales by classes?

A. I did.

Q. Which sales were effected through these facilities which were jointly and/or concurrently used for the transportation and sale of gas from all sources of supply?

A. That is correct. An analysis was made of the sales.

Q. Commencing at page 40 and going through page 43, do you explain the method of allocating the sales by classes?

A. I do.

Q. Will you please summarize the explanation of that method in a general way to the jury?

A. In order to properly allocate the sales of gas through these various sources, it was necessary to make a determination from the records of the company of the domestic sales, the unaccounted for gas and the industrial sales by months. The domestic and unaccounted for gas is sold at the city gate stations at a forty cents rate, and the industrial gas is sold on a sliding scale basis, and it was therefore necessary to divide these sales in order to properly set out the moneys that were received for the amount of west Texas gas delivered through these various points of consumption. That, briefly, explains the method that was used.

Q. In other words, Mr. Schmidt, in making the allocation [fol. 2397] of sales by classes, were you merely attempting to make a money accounting for the sale of the gas which had been determined to be transported through the facilities which were jointly and/or concurrently used?

A. That is correct.

Q. Now, commencing at page 44 and running through page 54 of the exhibit, do you show the allocation of sales by classes?

A. I do.

Q. Now Mr. Schmidt, was all of this basic data taken from the books, records and accounts of the Lone Star Gas Company?

A. It was.

Q. And to which books, records and accounts the State of Texas and the Railroad Commission now have and may have access?

A. That is correct.

Q. Take up, for example, the allocation of sales by classes on the F system, appearing at the top of page 44, and explain to the jury how that determination was made.

A. In the first column, we have tabulated by months the domestic sales on the F system.

Q. Is that the total of domestic sales?

A. That is the total domestic sales on the F system.

Q. Of gas transported from any and all sources?

A. That is correct. The next column shows the lost and unaccounted for gas in the city gates, in the distribution plants where these sales were made. The third column is the algebraic sum of the first two columns, and gives the net amount of gas that the Lone Star Gas Company was [fol. 2398] paid for at a forty cents rate. The fourth

column indicates the total industrial sales on the F system by months from all sources.

Q. Now, Mr. Schmidt, these are money determinations, are they not? That is, the domestic sales are given in money?

A. No, these are given in feet.

Q. They are given in feet?

A. Yes, thousands of cubic feet.

Q. Then what appears under the industrial sales?

A. Under the industrial sales are the total industrial sales by months sold on the F system in thousands of cubic feet. The following column is the per cent of Oklahoma and Texas Panhandle gas brought forward from page 29 which was determined in the study or allocation of West Texas gas. These per cents are the reciprocals of the per cents shown on page 29, since the per cents on page 29 represent the per cent of west Texas gas, and this column on page 44 represents the per cent of Oklahoma and Texas Panhandle gas. Multiplying the net cubic feet at forty cents in the third column by the per cent of Oklahoma and Texas Panhandle gas, gives the amounts in cubic feet of gas in next to the last column on page 44, which is Oklahoma and Texas Panhandle gas by months. Similarly multiplying the industrial sales column by the per cent of Oklahoma and Texas Panhandle gas, we arrive at the industrial gas which is Oklahoma and Texas Panhandle gas, and that is set out in the last column on page 44 for the F system by months.

From the total of the gas which is represented, or which comes from the Oklahoma and Texas Panhandle fields, I [fol. 2399] have determined the per cent of domestic gas and industrial gas to the total gas sold coming from the Oklahoma and Texas Panhandle fields. That is set out just below the tabulation on Line F. In other words, the Oklahoma and Texas Panhandle domestic gas was 66.14 per cent of the total Oklahoma and Texas Panhandle gas sold on the F system, and the industrial gas was 33.86 per cent of the total Oklahoma and Texas Panhandle gas sold on the F system for the year 1933. On the left hand, below the tabulated columns, is indicated the per cents of West Texas domestic gas and industrial gas of the total of the West Texas gas sold in the F system.

Q. In other words, you have made—treating the west Texas gas as 100 per cent, you have arrived at a determination of what part of that one hundred per cent is repre-

sented by industrial sales and what part of it is represented by domestic sales?

A. That is correct.

Q. And a similar determination has been made for gas produced and/or purchased in Oklahoma and the Texas Panhandle?

A. That's right.

Q. And have you made a similar calculation immediately following in connection with the E system; and Line B and the Tap Lines?

A. I have.

Q. And is the method similar in all respects to the method which you pursued in connection with the determination on the F system?

A. That is correct.

Q. Now, what appears on page 45?

[fol. 2400] A. On page 45 I have allocated the sales by classes in the metropolitan area of Dallas, and the sales of Oklahoma and Texas Panhandle gas going through the Hudnall and Central stations.

Q. Now in that connection, Mr. Schmidt, does the Lone Star Gas Company deliver gas to the Dallas Gas Company and the County Gas Company, the distributing companies in Dallas, at any points other than the central and the Hudnal stations?

A. They do.

Q. At what other points?

A. At Second Avenue and Lisbon.

Q. Now, will you please step up to the map, defendant's Exhibit 29, and show the jury why it was not necessary to take into consideration the gas delivered at Lisbon and Second Avenue Stations in Dallas?

A. The Lisbon delivery comes off of Line O at a point south of Dallas, and Line O carries only west Texas gas, and therefore 100 per cent of the gas delivered through the Lisbon station was purchased or produced in west Texas.

Q. And is that also true of the Second Avenue station?

A. That is also true of the Second Avenue station, which comes off in the southeast part of Dallas.

Q. Referring again to page 45, will you please explain briefly how you made the allocations of sales by classes for deliveries to the metropolitan area of Dallas from the Hudnall and Central stations?

A. In order to find out the proper percentage of the Oklahoma and Texas Panhandle gas, it was necessary to [fol. 2401] make an analysis of all of the sales in the City of Dallas. In the first column on page 45, I have set out the domestic sales by months of all the gas sold in the city of Dallas. This second column is the unaccounted for gas in the distribution plant of the city of Dallas, and the third column is the algebraic sum of the first two columns, which represents the amount of gas which was sold at forty cents a thousand in the city of Dallas during these months. The fourth column is the industrial sales by months of all industrial sales in the city of Dallas. The fifth column is the total of the domestic and industrial sales in the city of Dallas by months. The next column shows the delivery of gas through the Hudnall and Central stations at Dallas; the following column shows the per cent of Hudnall and Central stations gas to the total gas sold in the City of Dallas.

Q. Now, the total gas would be the gas not only delivered through the Central and the Hudnal stations, but through the Lisbon and Second Avenue stations, which you have just pointed out on the map styled Defendant's Exhibit 29?

A. That is correct. The next column is arrived at by multiplying the net domestic sales in the City of Dallas at forty cents by the per cent of the Hudnall and Central per cent of the total which represents the total amount of gas sold in Dallas at forty cents, that went through the City Gate stations of Hudnall and Central station-. The next column similarly sets out the total amount of gas that went [fol. 2402] through the Hudnall and Central stations of the industrial gas, and is obtained by multiplying the per cent of the total of the Hudnall and Central city stations by the total industrial sales in the metropolitan area of Dallas. Next to the third column from the right I set out the per cent of Oklahoma and Texas Panhandle gas which was delivered through the Hudnall and Central City Gate Stations of Dallas, and was carried forward from pages 11 and 12, determined in the first part of this report. Multiplying then the total net gas that went through the Hudnall and Central city gate stations, the gas that was sold at a forty cent rate, by the per cent of the Oklahoma and Texas Panhandle gas would give the net amount of gas sold at forty cents which was purchased or produced in Oklahoma

and Texas Panhandle gas sold through these stations at a forty cent rate. The last column is arrived at in a similar manner, applying the per cents to the industrial sales and shows the amount of industrial gas produced and purchased in Oklahoma and Texas Panhandle, and sold through these two stations in the city of Dallas.

Q. Through means of those determinations, were you able to arrive at the per cent of West Texas gas which went to domestic sales and the per cent which went to industrial sales, and the same for the gas produced in Oklahoma and the Texas Panhandle?

A. I was.

Q. And is that determination set forth at the bottom of the table of calculations on page 45?

A. That is correct.

[fol. 2403] Q. The allocation of sales by classes made through the boundary station at the city of Dallas appearing on page 46, was it made in exactly the same manner as the determination on page 45?

A. That is correct.

Q. And is the same true of the allocation of sales by classes for the Fort Worth division of Lone Star Gas Company?

A. That is correct.

Q. Covering deliver-s through the North Fort Worth station?

A. That is correct, and that tabulation is set out on page 47.

Q. Now in addition to the delivery of gas at the North Fort Worth station at the city of Fort Worth, is gas delivered at any other points to the city of Fort Worth?

A. Yes, at two other points.

Q. Where are those points? Will you please indicate them on Defendant's Exhibit 29?

A. At a point on Line J, known as Haines, which is almost directly East of Fort Worth. Gas coming off of Line J, going in at that point, is 100 per cent from the central west Texas area, produced and purchased in that territory. The other point of delivery is at South Fort Worth which also comes off of Line J, and is 100 per cent gas produced and purchased in the central west Texas area.

[fol. 2404] Q. Refer, please, to page 48. What do you set forth on that page?

A. Page 48 shows allocations of sales by classes in the town of Irving.

Q. In other words, you finally determine on page 48 the per cent of West Texas gas which went for domestic and the per cent for industrial purposes and made the same calculation for gas purchased and/or produced in Oklahoma and the Texas Panhandle?

A. That is correct.

Q. What appears on page 49?

A. Page 49 represents a tabulation of the allocation of sales by classes at Arlington, Handley, Dalworth, Grand Prairie and Arcadia Park; in other words, these towns receive their supply of gas from Line J.

Q. And was that method of allocation of domestic and industrial sales covering, first, West Texas gas, and secondly, Oklahoma and Texas Panhandle gas, made in exactly the same manner that the allocation was made on page 47 in connection with the deliveries of gas at North Fort Worth station?

A. Not exactly. We had to take into account on J-2 the gas delivered into J-2 from Line C-2, and this is properly taken into account and the per cent of West Texas gas finally determined for the sales of these towns on Line J-2.

Q. Refer, please, to page 50. What do you set forth on that page?

A. On page 50 the allocation of sales by classes of the [fol. 2405] gas delivered in the territory known as West Dallas. This is a delivery mainly of industrial gas in the West Dallas area and comes off of Line C-2 and was set out as a separate item because it represented a fairly large volume of sales, included in which were some domestic sales. The method followed is very similar to the method on the other sales.

Q. The allocation on page 51 is similar to the allocation of page 50, is it?

A. Yes, sir, and it represents allocations of sales by classes on the G-3 system, which system comes off of Line G near Gainesville and extends in a westerly direction to a number of small towns west of Line G.

Q. On pages 52, 53 and 54 do you make an allocation of sales covering three industrial customers heretofore referred to in your exhibit and in connection with your testimony?

A. That is correct.

Q. That was one hundred per cent industrial gas, was it not?

A. That is right.

Q. You have merely determined the quantities on the one hand of West Texas industrial gas delivered to those three plants and the quantity of Oklahoma and Texas Panhandle gas delivered to those three plants?

A. That is correct.

Q. Have you previously explained the allocation set forth at the bottom of page 55, Mr. Schmidt?

A. Yes, sir; we explained that in the allocation of property accounts.

[fol. 2406] Q. Now, in connection with the allocation of sales in respect of Line E, was any consideration given to the gas which — from the State of Texas north into the State of Oklahoma for city gate delivery at the city gates of Achiles, Caddo, Durant and Hugo, Oklahoma?

A. The deliveries to those towns——

Q. Were they not deducted from the Line E sales?

A. I am quite sure that they were. I would have to refer to my notes to be sure.

* * * * * * *

Q. Mr. Schmidt, in the determination of the matters set forth in Defendant's Exhibit 45 did you take into account the gas transported over Line E in the State of Texas into the State of Oklahoma, and particularly did you take into account the city gate sales at the town of Achille, the city of Durant, the town of Caddo, and the city of Hugo, Oklahoma?

A. Yes, sir.

Q. What effect did you give to those sales in the preparation of this report?

A. Those sales were taken from the total gas transported through Line E before the percentage of West Texas gas was determined and allocated to that line.

[fol. 2407] Q. So you didn't take into consideration those Oklahoma sales off of Line E as a part of the West Texas gas transported and sold on Line E proper?

A. We did not.

Q. Mr. Schmidt, what, generally, is set forth in the appendix to this report?

A. Well, the first part is a tabulation of the daily determinations of volumes of West Texas gas from the grav-

itometer records and deliveries through certain city gate stations. That includes pages 3 to 20, inclusive. On page 22 it indicates that the same weighted monthly percentages as determined for the North Fort Worth Measuring Station in the sheets pages 14 to 20, inclusive, were applied to the Marathon Oil Company sales, this being the location of the gravitometer used for the Marathon Oil Company sales. For the Trinity Portland Cement Company at Dallas we used the weighted monthly percentages as determined for Line C-2, since those sales come off of Line c-2. The Trinity Portland Cement Company at Fort Worth, on pages 24 and 25, shows the average specific gravity by days of the gas delivered to the Trinity Portland Cement Company for the months of August and September from the gravitometer records at the Trinity Portland Cement plant at Fort Worth.

Q. I believe gas was only delivered to the Trinity Portland Cement plant at Fort Worth during those two months of the calendar year 1933?

[fol. 2408] A. No; there were some other deliveries, but they were very small.

Q. Very small?

A. Yes, sir.

Q. In connection with your testimony in explanation of the exhibit you have generally referred to the matters set forth in the appendix as showing detailed calculations in respect of specific gravity?

A. That is correct.

Q. Or, rather, I should say in lieu of calculations a determination of specific gravity for the specific day of the specific month?

A. That is right.

Q. And I believe this morning you made reference to the graphs which are set forth at pages 46 to 57, inclusive, at the back of Defendant's Exhibit 45?

A. I don't believe I explained just how those graphs were used.

Q. Well, will you please do so?

A. For the month of December, take the graph on page 57; when it was determined from the gravitometer records at any particular location, we will say that the gravity recorded was .70. If you follow from the left-hand side of the graph at the point marked .70 and follow horizontally

until it crosses the sloping line and then drop from there to the lower horizontal line, you will find automatically the per cent of West Texas gas that is in gas in this particular [fol. 2409] system where the specific gravity is .70. This simplified and aided us in determining these percentages rather than using the laborious method of proportions.

Q. Now, Mr. Schmidt, your testimony in connection with this exhibit may have seemed somewhat technical. I will ask you if there is anything complicated about the determinations that were made either in respect of the specific gravities, the measurement of gas, or the allocations of property or the allocations of gas sales?

A. All of the calculations and the data referred to are rather simple, and the information is entirely taken from the records of the company.

[fol. 2410] Q. And may be checked by the State or by the Railroad Commission?

A. That is correct.

Q. As a matter of fact, Mr. Schmidt, will you be glad to aid any representative of the State or Railroad Commission in checking the company's records in connection with this exhibit?

A. I will be glad to do so.

* * * * * * *

D. A. Hulcy, a witness for defendant, was recalled, and testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. Mr. Hulcy, I believe you have heretofore appeared and testified in this case?

[fol. 2411] A. Yes, sir; I believe I have.

Q. Do you have any familiarity with what has been identified and introduced in evidence as Defendant's Exhibit 45?

A. Yes, sir; I do have a knowledge of that report and am familiar with it.

Q. Mr. Hulcy, using Defendant's Exhibit 45 as a predicate, have you attempted to compile and set forth in form

to be presented as an exhibit in this case a segregation of the property, revenues and expenses of Lone Star Gas Company, in relation to its public service property, first, in connection with such property, expenses and revenues as may be involved in connection with the transportation, and with the production and/or purchase and transportation in Texas of gas wholly produced and transported in Texas; and next, gas purchased and/or produced in Oklahoma and the Texas Panhandle and transported and sold in the Lone Star Gas Company's pipe line system?

A. Yes, sir; I have.

Q. Have you that exhibit with you?

A. Yes, sir.

Q. Is this report to which you refer, being styled on the title cover, "Lone Star Gas Company, Report on Property, Revenues and Expenses within Specified Areas"?

A. It is.

Mr. Griffith: We offer the report so identified in evidence.

[fol. 2412] (Thereupon the document referred to above was marked for identification as Defendant's Exhibit No. 46.)

Q. Is this the report which you have prepared, in part at least, at the request of Mr. Fitzhugh?

A. I understood that they were interested in it, and they asked me about it several times while I was on the stand, and this is the report.

Q. Yes, sir.

* * * * * * *

Q. Mr. Hulcy, in the forepart of Defendant's Exhibit 46 have you attempted to detail the subject matter set forth in the report, and the scope of the report?

A. Yes, sir; to a certain extent, I have.

Q. Will you, please, relate to the jury in a general way what you have attempted to do in respect of the segregation of property, revenues and expenses within specified areas?

[fol. 2413] A. The property, revenues and expenses of the Lone Star Gas Company's public service operations and property have been divided into what I have termed three areas. First, is Area "A", which covers both property, expenses and revenues in connection with gas purchased and produced in Texas, transported and sold wholly

within the State of Texas, and in area where the source of supply can be easily defined.

Q. Mr. Hulcy, could I trouble you to come up and walk over to that map, which is Defendant's Exhibit 29, and generally define the territory that you have reference to?

A. Yes, sir. (Witness goes to map.) This particular area that I have reference to, and which I have called Area "A", covers the gas which is purchased and/or produced in the West Texas area, is transported in a westerly direction to a point as far as Colorado, and thence north to Snyder, all of that gas being purchased and/or produced in West Texas. Also it covers this part of the system commonly referred to as Lines "A" or the "K" System, and the "O" System, which extends from West Texas in an easterly direction to a point at or near Joshua, Texas. Part of that gas is transported and sold through the Lone Star Gas Company system which extends in a southerly direction through Waco, as far south as Round Rock, some seventeen or eighteen miles north of Austin; also as far south as College Station on the east. It also covers the area, and also [fol. 2414] the gas which is purchased and/or produced in the Central West Texas area, is transported in a northeasterly direction from Joshua, which passes near to the city limits of the City of Dallas, and goes on in a northeasterly direction to a point as far east as Sulphur Springs and Cooper. It also takes into consideration the gas sales sold on a part of the "O" System, which extends southerly down through Corsicana and as far south as Teague. It also takes into consideration the sales on that part of the "O" System which extends through Kaufman County and on into Henderson county, where gas is sold at the city of Athens and the town of Malakoff. Now, generally speaking, all of that gas sold in that particular area is purchased and produced, transported and sold wholly within the State of Texas. The next area which I have referred to and set out in this report I have called Area "B", which covers gas sales, expenses and property used in connection with gas purchased and produced in Texas and/or Oklahoma, transported through and sold in the State of Oklahoma and/or Texas and areas where the source of supply can be easily defined. The area that I have particular reference to there covers the gas which is purchased and/or produced in Wheeler County, Texas, commonly called and referred to as the Shamrock, or Panhandle area, and which is transported

through the western part of the state of Oklahoma, down through the city of Vernon, some of which is then transported back into the state of Oklahoma through the A-1 [fol. 2415] System, which extends through Frederick, on to Mountain Park; also the gas that is brought on down and sold at Wichita Falls, and where that system makes connection with the "B" System and the "H" System at Petrolia. It also covers the gas which is purchased and/or produced in the Chickasha, Nellie, and Duncan Fields, located in Grady, Stephens and Cotton Counties, Oklahoma. It covers all of those sales down to a point at Petrolia, which would be all of the sales on the "H" System. It also covers the gas purchased and/or produced in the Fox-Loco area, and located in Carter and Jefferson Counties, Oklahoma, and which is transported in a northerly direction to a point as far north as Purcell, Oklahoma, which is located in McLean County. It also covers the gas which is transported in a southerly direction to a point south as far as Gainesville. Now, normally at all points the flow of gas from this particular area is south.

Q. What area?

A. From the Fox-Loco area the flow of gas is south. Also, the gas produced in the Chickasha-Nellie-Duncan area, the flow is south to Petrolia; and the gas produced in the Wheeler County area, the flow is also in a southeasterly direction to Petrolia. So those are the areas which I say can be easily defined, that is, the sales.

Q. What is the next area, which you have described as Area "C"?

A. Area "C" covers the gas sales, expenses and property [fol. 2416] used in connection with gas purchased and produced in both Texas and Oklahoma where the sale thereof and facilities used are joint and concurrent.

Q. Now, who determined those facts for you in reference to the joint and/or concurrent facilities?

A. Mr. E. F. Schmidt and Mr. Ed C. Connor, and it was covered in a report prepared by them.

Q. And which report has been introduced in evidence here and styled Defendant's Exhibit 45.

A. That is correct. The Area "C" covers this portion of the system which has been previously pointed out by Mr. Schmidt, commonly referred to as the "B" System, extending from Petrolia in Clay County, Texas, in a general southeasterly direction to or near the City of Fort Worth. It also

covers the "C" System and the "J-2" System, which extends from or near Fort Worth to the proximity of the City of Dallas. The area also covers the "F" System, which extends from a point just south of Gainesville in Cook County down to Irving, Texas, which is just west of Dallas. It also covers the "E" System, which extends from a point near Gainesville, Texas, and extends easterly to a point as far east as Clarksville; and also leading off the "E" System is a branch line referred to as Line "E-5", which goes into Oklahoma, and furnishes gas at Durant, Achille, and Caddo; also Line E-16, which furnishes gas to Hugo, Oklahoma.

[fol. 2417] Q. Of course, in addition to the specific lines you have mentioned there are certain tap lines leading off from those main transmission lines?

A. That is correct.

Q. Now, the description that you have given of area "C" as included in Defendant's Exhibit 46, I will ask you if that is the same area as defined on the map which is page 1 in Defendant's Exhibit 45?

A. Yes, sir; it is.

Q. Now, Mr. Hulcy, you divided the territory and the facilities of Lone Star Gas Company into three groups in connection with this computation?

A. Yes, sir; I did.

Q. Then did you classify further the business and property of the Company?

A. Yes, sir; I did; into what I have styled as "D" Operations and "E" Operations. "D" Operations cover the gas sales, expenses and property used in connection with gas purchased and produced in the State of Texas, transported and sold wholly within the State of Texas. That means "D" Operations include all items which are shown for Area "A" plus a portion of the amount shown for Area "C"; and likewise, "E" Operations cover the gas sales and expenses and property used in connection with gas purchased and produced in the State of Texas and/or Oklahoma, trans-[fol. 2418] ported through and sold in the State of Oklahoma and/or Texas, and "E" Operations include all of the items shown in Area B plus a portion of Area "C".

Q. Upon the advice of counsel, Mr. Hulcy, have you endeavored throughout this report to avoid the use of the words "interstate" and "intrastate"?

A. Yes, sir; I have.

Q. But you have endeavored to give an actual description of the operations which are embraced and included and defined in your exhibit?

A. Yes, sir; I have.

[fol. 2419] Q. Mr. Hulcy, in the fore part of your exhibit do you give an index—do you set forth an index to the report by which the various portions of the report—that is, Defendant's Exhibit 46, may be readily identified?

A. Yes, sir.

Q. What appears on page 2 of the report?

A. On page 2 of the report is a statement of revenues, expenses and amount available for depreciation and return, property account, which is the actual cost as reflected by the books at December 31, 1933, and this statement of revenues and expenses is for the twelve months ended December 31, 1933. First, on this page I have shown the total amount—that is, the revenues, expenses, and property for the entire System of Lone Star Gas Company public service operations; and I might add that these are the xact figures as shown on the exhibit which was sponsored by me for the twelve months ended December 31, 1933, when I first made an appearance as a witness in this case.

Q. Those are the actual expenses and revenues of the Company?

A. Yes, sir; yes, sir, as set out in that exhibit.

Q. Is there a calculation made in respect of the Federal income taxes?

[fol. 2420] A. That is correct; it is a calculation to cover the Federal income taxes that would be applicable to the public service operations.

Q. But in all other respects the revenues and operating expenses are exactly as reflected by the books?

A. That is correct, and as taken from the books and records.

Q. Now, what appears on page 3 of the report?

A. Page 3 of the report is a statement similar to the statement shown on page 2, with this exception—that it is after giving effect to the 32-cent domestic gate rate which was ordered and set out by the Railroad Commission in their opinion and order, and it is also for the twelve months period ended December 31, 1933, with the property account being shown, which is the actual cost as reflected by the Company's books at December 31, 1933.

Q. Now, Mr. Hulcy, in connection with this summary which appears on page 3, have you made any adjustments other than from the actual experience of the Company, for 1933, except to apply the reduced revenues that would have been effective had the Railroad Commission's gate rate been in effect for the year?

A. No, that is the only correction I have made; other than [fol. 2421] that, the same explanation holds good here—that is, that the Federal income tax is a calculation and not actually taken from the books.

Q. Now, Mr. Hulcy, is there set forth in Defendant's Exhibit 46 any detail of the actual gas sales or operating revenues of the Company for the twelve months ended December 31, 1933?

A. Yes, sir, there is.

Q. At what page of the report?

A. The gas sales figures begin at page 6 of the exhibit, and extend through to page 27, wherein the gas sales are set out in detail, and also in summary form.

Q. On those pages which you have identified you have set forth the gas sales by the Lone Star Gas Company to the several distributing companies and also the main line sales?

A. Yes, sir, I have.

Q. Mr. Hulcy, will you please explain, referring to page 7 of Defendant's Exhibit 46, how you determined the sales which were applicable to Area A and Area B and Area C, and what you determined was applicable to what you call D Operations and E Operations?

A. Yes, sir. The statements appearing at page 7 are summaries, and it might be better to refer to page 11, which is [fol. 2422] where the detailed statements start. On page 11, first we have the gas sales to the Dallas and County Gas Companies, the sales that were made through the Hudnall and Central stations for both domestic and industrial gas. The Hudnall and Central stations are located in the Area C, or the mixed area—that is, where a mixed gas is furnished. Therefore, the volumes shown are furnished—were furnished by Mr. Schmidt and Mr. Connor, and are set out in their report which is styled Exhibit 45 in this case. I believe the detailed calculations will be found on pages 44 and 45 of their report. Also, the Boundary Station is a calculation that was furnished by Mr. Schmidt and Mr. Connor for both domestic and industrial gas. Also, the deliveries at Arling-

ton, Dalworth, Arcadia Park were calculations furnished, covering volumes of both domestic and industrial gas, and which is taken from their report. The same thing is true of the West Dallas area. They did not make calculations of the volumes of gas delivered at the Second Avenue and Lisbon Stations.

Q. Those were the two stations which Mr. Schmidt identified as not receiving or delivering any gas which had been transported through the State of Oklahoma into the State of Texas?

[fol. 2423] A. That is correct. That gas came from the West Texas area. That amount of gas—that is, the division between the domestic and the industrial was arrived at by deducting the total amounts furnished in the Schmidt-Connor report, divided between domestic and industrial at the other stations and deducted from the total amount sold to the Dallas and County Gas Companies, gave me specific amounts for both the domestic and industrial gas that was furnished through the Second Avenue and Lisbon Stations, the total amount being 7,663,161,000 cubic feet, and the money amounting to $2,233,237.44, and that is the exact sale—both volume and money—made by the Lone Star Gas Company for the year 1933 to the Dallas and County Gas Companies. Now, then, the Hudnall and Central Stations are shown to be in Area C, and that particular volume of gas, both domestic and industrial, as well as the money values applied there to, are shown under Area C. The same thing is true of the Boundary Station; it is also shown under Area C. Arlington-Dalworth is a mixed gas, and also shown under Area C. The same thing is true of the West Dallas deliveries. However, the Second Avenue and Lisbon Stations cover gas which was produced and transported and sold wholly within the State of Texas; therefore, those par-

[fol. 2424] ticular deliveries are shown as being applicable to Area A. That makes our divisions between the three areas. Then it is in order to divide or show the specific amounts, both volume and money, that apply to the D operations and to the E operations. Those amounts have been given to me or furnished to me and set out in the Schmidt-Connor report for the Hudnall and Central Stations, Boundary Station, Arlington, Dalworth, and the West Texas area, and the West Dallas area, and the divisions are made in that report, showing the amount that was used or sold for domestic purposes and the amount that was

used or sold for industrial purposes. In arriving at the domestic rates, or the revenues applicable to the domestic business, the rate of 40 cents per thousand cubic feet was applied. In making the application of the industrial rates I used the average rate for the year. Perhaps it would have been more accurate had I used the average monthly rate, inasmuch as I had the monthly deliveries covering industrial gas, rather than the average annual rate.

Q. Would there have been any substantial difference, Mr. Hulcy?

A. Not a great deal. However, Mr. Griffith, covering [fol. 2425] Dallas and Fort Worth, I made a calculation on those two deliveries—that is, the gas furnished through the North Fort Worth Station at Fort Worth, and the Hudnall and Central Stations at Dallas; and had I made the monthly calculations rather than the average annual, I would have received a sum of money in excess of five thousand dollars less than I actually used for the industrial revenues applicable to the gas produced, transported and sold wholly within the State of Texas, and which I have shown here to be as D operations. Now, those are the only two points where I did make that test. Now, the same thing is true—well, it happens that in the sales to the Dallas and County Gas Companies all of the volumes out of the mixed areas were furnished in the Schmidt-Connor report, and the deliveries through the Second Avenue and Lisbon Stations, of course, were easily defined; and, therefore, all the entire amount of those sales are applicable to the D operations. Therefore, for the Dallas and County Gas Companies I find that the sales applicable to the D operations amount to a total of 6,329,769,000 cubic feet, and the revenues applying thereto are shown to be $1,907,833.33; and the amount applicable to the E [fol. 2426] operations is 1,333,392,000 cubic feet, and the revenues are $425,403.61; and the total volumes of gas and revenues for the D operations and the E operations are exactly the same as the total amount of gas sold to the Dallas and County Gas Companies for the year 1933.

Q. You have, therefore, accounted for all gas sold by the Lone Star Gas Company to the Dallas and County Gas Companies, regardless of the origin of the gas?

A. Yes, sir, I have—to the cubic foot and to the penny of revenue.

Q. Did you make a similar determination in respect of the Fort Worth division?

A. Yes, sir.

Q. As indicated at the bottom of page 11 of the exhibit?

A. Yes, sir, I did; and Fort Worth was handled in the same manner as Dallas and County—that is, that the larger part of the deliveries and the division between domestic and industrial sales applicable to the D operations and E operations were furnished in the Schmidt-Connor report.

Q. That is Defendant's Exhibit 45?

A. That is correct. And the same explanation that I made with reference to the Second Avenue and Lisbon Stations in Dallas applies equally to the deliveries made through [fol. 2427] the Haynes and South Fort Worth Stations at Fort Worth.

Q. Refer, please, to page 12 of Defendant's Exhibit 46. On that page you show, do you not, sales to Community Natural Gas Company?

A. Yes, sir, I do.

Q. On the A System, B System, C System, E System, F System, G System, G-3 System, and the H System?

A. Yes, sir; and also the western, southern, and eastern towns which are shown at the top of the page.

Q. Yes. Now, Mr. Hulcy, from what source did you get these sales?

A. These sales were taken from the records of Lone Star Gas Company—that is, of sales made to the specific towns which are included in the several systems. It might be well to refer to page 16 of this Exhibit 46. There we find a detail of the sales made to the Community Natural Gas Company, to towns located on the A System, in addition to the sales that were made to the distribution plants on the A System. I have also included all sales made to the Community Natural Gas Company along the right of way, or what we style Right of Way Customers on the A System,—thereby arriving at a total sale of both domestic and industrial gas to the Community Natural Gas Company [fol. 2428] on the A System. The same thing is set out for the B System, which includes all of the towns, as well as the sales made along the right of way. The same thing is shown on page 16 for the C System. Page 17 shows all of the sales that were made to the Community Natural Gas Company on the E System, as well as the right of way sales on that system. Page 18 shows the sales made to the

Community Natural Gas Company on the F System and on the G System, and each of the towns to which these sales are made are set out in detail on the sheet.

Q. Now, on page 20—commencing on page 20, you refer to the western, southern, and eastern towns of the Community Natural Gas Company.

A. Yes, sir.

Q. What do you mean by the western, southern, and eastern towns?

A. Those are the towns located on the K System and the O System, extending as far west as Colorado and Snyder in West Texas, coming on through Abilene, and on to Joshua; and then all sales that are made along the L and M Systems, and all sales east along the O System, as well as the J System proper; and I might also say that that includes the R System, which is located in Coleman County, Texas; and all of the towns included in that group [fol. 2429] are set out in detail on pages 20 to 23, inclusive; also the sales made along the right of way for those particular systems which are included in that group of sales.

Q. In order to accurately reflect the sales to right of way customers along the various pipe line system of the Company, did you separately identify the sales for the actual right of way consumers which the Company had on the respective systems?

A. Yes, sir, we did.

Q. And they are accounted for in this report?

A. Yes, sir, and placed on the system—that is, where the connection is located.

[fol. 2430] Q. On pages 24 and 25 and subsequent pages, do you show detailed calculations showing allocations of sales in area C to D operations and E operations?

A. Yes, I do. However, page 24 is the detailed statement of the sales to the Municipal Gas Company; that is, by systems, and the D calculations start on page 25 and go through page 27. I might add that the results obtained from the detailed calculations of the sales to the Community Natural Gas Company as set out on the several pages are brought forward and shown on page 12; that is, the summary for each of the systems. The same thing is true for the Municipal Gas Company on page 13. That the entire sales to the Municipal Gas Company are broken down by the systems in which the particular towns are located and

the detailed statements are also included in the report at the following pages. The sales are also set out for all other customers of Lone Star Gas Company, where gas is furnished at city gates.

Q. For example, at the bottom of page 13, you show the sales to Gainesville Gas & Electric Company?

A. Yes, I do.

Q. And to Southwest Light & Power Company?

A. Yes, I do.

Q. And on page 14, to Texas Cities Gas Company, Waxahachie Gas Company, Shasta Oil Company and miscellaneous sales?

A. Yes.

Q. And all those are shown as applicable to area A and [fol. 2431] area B or area C, and also applicable to D operations and E operations?

A. Yes.

Q. Now, having made those determinations, Mr. Hulcy, were you in a position to carry forward to your summary on page 2 of the Exhibit the allocation of sales to D operations and E operations?

A. Yes, I was. The gas sales were divided between the D operations and the E operations.

Q. It is noted that in connection with miscellaneous operating revenues, none were deemed applicable to the E operations?

A. That is correct. Those miscellaneous operating revenues come about in the West Texas area, and therefore are applicable to the D operations.

Q. Now, Mr. Hulcy, the first item of operating expense shown in the summary on page 2 of the report, appears to be gas purchased?

A. That is correct.

Q. On page 29 do you set forth a detail of the gas purchased for the twelve months ended December 31, 1933?

A. Yes, I do.

Q. In what total amount?

A. The total amount for gas purchased is shown to be $1,086,587.44 and that is the total amount of gas purchased shown for the public service operations of Lone Star Gas Company, and is shown on page 2 of this exhibit. I have shown immediately under the total amount, the gas pur- [fol. 2432] chased in the Petrolia field in the amount of

$1,161.72, and the gas purchased in the west Texas field amounts to $969,079.16, making a total of $970,240.88, and I have made a deduction from that amount to cover the west Texas gas—that is, gas which was produced and/or purchased in west Texas, which was transported through the E system and sold in the state of Oklahoma.

Q. That would be the gas which was transported and sold by the company and delivered at the city gates of Achille, Caddo, Durant and Hugo?

A. That is correct, and I might add here, Mr. Griffith, that I have assumed that that entire amount of gas was purchased. Of course, we produce and purchase gas also in West Texas area, but I have applied the gas purchased price to the total amount of gas, and have deducted that total amount..

Q. Was that the only rational assumption upon which you could proceed?

A. No, I don't believe it was the only rational assumption; I could have reduced that deduction, I believe. I think perhaps it would certainly have been looked upon as fair if I had taken the proportionate part of the gas purchased and produced in the west Texas area, and made an application to that which would have been a deduction of a lesser amount, and therefore have given me a larger amount for gas purchased in the D operations than I have used.

Q. By taking the total amount then, so determined, and deducting it from gas purchased, you get the balance cover- [fol. 2433] ing gas purchased in the Texas Panhandle and the Oklahoma areas, of $124,558.76?

A. Yes. It might be well to make this explanation at that point: That is not the exact amount of gas that was actually purchased in the Panhandle and the Oklahoma fields. It was something in excess of that. During the year 1933 *was* was put in storage in the Petrolia field and in handling through the accounts the total volume of gas put in storage was credited to the gas purchased expense at a unit cost of ten cents per thousand, and there was an amount put into storage in excess of the amount withdrawn. However, the volumes of gas put in storage in Petrolia were largely made up of Oklahoma and Panhandle gas and the thing that I was particularly interested in in this report was the D operations, perhaps even more than the E operations. Therefore, in order that the state-

ment would properly reflect, and for the reason that it was Shamrock and Oklahoma gas put in storage, that total adjustment was made against that particular gas, and not the West Texas gas, for at no time did any part of the west Texas gas go in storage in the Petrolia field.

Q. The gas that you speak of as going into storage in the Petrolia field, that is the gas that Mr. Fitzhugh was asking Mr. Schmidt about this morning?

A. Yes, that is correct.

Q. And gas stored on the so-called Miller lease?

A. That is correct.

Q. And you therefore determined, as shown by page 29 [fol. 2434] of Defendant's Exhibit No. 46, that $962,028.68 covered gas purchased which was applicable to D operations?

A. That is correct.

Q. And $124,558.76 was applicable to E operations?

A. That is correct.

Q. And we find those figures carried over into the gas purchased column under D and E operations respectively, on page 2 of the exhibit?

A. That is correct.

Q. Now, the next item of expense proved to be production system expense in the total amount of $105,554.86.

A. Yes.

Q. Which is apportioned to D and E operations in the amounts of $76,956.69 and $28,598.17 respectively.

A. That is correct.

Q. Now, where in your report may we make reference to any working data used in connection with your determination?

A. That is shown on page 30 of the exhibit. Under production system expense, I show first well rentals and royalties in the amount of $45,441.54. That entire amount is shown as being applicable to area A, or area B, none being shown for area C, for the reason that production system properties are located in fields, and therefore there is no mixed use of production system property and/or expense.

Q. Now Mr. Hulcy, the production system expense is carried by fields, is it not?

A. Yes, it is.

[fol. 2435] Q. And may be readily identified on the books of the company?

A. That is correct.

Q. So there isn't any allocation, as such, necessary to be resorted to in this connection?

A. No, sir.

Q. And on page 30, as you have stated at the top of the page, you have set forth the production system expenses which are applicable to the areas A and B respectively, and which are applicable to D operations and to E operations?

A. Yes. Now, for well rentals and royalties I have not set out on page 30 the several fields wherein those rentals and royalties were paid; they are made up as follows: The panhandle field, that is, Shamrock, in the amount of $6,647.24. In the Petrolia field, of $706.33. In the Oklahoma fields, of $8,203.49, and in the west Texas area of $29,884.48, those items making a total of $45,441.54. Now, the amounts applicable to area A is the Petrolia field and the west Texas field in the amount of $30,590.81, and that is the amount shown under area A on page 30 of this exhibit; an amount of $14,850.73 for area B, and then in each case area A is transferred to D operations, and area B is transferred to E operations. Now the other production system expense is set out on page 30 by fields or districts. First I show the Petrolia district in the amount of $19,576.05. That amount is shown to be applicable to area A, and then later transferred to D operations. The west Texas district in the amount of $26,789.83, and that amount [fol. 2436] is shown under Area A, and also under D operations. Next, the Shamrock district, in the amount of $2,732.20, and that amount is shown under area B and under E operations. And the same explanation holds true of the Oklahoma district in the amount of $11,015.24, which is also included in area B and in E operations. Therefore, of the total production system expense in the amount of $105,554.86, it is divided between D and E operations in the following amounts: $76,956.69 for D, and $28,598.17 for E.

Q. And as you previously stated, those are the amounts which are carried forward in the D and E columns in the summary on page 2 of defendant's Exhibit 46?

A. Yes, those are the amounts carried forward.

Q. Now, the next item of operating expense appears to be gathering system expense?

A. Yes.

Q. Is that separately kept and identified on the books, records and accounts of the company?

A. Yes.

Q. By the several gas fields wherein gathering system expense is incurred?

A. That is correct. However; they are not carried on the books in the exact manner by districts as I have them shown on page 30 of this Exhibit.

Q. Why the variation?

A. For this reason. All operating expenses are kept by districts with the exception of measuring station expense, [fol. 2437] and with some expenditures that are applicable to the entire system and to no particular district. Therefore, it was necessary to arrive at an amount for these two classes of expenditures which would be applicable to the particular districts, and that was done.

* * * * * * *

A. The gathering system expense as shown to the several districts; and I mean the direct gathering system expense, amounted to $67,404.97. There is also shown, and which is included in the records of the company, an amount of $18,051.43, which is styled common district expense. I mean by that, that that amount of expense is applicable to the entire system and not to any particular district. Therefore, I have prorated an amount of $18,051.43 to the several districts in the proportion of the direct expense incurred for that particular district. Then in addition to that, there is also an amount of $45,869.89, to cover the cost of maintenance and operation of measuring stations included in the gathering system. It is impossible to carry these operations by districts for this reason: Large meters [fol. 2438] may be removed from gathering system property to the central shops, where repairs are made. Some time may elapse before these repairs are actually made, and therefore it is hard to keep up with just what location these meters are from. Therefore, it was necessary that I make an allocation of this measuring station expense to the various districts, and in order to do that, we made a count of all of the measuring stations operated in the gathering system, the total being 553, broken down by districts. Then, we arrived at an average cost per measuring station to operate and maintain for the year, and that amount, multiplied by the number of measuring stations in the respective districts, gave us a figure for measuring station expense which was applicable to each particular district.

Then the direct charges made to the district, plus the prorate of the common district expense, plus the allocation of the measuring station maintenance and operating expense, gives a total figure for each particular district for gathering system expense, and that is the amount which I have shown on page 30 for the several districts, making up the gathering system of Lone Star Gas Company, in the amount of $131,326.29. Thus the way and the manner in which these districts have been shown, they automatically segregate themselves as to the proper area and whether or not they belong in D operations or E operations. These amounts are shown as follows: Applicable to D operations $70,068.24, and applicable to E operations, $61,258.05.

[fol. 2439] Q. And those are the figures that we find carried forward to the summary on page 2, in connection with gathering system expense as applicable to D and E operations?

A. That is correct.

Q. Now, the next item of operating expense appearing in summary on page 2 of Defendant's Exhibit 46, is transmission system expense?

A. Yes, that is correct.

Q. Where, in connection with the details of your Exhibit 46, do we find a breakdown of the transmission system expense by districts? Is that at the bottom of page 30?

A. Yes, it is, and it is shown by the several districts.

Q. Now, how was that determined, Mr. Hulcy?

A. The same explanation that I made in connection with the direct charges to the respective districts, and the allocation of the common district expense and the cost of operating and maintaining gathering system measuring station equipment, applies also to the transmission system expense. We counted the number of measuring stations operated on the entire transmission system. We also arrived at a unit cost per station per annum to operate and maintain, and then the number of measuring stations in each of these particular districts, multiplied by the average cost per annum, results in the amount of measuring station expense which has been allocated to these respective districts. However, the same thing does not hold true—that is, with reference to the automatic segregation of transmission system [fol. 2440] expense, as was true of the gathering system

expense, for the reason that in some of these pipe line operating districts, the facilities are used jointly and concurrently, that is for the transportation of the gas produced both in the west Texas area and in the Shamrock-Oklahoma area, and it might be well to refer to the map shown on page 45 of the Exhibit, which shows the pipe line operating districts as they are carried, and the divisions as they are made. First appearing at the bottom of page 30 is the Petrolia district, which is carried as District No. 1, and all distribution of charges made on the books of the company are shown for district No. 1. In order that a proper allocation of the transportation expense for this district might be calculated, I had all of the pipe lines located in this district tabulated, and from the records of the engineering department I had the miles of three inch equivalent by lines shown. There is a total of 371.8 miles of three inch equivalent pipe line in the Petrolia district, and when I say pipe line I mean the transmission pipe line and do not have any reference whatever to the gathering system property located in the Petrolia field. Of the 371.8 miles of three inch equivalent pipe, 70.7 miles was made up of the B system. The B line itself, from Petrolia to Henrietta, which is the southern boundary line of the Petrolia district, is a total of 63 miles in the Petrolia district, and the B-9 line, or the Henrietta tap, is 6.1 miles of three inch equivalent; and the B-9-1 line, which is a line going to the Texas Company pump station, is 1.6 miles of three inch equivalent. Those three make a total of 70.7 miles of three [fol. 2441] inch equivalent pipe. Therefore, I arrived at a unit cost per mile of three inch equivalent to operate for that particular district, which was $60.73 per mile. Then, applicable to area C is 70.7 miles, at the unit cost per mile, which shows an amount of $4,292.19 that is applicable to area C, and that amount is shown on page 30, and the amount applicable to area B is 301.1 miles, which calculated at the average cost per mile is $18,292.85, and that is the amount shown under area B. Then in the calculation or allocation from areas B and C to D operations, it is done in this manner. The amount of $18,292.85 for area B is transferred in its entirety to E operations; the amount of $4,292.19 which is applicable to area C or the mixed area is divided as follows: 22.17 per cent, which is the per cent shown in the Schmidt-Connor report of the B system, as

being applicable to D operations is made and the resulting figure is $951.58 for D operations, and $3,340.61 for E operations. Therefore, for the Petrolia district, out of a total of $22,585.04 as being the cost of operating the pipe lines in that district for the year 1933, $951.58 has been allocated to D operations, and the remainder to E operations. [fol. 2442] Q. Now, those allocations were, as disclosed by page 30, only necessary in connection with the Petrolia district, the Fort Worth district, the Dallas district, and the Gainesville district?

A. That is correct. Those districts, as will be noted on the map, include the entire area which was set out in detail on the first page of Exhibit 45—that is, the B. system, the C. System, the F System, and the E System, and perhaps the J-2 System. Now, in the Fort Worth district that was necessarily handled in a little different manner, for this reason: Included in the mixed area, or applicable to Area C, we have three systems, and on each of those systems a different percentage of the total was arrived at in the Schmidt-Connor report, and it was necessary for me to use it in order to make the proper allocation of such expenses, those mixed systems being the B System and taps, the J-2 System and taps, and the C System and taps. In the case of the B System and taps, Exhibit 45 shows that 22.17 per cent of the expenses incurred should be allocated to D operations. Exhibit 45 further shows that in the case of J-2 and taps 93 per cent should be allocated to D operations, and the C System 75.21 per cent should be allocated to D operations. Now, there is a total of 561.6 miles of three inch equivalent pipe included in the mixed lines. By that I mean the lines which are used jointly and concurrently in the transportation of gas.

Q. From all sources?

[fol. 2443] A. That is correct. I allocated, on the basis of the J System, the second system which I handled, entirely as being applicable to Area B, also the Government 10-inch as applicable to Area B, and on the total of the mixed that there should be allocated to this mixed area $14,503.41, and that is on the basis of the total miles of three-inch equivalent pipe line operated in that particular district. Then it was proper to break out in the mixed area the proper amount for the several individual systems which are used jointly and are concurrent. In making this calculation the B System and tape constitute 84.7 per cent of the total mixed area; the J-2

System and taps constitute nine-tenths of one per cent of the mixed; and the C System and taps constitute 14.4 per cent of the mixed, the total of those percentages being 100 per cent. Then it has already been determined that for the B System 22.17 per cent was applicable to D operations. Therefore I take 84.7 per cent of 22.17 per cent and arrive at a weighted per cent of 18.78, and on J-2 and taps and C and taps I arrive at a weighted per cent of the mixed which is applicable to D operations of 30.45 per cent, and that is the per cent shown for the Fort Worth district. Now, the same thing is true for the Dallas District, and it was all calculated in the same manner.

Q. What about the Gainesville district?

A. The Gainesville district? I believe that was also true of the Gainesville district. Yes, it was. I had four mixed [fol. 2444] systems involved in it—that is, the E System, the F System, the G-3 System and the G System, and the amount applicable to D operations by taking the weighted percentage of each of those particular systems, and that weighted percentage is 74.01 per cent, and that is the amount shown on page 30 of this Exhibit 46.

Q. And, of course, wherever you get a per cent applicable to D operations you automatically get the percentage applicable to E operations?

A. Yes, sir.

Q. And the result was as to Transmission System you ultimately determined that $280,020.70 was applicable to D operations and $151,499.86 was applicable to E operations, and those figures are carried forward into the summary on page 2?

A. That is correct.

Q. Now, the next item appearing in the summary on page 2 is Compressor Station Expenses?

A. Yes, sir; that is correct.

Q. How was that determined?

A. Compressor Stations in most cases are located in fields or in certain sections of the system where they are easily defined as to what area they should be placed in. That is true of all stations except Petrolia and except Gainesville. The larger number of the Compressor Stations of the Lone Star gas system are located in the West Texas area, there being three compressor Stations located in Oklahoma. I might add that operation expenses covering Compressor

[fol. 2445] Stations are kept by stations. However, there are certain expenses incurred, such as general superintendence, that are applicable to all the stations and not to any particular station. I have allocated this amount of common expense in the same manner that I did for Gathering System Operations and Transmission System Operations.

Q. How much of the total expenses was common expense?

A. There was a total direct charge of $322,064.63, and the common expense amounted to $16,368.38.

Q. In a general way how did you make that pro rata of sixteen thousand to common expense?

A. That was based the same as direct expenses applicable to each station.

Q. If we refer to page 31 do we find a detail of the operating expenses in connection with Compressor Stations as applicable to areas and which you ultimately determine to be applicable to D operations and E operations?

A. Yes, sir; we do.

Q. And do we find on page 31 that you apply $253,516.28 to D operations and $84,916.73 to E. operations?

A. That is correct.

Q. And that those figures are carried forward to the summary of operating expenses on page 2 of Defendant's Exhibit 46?

A. That is correct.

Q. Now, the next item of expense appearing in the sum-
[fol. 2446] mary on page 2 appears to be New Business Expense?

A. Yes, sir.

Q. How was that allocation made as between B and E operations?

A. New Business Expense and General Expense—that is, the same explanation applies equally to both classifications of expense—cover expenses incurred in connection with the entire public service property and operations of the company, and could not be defined by pipe lines or districts. Therefore, it was necessary that an allocation of this expense be made upon some reasonable basis. There are three ways in which this expense could be allocated, and I think that each of them or either of them would be entirely fair and reasonable. First, they could be allocated upon the basis of the property—that is, there would be some argument that expenses incurred in a general way would follow in about the same proportions

of property account. Next, they could be allocated or divided upon the basis of direct expense. By "direct expense" I mean the actual expenses which have been incurred and segregated on the Production System, the Gathering System, the Transmission System, and the Compressor Station System. I think that perhaps that would be called a fair manner in which this expense could be divided or allocated. Then, also, if they were divided on the basis of sales—that is, between the D operations and E operations—I think that that manner would be fair, or, in other words, that either way we [fol. 2447] would do that, I believe it would be above criticism. Well, I have used and have made all my calculations on each of those basis. On the basis of property, 64.22 per cent of the total New Business Expense and General Expense would be applicable to D operations and 35.78 per cent applicable to E operations. Now, on a basis of sales, which has already been determined for both D and E operations, 73 per cent would have been applicable to D operations and 27 per cent to E operations, and on the basis of direct expenses other than gas purchased there would have been 68 per cent applicable to D operations and 32 per cent to E operations. I have used the smallest of all three, which is based upon property, and it makes a difference of about three per cent of what the weighted average of those three would amount to over and above that amount which I have used, and if it were to be reduced to a calculation, it is something in excess of thirty thousand dollars that could have been placed against D operations.

Q. Mr. Hulcy, you said thirty thousand dollars. Did you not mean three thousand dollars?

A. Not of the total, Mr. Griffith. The total of the expenses is approximately one million dollars.

Q. That covers both?

A. New Business and General Expense.

Q. Now, is it a General Expense?

A. Yes, sir.

Q. As far as New Business Expense is concerned, you find that $64,087.66 is applicable to D operations and $35,706.28 [fol. 2448] is applicable to E operations?

A. That is correct; yes, sir.

Q. And the next item appearing in the summary on page 2 of Exhibit 46 is General Expense, and you have divided that General Expense as between D and E operations in the

same manner that you divided New Business Expenses and for the same reasons?

A. Yes, sir; that is correct, and each of those amounts has been transferred to this general summary on page 2 and divided between D and E operations.

Q. Now, the next item appearing in the summary on page 2 appears to be Uncollectible Bills?

A. Yes, sir.

Q. They are divided as between D and E operations?

A. Yes.

Q. What is the factual basis, if any, for that division of Uncollectible Bills?

A. I do not have any detailed papers included in this exhibit. They are all covered—that is, in my working papers—and an analysis was made of the uncollectible accounts by locations.

[fol. 2449] Q. That is where the sales were made?

A. Yes, sir; and from those locations this allocation was made in the amount of $4,555.25 applicable to "D" Operations, and $1,975.52 applicable to "E" Operations.

Q. Now, Mr. Hulcy, the next item of expense appears in the summary on page 2 of Defendant's Exhibit 46 as Taxes Other Than Federal, which total $221,192.90 as applied to "D" Operations, and $139,284.01 as applied to "E" Operations?

A. That is correct.

Q. In your exhibit do you give a breakdown of the Taxes which are applicable to "D" and "E" Operations?

A. Yes, sir; I have. The details of *Texas* are set out on pages 34, 35, and 36.

Q. Will you please describe in a general way, Mr. Hulcy, how you found the taxes applicable to the "D" and "E" Operations, respectively?

A. Before I reply, I should have included page 33 as being one of the detail pages covering Taxes. A detail analysis was made of all the taxes paid by the Company for the year 1933, and in most all cases we were able to apply the tax payments to specific items of property by location by lines; for instance the Production System Property, which is shown on page 33—that is for the gas producing properties—those taxes were broken down by counties, and each of the tax payments by counties automatically segregate themselves as to whether they will apply to Area "A" or Area "B", and

[fol. 2450] from those areas into "D" Operations or "E" Operations.

Q. In other words, it was not necessary to resort to any allocation?

A. No, sir; it was not. All we had to do was to completely analyze the taxes that applied to the gas producing properties in the respective counties shown on page 33.

Q. And was the same true in respect of Undeveloped Leaseholds?

A. Yes, sir.

Q. And a great part of the Transmission System and Gathering System property?

A. Well, yes; that is true to a great part. However, as long as we were working and completely analyzing the tax expense accounts, even on those systems wherein a joint or concurrent use of gas was not involved, we went ahead and did completely break down the taxes in those respective areas also. The detail of Taxes applicable to Gathering and Transmission System Properties is shown on page 34 of the exhibit broken down by systems, with three exceptions, and they are shown to be West Texas lines not detailed. In the Eastland-Stephens County Area of West Texas there are a great number of lines and it was almost impossible to completely analyze the amount of taxes that applied to each particular line. However, that was not necessary, for the reason that all of the West Texas Area was included in Area [fol. 2451] "A", and that amount was likewise transferred to "D" Operations. The same thing is true for the Wheeler County Lines. There are a great number of gathering lines located in the Wheeler County District. However, the entire Wheeler County property is shown to be applicable to Area "B", and the total of Area "B" as transferred to "E" Operations; so, therefore, it was not necessary to make an allocation or complete breakdown of the taxes paid by specific lines in those territories.

Q. The lines in West Texas were in Area "A"?

A. That is correct; and the lines in Wheeler County in Area "B". Now, there were certain lines and certain classes of property included on page 34 of the Transmission System, which were used jointly and concurrently. For instance, the "B" System, exclusive of the 20-inch, the taxes for that particular system are shown to be $3,768.25. That entire amount is shown in Area "C", and 22.17 per cent of

the amount in Area "C", or $835.42, is applicable to "D" Operations, and the remainder to "E" Operations.

Q. That is the use of the Line "B" on a time-volume basis, as determined in the Schmidt-Connor exhibit 45?

A. That is correct.

Q. And the other percentages which are applied to the facilities which are jointly and/or concurrently used, are [fol. 2452] they similarly taken from the Schmidt-Connor Exhibit 45?

A. That is correct; they are.

Q. So, in that manner, you have determined the amounts applicable to "D" and "E" Operations covering Gathering and Transmission System Property?

A. That is correct.

Q. In Compressor Stations it is noted that only in respect of the Petrolia and Gainesville stations have you been compelled to resort to any allocation?

A. That is correct.

Q. Were you able to separately identify the tax payments in respect of every other compressor station of the Company?

A. We were.

Q. On what basis did you make the allocation of taxes as between "D" and "E" Operations as between the Petrolia and the Gainesville Stations?

A. In the case of the Petrolia Compressor Station, there is a total of 7,710 horsepower installed in that station, and the units which are dedicated to the handling of Petrolia Field gas are 2500, or 32.48 per cent of the total horsepower installed in the Petrolia Station as used for the Petrolia Field gas; and for that reason I have used that percentage of the total taxes paid on the Petrolia Station of $7,548.48, which gives me an amount of $2,451.75 as being applicable to "D" Operations, and $5,096.73 as being applicable to "E" Operations.

[fol. 2453] Q. And both of which figures are shown on page 35 of the Exhibit?

A. That is correct.

Q. Now, how was the proration or allocation made in connection with the Gainesville Station?

A. The Gainesville Station was handled on the same basis of allocation between the "D" and "E" operations as shown for Line F in the Schmidt-Connor report. That was determined by them.

Q. Now, in connection with the Miscellaneous Property, the Taxes on the Miscellaneous Property appearing at the bottom of page 35, how were the taxes allocated as between the "D" and "E" Operations?

A. On the same basis as division of direct property—that is, of this same property—when the allocation was made from Area "C" to "D" Operations and "E" Operations, was made on the basis of 64.22 per cent and 35.78 per cent; therefore, it was assumed by me that taxes would follow the property, and that would be the proper percentage to use in allocating the taxes as was used for dividing the General System Property.

Q. You, therefore, determined that the total of Taxes applicable to "D" Operations was $221,192.90?

A. That is correct.

Q. And that the amount of Taxes applicable to "E" Operations was $139,284.01?

[fol. 2454] A. That is correct.

Q. And those figures are set forth on page 36 of the Exhibit Number 46?

A. That is correct.

Q. Now, the next item appears to be Cancelled and Surrendered Leases?

A. That is correct.

Q. Where do you show the details in connection with the expenses on Cancelled and Surrendered Leases?

A. The detail is shown on page 32 of the Exhibit, and is set out in detail by counties in Texas and Oklahoma; and, as previously stated, in the case of the Production and Gathering System Property, the location by counties automatically segregates this class of expense between "D" Operations and "E" Operations.

Q. And you so classify the expense of Cancelled and Surrendered Leases on page 32?

A. Which I have, in the amount of $132,605.38 for "D" Operations, and $56,024.54 for "E" Operations; and each of those amounts have been transferred to page 2 of this exhibit.

Q. You have now explained, Mr. Hulcy, the total of the Operating Expenses which you have considered as applicable to "D" Operations and "E" Operations, respectively, as set forth in the summary on page 2 of Defendant's Exhibit 46?

A. Yes, sir; I have.

[fol. 2455] Q. The next item appearing in the summary is Non-operating Revenues. How were the non-operating revenues determined, as applicable either to D or E operations, as the case might be?

A. I do not have the detailed calculations set out in the exhibit. However, they are included—that is, in my working papers. The other non-operating revenues are made up largely of rentals received from the general office building located in Dallas, also from cottage rentals received from different parts of the system. The rents from the general office building were divided on the same basis as the building was divided, namely, 64.22 per cent as applicable to D operations, and the remainder being applicable to the E operations. Now, in the case of rentals from cottages which are located in the fields, those rentals were divided according to the location; I mean by that any rentals that were received from cottages in the West Texas area; and such property accounts being included in that area, the rentals were divided on the same basis and against the specific property.

Q. The rentals on cottages in the Central West Texas gas area would go to D operations, would they not?

A. That is correct.

Q. And rentals on cottages, for example, in the Duncan [fol. 2456] District, would go to E operations?

A. That is correct.

Q. And that was, in general, the basis of the division?

A. Yes, sir; I have them all worked out—that is, each particular location.

Q. If counsel for the State desire the details of that, you will be glad to give it in connection with your cross examination?

A. Yes, sir, I will.

Q. Upon the basis of your determination, then, $39,520.24 of non-operating revenues were applicable to D operations, and $21,677.98 applicable to E operations?

A. That is correct.

Q. You have now reached the point in your summary on page 2 of Exhibit 46 where you show the gross income of the Company?

A. Yes, sir.

Q. Now, there are certain non-operating revenue deductions appearing in the summary on page 2,—the first being Federal income tax?

A. Yes, sir, that is correct.

Q. You have previously testified that that is a calculated amount.

A. That is correct.

Q. How did you determine the calculated amount of that [fol. 2457] Federal income tax?

A. That was determined in this manner: Under D operations the amount of gross income, namely, $3,043,817.37, was shown, and the amount of other non-operating deductions, in the amount of $17,465.74, was deducted; there was also deducted an amount equal to five per cent of the total property account—that is, the cost of property as reflected by the books as a depreciation and depletion allowance. Then the remainder being calculated at the rate of 13.75 per cent, it results in an allowance of $195,572.34; and the same thing——

Q. Of course, Federal income tax is applicable to D Operations?

A. That is correct.

Q. And in the same manner you determined that $27,759.00 was applicable to E Operations?

A. That is correct.

Q. Did you explain the other non-operating deductions?

A. No, sir, I didn't. Other non-operating deductions is made up entirely of the cost of operating the general office building, and that expense was divided—that is, in the same proportion that the building was divided, and that the rentals received from the building were divided, and that is 64.22 per cent.

Q. Applicable to D Operations?

A. That is correct, yes, sir.

[fol. 2458] Q. And the balance applicable to E Operations?

A. That is correct, yes, sir.

Q. Following those steps through in succession, now in the summary on page 2 of Exhibit 46, you have determined the net amount available for depreciation and return, expressed in dollars, and applicable, too, to the total of the property and to the D Operations and the E Operations, respectively?

A. Yes, sir, I have.

Q. What have you next set forth, Mr. Hulcy?

A. The property account, which is the actual cost as reflected by the books of the Company at December 31, 1933.

Q. In what amount?

A. In the total amount of $49,837,026.06.

Q. Now, you show that the amount available for depreciation and return, when expressed as a percentage of the actual cost as reflected by the books, is 7.81 per cent?

A. That is correct.

Q. Mr. Hulcy, how did you divide the property as applicable to D and E Operations?

A. Well, sir, the property was divided as to D and E Operations in almost the same manner that I have divided operating expenses, particularly with reference to Production System Property, Gathering System Property, [fol. 2459] Transmission System Property, and Compressor Station Property; and the General Property was divided in the same manner that the General and New Business Expenses were divided. However, the detail showing the division of property based on actual cost as reflected by the books, is set out on pages 38, 39, and 40 of this Exhibit 46.

Q. And is that in fairly complete detail, so that a check may be made against the actual cost of the property as reflected by the books?

A. Yes, sir, it is. I start off with the total before any segregations are made—that is, into the Area A, Area B, or Area C; therefore, anyone wouldn't have any trouble in checking the property and reconciling it to the amount shown on the books.

Q. And, of course, having determined the amount applicable to D Operations, you have thereby automatically determined the amount applicable to E Operations?

A. That is correct, yes, sir.

Q. In connection with Transmission System Property, for example, it is noted that on the B System you allocate to D Operations 22.17 per cent?

A. Yes, sir.

Q. And that is the same percentage which you used in connection with the operating expenses of Line B and [fols. 2460-2461] tap lines, is it not?

A. Yes; however, I think it should be stated, Mr. Griffith, that the per cent I have used is the per cent of Area C and not of the total B System—that is for the reason that the B 20-inch has been shown as applicable to Area B, and I have only used the 22.17 per cent of the amount shown in Area C, which does cover the B 16-inch and its taps.

* * * * * * *

[fol. 2462] Redirect examination continued.

Questions by Mr. Griffith:

Q. Mr. Hulcy, when we adjourned last evening you were explaining the allocation of property accounts as applicable to D and E operations, and I believe that specific reference had been made to the allocation of Line B as set forth on page 41 of the exhibit.

A. Yes, sir.

Q. In a similar manner to the manner in which the Line B was allocated to D and E operations, were allocations made of the other lines and systems for which percentages are shown on page 41?

A. On page 41 or—I believe it is page 38, isn't it?

Q. Page 38 is correct, Mr. Hulcy.

A. Yes, the other systems which are used jointly and [fol. 2463] concurrently have been handled in the same manner as was Line B, or rather B System.

Q. Of course, in connection with a great part of the Transmission System Property it was not necessary to make an allocation?

A. That is correct.

Q. Because it was outside of the area which was jointly and/or concurrently used for the transportation of gas from both Oklahoma and Texas?

A. That is correct.

Q. Come over to page 39 of Defendant's Exhibit 46, Mr. Hulcy.

A. Yes, sir.

Q. And please explain the classification of property applicable to D and E operations, in respect of the Compressor Station Property.

A. The large part of the Compressor Station Property is located in the West Texas area, and such stations are used exclusively for the compression of gas which is purchased and/or produced, transported and sold wholly within the State of Texas. Therefore, those particular stations are shown in Area A, and have been transferred in their entirety to D operations; likewise, there are certain Compressor Stations that are located in Oklahoma and have to do with the compression of Oklahoma gas entirely. Now, [fol. 2464] it will be noted with reference to the Petrolia Compressor Station, the percentage used in connection with that station, as applicable to D operations and E oper-

ations, was made in connection with the property, and those proportional amounts were shown under Area A and Area B, and are handled in exactly the same manner as if they had been put in Area C and then transferred to the D operations and E operations, or, in other words, the percentages developed are the ones used for transferring to D operations and to E operations. In the case of the Gainesville Compressor Station, which is shown in Area C, and is used exclusively for the compression of mixed gases; then the percentage is used by me shown in the Schmidt-Connor report for the segregation of property applicable to D operations and E operations. Therefore, the total investment as per the books has been divided in the following amounts: D operations, $3,575,455.14, and to E operations, $1,464,-435.77.

Q. The next item appearing on page 39 of Defendant's Exhibit 46 is Gas Connections?

A. Yes, sir.

Q. Allocated as between D operations and E operations?

A. Yes, sir.

Q. What are these Gas Connections, Mr. Hulcy?

[fol. 2465] A. These gas connections are the connections which are used in furnishing service to customers along rights of way, main line customers, and this segregation is based upon the location of where those connections are.

Q. Relatively small, as compared to the total property?

A. That is correct, yes, sir.

Q. Based upon that allocation, $12,638.76 was determined to be applicable to D operations and the remainder of $2,451.23 determined to be applicable to E operations?

A. That is correct.

Q. Refer, please, to page 40, and explain in a general way how the General Property was determined to be applicable to D or E operations, as the case may be.

A. With the exception of two items appearing in the General Property, which are Undistributed Intangible Property and Completed Construction, these charges were divided or allocated between D and E operations on the basis of direct property. I mean by that that physical property—that is, Production, Gathering, Transmission, Compressor Station, and Gas Connections, which are segregated and allocated to D operations and E operations, carry a percentage of 64.22 per cent applicable to D operations and 35.78 per cent applicable to E operations. Therefore,

[fol. 2466] I have used that percentage in determining what amount of the General System Properties should be allocated to the D operations and E operations. Now, the Undistributed Intangible Property in the amount of $200,000.00 is the value placed on a contract—that is a cost to the Company of a contract which was executed covering sales of gas in the West Texas area, and therefore applies to D operations; Completed Construction, in the amount of $15,987.46 is divided upon the basis of the several items making up that total amount, and the 83 per cent shown for D operations and 17 per cent for E operations happens to be the percentage of the items after they are definitely located; or, in other words, the percentage was derived from the actual charges, and the charges were not derived from the percentages, but in order to complete it the per cent was shown on that phase, and therefore the total of the General System Property applicable to D operations is shown to be $1,140,626.43, and the amount applicable to E operations in the amount of $519,403.62.

Q. Now, Mr. Hulcy, have you completed an explanation of how you segregate the property of the Company as being applicable to what you have described in Defendant's [fol. 2467] Exhibit 46 as D operations, on the one hand, and E operations, on the other hand?

A. Yes, sir, I think that completes the explanation, Mr. Griffith.

Q. At the bottom of page 40 of Defendant's Exhibit 46 do you show a summary or recapitulation of the property determined to be applicable to D operations and E operations, based upon the actual cost of the property as reflected by the Company's books at December 31, 1933.

A. Yes, sir, that is shown in summary form at the bottom of page 40.

Q. Is what respective amounts?

A. As applicable to D operations, $32,080,146.32, and applicable to E operations, $17,756,879.74, the total of those two amounts equaling the total of $49,837,026.06, which is the total property account of Public Service Property of Lone Star Gas Company, as reflected by its books at December 31, 1933.

Q. And which three figures are carried forward to the summary on page 2 of the exhibit?

A. Yes, sir, that is correct.

Q. Now, Mr. Hulcy, in your testimony up to this time have you accounted for the Operating Revenues of the Company?

[fol. 2468] A. Yes, sir, I have.

Q. Have you accounted for the Operating Expenses?

A. Yes, sir, I have.

Q. Have you accounted for the Non-Operating Revenues?

A. Yes, sir.

Q. And the Non-Operating Deductions?

A. Yes, sir.

Q. The Property Account?

A. Yes, sir.

Q. Both as a total and as applicable to what you have styled D and E operations in your exhibit?

A. That is correct, yes, sir.

Q. Now, as reflected by the summery on page 2 of Defendant's Exhibit 46, when expressed as a per cent of the Property Account what amount is available for Depreciation and Return?

A. On the total property a per cent of 7.81, and for the D operations, 8.82, that is for both Depreciation and Return; and for E operations, 5.98 per cent for both Depreciation and Return.

Q. Now, that doesn't mean that for the calendar year of 1933, the Company had available for net profit on the total cost of its property, 7.81 per cent?

A. No, sir.

Q. Or 8.82 per cent as applicable to D operations, or [fol. 2469] 5.98 per cent as applicable to E operations?

A. No, sir, it does not. First, before net profit could be computed it would be necessary to deduct therefrom the necessary amount for both depreciation and depletion as well as amortization.

Q. What percentage for Depreciation, Depletion and Amortization did the Railroad Commission of Texas allow in its order in Gas Utilities Docket No. 75?

A. I think the percentage was 2.09.

Q. Using the round figure of two per cent, Mr. Hulcy, as being the allowance for Depreciation, Depletion and Amortization to which the Company would be entitled, what then would be the net amount, expressed as a percentage and applied to the cost of the property, which the Company

had available for net profit or net return for the year 1933, in respect of the total property and as applicable to D operations and E operations, respectively?

A. For D operations there would be approximately 6.82 per cent available for profit or return, and for E operations approximately 3.98 per cent as available for return or net profit.

Q. Mr. Hulcy, the summary on page 2 reflects the actual revenues and expenses of the Company during the calendar year 1933?

A. That is correct, they do.

[fol. 2470] Q. And is based upon the actual collection by the Company of the 40-cent city gate rate for domestic gas?

A. That is correct.

Q. Now, what is shown in the summary on page 3 of Defendant's Exhibit 46?

A. Page 3 of Exhibit 46 is a statement of the Revenues, Expenses, and so forth, and prepared in exactly the same manner as the summary shown on page 2, with this exception—that it is giving effect to a 32-cent gate rate—that is, in lieu of the actual 40-cent gate rate which was used and collected upon by the Company and which is set out on page 2. In other respects the statement is the same as shown on page 2,

Q. Of course, by the reduction of revenues the calculation of Federal Income Tax results in a small computed Federal Income Tax?

A. That is correct, yes, sir; it is computed upon the basis of the net profit, after an allowance for depreciation.

Q. With those two exceptions—that is, the giving effect to the 32-cent domestic gate rate prescribed by the Railroad Commission in its order and the calculation of Federal Income Tax, is there any change in the summary on [fol. 2471] page 3, as compared with the summary on page 2?

A. No, sir; other than that they are alike in all respects.

Q. But those changes, of necessity, made for a different percentage as being available for Depreciation and Return?

A. That is correct.

Q. Now, what are the percentages which would have been available for Depreciation and Return to Lone Star Gas Company on the actual cost of its Public Service Property

for the calendar year of 1933, giving effect to the Commission's order prescribing a 32-cent domestic gate rate?

A. There would have been available 5.88 per cent for both Depreciation and Return.

Q. On the total of the property?

A. That is correct, on the total of the Public Service operations, and, likewise, that has been divided and the statement shows that available for D operations there would have been 6.65 per cent for both Depreciation and Return, and for E operations 4.48 per cent available for both Depreciation and Return.

Q. Mr. Hulcy, if we would use the round figure for Depreciation, Depletion and Amortization allowed by the Commission, of two per cent, what would have been the net amount, expressed as a percentage, available to the Com-
[fol. 2472] pany for profit or net return for the calendar year of 1933, giving effect to the 32-cent city gate rate prescribed by the Railroad Commission in its order?

A. On the Total Property there would have been available for profit, 3.88 per cent, and for D operations 4.65 per cent, and for E operations 2.48 per cent.

[fol. 2473] Q. Mr. Hulcy, refer, please, to page 4 of Defendant's 46. What do you show in the summary which appears on page 4?

A. Page 4 is a statement of revenues, expenses and amount available for depreciation and return for the twelve months ended December 31, 1933; and made in all respects the same as the summary shown on page 2, with the exception that instead of using the actual cost of the public service property as reflected by the Company's books, I have used the present value of the property as shown by Mr. P. McDonald Biddison in an appraisal dated January 1, 1933.

Q. That is the appraisal which we know in evidence here as Defendant's Exhibit 28?

A. That is correct. However, this was based upon the present value as determined by Mr. Biddison, and I am not familiar with just the exhibit number on that.

Q. Do you refer, Mr. Hulcy, to the reproduction cost new as determined in Defendant's Exhibit 28, less the observed depreciation as determined in Defendant's Exhibit 37, which was introduced by Mr. Biddison?

A. Yes, sir; in his report on condition of property. Now, I might add that the total amount shown by me is not the

total amount determined by Mr. Biddison as the present fair value of the property and business of Lone Star Gas Company.

Q. That is based upon reproduction cost new less observed depreciation?

[fol. 2474] A. That is correct. Mr. Biddison has included in his appraisal an amount to cover going concern value. I have not used going concern value.

Q. And you have not used cost of reproduction of the business?

A. No, sir; I have not.

Q. Why was that not done?

A. Well, Mr. Griffith, cost of reproduction of business, or going concern value, is something that is, perhaps, applicable to several different things. It does not apply altogether to property, but does in connection with the business and markets as well; and, therefore, I did not feel that I was in a position to break that down as between "D" and "E" operations, as in the case of property; so for that reason I omitted it and left it out altogether.

Q. If we refer to pages 41, 42, and 43 of your Exhibit, Mr. Hulcy—that is, Exhibit 46—do we find on those pages a breakdown of the property applicable to Area "A", Area "B", and Area "C", and which you determined to be applicable to "D" Operations and "E" Operations, respectively?

A. Yes, sir; we do.

Q. Will you please relate, in a general way, the method you followed in the determination of the property applicable to "D" and "E" Operations, respectively?

A. The method used by me in the preparation of these particular statements was the same as was used in con-

[fol. 2475] nection with the similar statements made to cover the actual cost of the property. However, it was necessary in order that this statement be prepared that we work from the appraisals which were submitted in evidence in this case. Also, it was necessary to take into consideration Exhibit 37 which was sponsored by Mr. Biddison and put in as evidence in this case.

Q. That is the exhibit on the per cent condition of the property?

A. Yes, sir; that is correct. Therefore, it was necessary that the reproduction cost new plus the proportionate amount of overheads be determined for each particular

class of property, and in some cases, such as the "B" System, the "C" System, the "F" System, the "G" System, and part of the J-2 System, that those particular classes of property be broken down in their entirety; that is, by their several units making up the total of the system, in order that we could allocate to "D" and "E" Operations; and then it was necessary that the per cent condition found by Mr. Biddison be applied to the reproduction cost of these several units. With that exception, the same procedure was followed all the way through as was used by me in breaking down the actual costs of the property as reflected by the books. However, on page 42, at the bottom of that page, it will be noted that I have shown a total of the Direct Property, and from those totals is shown [fol. 2476] that 61.91 per cent is applicable to "D" Operations, and 38.09 per cent is applicable to "E" Operations.

Q. Now, that percentage of 61.91 per cent would be comparable with the figure or percentage of 64.22 per cent which you determined to be applicable to "D" Operations based upon a segregation which, in turn, was predicated upon the actual cost of the property as reflected by the books?

A. That is correct, yes, sir; and those are the percentages which I have used to transfer the General System Property into "D" and "E" Operations; also the non-physical values which are shown on page 43—that is, I have used the same percentages.

Q. In the summary at the bottom of page 43, you reflect the segregation of property applicable to "D" Operations and to "E" Operations by the various classifications—that is, production system property, gathering system property, transmission system property, compressor station property, general system property, and non-physical values?

A. Yes, sir; I do.

Q. And you determined that $38,350,882.32 is applicable to "D" Operations?

A. Yes, sir.

Q. And that $23,594,250.84 is applicable to "E" Operations?

A. That is correct.

Q. And do we find those figures are carried forward to [fol. 2477] the summary on page 4 of the exhibit?

A. That is correct, yes, sir.

Q. Now, Mr. Hulcy, is page 4 based upon the actual revenues and operating expenses of the Company for the calendar year 1933?

A. Yes, sir; it is.

Q. And the actual revenues, do they include the collection by the Company of the domestic city gate rate of 40 cents per 1000 cubic feet of gas?

A. Yes, sir; they do.

Q. This expressed as a percentage in relation to the reproduction cost new of the property as determined by Messrs. Biddison, Steinberger, and Connor, less observe depreciation as determined by Mr. Biddison in his Exhibit 37, but excluding going value or cost of reproduction of the business, when expressed as a percentage, what amount is available for return on the total property—return and depreciation?

A. For both depreciation and return on the total of the property there is 6.42 per cent available; and for "D" Operations, 7.49 per cent available; and for "E" Operations, 4.66 per cent available. That is for both Depreciation and Return.

Q. And do you use the term "depreciation" as covering and including not only depreciation, but depletion and amortization as well?

[fol. 2478] A. Yes, sir; I do.

Q. Now, what appears on page 5 of the exhibit?

A. Page 5 is a statement of the Revenues and Expenses of the public service operations of Lone Star Gas Company for the Twelve months ended December 31, 1933; and is prepared in the same manner as the statement shown on page 4, with the exception that I have given effect to a 32-cent domestic gate rate; that is, I have used that rate in lieu of the actual rate being charged by the Company and which was charged during the year 1933. It will also be noted that on page 5 of this statement, there is not shown any allowance whatever for Federal Income Tax.

Q. Why is that, Mr. Hulcy?

A. Well, with the reduced gross revenues which we would have if a 32-cent rate had been in effect, and the necessary amount of depreciation—that is, upon the basis upon which I have calculated it—there would have been no net profit left on which the Company would have been forced to pay a Federal Income Tax.

Q. In other words, the per cent of 4.84 per cent which was available for both depreciation and return would have been consumed by the requirements of the Company for depreciation, depletion and amortization?

A. That is correct, yes, sir.

Q. And except in connection with the calculation of Federal Income Tax, and except that you have given effect [fol. 2479] to the 32-cent domestic gate rate as fixed and prescribed by the Commission's order in Gas Utilities Docket No. 75, is the summary on page 5 prepared in all essential respects in a similar manner to the summary which appears on page 4?

A. That is correct.

Mr. Griffith: That is all.

The Court: Stand aside, Mr. Hulcy.

Mr. Griffith: If you don't mind, Mr. Fitzhugh, we would prefer that you cross-examine the witness Schmidt first. My reason for that is that this report of Mr. Hulcy's is based in part on Exhibit 45.

Mr. Fitzhugh: All right.

The Court: Come around, Mr. Schmidt.

(Thereupon the witness D. A. Hulcy was temporarily excused, and the witness E. F. Schmidt recalled.)

E. F. Schmidt, a witness for defendant, recalled, testified as follows:

Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Schmidt, all of the gas produced in West Texas, or purchased in West Texas passes through the Joshua plant, does it not?

[fol. 2480] A. Passes by the Joshua plant.

Q. And passes through the Joshua plant, does it not?

A. No; it does not.

Q. Now, there are two compressor plants at Joshua—Number One and Number 2?

A. Yes, sir.

Q. Isn't it a fact that all of that gas goes through either one or the other?

A. No, sir.

1567

Q. What is the purpose of the Number One plant at Joshua?

A. The purpose of the Number One plant is to stabilize the gas coming from West Texas.

Q. And what is the purpose of the Number Two plant?

A. To boost the pressure on such gas as is delivered south of Joshua into the Waco, Bryan, Temple Division.

Q. That is Line "L", isn't it?

A. Lines "L" and "M".

Q. Now, what is the B. T. U. content—first, you better explain to the jury, Mr. Schmidt, what is meant by B. T. U.?

A. B. T. U. is the British Thermal Heat Units in a cubic foot of gas.

Q. How did you determine the British Thermal Unit content, or the B. T. U.'s in a volume of gas?

A. It is determined calirometrically. A certain amount of gas when burned gives off a definite amount of heat, and this heat is referred to as British Thermal Heat Units. [fol. 2481] That is really a comparison of the value of gas——

Q. For heating purposes?

A. Yes, sir.

Q. Now, then, what is the British Thermal Unit content of the West Texas gas before it ever comes to the Joshua Station?

A. It varies.

Q. Well, what does it average?

A. It will average around 1200 B. T. U.'s.

Q. Does that mean 1200 B. T. U.'s per cubic foot of gas?

A. Yes, sir.

Q. Now the Company has a number of contracts for the delivery of gas to distributing companies throughout the states of Oklahoma and Texas?

A. Yes, sir.

Q. Most of these contracts have in them, Mr. Schmidt, a provision as to the British Thermal Unit content of the gas to be delivered?

A. A good many of them do.

Q. What is the ordinary B. T. U. content required by these contracts?

A. I believe most of them where it is mentioned at all refer to a heat value of 950 B. T. U.'s.

Q. Now, this West Texas gas, I believe you say, averages 1200 B. T. U.'s?

A. Yes, sir.

Q. So that you can drop down the B. T. U. content of the [fols. 2482-2483] West Texas gas and still fulfill all your contract provisions, can you not?

A. Yes, sir.

Q. And that is the purpose, isn't it, of the Number One compressor station at Joshua, to dilute the B. T. U.'s in that West Texas gas?

A. In order to give service to our customers entirely.

Q. Well, they would get more heat out of the 1200 than the 950, wouldn't they?

A. No, sir; they would not. The domestic consumer would not get the advantage of the additional heat units.

Q. Why the burner tips could be very well adjusted at the consumer's premises to take care of, and consume, and properly combust gas with a 1200 B. T. U. content, couldn't they?

A. Mr. Fitzhugh, if it were possible to supply our customers north and east of Joshua with gas entirely of the same heat value, the burners could be adjusted so that they would take advantage of it,——

Q. Yes, sir.

A. —but where most of our property in that direction is so situated that they would be getting at one time a high heat value gas, and another time a lower heat value gas, it is impossible to adjust a burner to take care of those conditions.

* * * * * * *

[fol. 2484] Q. All right. Now, then, Mr. Schmidt, if the consumers being furnished gas at the burner tip are given a constant supply of gas having a 1200 B. T. U. content their burners can be adjusted so as to properly combust and use every bit of the heating value in that gas, can they not?

A. No; there isn't a burner that is manufactured that will.

Q. Well, within reasonable limits, of course?

A. Well, the efficiency is rather low in any burner.

Q. Well, it is that way with any burner, isn't it?

A. Yes, sir.

Q. You don't burn all the gas, ever?

A. Yes, you burn it, but you don't utilize all the heat.

Q. But there is possibly twenty per cent more theoretical heating value in the 1200 B. T. U. gas than the 950?

A. That is correct theoretically.

Q. Well, actually there would be that much more heat, wouldn't there?

A. Not from a practical standpoint?

Q. Well, you are taking into consideration now the fact that you wouldn't have a steady flow of the 1200 B. T. U., aren't you.

A. Those are the things we have to take into account to give service to our customers.

Q. All right. Now, at this No. 1 compressing plant at Joshua you introduce into the line—this is Joshua right [fol. 2485] here, isn't it, on the map?

A. That is correct.

Q. The West Texas line that runs into Joshua is Line K?

A. K and O.

Q. K and O. Now, both Line K and Line O bring in this 1200 B. T. U. gas from West Texas?

A. That is right.

Q. Now, at the Joshua compressing plant No. 1 you put into those lines enough inert gas to dilute the B. T. U. content down to around 1,000, don't you?

A. That is correct.

Q. Then that gas goes through Line O to Dallas and East Texas?

A. That is correct.

Q. Part of that gas comes down through Line L and Line M to points south and east of Joshua?

A. That is right.

Q. And then that gas goes on through Line J toward Fort Worth and the other lines intersecting it around Fort Worth?

A. That is correct.

Q. Now, the No. 2 Compressing plant has nothing to do with the operation of Line K, J or O, does it?

A. No, sir.

Q. But is used simply to shove the gas down Lines L and M?

A. That is right.

Q. Do you know for the year 1933 the volume of gas coming through Lines K and O from West Texas and going through the No. 1 compressing station at Joshua?

[fol. 2486] A. It doesn't go through the No. L Joshua station.

Q. Well, going by the No. 1?

A. No, sir; I do not have the figures.

Q. Do you know the volume of inert gas that the No. 1 compressing station at Joshua puts into the gas passing through Lines K and O?

A. I do not have the figures available; no, sir. That varies, depending upon the quantity of gas coming from West Texas and the heating value of the gas coming from West Texas, so that the gas passing east of Joshua is maintained at a heat value of approximately 1,000 or 1,010.

Q. But when that gas coming from West Texas averages about 1200 B. T. U.'s per cubic foot and it is diluted down to about a thousand, that means you put about twenty per cent into the volume as inert gas?

A. The actual average is about 15 or 16 per cent.

Q. Now, what do you mean when you say "inert gas", Mr. Schmidt?

A. That is gas with mostly nitrogen, some carbondioxide.

Q. You mean a gas that is not capable of producing a combustible mixture in the line?

A. That is correct.

Q. That is, it has no oxygen in it at all?

A. Yes, it has some oxygen.

Q. But not much, not enough to make a combustible mixture in the line?

[fol. 2487] A. That is right.

Q. How do you manufacture the inert gas that you introduce into the lines from the No. 1 compressing plant at Joshua?

A. By burning gas.

Q. You mean you combust natural gas and then shoot the residue into the line?

A. That is right.

Q. How much of the natural gas does it take to produce the volume of inert gas introduced into the lines for the year 1933?

A. I haven't the figures here.

Q. Well, do you know what the ordinary ratio would be—how much natural gas does it take to produce the inert gas?

A. Well, to produce it and introduce it into the line, I would say about one cubic foot of natural gas to seven of the inert.

Q. So that after combusting one foot of natural gas you would get about seven cubic feet of inert gas?

A. Approximately that.

Q. Approximately that. Now, what is the specific gravity of the inert gas?

A. Slightly in excess of one.

Q. That is, it is a trifle heavier than air?

A. Yes, sir.

Q. Assuming the same conditions of temperature and pressure?

A. That is correct.

[fol. 2488] Q. Now, do you have any devices for measing the specific gravity of the gas in the field—in the West Texas fields?

A. In order to obtain the specific gravity of individual wells we make monthly tests at the wells.

Q. So you do know the specific gravity of the gas in the fields in the West Texas area?

A. Yes, sir.

Q. What is the specific gravity of that gas on the average?

A. Well, it varies over quite a wide range in the West Texas area. The average would be about seven five or seven six.

Mr. Griffith: Point seven?

A. Point Seven. Possibly that might be a little low. Some of the gas in that area runs better than one. It is heavier than air, quite a lot of it; so the average might be nearer .79.

Q. You don't really know for sure?

A. I would say that is about right.

Q. What is the composition of the West Texas gas that makes it so much heavier than the Panhandle gas, for instance, or the Oklahoma field gas?

A. It has a rather high content of ethane.

Q. Now, as shown in your exhibit, page 4, the specific gravity of the gas from the West Texas fields was maintained at all times at an average for the year 1933 of about .825; is that right?

A. It does not say so.

[fol. 2489] Q. Well, what is the correct statement?

A. The correct statement is that the average for the year 1933 was .825. It was not maintained.

Q. As measured?

A. Yes, sir.

Q. Now, that measurement is made after the introduction of the inert gas into the Joshua Compressor Station No. 1?

A. That is correct.

Q. In the front of your exhibit you show the main lines and tap lines used jointly and/or concurrently for the transportation of natural gas produced in the Texas and Oklahoma fields?

A. Yes, sir.

Q. Now, at the end of the three lines in the northwestern corner of your map you have a symbolic designation of some sort?

A. Yes, sir.

Q. What does that stand for?

A. Those represent meters—main line meters.

Q. Now, at each one of those meter installations do you have a gravitometer?

A. Not all of them; no, sir.

Q. You don't have the locations marked on this map for the location of the gravitometer?

A. No; we have a good many that are scattered at places all over the system so that we know what the gravity is at any particular point in the system, which is very necessary in connection with the measurement of gas.

[fol. 2490] Q. Now, you have omitted the lines or portions of lines which you consider do not carry West Texas gas from this map, do you not?

A. No; this map only shows the lines that are jointly used for the purpose of carrying West Texas and/or Oklahoma gas.

Q. All of the lines that you consider as carrying wholly West Texas gas have been omitted from this map, though, have they not?

A. That is correct.

Q. Now, at Trenton—you locate that on your map, do you not?

A. Yes, sir.

Q. Line O connects with this system, does it not, as shown by your map?

A. By this map?

Q. By referring to the big map can't you tell that Line O comes in at Trenton and connects with the system that you show on this map?

A. Yes, sir.

Q. You don't have a measuring station at Trenton, do you, as shown by your map?

A. That gate is closed in ordinary operations and is being used in case of ordinary repairs.

Q. Is that the reason that you omit all the rest of Line O?

A. No; the rest of Line O and up to Trenton is supplied entirely from West Texas.

Q. Well, if you had used that gate for anything besides [fol. 2491] repair purposes you would have included the portion of the line down around Joshua No. 1 station?

A. Why, no.

Q. Well, Line O, then, does not put any gas through Trenton into the system here ordinarily?

A. No, sir.

Mr. Griffith: It is a very small line, isn't it, Mr. Schmidt?

A. A three-inch line.

Q. What is the average specific gravity of the Panhandle gas?

A. The Panhandle gas averages about 625—point 625.

Q. Now, where is the measurement made?

A. Why, we measure all the gas at the wells.

Q. Well, did you use these measuring stations shown on your map as the points at which you made the measurement, or did you make the measurement in the field and take the average for each well?

A. The measurement of gas?

Q. Yes—the specific gravity of the gas.

A. Oh, the specific gravity?

Q. Yes.

A. The average that we used on the Panhandle was from the wells.

Q. So you took the specific gravity of the gas at each well and then averaged it?

A. No, I am wrong. The specific gravity shown in this report is the gravitometer record of Line A—we have several of them—the principal one at Petrolia.

[fol. 2492] Q. The principal one is at Petrolia?

A. The one we used, yes, sir.

Q. Well, did you use any other gravitometer readings besides the one at Petrolia?

A. Well, they are practically the same on that line.

Q. What are the ranges of variation as shown by the gravitometer readings at Petrolia on that gas?

A. It varies very slightly—possibly five and a third decimal place.

Q. You mean by that from about .600 to .625?

A. No, from about .62 to about .63.

Q. Now, where is your gravitometer for the findings of specific gravity on the H and Second H Lines?

A. At the same place—Petrolia.

Q. That is likewise at Petrolia?

A. Yes.

Q. You mean you have two gravitometers there?

A. We have several.

Q. Well, separate ones on the H?

A. Yes.

Q. Well, now, what is the range of the gas coming through the H. Lines?

A. That will vary from .61 to about .635, along in there.

Q. Where is your gravitometer on the G system?

A. At Gainesville.

Q. What is the range of the specific gravity for that gas?

[fol. 2493] A. That will average about .63.

Q. Well, what is the range?

A. It varies possibly from .62 to .64.

Q. Now, if you happen to be off so much as 100 in adopting the average for the specific gravity of these gases it would make a very great difference in your calculations, would it not?

A. No, it would not make any great difference.

Q. It would make as much as ten or fifteen per cent in your calculations, would it not?

A. No, sir.

Q. The specific gravity you used on the West Texas gas was .83, wasn't it?

A. No, we used a different specific gravity for each month.

Q. Well, what did it average?

A. Well, it varied from——

Q. Don't you state in the text that it averaged about .83?

A. For the year.

[fol. 2494] Q. All right; now, then, if that is the average.

A. Yes.

Q. And the Oklahoma gas averages .63, that is a difference of 20 points on the scale, isn't it?

A. Yes.

Q. So as between those two cases, specifically, if you are off as much as 1/100 it would make a five per cent difference in your calculations, wouldn't it?

A. That is not the way we calculated it; we made curves for each month and took the weighted specific gravity of the gas from the two different sources and plotted the curve for each month.

Q. I understand that, but as between these two specific gravities 1/100 of a point makes five per cent difference, doesn't it?

A. I don't know. If one was 1/100 high and the other was 1/100 low, it wouldn't make any difference.

Q. Well, now, just look at one of your computations, Mr. Schmidt. Suppose you look at page 54, where you show a curve showing per cent of West Texas graph for different specific gravities, September, 1933.

Mr. Griffith: You mean page 54 of the Appendix?

Q. Yes, page 54 of the appendix. Now, at the lower end of your graph you have assumed a specific gravity of .63, have you not?

A. This curve of course has a very wide line on it, Mr. Fitzhugh. These were not the curves we used in compiling this data but this is simply to show the method we used. The curve we used has a very fine line on it, and the specific [fol. 2495] gravity may have been .63 or .631 or .635.

Q. All right, but it is sufficiently accurate to illustrate what I am trying to show. It looks to be approximately .63, does it not?

A. That is correct.

Q. Now, suppose you had found a gas of a specific gravity of .6 or in other words, found that this gas weighed six times as much as a similar volume of air—or rather, six-tenths as much as a similar volume of air at the same pressure and temperature conditions. Then what would have been the difference in your per cent of west Texas gas, say on the .2 marker on your horizontal axis?

A. If we had found that condition, we would of course have made the curve to agree with that condition, and then the percentage of West Texas gas would have been reduced by — In other words, if we had found .6 and drew the curve for .6 and we found that the specific gravity of the gas we were trying to determine the content of the West Texas gas was .7; then you would follow along from the .7 on the

left hand side across until you hit the curve and that would have increased the percentage of this West Texas gas by some amount over and above what it was.

Q. And doesn't it show on your graph that would have figured out about ten per cent?

A. You can't tell by looking at the graph. You have to plot it.

Q. You can tell by looking at this graph can't you?

A. No, sir; it takes an entirely new graph from that [fol. 2496] which I have shown here. This was the average for the month of September and that is why we used it.

Q. Did you plot a specific gravity curve each month for the specific gravity of the Oklahoma and Shamrock gas?

A. It varies practically none as an average for the month.

Q. So you didn't make different plottings?

A. No, sir.

Q. You used the same one?

A. Yes sir.

Q. Could you by the use of this method, Mr. Schmidt, separate the Panhandle gas or the gas from the Shamrock field in Wheeler County from the Oklahoma gas?

A. No sir.

Q. And the reason you could not make that separation is because they are practically the same specific gravities?

A. That is correct.

Q. Now, is there any way by using your exhibit, by any sort of a method, that a separation could be made of the gas that comes from the Panhandle, Wheeler county field?

A. No, sir.

Q. Is there any way that using your exhibit a separation could be made of the gas produced in Oklahoma and the gas produced in Texas?

A. Produced in Oklahoma and produced in West Texas, yes. That is what we have done.

Q. Now, you bring some gas down from the Panhandle field through Oklahoma, and into Texas?

[fol. 2497] A. Yes.

Q. Now that has the same specific gravity as some of the Oklahoma gas, doesn't it?

A. That is correct.

Q. Now, there is no way, using your method, that you could make a separation of the gas that came from the

Panhandle field and went back into Oklahoma, from the gas that was produced in Oklahoma and came into Texas, is there?

A. No, sir.

Q. And there is no way, is there Mr. Schmidt, that you could make any differentiation in your exhibit, between the gas actually produced in Texas and the gas actually produced in Oklahoma?

A. Yes, this differentiates between the gas produced in the Panhandle of Texas, and the gas produced in West Texas.

Q. And the gas that is produced in the Panhandle of Texas is produced in Texas, isn't it?

A. Yes.

Q. It's Texas gas, then?

A. Yes, produced in Texas.

Q. Then there is no way you could make any segregation between the Texas gas, and the Oklahoma gas?

A. West Texas gas is produced in Texas.

Q. I know; but just answer my question, Mr. Schmidt.

A. I am trying to.

Q. There is no way, is there, using the method you have used in your exhibit, that you could separate the gas actually produced in the state of Texas, from the gas actually [fol. 2498] produced in the State of Oklahoma?

A. Yes.

Q. Now, how would you do that?

A. The gas produced in the Panhandle of Texas is very readily separated from the gas produced in the West Texas area.

The Court: Mr. Witness, I don't believe you understand the question. He is trying to get you to state if there is a way to separate the gas produced in the State of Oklahoma from the gas produced in the State of Texas.

A. Yes, there is; this exhibit shows as differentiating between the West Texas gas, and the Oklahoma gas, and this shows a method.

Q. I don't believe you get me, Mr. Schmidt, or else you don't want to answer the question.

A. I would be very glad to answer the question, if I could understand it.

Q. I want to know if, using your method, you can make a separation of the gas produced in Texas, including this

Panhandle gas, from the gas produced in the State of Oklahoma.

A. Maybe I can make this sort of a statement and answer your question. There is no way to differentiate between the gas produced in the Panhandle area and the Oklahoma fields, but there is as between the Oklahoma fields and Panhandle *files,* and the West Texas area.

Q. All right then, to answer my question, you can not, [fol. 2499] using the method detailed in this exhibit, make a separation between the gas produced in the state of Texas, from the gas produced in the State of Oklahoma, can you?

A. I may be thinking about this as——

The Court: I believe you can answer the question. You are trying to treat the Panhandle gas as Oklahoma gas, are you not?

A. Yes.

The Court: Now, treat that gas as being Texas gas, which is produced in Texas.

A. No, there is no way to separate those.

Q. Of course, a separation could be made, but you have not adopted that sort of method?

A. I don't know how a separation could be made.

Q. You could actually measure it, could you not, the gas that comes from Oklahoma, and the gas that comes from Texas.

A. We can measure the different volumes, yes, before they are mixed.

Q. Certainly.

A. That's right.

Q. Now, you have used, have you not Mr. Schmidt, a different method of allocation in finding the portion of revenues attributable to the carriage of gas wholly produced and transported and sold in Texas, from the method of allocation you used in finding the value of the property used for the same sort of carriage?

[fol. 2500] A. We divided the sales into their classes and applied the same factor that was used in the property allocations.

Q. Well, you have two separate methods of allocation, do you not?

A. No.

Q. What is the method that you used in making your allocation of the revenues?

A. We applied the percentage of property to the amounts of domestic and industrial gas which represented the west Texas gas.

Q. Now, you and Mr. Hulcy and Mr. Connor got together to make up these two exhibits, didn't you—Exhibit 45 and Exhibit 46?

A. Mr. Connor and I worked up one of them, whatever the number is.

Q. Well, you understand the method that Mr. Hulcy used in his exhibit, do you not?

A. I am quite familiar with it.

Q. Mr. Hulcy explained that E operations covered gas sales, expenses and property used in connection with gas purchased and produced in the State of Texas and/or Oklahoma, transported through and sold in the State of Texas and the State of Oklahoma. Now, you understand what he means by those E operations, do you not?

A. I don't believe I understand his methods sufficiently to testify about them.

Q. I am not going to try to examine you on his exhibit, of course, but you know what he means by E operations, don't you?

A. I think so.

Q. Now, Mr. Hulcy, in finding the per cent of revenues [fol. 2501] on the property used jointly as between the D and the E operations, found that approximately 37 per cent of the revenues would be attributable to E operations —that is, unless we have made some mistake in figuring out that percentage, that is the way it works out. Now, when the allocation of the property is made to the E and D operations, 44 per cent of the property is found to be assignable to the E operations. Now doesn't that show an inconsistency, if Mr. Hulcy's figures are all based on your findings?

A. Mr. Fitzhugh, I don't know that I can answer your question. I have not examined Mr. Hulcy's report, and I heard only a part of his testimony.

Q. On page 32 of your exhibit, where you have the method of allocation, as a title, the text reads as follows:

"The fixed charges which accrue on the value of the property items of Lone Star Gas Company are largely a function of the passage of time, and are therefore independent of the amount of use to which these property

units are put measured in terms of the volume of gas transported''

And then you go on and say:

"Interest or return, ad valorem taxes and local assessments and the reserves required for depreciation, amortization and the cost of replacements, will accrue uniformly upon the value of a pipe line, irrespective of the volume of gas which may be transported through this line during the period of time (the year 1933 in the instant "case) in [fol. 2502] which these fixed charges will accrue."

Now then, doesn't that show, Mr. Schmidt, that you used a different basis for the allocation of property to what you used as a basis for your allocation of the revenues?

A. No, sir.

Q. Well, what was the basis for the allocation of the property values?

A. We applied a factor of 8.33.

Q. What page are you on now?

A. Well, take page 36, the allocation of Line B. We applied a factor of 8.33 to the per cent of West Texas gas delivered by months, to determine the per cent by months in the allocation of the Line B property.

Q. Now, this application of the 8.33 factor you got by simply dividing 100 per cent by 12, to get it on a monthly basis, I believe you said?

A. That is correct.

Q. And that results in an average—or rather, that results in a total allocation for the year 1933 on Line B and the B taps of 22.17 per cent?

A. That is correct, except there is an error in that particular system. In the month of July the per cent of west Texas gas delivered should have been 51.09, and the effect of that would be to increase the allocation of Line B and the B taps to 26.01 per cent.

Q. Now then, you used that 26.01 per cent as the amount [fol. 2503] to apply for the property value allocation on Line B and the B taps?

A. That is correct.

Q. Now, what was the percentage that you found for the division of the revenue on the same portion of the company's property?

A. On the allocation of the revenue, we applied the same per cent of West Texas gas delivered to that amount of gas divided as domestic and industrial by actual sales records in order to allocate the sales.

Q. Now what page does that show on, please sir?

A. Page 44, at the bottom of page 44 in the third column from the right; the percentages in that column which are applied to the domestic and industrial sales of west Texas gas, are the reciprocals of the column, next to the last column on page 36, which shows the sales of Oklahoma and Texas Panhandle gas rather than the west Texas gas, and the method would have been the same.

Q. Now, your sheet 44 does not show, does it, Mr. Schmidt, the per cent that you actually used for the allocation of revenue on Line B and B taps, does it?

A. Revenues?

Q. Yes.

A. It shows the amount of gas of the different kinds, in order to determine the revenues.

Q. Well, that is 100 per cent of the revenues, isn't it?

A. No, sir.

Q. If you take the sales of both classes?

A. No, we have not taken the sales of both classes.

[fol. 2504] Q. Well, you show for the West Texas domestic, 73.58 per cent, and for the industrial, 26.42 per cent. Those add up to 100 per cent, don't they?

A. Yes, that is 100 per cent of the west Texas gas, divided into the two classes. So does the two percentages of Texas Panhandle and Oklahoma add up to 100 per cent, which are the percentages of those two classes of the Oklahoma and Texas Panhandle gas.

Q. Can you tell the total amount of revenues that you did apportion to the Line B and B taps?

A. I did not apply revenues. I only got the volumes of the two classes.

Q. Can you tell how it would work out in percentage of revenues?

A. No, sir; there is nothing in this report to indicate that.

Q. At any rate, it would not work out to be the 26.01 per cent that you apply to the property values, would it?

A. There is no reason why it should.

Q. That is just the point we are trying to make. You have not used the same method of allocation in finding the

property values used for certain operations that you have used in getting the revenues for certain classes of operations?

A. For the very reasons we have set out.

Q. Now, why do you feel justified in using a different method?

A. We have only applied so far as revenues are concerned, strictly the gas that is furnished and sold in these areas that comes from the West Texas area, and the whole purpose of this report was to determine the quantities of [fol. 2505] the two different classes of sales, the total of which is West Texas gas.

Q. Well, at any rate, Mr. Schmidt, your method in each case works out, when applied to any particular line, to apply a higher per cent in finding the property value, and a lower per cent to find the revenues. Isn't that right?

A. I don't know. I don't think so.

Q. To that particular property, I mean?

A. I don't believe it does. But I don't know of any other method of doing it than the way we have.

Q. Well now, suppose you find that Line B and the B taps are using 26.01 per cent, or are used that amount in the work of distributing west Texas gas, and that 26.01 per cent of the property value is to be attributed to those operations. Why wouldn't you be reasonably justified in saying that 26.01 per cent of the revenues coming in from those lines is to be attributed to the west Texas gas operations?

A. The only revenues that you could attribute to those lines are the revenues derived from the sale of the West Texas gas, and that is exactly what we have set out.

Q. Well, you could divide the property that way, could you not?

A. It would not be proper.

Q. Why wouldn't it?

A. Because, as stated before, the fixed charges on this property are a matter of time and not volume. Our taxes go on monthly, regardless of whether we are carrying one million or a hundred million feet in a particular line. [fol. 2506] Interest, amortization and depreciation are all charges which are a function of time and not volume.

Q. All right, assuming that is true, Mr. Schmidt, there is no reason you can not make a split on the fixed charges?

A. We did.

Q. On the same basis as the revenues?

A. We did. Because we applied to the 8.33 factor, which is one-twelfth of 100, we applied the percentage of West Texas gas which was handled in each of these systems by months.

• • • • • • •

[fol. 2507] Q. Now, suppose, Mr. Schmidt, that we have a line that for ten months of the year uses wholly West Texas gas and the other two months of the year it uses gas from some other source. Now, then, you would have a split on the property value of that line, and for the fixed charges you would attribute 83.3 per cent of the value of that line to the West Texas gas, wouldn't you?

A. No, it would be something greater than that.

Q. How much?

A. Whatever per cent of West Texas gas was used in the other two months, applied to the 83.3 factor.

Q. Well, I mean—assume that the gas for the other two months comes from the Oklahoma and Texas Panhandle, then your percentage would be exactly 83.3 per cent, wouldn't it?

A. That is correct.

Q. Now, then, assume that the two months when this line takes no West Texas gas, but during which it is getting its gas from the Texas Panhandle or from Oklahoma, happened to be the cold months of the year, say, January and December, and assume that they use as much gas in those two months as they do the other ten, or the rest of the year, then your split for revenues would be fifty-fifty, wouldn't it—[fol. 2508] fifty per cent for the West Texas operations and fifty per cent for the Texas Panhandle and Oklahoma operations?

A. We would use the revenues derived from the sale of the gas, regardless of what time it was delivered. Time has nothing to do with that.

Q. And your split in this case would be fifty-fifty, wouldn't it?

A. That is correct.

Q. Now, referring again to Line B and the taps, as shown on page 44,—during 1933 how much West Texas gas was delivered through Line B and the taps?

A. Thirty-one billion, two hundred and forty million.

Mr. Griffith: Let us have that answer again.

A. Thirty-one billion, two hundred and forty million.

Q. Thirty-one million, isn't it?

A. It is thirty-one million. It is thirty-one million, two hundred and forty thousand—that is correct.

Q. Now, for the Oklahoma and Texas Panhandle gas through Line B and the B taps.

A. One hundred and seventy-two million, four hundred and forty-two thousand.

Q. Now, then, of the total deliveries, this West Texas gas represented about 15 per cent, didn't it?

[fol. 2509] A. 18.2 per cent was West Texas gas.

Q. Now, then, assuming the same average price for the sale of the West Texas gas as for the Oklahoma and Texas Panhandle gas, then your split for revenues would have been on an 18.2 per cent basis, for the West Texas operations?

A. That is right.

Q. And that compares with the 26.1 per cent that you used with the property values?

A. It very properly compares with that, because the property values—the charges against property are entirely a matter of time, and not volume.

Q. Now; this is just about the Line B and B taps that we have used for the purpose of the examination, but the thing works out on all the other lines the same way, doesn't it?

A. The same price applies to all the other lines, yes, sir.

Q. Yes, sir, and this shows that the two methods of allocation you have used—one being applied to property and the other being applied to revenues, operates to burden the West Texas operations with considerably more property value, while giving it considerably less percentage of the revenues, doesn't it?

A. This method applies to the property——

[fol. 2510] Q. Now, you can answer that Yes or No, can't you?

A. No, I can't answer that Yes or No. This method gives a proper allocation to the property as a function of time and volume, and a proper allocation to revenues as a matter of volume alone.

* * * * * * *

Q. I don't understand that answer, Mr. Schmidt. Can you make it any plainer?

A. Yes, sir. I don't know that I can make it any plainer. Our revenues are derived entirely from the sale of gas, and we have applied the revenues—divided them up between in-

dustrial and domestic gas—that is, the West Texas delivered into any particular system, divided that for that purpose—for the purpose of domestic and industrial, to take care of the change in rates; and if it had been delivered all in one month the revenues would have been the same, and if the gas [fol. 2511] had been delivered all in one month the allocation of the property and fixed changes would have occurred all in one month, and the volumes tie into both of them, in that the per cent of West Texas delivered in any particular month is applied to the factor of 8.33, to determine the per cent that the fixed charges bear to the one hundred per cent, total fixed charges.

Q. Well, it really doesn't make any difference, does it, Mr. Schmidt, so far as the end result is concerned, whether you regard it from a monthly basis or from a yearly basis?

A. It absolutely does.

Q. Would that be true as to property?

A. Yes, sir, that would be true as to fixed charges.

Q. I will ask you the question I asked you a minute ago, Mr. Schmidt, if your method here hasn't all the way through resulted in a higher per cent being applied to the property values for the West Texas operations and a lesser per cent of the revenues chargeable to the same operations?

A. I can't answer that without—I made no such comparison. There wasn't any necessity for any such comparison.

Q. Well, don't you know that is a fact, Mr. Schmidt?

A. No, I don't know it for a fact; no, sir.

Q. Well, are you willing to say it is not a fact?

[fol. 2512] A. No, sir.

Q. You just don't know.

A. It doesn't make any difference.

Q. Now, on the same page—44—on the F System, you show that the West Texas domestic gas was 56.09 per cent, while the Oklahoma and Texas Panhandle domestic gas was 66.14 per cent.

A. Both of those per cents refer to the total West Texas gas and the total Oklahoma and Texas Panhandle gas with reference to the domestic gas in each case.

Q. Using those percentages would result in giving to the Oklahoma and Texas Panhandle gas a higher price than for the West Texas, would it not?

A. No, sir.

Q. Well, why wouldn't it?

A. Well, the price is the same.

Q. Now, your domestic gas sells at 40 cents per thousand cubic feet, doesn't it?

A. That is correct.

Q. And what is about the average price for the industrial —about twenty cents?

A. Somewhere around there.

Q. Well, assume that it is twenty cents, to show how this percentage would work out,—what would be the cost of your —that is, the price of the Oklahoma and Texas Panhandle [fol. 2513] gas for Line F, as compared with the West Texas?

A. We get the same price for gas, regardless of its source.

Q. I know; but you have a different division, do you not, for the West Texas from what you do for the Oklahoma and Texas Panhandle?

A. On volume, yes, sir.

Q. As between industrial and domestic?

A. Yes, sir.

Q. Now, applying the 40-cent price to the domestic and the 20-cent price to the industrial, how does it work out to get your price?

A. The price, Mr. Fitzhugh, is forty cents and twenty cents. I don't believe I——

Q. Do you understand what I mean?

A. Well, the prices are the same.

Q. Well, the average price isn't the same, is it?

A. Yes, sir.

Mr. Griffith: That is for the—the average price for domestic and the average price for industrial?

The witness: That is correct.

Q. No, I am talking about the average price for the West [fol. 2514] Texas and the average price for the Oklahoma and Texas Panhandle gas.

A. They are exactly the same. The average prices are exactly the same.

Q. All right; to work it out, Mr. Schmidt, and make plain what I am trying to ask you,—you have got 88—you have got 66.14 per cent for the Oklahoma and Texas Panhandle domestic?

A. 66.14 per cent of the total Oklahoma and Texas Panhandle gas was domestic gas, yes, sir.

[fol. 2515] Q. If you take a pencil and work this out, Mr. Schmidt, won't you find that the average selling price for the Oklahoma and Texas Panhandle gas was 33 cents?

A. No, sir.

Q. And that for the West Texas it is 22.4 cents?

A. No, sir.

Q. Well, what would it be?

A. Forty cents for the domestic and twenty cents for the industrial gas in either case.

Mr. Griffith: You are using twenty cents as an approximate figure?

A. Yes, sir.

The Court: It is your testimony that you would get 40 cents for domestic gas regardless of where it comes from, or regardless of where it is sold by you?

A. That is right.

The Court: Therefore, you- average for domestic gas is 40 cents?

A. Bound to be 40 cents.

Q. Now, all this gas is mixed up in the lines?

A. Yes, sir.

Q. The West Texas, Panhandle and Oklahoma?

A. Yes, sir.

Q. And you use a different percentage for West Texas than you do for Oklahoma and the Panhandle?

A. We used the exact volumes of West Texas gas that [fol. 2516] went into the E System or the F System, and divided those between domestic and industrial gas.

Mr. Griffith: You did that by months?

A. Yes, sir.

Mr. Griffith: Based upon the actual domestic and industrial sales for the particular months?

A. For the particular months, that is correct.

Q. Now, go back to "B" and "B" taps on the same page.

A. What page?

Q. On page 44. A moment ago you gave the total for Line "B" and taps of 172,441 cubic feet for the Texas Panhandle and Oklahoma gas.

A. 172,442.

Q. Now, assuming that the domestic was at 40 cents and the domestic at 20 cents, what was the average price you got for that gas?

A. Forty cents and twenty cents.

The Court: I think I understand what he wants. He is trying to get you to figure the average price per thousand cubic feet, if you mixed it up altogether and sold it at the average price.

Mr. Fitzhugh: That's it exactly. I think he knows what I want.

The Court: I don't know; it just now dawned on me what you are trying to get at; of course, I may be as dumb as the witness.

[fol. 2517] Mr. Fitzhugh: I have been asking over and over again for the average price of Texas and Oklahoma gas.

A. The average price we get for this gas is the same, regardless of the source it comes from.

Q. You are talking about the average by class; I am talking about the average for every thousand cubic feet.

Mr. Griffith: I think what he wants is the weighted average for the combined industrial and domestic.

A. If you will take any particular month, you will find that the percentage—I don't know whether I can explain it to you clearly or not—the trouble is it is a mathematical function, that gives you a different monthly average. Taking the monthly averages is not the same as taking the total for the year as an average.

* * * * * * *

Q. Now, go back to Line F, on the same page, of the F System—the average there and the weighted average selling price for the West Texas gas shows to be 31 cents, doesn't it, assuming the industrial at 20 cents, and the domestic at 40 cents per thousand cubic feet, as the selling price?

A. I don't see how it could be anything less than 40 cents. I don't know how you arrive at it.

Q. If you multiply this 56 per cent figure by 40 cents, and the 43.91 per cent figure by 20 cents, and average those?

A. Yes, sir; you will get a different result than if you [fol. 2518] take the individual months and apply the same factors to the individual months.

Q. You will get 31 cents, won't you?

A. You will get the same for both cases. You will get 40 cents in both cases for the individual month.

Q. Mr. Schmidt, isn't it a fact that if you did get the weighted average for this gas you would get 31 cents on the

West Texas, and 33 cents on the Oklahoma and Texas Panhandle?

A. I have not made that calculation, Mr. Fitzhugh; but if you apply the same method to each month as I have it set down here, the average prices are identical for the particular month. Now, when you take the total of those months you will get a slightly different weighted average.

Q. On the other lines that you show in the exhibit it works out the same way, doesn't it?

A. Yes, sir.

Q. You always have a higher percentage for the Oklahoma and Texas Panhandle domestic than you do for the West Texas domestic?

A. I have not checked all of them. Did you say a higher domestic average on the West Texas than on the Panhandle?

Q. The weighted average selling price for the gas that you show in your exhibit on all these lines for the Oklahoma and Texas Panhandle is higher than that for the West Texas gas, isn't it?

A. No, sir.

[fol. 2519] Q. Can you point out a line where that is not true?

A. Page 45, I believe that would work out differently.

Q. You don't show any lines on this page?

A. That is a delivery—the same as a line.

Q. But for all of the lines you show, that is true, isn't it?

A. I don't believe it would be true for C-2.

Q. What page?

A. Page 48.

Q. Is there any other line?

A. G-3 on page 51.

Q. Now, just to sum up this whole method, if you had used throughout the same percentage as applied to revenues as you used applied to property, as the basis of allocation, you would have gotten much higher revenues than as shown by Mr. Hulcy's Exhibit?

A. It would not have been proper to apply those factors that way.

Q. It is a fact that you have gotten higher revenues for the West Texas operations?

A. You can only get such revenues as West Texas gas is sold for.

Q. It is clear that you use two allocation methods, isn't it?

A. Used two different methods.

Q. Now, if you had used the same allocation method for property as you had used for revenues, an entirely different result would have been obtained?

A. Yes, sir.

[fol. 2520] Q. And the result would have been to give in Mr. Hulcy's Exhibit higher revenues attributable to West Texas operations, or lesser cost of property, whatever you want to call it?

A. It might in some cases.

Redirect examination.

Questions by Mr. Griffith:

Q. Since yesterday, Mr. Schmidt, have you had occasion to review your testimony as incorporated in the written transcript?

A. I have.

Q. In making an extension of your explanation of specific gravity, do you find that you were in error?

A. I must have misquoted on page 2357. I said that if you have a certain volume of gas under a given temperature and pressure, and you determine the weight of that volume of gas, and divide that into the weight of the same amount of air under exactly the same conditions of pressure and temperature, that would give the specific gravity; and it is just the reverse of that. What I meant to say is that if you have the weight of a given volume of gas under certain temperature and pressure conditions, and divide that by the weight of the same volume of air, under the same conditions of temperature and pressure, you will have the specific gravity of the gas.

[fol. 2521] Q. Mr. Schmidt, what is the average British Thermal Unit content of the gas produced in the Shamrock and the Oklahoma fields?

A. Slightly over one thousand—1010 to 1020.

Recross-examination.

Questions by Mr. Fitzhugh:

Q. When gas goes through a gasoline extraction plant where volatile gasoline is extracted, the British Thermal

Unit content of the residue gas after the extraction is different from what it was formerly?

A. Very slightly lower—less than three per cent on the average; and it would be reduced by a certain extent even if those plants were not there by the condensation of those vapors in the lines themselves, which would have to be removed and would not reach the consumer.

Q. That is, if all the gas did condense out?

A. If those certain hydrocarbons do condense out.

Q. I mean if all of the gasoline did condense out?

A. That is right.

* * * * * * *

[fol. 2522] D. A. HULCY, a witness for defendant, recalled for further cross examination, testified as follows:

Mr. Griffith: May I ask one question before you begin, Mr. Fitzhugh?

Mr. Fitzhugh: Yes, sir.

By Mr. Griffith:

Q. In connection with the allocation of Line B, as shown by the Schmidt-Connor report, Defendant's Exhibit 45, Mr. Schmidt has testified that through some inadvertence a slight error of 5 per cent crept into those calculations?

A. Yes; that is correct.

Q. How would that affect the calculations and determinations which you have set forth in Defendant's Exhibit 46?

A. The figure used by me for Line B 16-inch and its taps was 22.17 per cent. I took that percentage of the total property in the B 16-inch tap as being applicable to "D" Operations. Had the error not occurred, I would have used, as found in the Schmidt-Connor report, a percentage of 26.01 per cent, and would have increased the value of the property applicable to "D" Operations, and thereby reduced proportionately the amount applicable to "E" Operations.

Q. Would it have been a relatively small change, in any event?

A. Yes.

Mr. Griffith: That is all.

BLANK

PAGE

BLANK

PAGE

CLERK'S COPY.

Vol. III

TRANSCRIPT OF RECORD

Pat. 166 85796 U.S.C.

Supreme Court of the United States

OCTOBER TERM, 1937

No. 313

LONE STAR GAS COMPANY, APPELLANT,

vs.

STATE OF TEXAS, THE RAILROAD COMMISSION OF TEXAS, ET AL.

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF THE STATE OF TEXAS

FILED AUGUST 13, 1937.

BLANK

PAGE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1937

No. 313

LONE STAR GAS COMPANY, APPELLANT,

vs.

STATE OF TEXAS, THE RAILROAD COMMISSION OF TEXAS, ET AL.

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF THE STATE OF TEXAS

VOL. III

INDEX.

	Original	Print
Record from District Court of Travis County—Continued.		
Statement of facts of trial on the merits—Continued.		
Motion for instructed verdict (omitted in printing)	2543	
Testimony of Olin Culberson	2545	1604
E. W. Robinson	2560	1610
J. A. Phillips	2586	1625
Arthur A. Dobson	2766	1710
S. W. Freese	2801	1728
Reporter's certificate (omitted in printing)	2950-A	
Testimony of J. A. Phillips (recalled) (omitted in printing)	2951	

JUDD & DETWEILER (INC.), PRINTERS, WASHINGTON, D. C., DECEMBER 28, 1937.

	Original	Print
Record from District Court of Travis County—Continued.		
Statement of facts of trial on the merits—Continued.		
Testimony of R. H. Montgomery	2969	1807
S. W. Freese (recalled)	3008	1827
F. S. French	3039	1843
S. W. Freese (recalled)	3055	1851
J. A. Phillips (recalled)	3098	1876
S. W. Freese (recalled)	3107	1880
Olin Culbertson (recalled)	3174	1917
E. A. Steinberger (recalled)	3196	1921
R. L. Thornton	3266	1960
Fred F. Florence	3277	1965
R. L. Thornton (recalled)	3299	1977
A. P. Holloway	3300	1978
Ed. C. Connor (recalled)	3311	1984
P. McDonald Biddison (recalled)	3347	2002
Ed. C. Connor (recalled)	3403	2029
E. F. Schmidt (recalled)	3427	2043
D. A. Hulcy (recalled)	3447	2054
S. W. Freese (recalled)	3534	2096
Reporter's certificate.....(omitted in printing)..	3560	
Plaintiffs' Exhibits:		
No. 1—Order of Railroad Commission, dated September 13, 1933 (omitted in printing)	3562	
No. 2—Stay order in Cause No. 467, in Equity, Lone Star Gas Company vs. Railroad Commission of Texas et al., in the District Court of the United States for the Western District of Texas	3564	2109
No. 3—Stipulation, dated June 11, 1934, by counsel for all parties, that the higher forty-cent rate has been in force and effect at all times, and that the thirty-two-cent rate provided for in the order of the Railroad Commission, bearing date of September 13, 1933, has never been at any time put into force or effect by said defendant, Lone Star Gas Company	3572	2114
No. 4—Report on Special Investigation of Records of Lone Star Gas Company Texas Properties, dated March 31, 1934, by J. A. Phillips Company	3577	2115
No. 5—Report on Special Investigation of Records of Lone Star Gas Company, dated March 31, 1934, by J. A. Phillips Company	3593	2126
No. 6—Lone Star Gas Company, Texas Gathering, Transmission, Compressing and General Property; Reproduction Cost New Appraisal, dated June 15, 1934, by Hawley, Freese and Nichols	3620	2141
No. 7—Lone Star Gas Company, Texas Gathering, Transmission, Compressing and General Property, Annual Depreciation, dated June 15, 1934, by Hawley, Freese and Nichols	3664	2158

	Original	Print
Record from District Court of Travis County—Continued.		
Statement of facts of trial on the merits—Continued.		
Plaintiffs' Exhibits—Continued.		
No. 8—Report on Effect of Degree Day Deficiencies on Revenue and Earnings for Years Ending December 31, 1933, and March 31, 1934, Covering Texas Operations Only for the Lone Star Gas Company, by Hawley, Freese and Nichols	3679	2163
No. 9—Chart Showing Directors and Their Official Positions in the Listed Companies	3698	2175
No. 10—Copy of Charter of Lone Star Gas Company, dated June, 1909	3699	2176
No. 11—Graph Showing Depreciation Analysis—Steel Pipe. Historic Replacements and Abandonments, by Years, of Lone Star Gas Company, and Curve Showing Calculated Replacements and Abandonments	3709	2182
Defendant's Exhibits:		
No. 1—Bill of Complaint in Cause No. 467, in Equity, Lone Star Gas Company vs. Railroad Commission of Texas et al., in the District Court of the United States for the Western District of Texas	3710	2183
No. 2—Restraining and Stay Order in Cause No. 467, in Equity (omitted in printing)	3838	
No. 3—Opinion and Order of Railroad Commission of Texas in the Matter of an Investigation of the City Gate Rate Charged by the Lone Star Gas Company, dated September 13, 1933, in Gas Utilities Docket No. 75 (copy) (omitted in printing)	3842	
No. 4—Statement Showing Lone Star Gas Company's Revenues, Expenses, and Amount Available for Return Based on 32¢ Domestic Gate Rate—Actual Operating Expenses as Reflected by Company's Books—Depreciation and Depletion; Allowances as Calculated by Commission; Rate Base as Determined by Commission for Twelve Months Ended December 31st, 1932 and Twelve Months Ended June 30th, 1933, on Public Service Operations	3931	2200
No. 5—Statement Showing Lone Star Gas Company's Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended December 31, 1931, on Public Service Operations	3934	2209
No. 6—Statement Showing Lone Star Gas Company's Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended December 31st, 1932, on Public Service Operations	3939	2212

Record from District Court of Travis County—Continued.
Statement of facts of trial on the merits—Continued.
Defendant's Exhibits—Continued. Original Print
No. 7—Statement Showing Lone Star Gas Company's Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended June 30th, 1933, on Public Service Operations (omitted in printing) 3944
No. 8—Statement Showing Lone Star Gas Company's Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended December 31st, 1933, on Public Service Operations 3949 2215
No. 9—Statement Showing Lone Star Gas Company's Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended March 31st, 1934, on Public Service Operations 3954 2218
No. 10—Statement Showing Lone Star Gas Company's Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended April 30th, 1934, on Public Service Operations 3959 2221
No. 11—Statement Showing Lone Star Gas Company's Detail of Operating Expense for Twelve Months Ended: December 31st, 1931; December 31st, 1932; June 30th, 1933; December 31st, 1933, and March 31st, 1934..... 3964 2224
No. 12—Statement Showing Lone Star Gas Company's Detail of Operating Expense for Twelve Months Ended April 30th, 1934..... 3968 2229
No. 13—Accounting Schedules of Lone Star Gas Company, Based on Findings by Railroad Commission of Texas and Set Out in Their Opinion and Order, dated September 13, 1933, on Public Service Operations..... 3972 2232

[fol. 2523] Cross-Examination.

Questions by Mr. Fitzhugh:

Q. Refer to your summary sheet in your exhibit, Mr. Hulcy, being Exhibit Number 46, that appears on page 2, does it not?

A. That is one of the summary sheets, yes.

Q. This particular summary sheet is for the twelve months ended December 31, 1933?

A. It is.

Q. Now, where you have "D" Operations, those refer to the West Texas gas operations, do they not?

A. Largely the West Texas gas operations—not altogether that, because there are some—there is some gas other than West Texas which enters into "D"; for instance, the Petrolia Field Operations are included in "D"; but that does cover the gas produced, purchased, transported and sold wholly within the State of Texas.

Q. Yes, sir; and the "E" Operations are the operations from gas coming from the Texas Panhandle and the Oklahoma fields?

A. That is correct.

Q. Now, at the bottom of the page you show on the combined property, 7.81 per cent as the amount available for depreciation and return on the combined property; 8.82 per cent for the wholly within Texas operation; and 5.98 [fol. 2524] per cent as attributable to the Oklahoma and Texas Panhandle operations?

A. That is correct.

Q. Now, after deducting the two per cent allowed by the Railroad Commission of Texas for depreciation, you get for the wholly within Texas Operations, I believe you say, 6.82 per cent, and for the Texas Panhandle and Oklahoma Operations 3.98 per cent?

A. That is correct.

[fol. 2525] Q. The return, therefore, shows to be almost fifty per cent or almost sixty per cent greater on the Texas operations than on the Texas Panhandle and Oklahoma operations?

A. Yes, sir, something in excess of that.

Q. Now, turning to page 3, where you used the 32 cent gate rate as provided in the Commission's order and where

the same sort of percentages are figured to give effect to that 32 cent domestic gate rate, after figuring in the two per cent allowance for depreciation, you get 4.65 per cent for the wholly within Texas operations and 2.88 per cent for the Texas Panhandle and Oklahoma operations, do you not?

A. That is 2.48.

Q. Yes, that is correct.

A. That is correct.

Q. So that, as shown by this sheet, after giving effect to the 32 cent rate, the wholly within Texas operations would be approximately twice as profitable, so far as rate of return is concerned, as the Oklahoma and Texas Panhandle operations.

A. That is correct.

Q. On page 4, after making the same sort of computations as to the amount available for depreciation and return and deducting the two per cent depreciation allowed by the Railroad Commission, the wholly within Texas operations work out about twice as profitable as the Texas Panhandle and Oklahoma operations?

A. On a percentage basis; yes, sir.

[fol. 2526] Q. And on page 5, following through the same sort of method, the wholly within Texas operations show themselves to be about three times as profitable?

A. That is correct, approximately.

Q. Now, doesn't that show, Mr. Hulcy, that the Railroad Commission was exceedingly liberal to the company in considering the property as a whole rather than making a segregation of the Texas property?

A. Well, I don't know, Mr. Fitzhugh, about their liberality in connection with any part of the order, and this exhibit does show on pages 2 to 5, inclusive, that the amount available for depreciation and return, when divided between operations wholly within the State of Texas and the operations other than those wholly within the State of Texas, that the larger per cent is available for the wholly within Texas operations.

Q. And so by including the not so profitable operations of business not wholly done in Texas the over-all rate of return was considerably cut down, wasn't it?

A. Yes, the over-all return, of course, is less and is shown to be less than the amount applicable to the operations wholly within the State of Texas.

Q. And the inclusion of all operations of the company would serve to cut down the percentage shown for the whole property when compared with the purely Texas operations for the amount available for return and depreciation and return, would it not?

[fol. 2527] A. That is quite true.

Q. Now, you have not shown in this exhibit anything except the year 1933, have you?

A. That is correct; yes, sir.

Q. Isn't it a fact, Mr. Hulcy, that the year 1933 from a temperature standpoint was about the warmest year on record?

* * * * * * *

A. No; I would not say, Mr. Fitzhugh, that the temperatures were such that it was the warmest year. It was comparatively speaking, a warm year. 1921 was also quite a warm year, and they are rather spotted.

Q. Before the Railroad Commission, at the hearing had before that body, you submitted the degree days of deficiency for 1931 and 1932, did you not?

A. At your request, I believe I did, Mr. Fitzhugh.

Q. Yes, sir. Now, the Railroad Commission took into consideration in its order, did it not, the temperatures as shown for those years?

A. Well, I don't know of anything the Commission took [fol. 2528] into consideration with reference to those temperatures. There might have been some reference to them, Mr. Fitzhugh, but I don't know of any corrections that the Commission made for it.

Q. They didn't make any corrections on it?

A. I don't think they did.

Q. But regarded the years 1931 and 1932 as average years, so far as temperature is concerned?

A. There was no adjustment made, as I recall now, due to temperature.

Q. Now, in these exhibits, Mr. Hulcy, where you predict or try to work out what sales would have been if the 32 cent rate had been put into effect, have you taken into consideration the increased sales of gas that would undoubtedly take place at lower prices?

A. Mr. Fitzhugh, I don't know anything about that, that any increased sales would take effect. You are contem-

plating, of course, that the amount of reduction would be passed on to the customer. Is that what you mean?

Q. Yes.

A. Well, I don't know anything about that.

Q. Well, now if the 32 cent rate were to be actually put in instead of the rate the company has been charging at the city gate, don't you think there would be increased sales of gas?

A. Again you are giving effect to the reduction being passed on to the customer?

[fol. 2529] Q. Yes, sir.

A. Mr. Fitzhugh, I don't know that there would at all. When you furnish a gas service—and that is what I am talking about now—to the domestic customer for his total requirement—that is, when he heats his house properly, as he should—then there is no other business to get from that customer; he has gas stoves, he has a range, and is going to use just as much—so much gas to cook a meal, and if you reduce the price from 75 down to 69 I don't think it is going to make any difference in the amount of gas he uses for those purposes. That is my personal opinion.

Q. Mr. Hulcy, you are familiar with the fact that the company's customers, or, rather, the domestic consumers served by the whole system, have dropped from about 230,000 to about 200,000?

A. I would say, generally speaking, I don't believe they have dropped that much, Mr. Fitzhugh. That is a very sizable decline. I don't think they have dropped that much.

Q. Well, how much has the drop been?

A. I might be able to tell you. (Witness inspects data.) According to the figures that I have, the decline in domestic customers served by the Lone Star Gas Company—that is, through the Lone Star Gas System—has declined in round figures somewhere between seven and eight thousand.

Q. For that year?

A. That is, 1930 and 1931, compared with 1933.

[fol. 2530] Q. What is the number of consumers now?

A. The number of domestic consumers as I have them for 1933 is 202,472.

Q. Now, Mr. Connor's exhibit shows that the average that he considered in finding his going value was 230,000; so that that would show that the average domestic consumers had fallen off about 28,000?

A. The difference between 202,000 and 230,000 is about 28,000.

Mr. Griffith: Is the figure of 202,000 for active consumers?

A. Average active consumers; that is the average for the year.

Q. You have not, in any of these sheets, pages 2 to 5, inclusive, cut out management fees, have you?

A. No, sir; I have not. Those are expenses as reflected by the company's books and which were included in the exhibit which was sponsored by me in this hearing before.

Q. And all the Federal income taxes as shown on these sheets are the computed taxes and not the actual taxes?

A. That is correct.

Q. Did you take into account in figuring the Federal income taxes any deduction that you would be entitled to for interest payments?

A. No, sir; I did not.

Q. Now, on page 29 of your exhibit you show the dollars applicable to D operations and also the dollars applicable to E operations. What are the dollar amounts applicable to [fol. 2531] the A operations?

A. I don't have any A operations included in my report, Mr. Fitzhugh, not at any place.

Q. Well, you have the areas separated into three areas?

A. Into three areas, yes, sir, but not operations.

Q. Well, how did you use those areas, A, B and C?

A. I used them, Mr. Fitzhugh, in this way: Area A is the area in which business that is conducted wholly within the State of Texas, we will say, covers. Area B is that area where operations of the Texas Panhandle and/or Oklahoma are involved. Area C was the mixture, or where the facilities and sales were joint and concurrent. D operations show the business and property from sales and purchases of gas that is wholly within the State of Texas, and likewise the operations cover sales and purchases of gas, property and operating expenses other than wholly within the State of Texas.

Q. Well, now, on page 30, in finding the operations so far as your operating expenses are concerned you do make use of the three areas?

A. Yes, sir; I do. I might explain, Mr. Fitzhugh, that I could have put this in Area B and Area A just as well and then transferred the operations.

Q. Yet you show that by the information on page 30?

A. No, sir. Page 30 is a detail of classified operating expenses. However, I assure you that it would not have [fol. 2532] changed the figure one penny had I spread it on page 30.

Q. Well, how did you find on page 29 the amount applicable to D operations?

A. Mr. Fitzhugh, page 29 shows the gas purchased in the Petrolia field in the amount of $1,161.72. I think it has been clearly stated that the Petrolia field gas does not flow north or northwesterly into the H. system or the A System. Therefore, the Petrolia field gas must have been wholly within the State of Texas. Gas purchased in West Texas is in the amount of $969,079.16. It has been testified that that gas sold in the West Texas area and in the Southern Texas area goes on in an easterly direction, some to Fort Worth and Dallas and on to Cooper, Sulphur Springs, Athens, and other East Texas towns, and part of it goes into the E System and is sold at towns and cities as far east as Paris and Clarksville. However, some portion of the West Texas g-s sold through the E System was delivered within the State of Oklahoma and sold to the towns of Caddo, Achilee, Durant and Hugo. Therefore, to the extent that Oklahoma gas was sold at those particular towns it was necessary to make a deduction in order that our operations and statements be kept to reflect the business done wholly within the State of Texas, and therefore I have made a deduction from the gas purchased in West Texas in the amount of $8,212.20, to cover the cost of the gas which was sold in the State of Oklahoma, and that amount deducted from the total purchases gives $962,-[fol. 2533] 028.68 as the gas purchased applicable to D operations.

Q. Now, on page 16, Mr. Hulcy, where is shown the statement of gas sales to the Community Natural Gas Company for the twelve months ended December 31, 1933, on the B System?

A. Yes, sir.

Q. How is that amount segregated for the domestic sales on the B System found?

A. That is found, Mr. Fitzhugh, from the records of Lone Star Gas Company covering the billings to the Community Natural Gas Company for domestic gas. Those are actual figures.

[fol. 2534] Q. Well, how did you find that as between the D and E operations?

A. Well now, you want me to transfer back over to the pages where those segregations are made?

Q. Yes, show what pages you worked from.

A. All right. The detailed information on page 16 is transferred to page 12. Thereon it will be noted that the total volume of gas, that is 46,593,000 cubic feet which was sold for $18,109.51 is shown on page 12, all of that gas being applicable to area C, which is a mixture of the West Texas gas and the Shamrock and/or Oklahoma gas. Then it was necessary to make an allocation of those sales into D operations and E operations. As stated before, and which exhibit has been introduced, Mr. Connor and Mr. Schmidt made a detailed study covering the allocations of gas sold in that particular line, and by referring to page 44 of Exhibit 45, it will be noted that at the bottom of such page 44, which covers B and taps, a statement of total gas sales is shown. Also, this statement shows that 22,986,000 cubic feet of West Texas gas was sold for domestic purposes. Also that 8,254,000 cubic feet of West Texas gas was sold on B 16 inch and taps for industrial purposes, and that 133,061,000 cubic feet of Texas Panhandle and/or Oklahoma gas was sold on B 16 inch and taps for domestic purposes and 39,381,000 cubic feet of the same gas was sold for industrial purposes. That is a total domestic sale of 156,047,000 cubic feet. The west Texas gas was 14.70 per cent of the total, and the Texas Panhandle [fol. 2535] and/or Oklahoma gas was 85.30 per cent of the total domestic. Therefore I used 14.70 per cent of the total domestic sales as being applicable to D operations and naturally the remainder, or 85.30 per cent as being applicable to E operations. The same thing was done for the industrial gas and the average rates for industrial gas received was applied; the forty cent rate of course was applied to the domestic gas.

Q. Now then, as shown on page 12, Mr. Hulcy, your wholly Texas operations are the ones that you show as D operations, and you show a total sales of domestic and industrial gas of 5,232,118,000 cubic feet. Is that correct?

A. That is correct.

Q. For which amount of gas you received, $1,522,639.62?

A. That is correct.

Q. Now, dividing the number of dollars by the thousands of cubic feet, what price per thousand cubic feet do you get?

A. The approximate price is 29.1 cents per thousand cubic feet.

Q. Now, that is for wholly Texas operations, isn't it?

A. That is, to the Community Natural Gas Company.

Q. Yes.

A. That is correct.

Q. Now then, take the operations which you designate as the E operations. There you show the sales for domestic and industrial gas to be 2,964,373,000 cubic feet, for which you received $554,016.92?

A. Yes.

Q. What does the price per thousand cubic feet turn out [fol. 2536] to be in that case?

A. About 18.4 cents per thousand cubic feet.

Q. Now that 18.4 cents on the E operations compares with 29.1 cents per thousand cubic feet on the D operations, doesn't it?

A. That is correct. However, they are not comparable at all, Mr. Fitzhugh.

Q. Sir?

A. They are not comparable for this reason: If you will refer to the A system, as shown on page 12, you will notice a large volume of industrial gas sold on that line, in fact, there was 1,799 million cubic feet which was sold for $174,000.00. It happens that a large amount of that is made up of the sales to West Texas Utilities Company at their Lake Pauline plant, which takes a large volume of gas, so that the average rate from the E and D operations should not be compared without taking that into consideration.

Q. Well now, that is just on the Community Natural Gas Company, isn't it?

A. Yes, that is the Community Natural Gas Company.

Q. Don't you show a total for all companies?

A. Yes, I do.

Q. What sheet does that appear on?

A. We can get that from the summary; either of the summaries, Mr. Fitzhugh. That is shown on page 8.

Q. Page 8?

A. The grand total, yes, divided between the D operations [fol. 2537] and the E operations; the last four columns give that information.

Q. That includes all companies, does it?

A. Yes, that includes everything, divided between the two operations.

Q. Now what is the average sales price of gas per thousand cubic feet you show for D operations, as shown on that sheet?

A. The average price is about 24.9 cents per thousand cubic feet for the D operations.

Q. And what is it for the E operations.

A. The average price for the E operations is 24.8 cents per thousand cubic feet. They are almost the same. It happens that there are other large industrial sales in other parts of the system where over-all they will about balance out, but the Community Natural Gas Company alone, of course, does have a big difference.

Q. What was the percentage of the total revenues that you allocated to the D operations and to the E operations.

A. The percentage of the total?

Q. Yes.

A. In round figures, Mr. Fitzhugh, 73 per cent to the D operations and 27 per cent to the E operations.

Q. What are the percentages that you worked out for the D operations and the E operations for operating expenses?

A. I will have to check that for you. It is about 66 per cent and 34 per cent; that is, the expenses are about that for the D & E operations and they are about six or seven per cent lower for the D operations than the sales.

[fol. 2538] Q. That is, while you figure that 73 per cent of the revenues will be attributable to the D operations, you only use 66 per cent of the expenses for the same operations?

A. That is correct.

Q. Now, what is the percentage that you worked out for the D operations and the E operations, as to the property used in each?

A. 64.22 and 35.78 per cent; that is for the D and E operations respectively.

Q. In working out the revenues and expenses that belonged to the C area, how did you segregate those between D and E operations?

A. Those segregations were made upon the information included in the Schmidt-Connor report, with reference to the specific systems.

Q. Do you know how the percentages work out over-all, on the C area?

A. No, sir, I do not know just how it would work out over-all, I have it only by individual systems.

Q. Do you think you could approximate it?

A. No, I wouldn't attempt to approximate that, unless you want me to take these figures down and work it out.

Q. How long would it take you?

A. About fifteen minutes.

Q. Well, don't do it then.

A. I thought as long as I handled it by individual systems that would take care of everything.

[fol. 2539] Q. Do you know how the split was made as to the C area, as between D and E operations, as to the property?

A. Yes, I do. Well, of course understand, Mr. Fitzhugh, that the expenses are not given over to the C area altogether; that is handled in the Fort Worth operating district and the Dallas operating district, and so it is not on a basis of the C system itself. Now it happens that that was given effect to in the Fort Worth division. That the C line and taps was only a part of the mixed area. We also have the B 16 inch line and taps in that same operating district and the J-2 line and taps in that same operating district; and as I said, the expenses are not kept by lines but by districts, and the allocations were made out of the districts to the D operations and the E operations on the basis of the miles of three inch equivalent pipe included in each of those systems.

Q. You would not be able to give, then, the over-all percentages, would you?

A. Not on the operating expenses.

Q. Would you on the property split?

A. Do you mean out of the C area?

Q. Out of the C area as allocated to D operations and E operations.

A. Yes. Now understand I can give you that which is allocated out of the C area for operating expenses, but not by a particular system, such as the C system. I do that out of the operating districts.

Q. Well can you give the per cents overall?

[fol. 2540] A. I will have to do that in the same manner I took off the property. I will have to sum them all up.

That can be done but it will take a little time for me to do it. However, this particular Fort Worth district of which we were just talking about, out of the total expense of $38,496.63 for that district there is a total of approximately $6400.00 applicable to D operations, and the remainder of about $32,000.00 being applicable to the E operations. Of course that is calculated out on the several lines involved in the district.

Q. Now on page 40, Mr. Hulcy, under general property, you have undistributed intangible property of $200,000?

A. Yes.

Q. Which comes from area A?

A. Yes.

Q. What is that $200,000.00?

A. That is the value placed on a contract executed by and between Lone Star Gas Company and Texas Public Utilities Company, operating in the West Texas area, and taking gas at that point and being supplied wholly with West Texas gas. That was in connection with purchase of properties and that was the value placed on the contract. It is a contract for a long period of time and covering sizable volumes of gas.

Q. Well, doesn't that represent a capitalization of future profits?

A. No sir, it does not. The Lone Star Gas Company paid in round figures One Million Dollars for the property and also in consideration of the signing of this contract. Of that $1,000,000 which was paid or agreed to be paid, ap- [fols. 2541-2544] proximately $800,000.00 thereof was allocated to other physical property, and the $200,000.00 to the contract, the sums of the two making the actual amount paid by the company. And so there is not any capitalization of earnings or anything else like that in connection with it, but it is an actual cost to the company.

Q. Why didn't you make a separation or segregation, Mr. Hulcy, as between the gas produced in Texas and the gas produced in Oklahoma?

A. Well, I didn't think that had anything to do with it, Mr. Fitzhugh, as I saw it.

Q. Who did you advise with on that matter?

A. Well, the whole thing was talked over. I have talked with a lot of people about this thing.

Q. Well, this exhibit as it now is or as the segregation was made, was done largely on the advice of your lawyers, wasn't it?

A. Well, I don't know that it was done so largely on the advice of the lawyers. This just entered into it. At first, my idea was, the way I started off, that I would make it on interstate and intrastate, and that is just my idea or opinion of what is interstate and what is intrastate.

Q. That's all.

Mr. Griffith: That is all. Now, if the Court please, the Defendant Rests.

* * * * * * *

[fol. 2545] Plaintiffs' Rebuttal Evidence.

Olin Culberson, a witness for plaintiffs, having been duly sworn, testified as follows:

Direct examination.

Questions by Mr. Fitzhugh:

Q. State your name, please, sir.

A. Olin Culberson.

Q. Where do you live, Mr. Culberson?

A. In Austin.

Q. What is your business?

A. I am Director of the Gas Utilities Division of the Railroad Commission of Texas.

Q. Have you been identified with the Railroad Commission in some capacity for the last two years?

A. Yes, sir, since September, 1932.

Q. You are the man, are you not, Mr. Culberson, who was detailed by the Railroad Commission to hold the hearing of the Lone Star Gas Company matter at Fort Worth?

A. Yes, sir.

Q. As Director of the Gas Utilities Division of the Rail-
[fol. 2546] road Commission of Texas have you had custody of the transcript of testimony adduced and exhibits introduced at that hearing?

A. Yes, sir, I have.

Q. Have you brought those exhibits and the record, as made at that hearing, to court this morning?

A. Yes, sir.

Q. Now, the transcript of testimony starts with an i-dex and runs through some eighty-nine volumes, comprising a total number of pages of about 11,229 pages,—is that correct?

A. 11,232.

Q. Now, you have prepared, have you not, Mr. Culberson, a list of the exhibits which were introduced, both on the part of the State and on the part of the Lone Star Gas Company at the hearing?

A. Yes, sir.

Q. Will you kindly read the list of these exhibits?

A. Exhibit 1, by D. A. Hulcy, Public Service Property and Amount Available for Depreciation and Return, for the twelve months ended December 31, 1931. Exhibit 2 is by the same witness, for the period ended April 30, 1932. No. 3, by the same witness, the same exhibit, for period ended June 30, 1932. Exhibit 4, same witness and same type of exhibit, for the period ended July 31, 1932. Exhibit 5, [fol. 2547] the same witness, and the same character of exhibit, for the period ended August 31, 1932. Exhibit 6, by Mr. E. A. Steinberger and Mr. Ed. C. Connor, Appraisal Co[illegible] of Reproduction New and Present Values as of January 1, 1932, Public Service Plant, Property and Business,—which is the black volumes—I to IX, inclusive. Exhibit 7, by E. A. Steinberger, Leaseholds—Undeveloped. A Determination of Present Values. Exhibit 8, by Mr. J. H. Dunn and Mr. —— I have got it P. E.——

Mr. Fitzhugh: F. E. Kendrick.

A. F. E. Kendrick, Report and Findings of Gas Reserves, January 1, 1932. Exhibit 9, by D. A. Hulcy, Appraisal of Gas Reserves, for the period ended January 1, 1932. Exhibit 10, by Ed. C. Connor, Chart showing Growth of Properties and Business Under Basis of Reproduction. Exhibit 11 was an exhibit introduced by Mr. Harrison Smith, Engineer for Sanderson & Porter, Reproduction Cost of Physical Properties in Public Service as of January 1, 1932. That is the brown bound volumes, Volumes I to V, inclusive. Exhibit 12, by Harrison Smith, General Costs. Exhibit 13, Harrison Smith's exhibit on Going Value. Exhibit [fol. 2548] 14, by Harrison Smith, Inspection of condition of Physical Property as of January 1, 1932. Exhibit 15 was a map that was introduced by—according to the record, by Mr. Smith as to the spot inspections that he made; and,

as I recall it, there was just one copy of that filed, and that is not among these exhibits. It was introduced by Mr. Smith for the purpose of identifying the locations where he made pipe inspections. As I recall it, there was only one. I don't have it. If I did have it, it has been taken away.

Mr. Stout: Was it similar to the map back there?

The Witness: Sir?

Mr. Stout: Was that just a map like that one back there?

The Witness: Yes, with the exception that they do not have indicated on this map where he had made these various inspections of the pipe.

Mr. Stout: Yes, sir, but I understood it was similar to the map just back of you?

The Witness: Yes, sir.

Mr. Griffith: That is what it was, Judge Stout.

A. Exhibit 16, by Harrison Smith,—Summaries of Reproduction Cost, Reproduction Cost Less Depreciation as [fol. 2549] of January 1, 1932. Exhibit 17 was by Mr. P. McDonald Biddison, Report on Condition of Property as of January 1, 1932. Exhibit 18, by Ed. C. Connor—Depreciation Analysis, and Determination of Annual Reserve Accruals for Various Items of Depreciable Property. Exhibit 19, by Mr. Connor, Depreciation Analysis, Replacements, Removals and Abandonments of Steel Pipe, December 31, 1931. Exhibit 20, by Mr. Connor—Depreciation Analysis, Relation of Failures of Original Units and Replacements of Original Units and Replacements of Replacements. Exhibit 21, by Mr. Connor—Depreciation Analysis-Application of Annual Reserve Rates to Reproduction Cost New of Physical Properties. Exhibit 22, was by Mr. Connor—Current Quotations on Bonds and Other Senior Securities of Natural Gas, Manufactured Gas, and Electric Utilities. And then there was a duplication of numbers; there was another exhibit 22, by Mr. Hulcy, numbered the same as Mr. Connor's that dealt with the Degree Day Deficiency Data for the Years 1931 and 1932, for the area under examination. Exhibit 23 was an exhibit by Mr. Hulcy—Calculation of Depreciation on Autos and Drill Tools charged to Expense, for the twelve months ending December 31, 1931. Exhibit 24 was by Mr. Hulcy—A Public Service Property Statement showing the Prop-

erty Account and Net Additions to Property Account by [fol. 2550] Years. Exhibit 25, by Mr. Hulcy—Public Service Property and Amount Available for Depreciation and Return, for the twelve months ended December 31, 1932. Exhibit 26, by Mr. J. H. Phillips, A Report on Special Investigation of the Records of the Lone Star Gas Company for the time ended December 31, 1932. Exhibit 27, by Hawley, Freese & Nichols, introduced by Mr. S. W. Freese—a Report on the Gas Leaseholds of the Lone Star Gas Company as of December 31, 1931. Exhibit 28, by Mr. Freese—Report on Reproduction Cost New Appraisal of Lone Star Gas Company, as of December 31, 1931. Exhibit 29, by Mr. Freese—a Report on Business, Rate Base, and Annual Requirement for Depreciation, Obsolesence, Replacements and Amortization of Lone Star Gas Company, as of December 31, 1931. Exhibit 30, by Mr. Freese, Miscellaneous Studies of the Lone Star Gas Company Investigation. Exhibit 31, introduced by Mr. Edgar G. Hill, of the firm of Ford, Bacon & Davis, Engineers, dealing with Excavation Cost. Exhibit 32, by Mr. Ed. Connor—Graphic Comparisons of Mortality Curves. Exhibit 33, by Mr. Hulcy, on Comparative Degree Days Deficiency Data, for the Dallas area, for the years 1921 to 1933. Exhibit 34, by Mr. Hulcy, [fol. 2551] Public Service Property and Amount Available for Depreciation and Return, for the twelve months ended April 30, 1933. Exhibit 35, by Mr. Hulcy, Lone Star Group Companies' Statement of Pipe Purchases through Pittsburgh Office. And Exhibit 36, by S. W. Freese, of Hawley, Freese & Nichols—Corrections to Exhibits Nos. 27, 28, and 29, of the Lone Star Gas Company Investigation, introduced by him while testifying as a witness.

Q. Now, Mr. Culberson, each one of the exhibits which you have just read is here on this table, with the exception of Exhibit 15—the map introduced by Mr. Harrison Smith, showing the spots at which Mr. Smith made his inspections?

A. Yes, sir.

Q. Now, I believe you stated that you were the one commissioned by the Railroad Commission to conduct this hearing?

A. Yes, sir; I was acting in the capacity of Chief Examiner.

Q. That was before you became the head of the Gas Utilities Division?

A. Yes, sir.

Q. What is the general practice of the Railroad Commission where a long, extended hearing is in prospect in a [fol. 2552] matter of this sort, in the matter of turning the case over to a Commissioner or an Examiner to hear it?

A. It is the practice that an Examiner be appointed, who takes charge of the hearing and conducts the hearing; and when it has been finally concluded, to submit the data adduced at the hearing to the Commissioners for their consideration.

Q. That is along the same general lines that the hearings of the Interstate Commerce Commission are conducted, is it not?

A. Yes, sir; they follow the same procedure.

Q. And the statutes of the State of Texas allow such procedure, do they not?

A. Yes, sir, they do.

Q. Now, after this hearing was completed—Incidentally, How long did it take to hear this case?

A. We started in November, and recessed in the latter part of December until about the sixth or ninth of February, and then, with the exception of—oh, probably a few recesses of a day or more each, we ran until the 29th day of June, I believe it was—yes, the 29th day of June.

Q. So that the hearing consumed the better part of eight months?

A. Yes, sir.

[fol. 2553] Q. After the hearing was completed, Mr. Culberson, how long did it take the Railroad Commission to study through the data taken at the hearing, and to write its order?

A. Well, I believe the order was promulgated in September, and it was from practically the—you might say, the first day of July, because we got daily copy, and the record was available from practically the first day of July, I think, until about the ninth day of September—I think is the date of that order.

Q. The thirteenth day of September.

A. The thirteenth of September—whatever the day was it was promulgated.

Q. So it took practically from the first day of July to the thirteenth of September to make their findings?

A. Yes, sir.

Q. You know, do you not, Mr. Culberson, as a matter of fact, as a member of the Gas Utilities Department, that practically the entire personnel of that Department worked on preparing the data for the Commissioners' study?

A. Yes, sir.

[fol. 2554] Mr. Fitzhugh: We now want to introduce, Your Honor, the transcript of testimony, composed of an Index and eighty-nine volumes, comprising about 11,230 pages of question and answer testimony, and the exhibits that were introduced at the Railroad Commission's hearing as identified by Mr. Culbertson for the purpose of showing that the order of the Railroad Commission was not unjust and unreasonable, and that it was not arbitrary and a jumped up proposition, and not confiscatory.

Mr. Shannon: We object to both the testimony and exhibits for the following reasons: Plaintiffs allege that this suit is in the nature of an appeal from the order of the Railroad Commission taken pursuant to the provisions of Article 6059 of the Revised Statutes of 1925. As such this is a trial de novo, in which the defendants, both on the issue of confiscation and the issue of unreasonableness of the order of the Railroad Commission are entitled to the independent judgment of the Court and jury on testimony adduced at this hearing relative to the question of whether or not at this time the order of the Railroad Commission does operate to confiscate its property and is unreasonable. The record made before the Railroad Commission is irrelevant and immaterial to the inquiry and the issues raised in this case by the pleadings, and is only admissable in any event under the decisions in this State for impeachment purposes, and only when there is a specific reference to a [fols. 2555-2557] specific portion of the record, to impeach particular testimony adduced on this trial. That has been held, first, in the Hillsboro Case, upon which these gentlemen rely for their statement that this purports to be an appeal under Article 6059; and which has been more recently held by the Austin Court of Civil Appeals, which decision I do not have with me, but which I can furnish to Your Honor at noon. The testimony in this case shows that labor prices have changed; that material prices have changed, since the opinion and order of the Railroad Commission was promulgated; and, therefore, at the present time, testimony

taken before the Commission would not have any relevancy and would have no bearing on the question of confiscation, or on the question of the reasonableness or unreasonableness of the order at this time. We object to it, therefore, because it serves no purpose except to encumber this record, because it is not relevant to any issue in this case, because it is not admissable in any event except solely for impeachment purposes, and for which purpose it is not now introduced.

* * * * * * *

[fol. 2558] Mr. Stout: Well, we offer it for the purposes, as stated.

[fol. 2559] The Court: I think you will be better off with it in your bill of exceptions, Mr. Stout, than to have it in here. I am going to exclude it, on the pleadings.

Mr. Stout: Note our exception.

The Court: And I will say this, Mr. Stout, that if it becomes necessary to appeal the case, you may have your bill of exceptions include this testimony before the Railroad Commission and the exhibits in connection therewith, and send it all up as a part of your bill.

Mr. Stout: In other words, our bill would include the whole record as made before the Commission.

The Court: Yes, sir. You have introduced a list of the exhibits introduced at that hearing, and your exhibits can follow right after as part of your bill. Now, all this material that has been excluded, may I suggest that you remove it from the Reporter's table, so that we may have more room. Of course, Mr. Culbertson's testimony, and the list of exhibits which he read off as having been introduced before the hearing of the Railroad Commission, remain in; it is the testimony and the exhibits themselves which are excluded.

* * * * * * *

[fol. 2560] E. W. Robinson, a witness for the State, having been duly sworn, testified as follows:

Direct examination.

Questions by Mr. Fitzhugh:

Q. What is your name, please?

A. E. W. Robinson.

Q. Where do you live?
A. San Antonio.
Q. What business are you engaged in at the present time?
A. Construction.
Q. How long have you been in the construction business?
A. A little over 21 years.
Q. Are you identified with any company or partnership?
A. Yes, sir.
Q. What is the name of your company?
A. McKenzie Construction Company.
Q. Where is their principal place of business?
A. San Antonio.
[fol. 2561] Q. What is your position with that company?
A. Vice-president.
Q. How long did you say you had been identified with this company?
A. A little over 21 years.
Q. The McKenzie Construction Company does general construction work, does it not?
A. Yes, sir.
Q. In the work undertaken by the McKenzie Construction Company, has it in the past done considerable amounts of excavation work?
A. I think "yes" would be the proper answer.
Q. What are some of the larger construction jobs which the McKenzie Construction Company has undertaken in the last five years?
A. The Alamo National Bank in San Antonio; the Cadiz Street Viaduct in Dallas; we were associated with two other contractors in the construction of two dams, one near Fort Worth, and one near Bridgeport.
Q. How big jobs were those dams?
A. The total contract was about four and a half million.
Q. Any other work?
A. I am not sure whether the Smith-Young Tower in San Antonio—I believe it was constructed longer ago than five years. We did two sewer jobs in Austin here, I think, [fol. 2562] within the five-year period. We did the piers for the T. & P. Railroad bridge across the Trinity River in Dallas. Those are the principal ones that I can think of within the last five years.
Q. Have you built any buildings here in Austin?
A. Two buildings for the University—Garrison Hall and the Littlefield Dormitory.

Q. Now, all of these construction jobs have had excavation work in connection with them?

A. Yes, sir; I think every one of them.

Q. In connection with these excavation jobs you have done numerous excavation jobs for sewer lines and water lines?

A. Yes, sir.

Q. What are some of the larger jobs in that sort of work that you have been identified with?

A. We did about 150 miles of sewer work in Fort Worth. We have done several sewer jobs in Dallas, two sewer jobs in Austin, one in Houston, and several in San Antonio; water filtration plant and water works in Fort Worth; sewer system at Breckenridge, Texas. Those are the principal ones I can recall.

Q. Now, on these various construction jobs you have mentioned, were you identified with the work in any way as to estimating of costs?

A. Yes, sir.

[fol. 2563] Q. Just what was your duty in connection with this work?

A. In most of this work I did the estimating and prepared the bids.

Q. Did that involve an estimate of all excavating costs?

A. Yes, sir, in most cases.

Q. On these construction jobs have you kept fairly accurate cost records to find out the cost of doing the various kinds of excavation?

A. Yes, sir.

Q. Does your company now own and operate, when your construction work requires their use, ditching machines?

A. Yes, sir.

Q. Are you familiar with the costs that are incurred in the work of ditching machines and back-fillers?

A. Somewhat, yes, sir.

Q. Are you in general familiar with the Lone Star Gas System in the States of Texas and Oklahoma?

A. I know nothing about Oklahoma. I have been over part of the lines in Texas.

Q. What part of the system have you been over?

A. Well, I made a trip with Mr. Nichols. We started out of Fort Worth and went up towards Rhome, up through Bridgeport, Wichita Falls, Petrolia; I believe we went up to Electra and we came down to Abilene and came in through

Breckenridge and Ranger; I believe we went through [fol. 2564] Thurber, into Cleburne and Joshua and back into Fort Worth. That is as nearly as I can recollect the circle.

Q. Now, in general, Mr. Robinson, indicate on the map right there behind you about what part of the lines that covered. Perhaps you had better stand on the other side of the map and show the jury where you are pointing. Just begin at Fort Worth and indicate how you went.

A. Well, we went up this line here (indicating on map) and went across it at several places, back and forth; we went up here to Petrolia and into Wichita Falls, and I believe up to Electra. Then we cut across to Abilene here (indicating on map), and then we came in through here and up to Brenckenridge and Ranger and near Cisco—I don't remember whether we went through Cisco or not—and apparently touched this line in a few places and to Joshua and then to Forth Worth.

Q. Now, did you go on any of the lines east of Fort Worth and Dallas?

A. No, sir.

Q. You are generally familiar with that territory, though, are you not?

A. I think so, yes, sir.

Q. You have done considerable construction work in the territory south of Dallas on the lines that come down as far as Round Rock, haven't you, through Waco, Hillsboro, and that territory?

[fol. 2565] A. We have done work in Waco; nothing in any other place between there and Austin.

Q. Well, you are generally familiar with the soil conditions and the kind of country?

A. In a general way, yes, sir.

Q. Now, from your general knowledge of the soil encountered throughout the State, do you believe, Mr. Robinson, that the trip that you made would show you a typical condition for the whole system?

A. I don't know that I can say that it would be typical for the whole system.

Q. I mean for the Texas part of the system.

A. I don't believe it could be much worse than the average that we looked over, would be a proper answer.

Q. Now, the Mr. Nichols that you say you went with is the Nichols of the firm of Hawley, Freese & Nichols, is it not?

A. Yes, sir.

Q. Before you made this trip were you submitted some specifications by Mr. Nichols?

A. Yes, sir.

Q. Do you have those specifications with you?

A. Yes, sir.

Q. Will you please read the specifications given you by Mr. Nichols?

A. The original—the one that was given me originally?

[fol. 2566] Q. No, the one that you used in preparing your last estimate.

A. Well, I used the original specifications, and then I was given a correction this morning.

Q. Well, will you read the specifications you relied upon?

A. "Specifications for trenching Lone Star Gas System." Now, this is the original specification.

Q. Yes, sir.

A. "First. Done by other contractors. Right of way will have been cleared twenty-five feet with stumps cut to ground and all boulders and other obstructions blasted and removed so that trucks can pass right of way and string pipe. Gates will have been installed in fences and fences cut for trucks, etc. No. 2. Machine Excavation: This contractor. Include in machine excavation price necessary blasting, grubbing for ditch and machine leveling up for machine, getting machine across obstructions, creeks, etc., necessary hand work at obstruction, creeks, etc. No. 3. Hand Excavation: This Contractor. Include hand excavation price necessary blasting, grubbing for ditch. No. 4. Rock Excavation. This Contractor: Include in rock excavation price necessary grubbing for ditch, powder, compressors, caps, fuses, etc. 5. Backfill: This Contractor. Include in backfill price consolidated price to include backfill of machine, hand work and rock excavation. Where backfill is in rock, dirt is to be placed over pipe to a depth of at lease six inches before placing rock in ditch. 6. Clas-

[fol. 2567] sification: 90 per cent of the yardage has been classified by driving a bar down on either side of the ditch every 500 feet. All yardage below lowest point bar can be driven is classified as solid rock. 10 per cent of the yardage has been classified from construction records. Hand excavation is on short lines where no machine is used at all—short taps—usually less than 100 feet in length.

7. Miscellaneous Items. This contractor is to clean up along ditch, shaping up backfill over ditch. This contractor is to furnish all necessary labor to lining up for trenching work, getting men, supplies, etc., to the work. Ditch is to be delivered in a smooth, uniform condition. This trenching is for gas line construction. Due consideration is to be given for delays usually incident to such construction. Contractor will be required to give bond, and to carry workmen's compensation, property damage $20,000 limit, public liability $10,000 and $20,000 limits. The work will be done in units requiring an average of two machines for a construction period of eight months. In general the eight months period will be during spring, summer and fall. The estimates are to be as of December 31, 1931. Payment will be in cash on monthly estimates with 10 per cent retained. Retainage in no event will be held longer than one year." Do you want me to read the quantities?

[fol. 2568] Q. No, sir. But you were given the quantities, were you not?

A. Yes, sir.

Q. The quantities, classifications and trench sizes by lines?

A. Yes, sir.

Q. Now, since those original specifications were given you have you had any additional information furnished you by Hawley, Freese & Nichols?

A. Yes, sir.

Q. What were those—letters?

A. Part of it is in the form of a letter and part of it in the form of a revised—slight changes and revised specifications.

Q. Will you tell, Mr. Robinson, what additional information you got?

A. The first information was to eliminate the backfill from the quantities as given in the original specifications. The other information was that the quantities had been changed somewhat, that the machine excavation quantity had been reduced and hand excavation had been increased. I don't remember whether there was a difference—the rock excavation, I believe, had been increased. Also the matter of the hand excavation, in the specifications there was one—there were two sentences added to the original specifications in regard to classification. They reas as follows: "Some excavation is classified as hand on lines involving rock ex-

1615

[fol. 2569] cavation. Some lines classified as 100 per cent hand are a mile in length." That seems to be the only difference from the original specifications that I have been able to find.

Q. Now, changes of quantities of yardage for the various types of excavation were made to eliminate the Oklahoma properties, were they not?

A. I was told so.

Q. Now, from those specifications, bearing in mind the various data given you in the specifications, from your general information as to the costs of excavation, and from the inspection tour that you made of a substantial part of the system, did you then work out the costs for the various types of excavation per cubic foot?

A. Per cubic yard.

Q. I mean per cubic yard.

A. Yes, sir.

[fol. 2570] Q. And what are the prices which you find for the various kinds of excavation as of today?

Mr. Griffith: Just a moment, Mr. Fitzhugh; may I ask the witness a question?

Mr. Fitzhugh: Yes.

Questions by Mr. Griffith:

Q. Mr. Robinson, what experience have you had in connection with excavation on natural gas pipe line construction?

A. Only one small job, about fourteen years ago.

Q. Other than that, you have had no experience at all in connection with the excavation for trenches for natural gas pipe line construction?

A. No, sir.

Q. And your familiarity with the territory wherein the Lone Star Gas Company system is located in the State of Texas has been fully related by you in connection with the questions put to you by Mr. Fitzhugh, counsel for the State?

A. I believe so. I do not think there was anything overlooked.

Q. If your Honor Please, we will make the objection that the witness is not qualified to make an estimate in respect of the excavation on the Lone Star Gas Company system in the state of Texas by reason of the lack of information which the

witness has frankly stated he has in connection with the company's property.

The Court: The objection is overruled.
Mr. Griffith: Note our exception.

[fol. 2571] Questions by Mr. Fitzhugh:

Q. I had a question pending. Will you read that question please?

Thereupon, the following question was read to the witness: "And what are the prices which you find for the various kinds of excavation as of today?"

A. This was made as of June 15, 1934. Machine excavation, 40 cents per cubic yard. Hand excavation $1.20 per cubic yard. Rock excavation $2.90 per cubic yard.

* * * * * * *

Q. Now Mr. Robinson, are these different unit costs for these different types of excavation the prices for which your company would do that work, assuming those specifications [fol. 2572] and the quantities as given to you by Mr. Nichols?
A. Yes.

* * * * * * *

Q. How did you find your machine excavation cost of forty cents per cubic yard?

* * * * * * *

A. Under that item, I have assumed that there would be five per cent of that excavation which would have to be done by hand, or by hand and team and other than machine work, and I have estimated that hand excavation will cost 84 cents per cubic yard, and that 95 per cent of it will be strictly machine work at a cost of 27 cents per cubic yard. Those costs are what I call the bare field costs. That gives an average of a little less than 30 cents per cubic yard. Then with my field supervision and insurance, bond premium, profit and overhead, those items added on brings it to my bid price of forty cents per cubic yard.

Q. Now, in general, how did you find your hand excavation price of $1.20 per cubic yard?

A. That is based on a field cost in the same way, of 84 cents a yard. That is 80 cents a yard for labor and five per cent of that for the use of hand tools and sharpening tools [fol. 2573] and blacksmith work, giving a cost of 84 cents, with the other items of supervision, bond premium, liability insurance and profit and overhead, which brings it to $1.20 as a bid price.

Q. In general how did you get your $2.90 per cubic yard cost for the rock excavation?

A. Well, in the same way, figuring the cost of operating compressors and drilling and using dynamite and blasting, I arrived at a bare field cost of $2.15 per cubic yard, which with the other items added brings it to $2.90 for a bid price.

Q. What is the cost per hour you assumed for common labor?

A. In this estimate I have assumed 40 cents per hour.

Q. In estimating these prices, you have considered, have you not, that you would conform to the Code, the Construction Code of the N. R. A.?

A. Yes.

Q. You understand, do you not Mr. Robinson, from the specifications given you, that the amounts of rock excavation given you were determined by the barring method?

A. Yes, that is what the specifications said.

Q. At least 90 per cent of it, I believe?

A. Yes, 90 per cent of it.

Q. Now, using the barring method, it is probable that you have estimated a larger amount of rock excavation than would actually be incurred. Isn't that true—that is, of solid rock?

A. I think the barring method of testing would develop a lot that would be called rock which could be cut with a machine.

[fol. 2574] Q. But you have assumed, have you not, that all the classification called rock excavation would be solid rock for the purposes of your estimate?

A. Yes.

Q. And your $2.90 cost was worked out on that basis?

A. Yes.

Q. What do you understand by the term solid rock as you are using it?

A. Well, the definition given in these specifications is that a material below which you can not drive a bar into it.

Q. And wherever you used the term solid rock in that connection, you mean a material that can not be excavated by machine, do you not?

A. Well, I don't understand your, Mr. Fitzhugh.

Q. Well, you do not assume that any of the quantities shown as rock excavation could be excavated by machine, do you?

A. Not in the estimate that I have prepared, no sir.

Q. The quantities originally given you were for excavation on the entire system, were they not?

A. Yes.

Q. And the quantities given you this morning were revised so as to eliminate the Oklahoma quantities, and that would make a total of about from eight to ten per cent of the various classes wouldn't it?

A. I did not figure what the percentage was.

Q. But these prices, in your opinion, would be correct [fol. 2575] whether applied to the total quantities or to the smaller quantities as given you this morning?

A. Yes.

Q. That's all.

Cross-examination.

Questions by Mr. Griffith:

Q. Mr. Robinson, you testified before the Railroad Commission in connection with this Lone Star hearing, did you not?

A. Yes.

Q. At that time, Mr. Robinson, what unit cost for machine excavation per cubic yard did you testify was reasonable?

A. I believe it was 29 cents per cubic yard. Yes, 29 cents per cubic yard.

Q. What unit price per cubic yard for hand excavation did you testify was reasonable?

A. Seventy cents.

Q. And what unit cost for rock excavation did you testify to before the Railroad Commission?

A. $2.30.

Q. What cost per hour for common labor did you testified — before the Railroad Commission that you had used in connection with your estimates?

A. 25 cents per hour.

Q. And that 25 cents per hour as used in your estimates at that time is to be contrasted with the price of 40 cents per hour?

A. Yes.

[fol. 2576] Q. Which you used in connection with this estimate?

A. Yes.

Q. Now, what insurance rate did you use in connection with your testimony before the Railroad Commission regarding excavation costs?

A. $7.05 per $100.00 of payroll.

Q. And what is the insurance rate which you applied in connection with the estimate that you are now testifying to?

A. $11.92 per Hundred Dollars.

Q. $11.92?

A. Yes.

Q. Those insurance rates have appreciably increased, have they not?

A. They have in our case. I do not know whether it is general or not.

Q. I mean, as applicable to this character of construction work?

A. Well, that is our special rate. I don't know whether the general increase is correct or not.

Q. Anyhow, you are paying increased rates?

A. We have to pay it, yes.

Q. Now, the costs to which you are testifying this morning, in connection with the excavation of pipe line ditches on the Lone Star Gas Company system, do they cover and include the cost of the excavation of the trench for Line A of the company?

A. Yes. Well, I am basing it on this total, which the specifications gives, divided up into certain lines, from A [fol. 2577] on down, and I don't know what all the letters are, and in that respect only can I say Yes.

Q. Is Line A included in the list which was given to you by Mr. Marvin Nichols of the engineering firm of Hawley, Freese & Nichols?

A. It was in original list, and I have had no—Yes, it is; that is correct.

Q. Well, is it included in the excavation work for which you are making an estimate this morning?

A. Yes.

Q. Does any of that line run through the State of Oklahoma?

A. I couldn't tell you.

Q. You don't know about that?

A. No, sir.

Q. As a matter of fact, you are not familiar with the territory in Line A?

A. In that respect, I am not; no sir.

Q. Now, after you had excavated a pipe line ditch, where there was straight machine excavation and for which you would have been compensated at the rate of 40 cents per cubic yard, would you agree for that price to maintain the ditch until the pipe could be laid therein?

A. I could not answer that without a little more definiteness. The assumption is made that there is not going to be [fol. 2578] any delay more than the usual delay, and I do not know how to definitely state what I had in mind.

Q. Well, assume you came along here today, and excavated a certain stretch of pipe line ditch by machine, and for which you were going to receive compensation at the rate of forty cents per cubic yard, and the pipe line gang could not get around to laying the pipe in that trench for a couple of days, and it rained and the sides of the trench caved in; would you, for that price of forty cents per cubic yard, go back and re-dig the ditch?

A. I can not answer that without a specific case on a specific job.

Q. All right; but you have not contemplated that you would maintain the ditch open over any period for these unit costs per cubic yard, as to which you have testified?

A. I have contemplated as to what I have viewed as usual delays on this kind of work and based on my own experience as to the work we have done. That is as near as I can describe it to you.

Q. Now assume that in connection with excavation in rock over a stretch, that you receive $2.90 per cubic yard for that excavation, which is your estimate of that cost?

A. Yes.

Q. Does that cost of excavation include the hauling in of dirt in which to bed the pipe in the bottom of the ditch?

A. My recollection is that I included that in the backfill price, but I am not sure of that because I didn't look over

[fol. 2579] the backfill price. I am not sure whether that is in the back-fill price or in the rock.

Q. And you are unable to say this morning as to whether or not the cost of hauling dirt for bedding the pipe in dirt in solid rock trenches, is included in your cost for excavation in solid rock?

A. No.

Q. Or in the cost for backfilling?

A. That's right.

Q. Now, when you say you used a price of $2.90 per cubic yard for rock excavation, do you mean that is an extra cost over and above the cost for hand excavation?

A. If I understand you correctly, I do not.

Q. Take a simple illustration: if you had one mile of solid rock to excavate, a trench a mile long, would the only compensation which you would expect to receive, be the $2.90 per cubic yard for solid rock?

A. That's right.

Q. Contractors sometimes figure solid rock as an extra, don't they?

A. Not usually where you have unit prices, but there is a class of bid where you do that; where you had a lineal foot price on the earth excavation, then the rock excavation price is usually over and above a lineal foot price for earth.

Q. Now you testified that you are not familiar with natural gas pipe line construction?

A. Not from our own experience, no sir.

[fol. 2580] Q. Well, are you familiar with natural gas pipe line construction due to any personal experience of your own?

A. Only from reading, and talking to pipe line contractors.

Q. You have never actually constructed a natural gas pipe line, have you?

A. No, sir.

Q. And I believe that with one exception, you stated, which happened about fourteen years ago, you never did any excavation for natural gas pipe lines?

A. No sir; that's right.

Q. Do you know anything about the specifications for natural gas pipe line construction generally?

A. No, sir.

Q. In connection with this estimate for unit costs of ma-

chine excavation and rock excavation, you have merely taken the specifications which have been furnished to you by Mr. Marvin Nichols, of the engineering firm of Hawley, Freese & Nichols, I believe?

A. Yes.

Q. And of course if those estimates furnished to you were not in accordance with standard practice, you might be a trifle off?

A. That is correct; I might be.

* * * * * * *

[fol. 2581] Redirect Examination

Questions by Mr. Fitzhugh:

Q. In your unit costs, Mr. Robinson, you have included an allowance for contingencies, have you not?

A. I have made that five per cent in the machine excavation, which is in the nature of a contingency. That is what I assumed it to be or called it.

[fol. 2582] Q. Do you have any allowance for contingencies in your machine excavation costs?

A. That is what I just referred to.

Q. Do you in the hand excavation and the rock excavation?

A. Yes, I have.

Q. And is it likewise five per cent?

A. Well, I don't remember that it was exactly five per cent. I figured it different ways.

Q. What is the profit that you have assumed that you would make from the application of these unit costs?

A. Based on the old quantities—I have not figured it on the new quantities, but based on the old quantities, it was ten per cent of the cost, which would have been about $193,000.00.

Q. Well, it would work out on these new costs, as about the same wouldn't it?

A. About the same percentage, yes.

Q. Now, assuming the various things that Mr. Griffith called to your attention, such as hauling dirt for bedding pipe set in places where rock excavation was necessary, and such things as delays, and all that, do you believe that your contingencies allowances would take care of a normal amount of such costs as that?

A. I believe it will.

Q. And after having your attention called to those matters, do you think it would be necessary for you to reduce or revise your unit costs in any particular?

[fol. 2583] A. I don't believe so, no sir.

Q. Would your company be willing and glad at these prices to undertake a construction job of this size, at these unit prices?

A. Yes.

Q. As of today?

A. Yes sir.

Recross-examination.

Questions by Mr. Griffith:

Q. Mr. Robinson, one or two more question-, please. How much time did you spend going over the Lone Star system in company with Mr. Marvin Nichols?

A. My recollection is that we put in two full days; pretty full days.

Q. You made most of your observations from an automobile, didn't you?

A. Well, I think we stopped at almost every one of the points and got out of the car and looked at the surrounding territory.

Q. How many miles did you cover in that two days—just approximately?

A. I would guess about 600 miles.

Q. About 600 miles in two days?

A. Yes.

Q. And most of your observations of the territory were made from the comfortable seat of an automobile?

A. Well, on that trip we were riding most of the time; [fol. 2584] that is correct.

Q. If a contractor is going to stay in business, Mr. Robinson, it is incumbent upon him to make some allowances for contingencies in most all cases?

A. Yes, in most all cases.

Redirect examination.

Questions by Mr. Fitzhugh:

Q. You had a pretty good knowledge of this territory before you made that trip?

A. A good part of it, yes.

Q. And the trip was made mostly to find out the topography of the country, and the rivers and breaks and so on?

A. That and other information with which I was not familiar.

Q. Now, isn't it a fact, Mr. Robinson, that it wouldn't make any difference, so far as the costs of excavation are concerned, whether you are excavating a trench of a given size and depth for a gas line or a water line or what-not? The cost would be still just the same, wouldn't it?

A. I can not see but very little reason for any difference; there is a little difference, but it is not a big item; it is not a material item.

Q. And you would not feel it necessary, would you, Mr. Robinson, to include any extra allowance for contingencies in estimating these costs, simply because it would be excavation for a pipe line?

[fol. 2585] A. I can think of none.

Q. That's all.

Mr. Griffith: That's all.

The Court: Stand aside, Mr. Witness.

Mr. Fitzhugh: Oh—just one more question, Mr. Robinson, before you leave. This cost you used of $11.92 per $100.00 of payroll for insurance is the rate your company gets, and is not the manual rate. Is that correct?

A. We have a debit over the manual rate.

Mr. Fitzhugh: Yes, and this is your company rate?

A. Yes.

* * * * * * *

[fol. 2586] J. A. Phillips, a witness for plaintiffs, having been duly sworn, testified as follows:

Direct examination.

Questions by Mr. Fitzhugh:

Q. Will you please state your name?

A. J. A. Phillips.

Q. Where do you live, Mr. Phillips?

A. Houston, Texas.

Q. What is your business?

A. I am in the practice of Certified Public Accountancy.

Q. How long have you been engaged in the practice of Public Accounting?

A. About seventeen or eighteen years.

Q. State in general and as briefly as possible, Mr. Phillips, your experience in the accounting profession.

A. Well, in 1917, I believe it was, I went with a firm of National accountants, so-called—firms that have offices throughout the country. I continued with that firm until 1925, at which time I opened my own office. While with the [fol. 2587] firm that I was first associated with I practiced in several of their offices, as time went on, handling generally larger assignments, including such examinations as an audit of the State Treasury Department of Texas, work in connection with the reorganization of Long-Bell Lumber Company, and generally engaged in the practice of accountancy in all of its branches in respect to auditing, system work, and so forth, in varied lines of businesses.

Q. What was this National accounting firm that you mentioned?

A. Ernst & Ernst.

Q. Are you a Certified Public Accountant in Texas?

A. I am.

Q. Were you at any time identified with the body of the State that gives examinations for the certifying of Public Accountants?

A. Yes; I have several times served on that Board, and have been its Chairman.

Q. Were you serving in that capacity about two years ago?

A. I was.

Q. Now, your firm was employed, was it not, along with the engineering firm of Hawley, Freese & Nichols, by the Railroad Commission of Texas to make an investigation of the properties and business of the Lone Star Gas Com- [fol. 2588] pany?

A. It was.

Q. About what time did that employment take place?

A. Late in 1931, I believe it was—in December.

Q. After being employed by the Railroad Commission did you start making an investigation of the books of the Lone Star Gas Company?

A. We did.

Q. Who all worked on that investigation?

A. I am not sure that I can name them all from memory; we had a rather sizable crew at one time or another. I will name some of them, but it will not be a complete list: Mr. Harris—Thomas Harris was on the assignment; Mr. George Berly, Mr. Krizan; Mr. Leon O. Lewis worked with us on that assignment; Mr. Hartell—I don't remember the names of all of those that were employed in connection with our first engagement; but I will say that we had some twelve or fifteen, at the peak, employed on the work.

Q. There was another firm of accountants that worked with you, was there not?

A. We were associated with the firm of Rogers, Smith & Company, on that assignment.

Q. And where do they do business?

A. San Antonio, Texas, San Angelo, Texas, and Fort [fol. 2589] Worth, Texas.

Q. Now, about how long, Mr. Phillips, did the investigation you made on your first assignment take?

A. We started the work, I believe, late in December, and it was completed some time in May, 1932. We started in December, 1931.

Q. And have you or your men worked from time to time on the books of the Lone Star Company practically ever since?

A. Yes, we have had men pretty well continuously in the offices of the Lone Star Gas Company since that date.

Q. State whether you at one time appeared before the Oklahoma Railroad—the Oklahoma Corporation Commission to testify as to the properties and business of the Lone Star Gas Company?

A. I did.

Q. And you likewise testified, did you not, before the Railroad Commission of Texas?

A. I did.

Q. Now, have you prepared in exhibit form a report to show your investigation and the facts found in your investigation of the books and records of the Lone Star Gas Company, to introduce as your exhibit in this case?

A. I have.

Q. Will you produce those exhibits, please, sir. (Witness hands copies of exhibit to counsel.) Now, the report to [fol. 2590] which you have just referred, Mr. Phillips, is

entitled on the outside cover, "Report on Special Investigation of Records of Lone Star Gas Company Texas Properties, March 31, 1934. J. A. Phillips Company, Certified Public Accountants."—Is that correct?

A. That is correct.

Mr. Fitzhugh: We offer the exhibit in evidence, and ask that it be appropriately marked.

* * * * * * *

Mr. Fitzhugh: What number is this?

The Reporter: Plaintiffs' Exhibit 4.

Mr. Griffith: Pardon me, Mr. Fitzhugh, may I ask a question or two?

Mr. Fitzhugh: Yes, sir.

Examination by Mr. Griffith:

Q. Mr. Phillips, in connection with the accounting report which you have just identified, did you treat all of the revenues which were procured from sales in Texas, as Texas [fol. 2591] revenues?

A. No, we did not treat all of the sales within Texas as Texas revenues.

Q. Just what did you do in that connection?

A. We first made a determination of the gas produced and/or purchased within the State of Oklahoma, and then we gave credit for the Oklahoma sales within the State of Oklahoma, and to the extent that the gas produced and/or purchased was in excess of Oklahoma sales we treated those sales in Texas as applicable to Oklahoma business.

Q. How did you treat the property and business which we know as Line A—that is, on the pipe line system extending from Wheeler County, Texas, through the State of Oklahoma and back into the State of Texas?

A. Well, now, our determination was principally of operating revenues and operating expenses. It is true that we have attached a schedule of so-called Texas properties, mainly for the purpose of finding a basis for percentage calculations. Of course, we submitted no schedule of property as being our finding of the property that is located within the State of Texas. Answering your question more directly, I would say that that line that you have reference to is included in our schedule of property there.

Q. It is included in the schedule of Texas properties?
[fol. 2592] A. Yes, it is.

Q. And how did you account for the revenues—that is, the sales of gas from that line and of the gas transported through the line?

A. We didn't make an accounting of gas from lines, Mr. Griffith. As I explained, we accounted for the gas produced and/or purchased in Oklahoma, and whether it was sold in Oklahoma or Texas we eliminated it from the Texas calculation.

Mr. Griffith: If Your Honor please, we object to the introduction of the report just identified by the witness J. A. Phillips, for the reason that it is irrelevant and immaterial, and not germane to any issue as made by the pleadings in this case, in view of the fact that, as frankly stated by the witness, it does not attempt to segregate as between the property revenues and expenses of the Company, first, in respect of intrastate operations, and secondly, in respect of interstate operations.

The Court: The objection is overruled.

Mr. Griffith: Note our exception.

(Thereupon the document above referred to was marked as Plaintiffs' Exhibit No. 4.)

[fols. 2593-2594] By Mr. Fitzhugh:

Q. Turn to the first sheet in your Exhibit 4, Mr. Phillips.

* * * * * * *

A. Yes.

Q. What do you show on that sheet?

A. On this sheet I show our determination for the calendar years 1933, 1932, 1931, 1930, 1929, and for the twelve months accounting period ended March 31, 1934, of the revenues and expenses of what we have determined to be the Texas operations.

* * * * * * *

[fol. 2595] Q. You list the items appearing on page 1 as Revenues, and distinguish the revenues from the expense items, do you not.

A. That is true.

Q. Now, the first item under your Revenues is Gas Sales.

Will you please explain what this item covers and how you found the amounts for the various years?

A. We found the total gas sales of the Lone Star Gas Company for the respective accounting periods here involved. We then made a determination of the production and/or purchases within the State of Oklahoma. We then offset such finding with the sales within the State of Oklahoma, and the excess of Oklahoma production and/or purchases over Oklahoma sales were sales in Texas; and in respect to those sales we found the average price received for gas in Texas delivered at the city gate, and we gave Oklahoma's excess volume credit, by applying the average Texas price to that excess. We then made a deduction for a small amount of compressor station and transmission system expenses to take care of the hauling of that gas to the Texas points; and, finding that net credit for Oklahoma sales, we made it, and reduced the Texas sales to that extent. And this finding here represents the Texas sales after [fol. 2596] the credit has been given for what we determined to be the Oklahoma gas sold in Texas.

Q. Now, you did credit to Oklahoma, did you not, all the revenues from the sale of gas which came from the State of Oklahoma and was sold in the State of Texas?

A. By that method, I did.

The Court: Just a moment. Mr. Phillips, I don't know whether I am accountant enough to follow what you said or not. Do I understand you to say that after crediting and debiting, as you have testified, what you determined to be Oklahoma gas, produced and purchased, that your final figure applies to what you have determined to be Texas or intrastate gas?

The Witness: It does.

The Court: That is what I wanted to be clear about. I didn't know whether I understood you correctly.

Q. The method you have used, Mr. Phillips, amounts to allowing the Oklahoma operations the free use of the Texas lines used for the transportation of gas from Oklahoma sold in Texas, does it not?

A. Except as to the pro rata of the operating expenses [fol. 2597] pertaining to compressor stations and transmission lines.

Q. Now, of the amounts shown by years, the low point for gas sales is found in what year?

A. For the calendar year ended December 31, 1933.
Q. From the year 1929 through 1930, 1931, and 1932, ıere was a steady decline in sales, was there not?
A. That is true.
Q. Now, from that period into 1934 the gas sales, appar-ıtly, have picked up again, though,—isn't that correct?
A. That is correct.
[ol. 2598] Q. The figures would seem to indicate, Mr. hillips, that from the low point reached in 1933, gas sales re now beginning to take a decidedly up trend?
A. Well, I would say that the trend is upward.
Q. Yes, sir.

Mr. Griffith: Not sizable?

A. No.
Q. Did the decline in gas sales result primarily from a ecline in the industrial revenues or the domestic sales?
A. Well, I think primarily from the industrial sales.
Q. That is at least through the years 1929, 1930, and 1931, it not?
A. That is correct.
Q. And 1932?
A. That is correct.
Q. Now, from the year 1932 to the year 1933 most of the rop was occasioned by the loss in domestic sales, was it ot?
A. 1932 and '33?
Q. Yes, sir. From 1932 into the year 1933, the drop was ostly due to the loss of domestic consumers?
A. That is correct.
Q. Now, proceed to an explanation of the next item ap-ıearing under Revenues—Miscellaneous Operating Rev-ıues.
A. Miscellaneous Operating Revenues were determined be entirely allocable to Texas Revenues, the amounts being ol. 2599] for the periods: For the period ended March , 1934, $1,596.78; for the calendar year 1933, Miscellaneous perating Revenues amounted to $1,442.91; for the calendar ar 1932, $1,491.98; for the calendar year 1931, $1,631.35; r the calendar year 1930, $4,419.90; and for the calendar ar 1929, $9,543.56.
Q. What do you include under Miscellaneous Non-Operat-g Revenues—the next item?

A. Miscellaneous Non-Operating Revenues consist of a number of items, such as cottage rentals, office building rentals, farm rentals, telephone rentals, sales of electric current, sundry earnings, and so forth.

Q. Now, proceed to an explanation of the first item in your Expense section—Gas Purchased?

A. We made a determination of gas purchased on the basis of actual purchases within the State.

Q. Well, take your items as they now appear, Mr. Phillips, and proceed to make whatever explanation you feel is necessary to make it clear to the jury what is included.

A. The next item is Gathering Expenses. In connection with Gathering Expenses, some of the items were applied directly on the Company's books as between Texas and Oklahoma. There were other items that we considered common—that is, applicable to operations in each of the two states; and, of course, we had to find some measure of [fol. 2600] allocating to Texas a portion of these expenses, and to Oklahoma a portion; and this we did. For example, we found that Field Measuring Station Labor applies to operations in both states. That is also true of Field Measuring Station Supplies and Expenses and Maintenance of Measuring Stations; and we made our determination under this calculation: We prorated on the basis of the percentage of Field Measuring Station Structures and Field Measuring Equipment to the total for both states. In other words, we made a determination of these Structures and this equipment—Field Measuring Stations and Field Measuring Equipment, and we found the percentage of that to all of the Field Measuring Station Structures and Equipment, and we took that percentage as being the percentage applicable to these common expenses, and it was so applied. After making that application, we had certain other expenses that we considered common: Superintendence, Labor Operating Wells, Superintendence Supplies and Expenses, Gas Wells Supplies and Expenses, Superintendence of Maintenance. Now, our proration of these items was, first, we made this other proration I have just testified to; therefore, we found a new direct total for each operation—that is, the operation in Texas, and the operation in Oklahoma; adding to the figure shown on the book our prorations of the first items referred to; then we took the per- [fol. 2601] centage of direct expenses to total expen-es for

each operation, and applied them to Texas and to Oklahoma. Does that explain satisfactorily those common charges?

Q. Yes, sir.

A. Now, Production Expenses, or Producing Expenses, are shown direct on the company's books, and we so included them in our accounting study. Now, I don't believe I testified in respect to Compressor Station Expenses, did I,

Q. No, you didn't.

A. Compressor Station Common Expenses were prorated on the following basis: Direct, except Repairs to Buildings. All common expenses, except Repairs to Buildings were prorated to the Direct Expenses applicable to the operations in Texas and to Operations in Oklahoma; repairs to buildings prorated on the basis of books costs as between Texas properties and Oklahoma properties. That was the basis for prorating the Compressor Station Expenses, the percentage being to Texas 89.78; and to Oklahoma 10.22.

Q. The next item is Transmission System Expenses.

A. Transmission System Expenses were prorated under some four or five calculations, which I will endeavor to explain clearly and briefly. First of all, we have the Expenses in the Gainesville District, and the Expenses in the Vernon District. Now, in respect of those expenses we took the ratio of Texas-Oklahoma transmission property as furnished us [fol. 2602] by the engineers for the Gainesville District, and we made the proration on that determination. Likewise, we took the ratio of Texas-Oklahoma transmission property in the Vernon District, which was furnished us by the engineers, and we made the allocation on that basis. The next items for proration, Measuring Station Labor, and Measuring Station Supplies and Expenses, and these expenses were prorated on the basis of the ratio of Texas-Oklahoma Measuring Station Equipment and Measuring Station Structures. In other words, we took the respective percentages of those structures and equipment in the two states, and made our proration of expenses on that basis. The next item is the item of Maintenance of Measuring Station Structures.

Q. Just before you get to that, Mr. Phillips, the Vernon and Gainesville distribution districts contain operations both in the states of Oklahoma and Texas, do they not?

A. That is correct. The next item for allocation is the item of Maintenance of Measuring Station Structures. This

expense was prorated on the ratio of Measuring Station structures in the respective states. Again, we found the percentage of the structures in each state to the total of all such structures, and that percentage was applied to the expense. The next item is Maintenance of Gas Cleaners. I believe I have not explained Maintenance of Measuring Station Equipment. Measuring Station Equipment Expense was [fol. 2603] prorated on the basis of the ratio of Texas-Oklahoma Transmission Measuring Station Equipment—the respective percentages in each state. Then we have a group of items—Superintendence, Inspection, Labor, Other Transmission System Labor, Superintendence supplies and Expenses, Transmission Line Supplies and Expenses, Inspection supplies and expenses, Superintendence of Maintenance, and Maintenance of Gas Cleaners. Now, these expenses are prorated on the basis of the ratio of Texas-Oklahoma Direct Expenses, after we had made these other calculations, prorating these other expenses I have just testified to in respect to these operations. We then applied these allocations to the respective Direct Expenses and made this allocation to the respective new totals. Now, the next item shown under Expenses is that of General Expenses. We adopted for General Expenses a uniform percentage for all items, except two, by years. In respect to Donations, an item of expense included in General Expenses, we decided that all of the Donations were charges against the Texas Operations, and we so applied them. There was another classification, in order that there may be no confusion, of Dues and Subscriptions. Dues and Subscriptions were prorated on the adopted percentage basis for all other General Expenses. Now, the other exception to the General percentage allocation is that of Regulatory Commission Expense. For all years except 1929 and 1930 we applied what we determined to be the [fol. 2604] Direct Expenses—Regulatory Commission Expenses—in respect to the states of Texas and Oklahoma rate matters. For the years 1929 and 1930 we allocated 50 per cent of such expenses to Texas, and 50 per cent to Oklahoma. The reason for different basis in 1929 and 1930 was the fact that it was somewhat difficult to determine actually, and while it is my general understanding that the Company's rate controversies up to that point had been principally in Oklahoma, rather than in Texas, I none the less felt that a good deal of the work it did in connection with its Oklahoma cases served a good purpose or valuable purpose in connec-

tion with the Texas cases that came on later. Now, you are next interested in knowing how we found this percentage that we applied. After making certain correction to what we may term "Operating Expenses" and charges—I would not use the correction; but after making certain allocations in respect to what we will term "production expenses"—that is, producing expenses, compressor station expenses, transmission station expenses, and so forth—we found the percentage of those respective operations applying, as we determined it, to each of these states, to the whole of such expenses, and that is the percentage we have used by years in our allocation or distribution of so-called general expenses; the percentages being to Texas for the periods I will read into the record, as follows: The Twelve Months [fol. 2605] period ended March 31, 1934, 85.33; the calendar year 1933, 85.38; the calendar year 1932, 85.74; the calendar year 1931, 86.50; the calendar year 1930, 85.95; the calendar year 1929, 84.42. The next item shown in our schedule, page 1, Plaintiff's Exhibit Number 4, is that of Taxes—Other than Gross Production and Federal Income Taxes. Ad valorem taxes were on a direct basis, less the percentage that went to what is understood to be non-public service operations. Automobile taxes were prorated or allocated on the basis of March 31, 1934 auto investment applicable to the respective states, less five and a half per cent determined to be non-public service property; miscellaneous taxes, franchise and foreign corporation, permit fees, and so forth, prorated on the direct basis, or an actual basis, as it applied to the respective states, less the percentage of non-public service property applicable to the year as determined by the Company. Federal capital stock tax, Federal check tax, was prorated on the same basis as we prorated general expenses; and, of course, the same calculation we made for each of the several accounting periods involved here.

[fol. 2606] The next item is that of Bad Debts and Adjustments. Bad debts and adjustments were prorated, or, rather, they were charged to the respective operations just as they occurred—in other words, direct. We were able to tell the losses from bad debts and adjustments on Texas operations as distinguished from bad debts and adjustments applicable to Oklahoma. The next item—I believe I have passed Auto and Truck Expense Underdistributed. Now, Auto and Truck Expense Underdistributed is the sum that

remains after the application of the company's policy in its use of automobile and trucks. That policy has been testified to in the record, and it seems the automobile equipment is used on a per diem basis, and on this clearing account there is a balance as a result of the company's method in applying expenses; so there has to be some application of the sum that remains, and we have distributed that item on the basis that we distributed so-called General Expenses. The next item is that of Miscellaneous Non-operating Expenses, and involves comparatively small amounts. For the accounting period ended March 31, 1934, the amount was $192.72; for the calendar year 1933 it was $192.72; for the calendar year 1932, $856.22; for the calendar year 1931, $447.70; for the calendar year 1930, $3,872.23; for the calendar year 1929, 1930. Now, these Miscellaneous Non-operating Expenses were, in the main, applied direct; that is, we were able to determine that it was applicable to Texas operations or [fol. 2607] Oklahoma operations, as the case might have been, with two or three exceptions; no exception for the accounting period ended March 31, 1934, and no exception for the calendar year 1933, and no exception for the calendar year 1932, but for the calendar year 1931 we had one item of $222.50 that we prorated or allocated on the same basis that we used for General Expenses, resulting in $192.46 being charged to Texas operations and $30.04 to Oklahoma operations. For the calendar year 1932 we likewise prorated the total of these expenses on the General Expense basis, Texas being charged with $3,872.23 and Oklahoma with $632.98, and there were no such expenses for the year 1929. Now we come to an item we have in the expense section that we have designated Texas-Oklahoma Gas Sales Adjustment, and, as I explained into the record early in my testimony, this figure results from our determination of Oklahoma volumes of gas and the sales of volumes of gas in Oklahoma, and the excess volumes produced and/or purchased were credited to Oklahoma on the basis of the average price received for gas in Texas. That resulted in these credits: to Oklahoma operations, which, of course, come out of the Texas group, for the twelve-month accounting period ended March 31, 1934, $62,234.07; for the calendar year 1933, $29,617.92; for the calendar year 1932, $342,429.94; for the calendar year 1931, $554,766.20; for the calendar year 1930, $1,213,262.91, and for the calendar year 1929, $1,655,550.49. Obviously, in the earlier

[fol. 2608] years *of* production and/or purchases in Oklahoma were substantially higher than they have been in more recent periods. That accounts, of course, for the larger credit going to Oklahoma in the earlier years. Now, we have totaled the items listed down to that point under Expenses.

* * * * * * *

Q. All right. Now, then, these amounts on the Texas-Oklahoma Sales Adjustment show, do they not, that the gas coming from Oklahoma, the net amounts of such gas, have been steadily decreased since 1929?

A. That is true.

Q. Coming from a very large amount in 1929, $1,655,550.49, down to very insignificant amounts in 1933 and 1934 of twenty-nine thousand and sixty-two thousand, respectively?

A. That is true.

Q. Now, explain as briefly as possible, Mr. Phillips, the other items appearing on Sheet 1, beginning with Producing Expenses.

A. The next item is that of Producing Expenses. We were able to set up Producing Expenses in respect to the operations in each of the States of Texas and Oklahoma directly for the later years, but for earlier periods the company's books were not so kept as to permit a determination of these expenses applicable to the respective States. We [fol. 2609] were able to make that direct finding as shown by the company's books for the accounting period ended March 31, 1934, the calendar years 1933, 1932 and 1931, but for the other years were able to pick out only two items that we felt justified in allocating in their entirety to the designation Producing Expenses, and these items are: cost of repairing and cleaning out wells, which is carried separately on the company's books, and the cost of abandoning wells. We treated these two items of expense as being Producing Expenses, and have so included them on the line in this schedule, for Producing Expenses, thereby reducing the total that had been shown in the account caption "Gathering and Producing Expenses". The next item is that of Gross Production Taxes. Gross Production Taxes were applied direct, according to the State to which they were paid. The next item of expense shown on this schedule is that of Drilling Tools Expense *Expenses* Underdistributed. Drilling Tools

Expenses Underdistributed are that particular sum, not in amount but in principle of applying it, comparable to automotive equipment, and we concluded, as we did in the case of the Underdistributed Automobile Expenses, that it should be on the basis of the percentages used for General Expenses, and that is how this item was distributed. The next item is that of Dry Holes. Dry Hole Expense is actual in respect to the two States, as shown by the company's books. [fol. 2610] The next item is that of Cancelled and Surrendered Leases, and it, too, represents direct determinations shown on the company's books, as to whether it is a cancelled and surrendered lease in Texas or a cancelled and surrendered lease in Oklahoma, and this item of expense has been included as a direct item either to Texas or Oklahoma, as shown by the company's books. The next item is that of Management Fees. Now, our allocation of Management Fees is not entirely accurate, but it simply sets over too much expense to Texas rather than being entirely accurate in that case, but because of this condition we computed the management fee applicable to Texas operations on the basis of one per—one cent per thousand cubic feet; that is used for determination of the management fee.

Mr. Griffith: Let me get that answer.

A. On that basis we used——

Mr. Griffith: Did you say one cent per thousand?

A. Yes, but I didn't mean that.

Mr. Griffith: Well, that is what I thought.

[fol. 2611] A. The point is that we computed it just as it is computed and paid by the company, on the basis of the amount of sales of gas. Now, here is where we committed error in the application of this expense, and we didn't have time to correct it. We first made our findings of sales of gas within the State of Texas, and we computed the management fee on the basis of the Texas sales. Well, subsequently we made this adjustment of gas sales to the State of Oklahoma, with the result that we did not eliminate the portion of the management fee we applied that was considered to be Oklahoma sales, and with exception it is accurate. It gives the State of Oklahoma a little less expense than it should take and it gives Texas a little more than it should take.

Q. So the mistake which you made results in the Texas apportionment being the loser, does it not?

A. To the extent of the amount involved, yes. I would like to make one further statement at this time, because I want to confess that we made two errors in presenting these schedules, which were prepared under rather high pressure. At the time we distributed non-operating income, I had intended that all of the office rental income should go to Texas operations and likewise that all of the general office building expense should be charged to Texas, but in making our calculations in computing the expenses, we did set over to Oklahoma a prorata of the general office building expense, and so I want to read this correction into the record in respect to the general office rental income in [fol. 2612] the amounts that will be stated, our schedules, page 1, has overstated the miscellaneous non-operating revenue to Texas: For the twelve month period ended March 31, 1934, it was $3,772.39. For the calendar years of 1933, $3,766.84; 1932, $1,950.77; 1931, $2,416.69; 1930, $2,857.20; 1929, $2,968.25. Miscellaneous non-operating revenue shown on page 1 of Plaintiff's Exhibit No. 4 should be reduced for the respective years in the amounts there stated.

Q. What basis did you use in computing the amount to include for management fees?

A. We used a unit applied to volume. Now, I should be, but that is just a clerical calculation and it is one which I have not kept in my mind. I can not testify at this moment to what volume the unit applies. The only thing I will say is that we have calculated it on the basis employed by the company.

Q. What is the basis employed by the company in computing the management fee?

A. That is just what I tried to explain that I did not have in my mind at this time. It is a unit applied to a certain volume; whether it is applied to one thousand cubic feet or ten thousand cubic feet, I don't know.

Mr. Griffith: For the purpose of refreshing your memory, Mr. Phillips, isn't it one per cent of the gross revenues?

A. I rather think that is correct. It is a unit applied to the gas sales, either in dollars and cents or in volume, but I do know that the method we employed is exactly that in computing and paying the management fee used by the company.

[fol. 2613] Q. Well, at any rate, the books do not show, do they Mr. Phillips, that the amounts paid for management fees are for some particular services?

A. No, the books of the company do not show any breakdown of services rendered in respect to the management fee.

Q. Were you allowed to examine the books of the Lone Star Gas Corporation, which are the dummy set of books kept in Dallas, for the purpose of finding out the actual services for which the management fee was paid?

A. No, we were not permitted to examine any books of the Lone Star Gas Corporation.

Q. So you can not say of your own knowledge, so far as the books of either company are concerned, whether there was actually any service performed in return for this management fee or not; is that correct?

A. Not of my own knowledge.

Q. With the exception of the management fees, all of the expenses in the lower division of your expenses, are expenses incurred in the production of gas and the development of leases, are they not?

A. You make reference to the group of five items at the bottom of page 1?

Q. Yes, I am talking specifically about the producing expense, gross production taxes, drilling holes expense——

A. Drilling tools expense, it is.

Q. Drilling tools expense, under distributed.

[fol. 2614] A. That is "under-distributed" and not "undistributed".

Q. And dry holes, and cancelled and surrendered leases?

A. I consider that those items of expense do apply to the production of gas.

Q. What are the net earnings of the company, before providing for depletion, depreciation and federal income taxes, as found by you on sheet 1?

A. For the accounting period ending March 31, 1934, it was $4,416,571.74. For the calendar year 1933, $4,185,327.48. For the calendar year 1932, $4,882,297.56. For 1931, it was $4,758,714.46. For 1930, $5,232,725.81; and for the calendar year 1929, $5,579,679.94.

Q. These totals show, do they not, Mr. Phillips, that the low point during the periods studied for net earnings occurred in 1933?

A. For the accounting period, the calendar year 1933, yes.

Q. And that the earnings for the twelve months ended March 31, 1934, show an increase in net earnings of more than $300,000?

A. Well, it is some $230,000.00.

Q. Now, does that complete the explanation necessary on page 1?

A. I think it does, Mr. Fitzhugh. We have made three foot notes on this schedule calling attention to red figures, and one foot note calling attention to the method of handling gathering expense, and one for that of producing expense for the years of 1929 and 1930, and that does complete my explanation of the figures shown on that page, un-

[fol. 2615] less it be desired that I give, in respect to each year or each period, the percentages determined, as well as the amounts shown.

Q. That is, the percentages as between Oklahoma and Texas?

A. That is correct.

Q. Will you please give those percentages?

A. I will have to give it by items, of course.

Q. Well, that is a pretty long affair, isn't it?

A. It would be. It would take probably about an hour to testify to all those percentages.

Q. Well, let's don't take up that much time right now. We will let Mr. Griffith go into that. Now, what do you show on page 1-A.

A. Page 1-A contains gas sales determined to be applicable to Texas operations, showing by accounting periods in respect to domestic and industrial gas, separated, the volumes, the average prices, and the amounts received, broken down as between sales to affiliated companies and sales to other companies and field sales and miscellaneous industrial sales, the sales being recapped or totaled at the foot of the page, showing the total domestic volume, price and amount for each accounting period, and showing like information in respect to the industrial gas sales.

* * * * * * *

[fol. 2616] Q. Now, in the figures given by you for the total gas sales, and by referring to the totals for industrial gas sales by years it can be seen that the industrial sales

dropped off during the period through 1929, 1930 and 1931, and then struck about a lever from 1932 on up to the present time. Is that correct?

A. Well, 1932 was also a drop over 1931, but 1933 shows a pickup, as does the twelve month accounting period ending March 31, 1934, show an increase over the calendar year 1933.

Q. Now, as contrasted with this, the domestic sales dropped off from $6,972,718.76 in 1929, to $6,381,871.24 in 1932?

A. That is correct.

Q. Or a very small difference as between those two figures; is that right?

A. Well, not a large difference—something under $600,000.00.

Q. Well, as compared with the industrial——

A. It's about 10 per cent.

Q. Yes. Then from 1932 to the present time, while the industrial sales picked up some or stayed at fairly close to [fol. 2617] the same level, the domestic sales were falling off, were they not?

A. Domestic sales for 1933 fell off very substantially in comparison with 1932, and also fell off for the twelve months accounting period ended March 31, 1934, in a small amount, while, as has been shown here, the industrial sales for the year 1932 are a very level figure compared with the industrial sales figure for the twelve months ended March 31, 1934. There is some decrease under 1933.

Q. From 1932 to 1933, as shown by your figures, over a Million Dollars was lost in the domestic gas sales?

A. That is correct.

Q. What do you show on the next sheet—sheet 2?

A. We show on that sheet a schedule of gas purchased, showing the total gas purchased, thousand cubic feet, the average price paid, the amount paid, distinguished as between purchases from wells owned by others, and royalty gas purchases. We show that data for each of the accounting periods involved here.

Q. For gas purchased during the 12 months ended March 31, 1934, you show on this sheet, do you not, an average price of 5¼ cents per thousand cubic feet?

A. That is correct.

Q. Going now to sheet 3, what is shown on that page?

A. On page 3, or sheet 3, we show the detail of gathering

expense for the accounting periods, for first the twelve months period ended March 31, 1934, and then for the calendar years 1933, 1932 and 1931. This information is shown [fol. 2618] by classes of expenses, and represents the expenses determined, after the allocations were made, previously testified to by me.

Q. This sheet represents the detail?

A. Yes, in support of the items on the control schedule of revenues and expenses.

Q. And the totals which you show on this sheet are carried forward and compose the totals for gathering expense, as shown on sheet 1, do they not?

A. That is correct.

Q. Page 4 likewise applies to the gathering expense, Mr. Phillips, does it not?

A. It applies to gathering and to producing, because the records of the company for those two years were not so kept as to enable us to make a positive split between the producing and gathering expenses.

Q. What is shown on page 5 of the Exhibit, Mr. Phillips, which is the next succeeding page?

A. On page 5 of the Exhibit, we show for each of the accounting periods in respect of which I am testifying, as included in this Exhibit No. 4, the compressing station expenses allocated to the Texas operations, showing a detailed breakdown of the items, first under the so-called operating expenses, and second, under maintenance. These figures are the figures determined after making the direct applications, and the allocations that I have previously testified to, and the totals at the foot of the page are the totals that are [fol. 2619] carried forward to sheet 1 of this exhibit.

Q. In the same way, the detail on page 6 carries forward the totals for the transmission system expense?

A. For the three calendar years 1933, 1932 and 1931, and the twelve months accounting period ended March 31, 1934, yes.

Q. And that accounts, also, for pages six and seven of the exhibit, does it not?

A. Page seven details the years 1929 and 1930.

* * * * * * *

[fol. 2620] Q. Mr. Phillips, you had gotten as far as page 8, I believe, in your Exhibit Number 4?

A. That is right.

Q. Will you kindly show or explain the details shown on page 8?

A. On page 8 of Plaintiffs' Exhibit No. 4 we show a detail of the General Expenses in respect to Texas operations, as determined by us, of the Lone Star Gas Company for the period: the calendar years 1933, 1932, and 1931, and a 12-month accounting period ended March 31, 1934. We show the classification of accounts as employed by the Company in keeping its records, and we show the amounts of the respective expenses, after we have made our allocations, as testified to by me this morning.

Q. I notice in the case of Regulatory Commission Expenses there is a zero amount shown for the year 1931?

[fol. 2621] A. That is true.

Q. For the next year 1932, there is, however, an amount of $149,282.38?

A. That is correct.

Q. From the amounts shown by the Company's books, this is rather an erratic form of expense, is it not?

A. Well, you mean by that it fluctuates widely?

Q. Yes.

A. Yes.

Q. Now, you don't show the details for any years prior to 1931, do you?

A. Yes; I show that on a separate page of Exhibit 4, being page number 9, and the designation of the particular expense is "Valuation Suspense", which is the account name carried on the Company's books.

Q. Yes, sir.

A. But in nature, exactly the same as Regulatory Commission Expense.

Q. Would you say, Mr. Phillips, that all of the amounts shown for Regulatory Commission Expenses are accounted for in the case now being heard in Texas and by the case that was heard before the Corporation Commission of Oklahoma in Oklahoma?

A. Do I understand you to ask me if this expense for Regulatory Commission Expenses does include the ex-

[fol. 2622] penses of both hearings—hearings in both states?

A. I am asking you if the amounts include any other expenses other than in those two cases?

A. Not to my knowledge.

Q. Now, Mr. D. A. Hulcy, accounting witness for the Company, who has heretofore testified, has told us that all of the ordinary costs entering into what is known as going value have been paid in the past as operating expenses. Does your examination of the books bear out that statement?

A. Yes; that is substantially true; practically all of such expenditures have been charged to operations.

Q. And the amounts you show on this page for New Business advertising salaries, New Business soliciting and commissions, Other New Business labor, Advertising supplies and expenses, and New Business supplies and expenses, are all items which in whole and in part are connected with that type of expense, are they not?

A. I think so.

Q. What do you show on page 9-A?

A. On page 9-A I have scheduled the Texas-Oklahoma Gas Sales Adjustment, concerning which I testified this morning. This schedule shows by accounting period the gas produced or purchased in Oklahoma, and shows the gas sold in Oklahoma; and thereby determining the net gas sold in Texas neglecting line loss. In that connection, I would like to make two statements in connection with this [fol. 2623] schedule: One, is the storage in Petrolia Field was adjusted by us to the Oklahoma gas, it being our information that it was in its entirety, or practically so, Oklahoma gas.

Q. That is, gas taken from Lines H and 2nd H?

A. That is right. I understood that to be true; that is the information we had; and it is in conformity with the testimony of Mr. Hulcy that I heard at this hearing, which testimony was given prior to the preparation of this schedule. However, I do understand now, from the testimony of a later witness, that there may be a small part of this gas which comes from Texas; but we have adjusted it as being Oklahoma produced gas. Now, that, I think, is offset, if there be some Texas gas in it—more than offset by our handling of the line loss. We have not charged any line loss to Oklahoma. So we determined the net gas sold in Texas neglecting line loss and subject to the adjustment for the Petrolia Field gas. Then we show the average sale price for Texas gas, and apply that, and determine the value of the excess gas sold at the Texas average price.

Then, we deduct Compression and Transmission expense on net gas sold in Texas neglecting line loss, and determine our final figure that goes to the credit of Oklahoma operations.

Q. Now, as shown on this sheet, the totals for gas sold in Oklahoma by years for the periods shown are fairly constant, are they not?

A. That is true.

[fol. 2624] Q. That is, they range from the last twelve-months period in 1934 from 1,146,367 to 1,431,703 back in 1909?

A. That is correct.

Q. But the gas purchased and produced in Oklahoma has a high, as shown by your exhibit, in 1929 of 8,662,760, steadily decreasing by years in every year down to 1,424,251 for the twelve months period shown in 1934; is that correct?

A. That is correct.

Q. In other words, this schedule shows that the gas purchased and produced in Oklahoma, falling off as it has rather rapidly, will, from this time on, hardly be sufficient to take care of the gas sold in Oklahoma; isn't that right?

A. If we are to accept the trend reflected or shown by the books of the Company as scheduled here, then it seems that within a short period of time the production and purchases in Oklahoma will hardly be sufficient to meet Oklahoma requirements.

Q. What are the total amounts of adjustments that you have made, as shown on this page?

A. I testified to that this morning, but I will be glad to repeat it. The adjustment for the accounting period, March 31, 1934, $62,234.07.

Q. That is for the last period in 1934, isn't that right?

A. That is for the twelve months accounting period ended March 31, 1934. Now, for the calendar year 1933, $29,-617.92; 1932, $342,429.94; 1931, $554,766.20; 1930, $1,-[fol. 2625] 213,262.91; 1929, $1,655,550.49.

Q. In other words, these amounts represent the credits you gave to Oklahoma operations as against the Texas schedules?

A. As against the Texas schedules, yes.

Q. Yes. And the average sales prices which run across this sheet for Texas represent the actual sales price minus the cost of compression and transmission expense?

A. That is true. The average price shown there has been applied to the volume, and immediately under the line for the average price we have determined the amount based upon the application of the average price to the volume, and from that determination we have deducted compression and transmission expense on net gas sold, thereby finding on the last line the amount that we have adjusted.

Q. What was the amount of the compression expense and transmission expense?

A. For the respective periods?

Q. Yes.

A. For the twelve month accounting period ended March 31, 1934, $6,733.96; for the calendar year 1933, $3,305.16; for 1932, $34,766.45; for 1931, $69,583.78; for 1930, $172,731.19; for 1929, $211,219.17.

Q. Is there any other additional explanation which you desire to make concerning this sheet?

A. I don't think there is.

[fol. 2626] Q. What do you show on page 10, just following?

A. On page 10 we show a detail of producing expenses applicable to Texas operations, for the calendar years 1933, 1932, and 1931, and the twelve-months accounting period, March 31, 1934. We have shown these expenses as classified on the Company's books for these respective periods, and the total has been carried forward to sheet one of this exhibit.

Q. Make your explanation now of page 11—the final sheet.

A. On page 11, we have shown our determination of the book cost of our determined Texas properties of the Lone Star Gas Company, showing the balance as of December 31, 1931, and showing the net additions from January 1, 1932 through March 31, 1934—I mean the public service property of the Lone Star Gas Company; and then I show the total as at March 31, 1934.

Q. That total is in what amount?

A. $44,053,612.30.

Q. Now, on this sheet where you show allocation in various places, how did you determine the per cent?

A. Well, we just adopted our best judgment in the matter, and made a straight fifteen per cent application of certain properties as being Oklahoma properties. On other items not subject to allocation or proration, we have attempted to [fol. 2627] segregate the cost of these Texas properties from

Oklahoma properties. We have in this schedule, as testified to this morning by me, the line that does come through a certain section of Oklahoma, which for distance was some forty miles; we have not eliminated the cost of that forty-mile stretch from the figures shown here.

Q. The allocation is applied only to the ones indicated on page 11, such as Dallas Machine Shop, General Office Building, and such things as that?

A. That is correct.

Q. There is no allocation in the case of the other items?

A. That is correct.

* * * * * * *

[fols. 2628-2643] Q. Now, have you, from your investigation of the Company's books and records prepared a report other than the one introduced heretofore, and known as Exhibit 4, bearing on the properties as a whole?

A. I have.

Q. Will you produce that report? (Witness hands reports to counsel). The report to which you have just referred is entitled "Report on Special Investigation of Records of Lone Star Gas Company—March 31, 1934," is it not?

A. That is correct.

Mr. Fitzhugh: We submit the exhibit just identified by the witness in evidence.

* * * * * * *

[fol. 2644] (Thereupon the document above referred to, except pages 24 and 25, was marked as Plaintiffs' Exhibit No. 5.)

* * * * * * *

Q. Is there any explanation that you need to make as to page 1 of Exhibit No. 5?

A. Except to say that page 1 shows our determination of revenues, expenses and net earnings before providing [fol. 2645] for depreciation, depletion and Federal income taxes for the calendar years 1927 through 1933 and the twelve-month accounting period ended March 31, 1934. The determination made by us shows a comparable figure to that determined by the company, some seven thousand

dollars in excess, made up of miscellaneous adjustments that were made dealing principally with the method of handling inventory adjustments. In prior years the company had not been making these inventory adjustments, and we believed, to make all years comparable, that we should not make it in the more recent accounting period, so for the calendar year 1933 our net earnings as described amount to $7,716.44 more than the net earnings shown by the company.

Mr. Griffith: When you say "the company," Mr. Phillips, you mean as disclosed by Mr. Hulcy's exhibits in this case.

A. And the books of the company—the exhibits sponsored by Mr. Hulcy and the books of the company.

Q. Now, the figures shown for the twelve-month period in 1934 in your Exhibit No. 5 for net earnings—I am talking about the twelve months ending——

A. March 31, 1934.

Q. —March 31, 1934, is in the amount of $4,386,294.24. That compares with the figures shown for the similar period in your Exhibit No. 4 of $4,416,571.74. What would that seem to indicate as to the profitableness of the Oklahoma business as contrasted with the profitableness of the Texas business?

A. Well, these determinations show that a portion of the [fol. 2646] Oklahoma business is not profitable.

Q. At least, it was not for that calendar year?

A. That is correct.

Q. And the same was true for the twelve months ended December 31, 1933, was it not?

A. That is correct.

Q. Now, if the Railroad Commission in arriving at its order based its findings upon operating expenses and revenues on the year 1931 for the combined property, it would have by so doing have been more liberal with the company than it would have been if it had used the Texas properties only, would it not?

A. To an extent. I would not state that as a positive fact, because the 1931 earnings as determined by me to disclose some small earnings for Oklahoma in 1931.

Q. But if, instead of the year 1931, the Railroad Commission had been basing its findings on 1933 or 1934 amounts as shown in your columns, a decided advantage would be given the company by considering the whole properties, would it not?

A. That is correct.

Q. Now, will you turn to the next sheet? Now, what do you show on the sheets shown in your exhibit as page 2 and page 3?

A. We show gas sales of Lone Star Gas Company by accounting periods represented by calendar years 1927 [fol. 2647] through 1933 and the twelve-month period ended March 31, 1934, broken down in respect to domestic and industrial sales to affiliated companies, to other companies, field sales and miscellaneous industrial sales, showing on this summary the volume, the average price, and the amount in respect to each of the periods and in respect to the classification, concluding this summary with a total of gas sales showing domestic and industrial separated and then the grand total by volume, average price, and amount by respective accounting periods.

Q. Now, the trend as shown on these sheets in industrial gas sales as between 1932 and 1933 works out about the same as it did on the industrial sales in Exhibit 4, does it not—that is, the industrial sales are fairly even through that period?

A. That is in respect to the periods 1932 and 1933.

[fol. 2648] Q. In 1934 industrial sales picked up a little bit, did they not?

A. That is correct.

Q. And the domestic sales for the combined properties, as shown in this exhibit, in 1932 showed an amount of $6,653,160.92, and dropped down in 1933 to only $5,583,008.07; is that correct?

A. That is correct.

Q. In other words, while the industrial sales were staying even or starting up slightly, the domestic sales were still falling off in those periods?

A. That is correct. The domestic sales were falling in that period; however, there was a slight decrease in the industrial sales for that period.

Q. What explanation do you need to make about page 4?

A. Page 4 is a statement of the company's miscellaneous non-operating revenues. That is to say, revenues from cottage rentals, office building rentals, farm rentals and so forth, for the calendar years 1927 through 1933 and for the twelve months accounting period ended March 31, 1934, showing these items in detail and showing the total that

was carried forward to the control sheet, being page 1 of Exhibit 5.

Q. Now then, make any necessary explanations for page 5.

A. Page 5 sets forth gas purchased for the periods covered by our accounting study—that is, for the calendar years 1927 through 1933, and for the twelve months accounting period ending March 31, 1934, showing the total [fol. 2649] gas purchased in thousand cubic feet, and the amounts and the average price for each of the periods, and showing a breakdown representing the portion that is purchased from wells owned by others, and the royalty gas purchased and the gas storage. Each of these classes which go to make up the total are likewise shown in respect of thousand cubic feet, average price and amounts.

Q. Where, under the gas storage, you show an average price of ten cents per thousand cubic feet, why did you apply that price of ten cents?

A. Well, that is a determination that was made by the company and it is one which has been constantly applied to the storage gas, and we made no contrary determination, because so many elements would go into it that we did not feel it was far enough off to justify an attempt to correct that figure, if it needed correcting.

Q. Now, this gas was put in at a price of ten cents and taken out at that price, wasn't it?

A. It was.

Q. So over a period of years, it would not make any difference what price they had it in there for?

A. No difference at all.

Q. What do you show on page 6?

A. On page 6 we show for the calendar years 1931, 1932, 1933 and for the twelve months accounting period ended March 31, 1934, gathering expenses of the Lone Star Gas Company, broken down in respect to operation and maintenance and showing the classification under each of those [fol. 2650] captions, and these classifications are the classifications employed by the company.

Q. And page 7 is a continuation of the same thing, is it not, for the other years?

A. Page 7, in addition to gather expense, includes also producing expense for the years 1927, 1928, 1929 and 1930, with the exception of repairing and cleaning wells, and abandoning wells which have been eliminated in the final summary, and shown separately as producing expense.

The company's records for these periods did not have a complete separation of producing and gathering system expenses.

Q. On page 8 you show the detail for compressing system expense, do you not?

A. For the same periods, yes.

Q. Is there any explanation necessary for that sheet?

A. I don't think so. It is a detail of the expenses included under that caption, and carried forward to the general statement and classified in accordance with the company's classification.

Q. Now, on pages 9 and 10, you show the transmission system expenses, do you not?

A. I do, showing it on page 9 for the calendar years 1931, 1932 and 1933, and the twelve months accounting period ended March 31, 1934, the detail of those expenses on page 10 showing the detail of transmission system expense for the calendar years 1927, 1928, 1929 and 1930. This schedule was broken up or rather not made as one schedule, for [fol. 2651] the reason that the company's classification of accounts changed.

Q. Now the sheets here are detailed sheets, giving totals and which totals are all carried forward on to page 1, are they not?

A. That is correct.

Q. Now we come to page 12. Well, I believe that sheet is self-explanatory, is it not?

A. It is. It is a detail of general expenses as classified on the books of the company for the years 1927, 1928, 1929 and 1930, and a similar classification being found on page 11 for the years 1931, 1932 and 1933 and the twelve month accounting period ended March 31, 1934. Again we made two schedules in order to preserve the company's classifications in respect to the different periods.

Q. And on page 13 you show, do you not, the producing expenses detail?

A. Yes, for the years 1931, 1932 and 1933 and the twelve months accounting period ended March 31, 1934.

Q. What do you show on page 14?

A. On page 14 we show the public service property of the Lone Star Gas Company as at December 31, 1931, showing the description of the property on the left of the schedule, and in the first money column showing our determination

of book cost and in the second money column showing our audit adjustments, and in the third column showing the company's book costs—that is, the book costs reflected by [fol. 2652] the control ledger of the company. In the fourth money column we show the increase over book costs by company's revaluation, and in the final column we show the total per books of the company, which includes its book costs and its revaluation.

Q. What was the reason for the audit increases or decreases made by you, as shown in the amounts reflected in your second money column?

A. Well, in some cases it represents merely a change in classification. To illustrate, on the one hand we decreased the gathering system property by $66,167.50, which was offset in an increase in transmission system property in a like amount. The other items or some of the other items represent adjustments made by us that increased the figures shown by the companies books, one such adjustment being for certain expenses incurred in connection with drilling during the earlier years of our examination, that the company charged to expense and that we capitalized. The net result of our adjustments was to increase the figures shown by the company's books some $305,000, as reflected by this schedule.

Q. What do you mean by the increase by company's revaluation, in the amount of $18,071,233.99?

A. Well, I mean that the company, some years ago, made a valuation or a revaluation of its properties by appraisal, and the determination made at that time was in excess of the company's book costs, so they spread the difference or the increase on their records.

Q. What was the purpose of putting that revaluation [fol. 2653] or the marked up figures on the books?

A. I don't know that I could answer that, Mr. Fitzhugh; I could only assume what the purpose of it may have been.

Q. Well, what would be the usual reason for writing up the value of the property on the books? What would be the accounting significance of it, I mean?

A. Well, that is an ordinary practice, as a matter of fact, in all lines of business, to have appraisals made and to give effect to it on the books, whether it be an increase or a decreased determination, and the purpose of it is usually to bring the determined value on to the books for account-

ing purposes in the use of property. Whether or not there was some other purpose in mind, I don't know.

Q. On page 15 what do you show?

A. We show a summary of the leases of the Lone Star Gas Company as shown by its books, giving effect to our adjustments and showing our adjusted book costs, increase by adjustments and the company's book costs.

Q. None of your totals there——

A. —Or, I should have said, decrease by adjustments in respect to leases.

Q. None of your totals as to book costs reflect depletion of gas wells?

A. No sir, we have used the company's book cost and have not decreased any account by the amount of the accrued depreciation or depletion.

Q. The totals do include all delayed rentals, do they not? [fol. 2654] A. I think so, yes.

Q. And all of the cost of gas well construction, where wells were acquired already developed on leased properties?

A. Yes, that is correct.

Q. What do you show on page 16?.

A. On page 16 we show a summary of the production system property, gas farms of the Lone Star Gas Company as at December 31, 1931, showing our adjusted book cost, the increases we made by adjustments, and the company's book costs or costs as reflected by its books, and the increase by company's revaluation and the totals shown per the company's books, to which we add the completed construction carried in work in progress account at the end of the period. Then we have the breakdown below the totals there, that shows the adjusted book cost of the gas farms exclusive of completed construction, showing the amount that represents investments in leases or lands, including purchased wells, and another amount for well construction; another amount for equipment and another amount for engineering and other overheads which were capitalized.

Q. What is shown on page 17?

A. On page 17 we show a summary of the Lone Star Gas Company's gathering system property as at December 31, 1931, showing the property in respect to fields, and showing our adjusted book cost and the increase by the company's valuation or revaluation, and the total by the company's books, in respect to each field and the totals for all fields.

[fol. 2655] Q. On page 18 you show the Petrolia field account?

A. That is correct.

Q. Will you explain this sheet?

A. This is the Petrolia field account of the Lone Star Gas Company, as at December 31, 1931, showing the several items of property that are included in the account, showing revaluation that was spread on the books at December 31, 1925, and December 31, 1928, and the total of such revaluation and the total in the account, and then we do submit a reconciliation of our determination of the account as shown by the company.

Q. Take up the next page, please sir, page 19.

A. Page 19 is a summary of compressing station property of the Lone Star Gas Company as at December 31, 1931, showing the adjusted book cost, the increase by company's revaluation and the total per the company's books.

Q. On page 20 you show the transmission system property, pipe lines and equipment?

A. On page 20 we have a summary of transmission system property, pipe lines and equipment of the Lone Star Gas Company as at December 31, 1931. This summary shows the property by designated systems, and the information carried across the schedule is the adjusted book cost in the first column; increase by company's revaluation in the second column; the total per the company's books in the third column, and from that point on is a breakdown of the property, tying into the controls of the first three columns, the breakdown being in columns as follows: First column for [fol. 2656] the rights of way. Second column, lands and leaseholds. Then we have the lines separated in three columns to represent pipe in the first of the three columns, the second of the three columns fittings, and the final of the three columns is construction. The next column represents measuring station structures. The next column, other structures. The next is measuring station equipment and the next, other equipment. The next, engineering and interest and other overheads. Now, that is shown in respect to each of these systems, and the total is brought down on the final line and we have added an undistributed item representing completed construction in the Work In Progress Account, which had not been classified in respect to the several items of property.

Q. What do you show on page 21?

A. On page 21 we show the real estate of the Lone Star Gas Company as at December 31, 1931, showing the adjusted book cost, the increase by company's revaluation, and the total by the company's books in respect to the general office building site, the Dallas machine shop site, the vacant property, and property sold to Dallas Gas Company, on which the revaluation was not removed from the books as at December 31, 1931.

Q. On page 22, you show a summary of the public service property of the company?

A. Yes, on page 22 we show a summary of public service property of the Lone Star Gas Company, showing the property in respect to classifications for the years 1927 through [fol. 2657] 1932, and showing only the total for the period ended December 31, 1933, and the period ended December 31, 1934, and also showing the——

The Court: Did you say December 31, 1934?

A. I didn't intend to Judge; I should have said, March 31, 1934.

The Court: All right.

A. —and showing also the totals for the other years, that is for 1927 through 1932, to which is added on the second line from the bottom, the revaluation per the books of the company and then we find the grand total by years.

Q. What do you show on page 23?

A. On page 23 we show a summary of the depreciation reserve for the Lone Star Gas Company from January 1, 1927, to December 31, 1933, both inclusive. We show in the summary the depreciation at the beginning of each year—that is, the reserve for depreciation; the depreciation set up for each year; the net charges to the reserve for each year, and the balance per the books at the end of each year for the years referred to, being 1927 through 1933, and showing this information in a total amount and then showing it in respect [fol. 2658] to the following classifications of property: drilling tools, production system property, transmission system and gathering system property, compressing station property, telephone and telegraph system property, automotive equipment, Dallas machine shop, general office building,

office furniture and fixtures, tools and construction equipment.

* * * * * * *

[fol. 2659] Q. When we quit, Mr. Phillips, you were explaining the summary of your depreciation reserves on page 23, I believe?

A. I think I had just completed that explanation.

Q. Now, what does the total in your first column of $15,695,413.88 represent?

A. That represents the credit balance in the reserve for depreciation account, as shown by the Company's books as of December 31, 1933, except for the reduction of 5½ per cent on automotive equipment, representing the portion of automotive equipment determined to be non-public service property——

* * * * * * *

A. We have excluded in our figures here for reserve 5½ per cent of the depreciation reserve on automotive equipment, inasmuch as the company has determined 5½ per cent of the automotive equipment to be used in the non-public service end of their business.

Q. In other words, the Company has been putting aside money in some amount all the time it has been in operation for the purpose of taking care of depreciation requirements, and the amount that now shows in the depreciation reserve which the Company has not found necessary to draw upon, is in this fifteen million amount?

A. Well, the reserve for depreciation in the amounts [fol. 2660] stated represent the accumulated balance in the reserve account. It does not necessarily follow that at the time you make a credit to the reserve you actually set aside that much in dollars and cents, because oftentimes the reserve may be invested in property or other items in the Company's balance sheet. It does not mean that much in dollars and cents has been set aside; but that that much has been set aside and charged to the operations in respect to these classes of property.

Q. But this fifteen million amount is still in depreciation reserve after all deductions for repairs and replacements have been made?

A. After all have been made and charged to that account, yes, sir.

Q. What is the purpose of this depreciation reserve?

A. Well, the purpose of a depreciation reserve is generally considered to be a measuring stick for the using up of property. To illustrate that, if you buy an item of property that costs a thousand dollars, and you use the straight line method of depreciation—and by straight-line method, I mean writing off the sum in equal annual installments—and assuming the property will be useful for ten years, you would write off one hundred dollars per year on that equipment of one thousand dollars. At the end of three years, the purpose of this account is to measure off the portion of [fol. 2661] the property that has been used up or worn out. That is the primary purpose of a depreciation reserve; Also, having in mind, that replacements and minor repairs will be taken care of out of the reserve that is set up from time to time.

Q. Now, from the correct accounting standpoint, if the Company has been setting aside the correct amounts for the wearing out of property which has occurred thus far, this credit balance in depreciation reserve of fifteen million dollars plus represents an actual wearing out that has occurred, but the replacements and repairs on which property have not yet become necessary; that is, actual wear would have taken place, even though replacements and repairs had not been made?

A. That is what the depreciation account is supposed to represent—the reserve.

Q. What was the amount actually set aside to the depreciation reserve for the year 1933?

A. The depreciation set up on the books of the Company for the year 1933 in respect to the properties classified here amounted to $1,882,333.41.

Q. Now, the charges actually made to the reserve for that same year were in what amount?

A. In the amount of $335,736.55.

Q. And that is the amount that they actually took out for that year for replacements and repairs; isn't that right?

[fol. 2662] A. That is correct.

Q. Is there any other explanation that needs to be made as to this sheet?

A. I don't think so. I have already explained the five and a half per cent allocated to automotive equipment.

* * * * * * *

The Court: Is there any reason why the Company arrived at that 5½ per cent for automotive equipment; or is that just an arbitrary figure set up?

A. I don't think it is arbitrary in the ordinarily understood sense. I believe it to be reasonably accurate. In other words, based upon such information as we had in respect to automotive equipment, we felt that 5½ per cent of the automotive equipment allocated to non-public service operations was a reasonable amount. It could be six or five. It may not be entirely accurate; but in my opinion, it is reasonably accurate.

The Court: Will you tell me, if you know, how they arrived at that 5½ per cent; or if you don't know how they arrived at it, why do you think it is reasonable?

A. Well, we have a detail of the automotive equipment. [fol. 2663] We know that that equipment is used substantially in connection with the operations of the public service property. We know, on the other hand, that they have some gasoline operations and some oil operations, and it just occurs to us, based upon our general understanding of the non-public service property owned and operated, that that is reasonable.

* * * * * * *

Q. Now, have you made an examination of the exhibit introduced and sponsored here by the witness D. A. Hulcy, known as Defendant's Exhibit 31?

A. I have made some examination of that exhibit.

Q. That is Mr. Hulcy's appraisal of gas reserves?

A. Yes.

Q. Do you have a copy of that exhibit before you?

A. Yes; I have a copy of it.

Q. I will ask you, Mr. Phillips, if the method used in finding the present fair value of net gas reserves as calculated by Mr. Hulcy is not what accountants ordinarily understand and mean as being a capitalization of future earnings?

A. Well, that is my accounting understanding of it, and I believe it is the general understanding of accountants generally.

Q. Is there any difference in this method, so far as it represents a capitalization of earnings, in adopting an as- [fol. 2664] sumed field price for gas through the years as gas is withdrawn, and applying those prices for gas to find the present value as found by Mr. Hulcy, and in a method of finding the value of the Company's property as a whole based upon the earning value of the properties, taking into consideration the price being obtained by the Company for gas sold at the city gate?

A. Well, I will say that I can see not a great deal of difference in the two applications, because as I understand Mr. Hulcy's determination here, he has concluded that the Company's gas in the field is worth the same price other gas in the field not owned by the Company is worth and can be purchased for. Now, if there is any profit in acquiring that gas, that is the very element that has been used to measure the values of these reserves. So, it seems to me, the application to the city gate would be very similar, because the gas is worth so much at the city gate, and if there is any profit in bringing it there over a period of years and using it, the same elements would be applied in the determination there as have been applied, as I understand it, in this exhibit. To me it represents a capitalization of future earnings.

Q. Mr. Phillips, Mr. Hulcy in testify- heretofore stated in effect that if the loan now outstanding and due to the Lone Star Gas Corporation in the amount of about $17,- [fol. 2665] 600,000—if that loan were replaced by capital stock, and by the issuance of capital stock in that amount, that the interest reduction which would ordinarily be applied in making out the Company's income tax return, would no longer be applicable; are you familiar with that statement?

A. Yes; I heard Mr. Hulcy's testimony, in respect to that, and I have since read it.

Q. Now, I will ask you, Mr. Phillips, if, taking into consideration the changed law as to filing of consolidated tax returns, and bearing in mind the affiliation that exists between the Lone Star Gas Company and the Lone Star Gas Corporation, if Mr. Hulcy's assumptions as to elimination

of the interest from Federal Income Tax calculations as to the whole proposition in its entirety are correct?

A. Well, treating the matter over all, it really has no effect; it is merely a wash-out, so to speak. That is, one benefit will be offset by a loss on the other hand. By that, I mean this: If the Lone Star Gas Company were permitted to take the item as an interest deduction, then the receipt of that interest in the hands of Lone Star Gas Corporation would be subject to tax; while if the Lone Star Gas Company pays out the sum to the Lone Star Gas Corporation as dividend on the stock, the Lone Star Gas Company would not get the benefit of the deduction; on the other hand, the Lone Star Gas Corporation would not have to pay taxes on the amount received.

[fol. 2666] Q. So the whole thing, bearing in mind the affiliation of the companies is a wash-out?

A. That is the way I look at it.

Cross-examination.

Questions by Mr. Griffith:

Q. Mr. Phillips, when did you first present yourself at the office of the Lone Star Gas Company for the purpose of examining its books, records, and accounts?

A. Sometime in December, 1931, I believe.

Q. Following that presentation were you afforded every access to the books, records and accounts of the Lone Star Gas Company?

A. The Lone Star Gas Company from the outset—its personnel did cooperate with us in our examination of the books and records of the company.

Q. And you were afforded access to every book, record, and account of the Company which you requested in connection with your report?

A. I am sure I have never made any request of the personnel of Lone Star Gas Company in respect to the examination of the Lone Star Gas Company's books which has been refused.

Q. And the access to the books which you initially had has continued up to the time of the hearing of this case?

A. That is true with minor exceptions. I believe we did [fol. 2667] ask for some statements, maybe not in direct reference to the books. I will say this: We kept a memoran-

dum of it, which we have in our files at the hotel; but answering your question as to whether we were afforded every opportunity to examine the books of the Lone Star Gas Company, my answer is "yes", we were."

Q. Are the books, records, and accounts of the Lone Star Gas Company well kept?

A. I think they are well kept.

Q. Now, in connection with your direct testimony you made a reference to Mr. Hulcy's determination of amounts available for depreciation and return for some certain 12-months accounting periods?

A. I don't remember whether I made reference to Mr. Hulcy's determinations or not.

Q. Didn't you say that for the year 1933 you determined that the gross earnings of the Company were $7,000 in excess of Mr. Hulcy's statement?

A. I had specifically in mind Mr. Hulcy's books, but it is also true in that case of Mr. Hulcy's exhibit.

Q. Have you examined Defendant's Exhibits 5, 6, 8, and 9 in this case?

A. Yes; to some extent, I have.

Q. Do you have copies of them with you?

A. I do have.

[fol. 2668] Q. Are they marked so that you can identify them?

A. Yes.

Q. Now, in Defendant's Exhibit 5,—that is for the 12 months ended December 31, 1931, is it not?

A. Exhibit 5, that is for the 12 months ended December 31, 1931.

Q. Now, Defendant's Exhibit 6 is for the 12 months ended December 31, 1932?

A. That is correct.

Q. And Defendant's Exhibit 8 is for the 12 months ended December 31, 1933?

A. That is correct.

Q. And Defendant's Exhibit 9 is for the 12 months ended March 31, 1934?

A. That is correct.

Q. Now, those four accounting periods,—that is for the calendar years of 1931, 1932, and 1933, and the 12 months ended March 31, 1934,—are set forth in your exhibit—that is Plaintiff's Exhibit 5, are they not?

A. That is correct.

Q. Will you refer, please, to page one——

A. Four or Five, may I ask?

Q. Five. Refer to page 1 of Exhibit 5.

A. I have it.

Q. Will you take Mr. Hulcy's Exhibit No. 5 and by making reference to page of Defendant's Exhibit 5, tell me whether you and Mr. Hulcy are in substantial accord as to [fol. 2669] net earnings before providing for depreciation, depletion and Federal taxes?

A. We are.

Q. For the year 1931?

A. We are.

Q. Is there any difference at all as between your determination and the determination by Mr. Hulcy?

* * * * * * *

A. There is a small difference between Mr. Hulcy and ourselves with respect to the year 1931. * * * The difference aggregates $1146.89.

* * * * * * *

[fol. 2670] Q. That is what might be called a negligible difference considering the amounts involved?

A. Very negligible.

Q. Will you refer please to Defendant's Exhibit 6, and then to page 1 of Plaintiff's Exhibit 5. What difference is there between yourself and Mr. Hulcy as to the determination of the net amount available for Federal taxes, depreciation, and return for the 12 months ended December 31, 1932?

A. 1932, there is a difference, I believe, of $8,134.76.

Q. Do you now recall where that difference arises?

A. No; I don't. It had to do—the principal item in that had to do with some second-hand material, I believe, that was disposed of; but as to the entire amount I am not prepared to answer.

Q. As a matter of fact, didn't the difference arise in the sale of same second-hand material which you determined should be charged to non-public service property?

A. I think that is correct—substantially all of it.

Q. But even the item of $8,000 for the year 1932 would not be a material amount, compared to the total amount available [fol. 2671] for Federal taxes, depreciation and return?

A. Not at all.

Q. But it is a question upon which the minds of reasonable men might differ, I take it?

A. That is true.

Q. Will you refer, please, to Defendant's Exhibit 8 covering operations for the 12 months ended December 31, 1933; and then also refer to page 1 of Defendant's Exhibit—I mean Plaintiff's Exhibit 5?

A. I have it.

Q. Is there any substantial difference as to the determination made by Mr. Hulcy and yourself respectively as to the net amount available for depreciation, Federal taxes, and return for the twelve months period ended December 31, 1933?

A. There is no substantial difference. There is a difference of $7,716.44.

Q. And that is the amount to which you have heretofore referred?

A. That is correct.

Q. Will you refer please to Defendant's Exhibit 9, and also to your summary sheet on page 1 of Plaintiff's Exhibit 5?

A. I have it.

Q. Is there any substantial difference for the accounting period for the 12 months ended March 31, 1934?

A. There is not.

[fol. 2672] Q. And between Defendant's Exhibit 9 and your own determination set forth on page 1 of Plaintiff's Exhibit 5?

A. There is not a substantial difference. There is a difference of $7,537.31.

Q. I say it amounts to approximately $7500?

A. $7537.21.

Q. Again, Mr. Phillips, that is not a substantial difference as between your own determination and what the books actually show and the report made by Mr. Hulcy in Defendant's Exhibit 9?

A. It is not.

Q. Do you happen to recall at this time how those differences arose?

A. You should keep in mind that 1933 items to a considerable extent come forward in the determination of the 12 months period ended March 31, 1934, inasmuch as in the de-

termination at March 31, 1934 you have nine months of 1933 operations; so the items are very similar to the items in respect to 1933, the principal one being the inventory adjustment.

Q. In other words, there is a nine months carry over from 1933 operations into the 12 months periods ended March 31, 1934?

A. That is correct.

Q. Mr. Phillips, you testified before the Railroad Commis-
[fol. 2673] sion in Gas Utilities Docket No. 75?

A. Yes, I did.

Q. Did you present in connection with your testimony any segregation of Texas property and business?

A. I did not.

Q. Did any other witness to your knowledge present any such segregation of property or business?

A. No; no other witness to my knowledge.

Q. Was any such segregation of property or business made in connection with the evidence and testimony presented at that hearing?

A. I have no knowledge of it.

* * * * * * *

Q. Now, Mr. Phillips, your exhibits—that is Plaintiff's Exhibits 4 and 5 in this case, are based upon what purports to be actual revenues and expenses of the Company?

A. That is correct.

Q. You have made certain adjustments to the capital account and to operating accounts?

A. That is correct.

Q. In so far as the revenues are concerned, you have attempted to base those exhibits and reports upon the actual
[fol. 2674] revenues of the Company, rather than some other revenues?

A. That is correct.

Q. In the preparation of those reports did you compute the revenues on the basis of 40 cents for domestic gas at the city gate?

A. Yes; those revenues were computed at the rate of 40 cents, which was the rate the Company collected.

Q. At no place in either one of these exhibits did you attempt to give effect to the Commission's order fixing and prescribing a 32-cent city gate rate for domestic gas?

A. That is correct; I did not.

Q. Will you please refer to Plaintiff's Exhibit 4. You have stated on page 1, which is the summary page of Plaintiff's Exhibit 4, a net amount available before providing for depreciation, depletion and Federal Income taxes?

A. That is correct.

Q. I will ask you if you mean the word "depreciation" as inclusive of what has been referred to in this case as "amortization" as well?

A. Well, it probably would be, yes, because while I do not recall having heard any testimony with respect to amortization, what depreciation should cover is lessening in value of property.

[fol. 2675] Q. As well as its ultimate retirement?

A. That is right.

Q. Or abandonment or removal?

A. That is correct.

Q. And in its broadest sense, the term depreciation would include, possibly, both depletion and amortization?

A. Yes, especially in respect to natural resources.

Q. And properties of this kind and character?

A. Yes.

Q. Such as the Lone Star Gas Company has?

A. That is correct.

Q. Now, on page 1 of Plaintiff's Exhibit 4, you have set forth the net amount available for depreciation, depletion, and Federal Income Taxes for a period of several years?

A. That is correct.

Q. Or for several accounting periods—as applied to the Texas properties of Lone Star Gas Company?

A. That is correct.

Q. Now, can you give me in the same manner what you have set forth on page 1 of Plaintiffs' Exhibit 4 the amounts available for the twelve months period for the Texas properties, the corresponding amounts that would be available for the Oklahoma properties?

A. I think I have the work-sheet on that. It may take [fol. 2676] me a little time on that.

Q. I don't desire the information for any period prior to January 1, 1931, Mr. Phillips.

A. I have it worked out, Mr. Griffith. Yes, I have it right here.

Q. Well, will you give it for the four accounting periods commencing with the accounting period ended December 31, 1931?

A. You want the net earnings before providing for depreciation, depletion and Federal Income Taxes, in respect to the Oklahoma operations?

Q. Well, I want the balance of the property—the balance of the public service property not covered by your revenues on page 1 of Plaintiffs' Exhibit 4.

A. For Texas—First, may I read in the total, and then that that we have considered Texas, and then the other item? Will that be satisfactory?

Q. I think that will be satisfactory.

A. The total is $4,909,171.13; Texas, $4,758,714.46; the balance, $150,456.67. That was for the year 1931.

* * * * * * *

[fol. 2677] Q. In other words, the amount of approximately $150,000.00 which you have just recited in the record was the amount that under your plan of segregation between Texas and Oklahoma earnings would be available for depreciation, depletion and Federal Income Taxes on the Oklahoma properties and business?

A. That is correct.

Q. Now, will you read comparable figures for the calendar year of 1932, the calendar year of 1933, and the twelve months ended March 31, 1934?

A. The comparable figure for the year 1932 is $128,178.93 for Oklahoma operations. May I ask if you want me [fol. 2678] to read the Total and the Texas?

Q. You might as well, since you started in that way.

A. Total, $5,010,476.49; Texas operations, $4,882,297.56; Oklahoma operations, $128,178.93, for the year 1932.

The Court: I am wondering if the witness hasn't one of these slide rule calculators, where he can tell what those percentages are.

* * * * * * *

Judge Powell: It would be around two per cent, that last figure.

A. Now, for the calendar year 1933 the comparable figures are: Total, $4,123,796.36; Texas, $4,185,327.48. The net

loss determined for Oklahoma operations, $61,531.12; that is a deficiency in respect to an amount available for depreciation, depletion and Federal Income Taxes in respect to Oklahoma operations. The comparable figure for the accounting period ended March 31, 1932, a twelve-month period, $4,386,294.24 is the total; Texas, $4,416,571.74; the deficiency in respect to Oklahoma operations is $30,277.50.

[fol. 2679] Q. So for the last two accounting periods, Mr. Phillips, according to the method of segregation that you have pursued, and as reflected by Plaintiffs' Exhibit 4, the Company had a loss on its Oklahoma operations?

A. That is correct.

Q. Mr. Phillips, in the preparation of Plaintiffs' Exhibit 4, how did you determine the percentage of Oklahoma gas which went to industrial and domestic sales in Texas?

A. I made no determination in respect to domestic and industrial sales of Oklahoma gas into Texas. I simply adopted the plan of applying the average price received for all gas in Texas, and giving Oklahoma the full credit for it.

Q. Now, do you know at what time of year the largest proportionate amounts of domestic gas are sold?

A. Well, yes, the larger portions of domestic gas are sold in the so-called winter months.

A. At what months during the year is the largest proportion of the gas produced and purchased in the State of Oklahoma transported and sold in the State of Texas?

A. I don't have that information.

Q. You don't have that information?

A. No, I do not.

[fol. 2680] Q. Did you make use of that information at any place in connection with the compilation of Plaintiffs' Exhibit 4?

A. I did not. I made no particular study of the months of the year in which deliveries were made.

Q. Now, did you treat gas produced and purchased from the Shamrock Field in Wheeler County, Texas, and transported through the State of Oklahoma and thence back into the State of Texas, where most of the gas was sold as Texas business, in the preparation of Plaintiffs' Exhibit 4?

A. Mr. Griffith, we did not adopt any plan of such determinations. What we did was to take the total gas produced within each of the two States, and we accounted for the

gas based upon that production and purchase, and gave to Oklahoma credit for all of the gas that was produced or purchased in Oklahoma. We really didn't take into account through what pipe lines it was transported, or anything else of that nature.

Q. Now, Mr. Phillips, you have stated in your summary sheets on both Plaintiffs' Exhibit 4 and Plaintiffs' Exhibit 5 that certain amounts were available before providing for depletion, depreciation and Federal Income Taxes?

[fol. 2681] A. That is correct.

Q. Are depreciation and depletion proper items of operating expense?

A. I think so.

Q. Is Federal Income Tax a proper item of operating expense?

A. That is a question that is debated by accountants rather extensively, and were you to examine my audit reports in respect to any business you would find that I determine the gross profit on operations as a final figure, and then deduct from it the Federal Income Tax, and show the net as transferred to surplus. I do not include it as an operating expense. It is a debatable question. To illustrate that, the Federal Government itself does not allow, as an operating expense in determining your income for 1932, the income tax you paid in 1933. That is a question that is very controversial,—I would prefer to answer it that way.

Q. I will ask you the question this way, is there anything net divisible to common stockholders or to preferred stockholders of a corporation prior to the payment of accrual of final income taxes?

A. No, Federal Income Taxes would have to be provided for out of the net result achieved in order to find that sum [fol. 2682] that would be distributable to stockholders.

Q. In connection with the work which you did in the preparation and presentation of Plaintiffs' Exhibit 4, did you make any determination of the facilities of the Lone Star Gas Company, whether they be pipe lines, or compressor stations, or measuring stations, or any other classification of property which was jointly and/or concurrently used in the matter of the transportation of gas produced, on the one hand, in the State of Oklahoma, or transported from the State of Oklahoma into Texas; and on the other hand, gas produced, and/or purchased, transported and sold wholly within the State of Texas?

A. No, we did not; what we did was to make a determination of the properties physically located in the respective States, as reflected by the Company's books. Of course, there were certain items that we had to make that determination on a percentage calculation; the Telephone System, for example, extends into Oklahoma from Texas; well, we just took an arbitrary percentage, if you are pleased to call it that, of fifteen per cent, and determined fifteen per cent of the telephone system to be physically located within the State of Oklahoma. Now, as to the gas sold, we only concerned ourselves with the gas produced or purchased in [fol. 2683] Oklahoma and sold in Oklahoma, and the balance that was sold in Texas we just computed the sales price on it and gave Oklahoma credit for it; we didn't make any determination in respect to the pipe lines it went through.

Q. From one State to another?

A. No, sir.

Q. Well, would it be fair to summarize what you have just said by stating that in the preparation of Plaintiffs' Exhibit 4 you were controlled by the geographical location of the facilities of the Company located in Texas, on the one hand, and in Oklahoma, on the other hand?

A. In respect to property, I think that is a fair statement.

Q. And it was based upon the geographical location, rather than the use to which the facilities were put?

A. I think that is a fair statement.

Q. In connection with your accounting exhibits—that is, Plaintiffs' Exhibits 4 and 5 you set out at various places the advertising expense of the Company.

A. I don't know whether we have advertising set out or not. I believe we do have it in General Expenses, set out.

Q. Well, it appears at some place in the expenses, does [fol. 2684] it not?

A. Yes, it does.

Q. And it appears upon the Company's books as an annual expense in various amounts for various years?

A. Yes, it does.

Q. Either you or your associates or those working under your supervision, checked the items of advertising expense?

A. Yes, we did.

Q. A great portion of that advertising was newspaper advertising, was it not?

A. A very substantial portion of it.

Q. Was there anything in your examination of the books,

records and accounts of the Company, which led you to believe that that expense was not properly incurred by the Company?

A. No, I think I considered that the expense was properly incurred by the Company.

Q. And as a consequence, you carried the expense reflected by the books of the Company into your exhibits—that is, Plaintiffs' Exhibits 4 and 5?

A. I did.

Q. Now, do the books, records and accounts of the Company at any place, Mr. Phillips, show the figures which you set forth in connection with sales expenses, revenues or property in Plaintiffs' Exhibit 4?

[fol. 2685] A. Do the books show the figures that have been set forth in Plaintiffs' Exhibit 4? No, they do not set forth operating revenues and expenses in the sums included in Exhibit 4. Of course, the revenues and expenses included in Exhibit 4 were extracted from accounts that the Company's books do show.

Q. In other words, Exhibit 4, in so far as revenues and expenses are concerned, is a calculation made from that which the books, records and accounts reflect?

A. Yes, it is a determination from what the books, accounts and records do reflect.

Q. Now, on page 11 of your Exhibit 4 did you include in transmission system property, pipe lines and equipment all of Line A, running from the Shamrock Field through the State of Oklahoma and to the Petrolia Compressor Station?

A. Yes, all of it is included in this schedule of property, being page 11 of Plaintiffs' Exhibit 4.

Q. And that would include such part of Line A, I believe was testified to be approximately thirty-five miles in length, which runs through the State of Oklahoma?

A. It would.

Q. Now, what did you do in connection with the tap line, which I believe is Line A-1-4, running from Line A in the State of Oklahoma over into the State of—did I say State of Oklahoma? Running from the State of Texas over into [fol. 2686] the State of Oklahoma and supplying the towns of Frederick, Tipton, Manitou and Mountain Park?

A. I think that we made no change in that line at all—that is, we eliminated nothing from it. We considered the

whole line as Texas property. However, I would like to check that with my breakdown, and be more positive about it, and answer your question later.

Q. Now, Mr. Phillips, refer please to the summary of expenses shown and revenues, as well, shown on Exhibits 4 and 5, respectively.

A. You have reference to the comparative statement of earnings?

Q. Yes, I do, Mr. Phillips, to the summary sheet.

A. Page 1 of each exhibit?

Q. Yes, sir.

A. I have it.

Q. Now, the amount of gas sales shown for the year 1933 on the whole property appears to have been $7,688,724.10?

A. That is correct, for 1933.

Q. On page 1 of Plaintiffs' Exhibit 4 you make a Texas-Oklahoma gas sales adjustment?

A. That is correct.

Q. But you show gas sales for the calendar year, covering [fol. 2687] the Texas properties, in the amount of $7,387,118.42?

A. That is correct.

Q. Now, Mr. Phillips, does the difference between those two figures represent the Oklahoma sales for the calendar year 1933?

A. Only the Oklahoma sales within the State of Oklahoma.

Q. That is, the sales by Lone Star Gas Company in the State of Oklahoma?

A. That is correct.

Q. Regardless of whether the gas was produced and/or purchased in Oklahoma and produced and/or purchased in the State of Texas?

A. That is correct.

Q. In other words, if you refer to the map which has been introduced in evidence and study Defendant's Exhibit 29, you will note that certain sales are made off of Line A, which transports gas from the Shamrock Field in Wheeler County, Texas, to the town of Hollis, Oklahoma.

A. Yes.

Q. And certain other sales are made off of Line A to the towns of Frederick, Tipton, Snyder, Mountain Park, and Manitou.

A. Yes.

Q. Were all of the sales which were actually made within

[fol. 2688] the State of Oklahoma treated as Oklahoma sales in connection with the preparation of Plaintiffs' Exhibit 4?

A. That is true; all of the sales that were made within the State of Oklahoma were considered as Oklahoma sales, whether the gas came from Texas or from gas in Oklahoma.

Q. And that was regardless of the source or origin of the gas supply?

A. That is correct.

[fol. 2689] Q. Now, Mr. Phillips, if we deduct, then, the figure of $7,387,118.42 appearing on page 1 of Plaintiff's Exhibit 4 from the figure of $7,688,724.10 appearing on page 1 of Plaintiff's Exhibit 5, do we have the net amount derived by the company from its sales exclusively within the State of Oklahoma?

A. That is correct.

Q. That is correct. Now, referring again to page 1 of Plaintiff's Exhibit 4, how did you segregate the Miscellaneous Operating Revenues for the year 1933 as applicable to the Texas properties?

A. The Miscellaneous Operating Revenues or Non-Operating Revenues?

Q. Miscellaneous Operating Revenues.

A. We considered the entire sum of $1,442.91 for the year 1933 as being Texas revenue.

Q. And that is the same figure which appears in the 1933 column on page 1 of your Exhibit 5, is it not?

A. That is correct.

Q. Now, how did you determine your segregation of Miscellaneous Non-operating Revenues for the calendar year 1933 as disclosed by your Exhibits 4 and 5?

* * * * * * *

[fol. 2690] A. That allocation was based on direct per cottage rentals, farm rentals, telephone pole rentals, as well as electric current, sundry earnings, and royalty interests gas.

Q. Was it based on the geological or geographic location of the income?

A. That is exactly right. If the cottages were within the State of Texas the income was credited to Texas operation.

Q. Conversely, if they were within the State of Oklahoma they were credited to Oklahoma operation?

1673

A. That is correct. Now, with respect to office building rentals, I testified this morning to the fact that they were allocated on the General Expenses proration.

Q. I recall that testimony, and it will not be necessary to go into that again.

A. Those are the items.

Q. So to get the total revenues you have segregated in connection with the Texas properties $7,423,680.87?

A. That is correct.

Q. And that is to be contrasted with the over-all figure of total revenues shown on page 1 of Plaintiff's Exhibit 5 for the year 1933 in the amount of $7,728,309.05?

A. That is correct.

[fol. 2691] Q. We next come on page 1 of Your Exhibit 4, Mr. Phillips, to the item of Gas Purchased?

A. Yes.

Q. Now, that appears in detail on page 2 of Exhibit 4, does it not?

A. That is correct.

Q. Now, in tabulating gas purchased by the Lone Star Gas Company for the year 1933 and all other years did you tabulate the gas which was produced solely within the confines of the State of Texas?

A. Produced, or purchased?

Q. Produced or purchased, I mean.

A. We tabulated it according to the confines of the State.

Q. According to the geographic location of the gas well?

A. That is correct.

Q. So, therefore, included in your gas purchased for the calendar year 1933, as set forth on page 2 of Exhibit 4 you included the gas purchased in the Shamrock field of Wheeler County, Texas?

A. That is correct.

Q. And upon that basis you made your segregation of the gas produced in the State of Texas and the State of Oklahoma, respectively?

A. That is correct.

Q. Now, the next item of expense appearing on page 1 of your Exhibit 4 is Gathering Expenses, in the amount of $95,911.08?

A. That is correct.

[fol. 2692] Q. Do we find a detail of that on page 3?

A. On page 3? We do.

Q. Now, how are the books, records and accounts of the company kept in connection with Gathering Expenses?—can you identify them by fields?

A. We have not accumulated those items on our work papers by fields.

Q. Well, what I want to know is how you segregated out $95,911.08, Gathering Expenses, as applicable to Texas operations, whereas the over-all figure appearing on your summary sheet in Exhibit 5 is $131,326.29.

A. What was that figure for over-all?

Q. $95,911.08.

A. For over-all?

Q. No, for Texas properties.

A. I am asking for the figure you read into the record for the over-all.

Q. Well, the correct figure—I may have misstated it, Mr. Phillips—is $131,326.29 for the year 1933.

A. Well, here is how we determined the portion applicable to Texas operations: We found that you had field line labor carried in a separate account for Texas. The same is true of field line supplies and expenses and all other supplies and expenses, damages, maintenance of field lines, maintenance of field structures, maintenance of gas cleaners, changing construction, and other maintenance ex-
[fol. 2693] penses. Now, in respect to Field Measuring Station Labor, Field Measuring Station Supplies and Expenses, and maintenance of Measuring Stations, you did not have it segregated as between Texas and Oklahoma. We allocated it on the basis that I will now read into the record: It was prorated on the basis of the percentage of Field Measuring Station Structures and Field Measuring Station Equipment within the State of Texas to the total of such structures and equipment. After making that determination, the sum that was allocable to Texas was added to the direct expenses allocable to Texas as shown on your books, and that which was allocable to Oklahoma was so allocated to your direct expenses, and then these expenses, superintendence labor operating wells, superintendence supplies and expenses, gas wells supplies and expenses, and superintendence of maintenance, those items of expenses were allocated on the basis of the previous determination for Texas, the percentage it represents to the total of all such expenses. Do I make myself clear?

Q. Well, I think so, Mr. Phillips. I think you certainly intended to. Now, the next item is Compressor Station Expenses, which you determine on page 1 of Exhibit 4 to be $303,454.78, whereas you show an over-all figure of $338,-433.01 on page 1 of Exhibit 5 as applicable to the over-all operations of the company. How did you make the segregation for your Exhibit 4?

A. All right. The expenses that I will now read into the [fol. 2694] record were kept separately on your books: changing construction, water system, repairs, pipes and fittings, maintenance of other equipment, engineers and oilers main buildings, other labor, fuel, water, lubricating oils,—those expenses you keep separately on your books—that is, separated as between Texas and Oklahoma. The proration of all other expenses was on the basis of direct expenses in each State to the total of all such expenses, with the exception of repairs to buildings, and repairs to buildings was prorated on the basis of the book cost of the respective properties as compared to the whole.

Q. Take the next item, Transmission System Expenses, determined over all for the year 1933 to be $431,520.56, and out of which you have segregated $374.275.77 as applicable to Texas operations.

A. All right. The first items we allocated or prorated had to do with all of the expenses shown under Transmission System Expenses in the districts of Gainesville and Vernon. Now, the Gainesville district expenses were prorated on the basis of the ratio of Texas and Oklahoma transmission property, respectively, to the whole, which information was furnished by the engineers. By "engineers" I mean Mr. Freese's firm.

Q. Well, now, what was the basis for the allocation of property as between Texas and Oklahoma in the Vernon district?

A. What was the basis of the allocation of property as between Oklahoma and Texas?

Q. Yes.

[fol. 2695] A. I don't know that I could answer that question. The only thing I can say is that we requested Mr. Freese by long distance telephone from Dallas to give us his valuation of the properties in this district in respect to properties located in Oklahoma and properties located in

Texas, and we were furnished that information by mail, and we did use that basis.

* * * * * * *

Q. It was upon the basis of Mr. Freese's allocation of property values in the Vernon district as between Texas and Oklahoma that you made your allocation of expenses?

A. Yes. I have been testifying in respect to the Gainesville district, but the same is true of the Vernon district.

Q. The Vernon district also extends into Oklahoma as well as being in Texas?

A. That is correct.

Q. You do not have the relative proportions of value of property as determined by Mr. Freese in connection with the Gainesville district as between Texas and Oklahoma similarly for the Vernon district?

A. I do have it at my room.

* * * * * * *

[fol. 2696] Q. Well, now, in respect of the allocations that you made of the Vernon and Gainesville districts, how did you proceed with your segregation of expenses covering Transmission System Expenses?

A. All right. We have this group of expenses, or these items of expenses: Measuring Station labor, Transmission Line supplies and expenses; these expenses were prorated on the basis of the ratio of Texas and Oklahoma Measuring Station Equipment and Measuring Station Structures; that is to say, we took the total within each State and whatever the Texas percentage was to the total, or, rather, the total to both States—whatever the Texas percentage was to both States was our percentage of those two expenses chargeable to Texas—that is, Measuring Station Labor and Transmission Line Supplies and Expenses were prorated on the basis of the percentage of such structures and equipment within Texas.

Q. Well, now, is that the total of such structures as reflected by book cost or Mr. Freese's appraisal, or what?

A. This information, I am quite sure—I would like to reserve my answer on that, because I am not quite positive whether we used present valuation figures determined by Mr. Freese or your book cost. I would rather not answer that question until I check it. It was that basis applied

either to Mr. Freese's determination of value or our book cost, and I think it is our book cost.

Q. Will you do that and advise us definitely in the morning?

[fol. 2697] A. Yes, sir, I will. I have it in my work papers. Now, the item of Maintenance of Measuring Station Structures was allocated on the basis of the ratio of the Texas Transmission Measuring Station Structures to the whole for both States. Then we have Maintenance of Measuring Station Equipment. That item of expense was prorated on the basis of the ratio of the Texas Transmission Measuring Station Equipment to the total for both States.

Q. Well, now, again, was that on the basis of the book cost or some appraisal figure given to you by Mr. Freese?

A. I am quite confident this is on our determination of book cost. However, I will verify that and answer more positively in the morning. Then we have the items of superintendence inspection labor, other Transmission Systems labor, superintendence supplies and expenses, Measuring Station supplies and expenses, inspection supplies and expenses, superintendence of maintenance, and maintenance of gas cleaners.

[fol. 2698] Q. Was that a direct expense?

A. Those are common expenses.

Q. Those are common expenses?

A. Yes, and the basis of prorating those expenses was this: After we had made all of these other prorations, and added them to the direct expense, exclusive of this group, we, of course found a total for Texas and a total for Oklahoma, and it was upon that determination that our ratio was based with respect to these last named items of expense. We made the other allocations about which I have just testified, added the amounts allocated to Texas and Oklahoma direct, and then the percentage of that new total to the over-all total was the percentage we used for the balance of these expenses.

Q. There is nothing, of course, in your Exhibit 4, which discloses this basis of allocation concerning which you are testifying?

A. Nothing in the exhibit, no sir.

Q. Well now, have you testified as to everything which finally led you to adopt a figure of $374,275.77 as representing the segregated transmission system expense for Texas properties?

A. Yes, I have.

Q. Except in so far as you have been unable to supply some details, which you say you will furnish in the morning?

A. Yes, except as to whether or not it was on the basis of book cost or the present value found by Mr. Freese.

Q. Now, in connection with the item of taxes, other than [fol. 2699] gross production and federal income taxes, did you determine those taxes according to the geographical location of the property, or did you make some proration or allocation?

A. I would say in the main those taxes were determined on the basis of geographical location.

Q. Where the tax payments were actually made?

A. That is correct.

Q. In other words, if the tax payment was made in Texas, it was charged against Texas?

A. It was Texas taxes.

Q. And conversely, if the tax payment was made in Oklahoma, it was charged against Oklahoma?

A. Charged against Oklahoma operations, yes.

Q. Now, you say that is true in the main. What are the exceptions to that?

A. There are other taxes, other than ad valorem taxes.

Q. All right, and what did you do in respect of those taxes? I believe you testified this morning in connection with a capital stock tax?

A. Capital stock tax and federal tax on checks. That was on the basis of the general expense percentage distribution. I believe all of the other taxes, as a matter of fact, were direct but I will check that right now. Auto taxes were prorated on the basis of the investment applicable to Texas, less the five and one-half per cent determined to be non-public service property.

[fol. 2700] Q. And was that the book cost of the automobiles?

A. That is correct. I believe I can safely say now, although I will confirm it, that the Gainesville district and the Vernon district probably represent the only values furnished us by Mr. Freese, to enable us to make our determinations. I will check that. Franchise tax, foreign corporation, permit fee and so forth, on a direct basis, less the percentage applicable to non-public service property, as determined by your accounting department.

Q. And in which you concur, in so far as the final applicable per cent was concerned?

A. That is correct.

Q. Now does that explain the total segregated amount, covering the Texas operations, in the amount of $754,-282.79, and which covers the item of taxes other than gross production and federal income?

A. You have given the total, I believe, for general expenses, Mr. Griffith, instead of for taxes.

Q. I have done so.

A. It does cover the total shown for taxes in the amount of $295,218.11.

Q. Which is the segregated amount covering the Texas property?

A. That is correct.

Q. And that is to be compared with the item of $355,-463.27 covering the over-all figure shown on page 1 of your Exhibit 5?

A. $355,463.27, that is correct.

[fol. 2701] Q. Now, let's go back to the general expense, for which you have segregated for the year of 1933, an amount of $754,282.79 to Texas operations?

A. Yes.

Q. I want you to give us a detailed breakdown of that segregation.

A. I will be very glad to do so. With the exception of donations and regulatory commission expense, we adopted a uniform percentage for all other items included as general expenses. The donations were all charged to the Texas operations.

Q. Well, they were all made in Texas, weren't they?

A. I considered that to be true; I could not be positive. If a donation was made to the American Red Cross, it may have been made to the Dallas unit or may have gone some other place, but I considered it Texas. It was made in Dallas.

Q. Well, that didn't amount to a great deal, anyway?

A. Not a great deal. The regulatory commission expense was allocated on the basis of direct—Texas being charged, for the year 1933, with $65,812.69, while Oklahoma was charged with only $979.70.

Q. Now, what was the total of the donations which were chargeable to Texas operations.

A. $10,671.70.

Q. Now, other than the item of donations, and your segregation of regulatory commission expense, how did you make the segregation of the general expense applicable to Texas?

A. First by applying direct expenses and by allocating [fol. 2702] common items in respect to compressor station expenses, transmission system property expense, producing expense, gathering system expense and so forth. We first determined the expenses for those operations and then applied the percentage found for Texas to the whole of such operations, and that is the basis we used for the general expenses. Actually, the percentage for Texas for 1933 was 85.74 per cent, or rather, it was 85.38, if I may correct that. That percentage of general expense exclusive of the two excepted items, is the percentage we applied to Texas.

Q. Well, if we refer to the last page in your Exhibit 4, do we find that you make allocations of quite a quantity of property on the basis of 15 per cent to Oklahoma and 85 per cent to Texas?

A. That is correct.

Q. So your percentage happens to be about the same as the property?

A. That is correct.

Q. But your percentage determination was built up from percentage determinations covering gathering expense, compressing station expense and transmission system expense?

A. That is correct.

Q. So if you made an error in any of your computations regarding the gathering system expense, compressing station expense or transmission system expense, why this would be superimposing one error upon another?

A. Well—yes, but I don't think we made an error; however, we could make one.

[fol. 2703] Q. Now, in connection with the auto and truck expense, under-distributed, how did you make the determination of the amount to be segregated for Texas operations?

A. We used the percentage figure found for general expense.

Q. In other words, approximately 85 per cent for Texas?

A. Yes.

Q. And approximately 15 per cent for Oklahoma?

A. That is correct.

Q. Is that true, after deducting five and one-half per cent of the amount, as covering non-public service operations?

A. Yes, that had only to do with the amount allocable to the public service operations.

Q. On the bad debts and adjustments, did you determine the geographical location of those bad debts, and apply them accordingly, or was it done on some percentage basis?

A. Well, in the sense that you asked the question, it was done geographically. You know, some of those debtors may be elsewhere at this time.

Q. Well, in other words, if a bad debt were incurred in Texas, it was charged to the Texas operations?

A. If it was incurred in connection with what we determined to be Texas operations, it was charged to Texas.

Q. And conversely, if it was incurred at Purcell, Oklahoma, it was charged to Oklahoma?

A. That is correct.

Q. Now, take the next item of miscellaneous non-operat-
[fol. 2704] ing expense in the amount of $192.72. I believe that was the total for the miscellaneous non-operating expense over-all, as shown by Exhibit 5?

A. That is correct.

Q. And you determined all of that to be applicable to the State of Texas?

A. Yes; $163.82 of that represented stolen meters from property within Texas.

Q. You have now explained your segregation of expenses down to the producing expenses?

A. I think that is correct.

Q. Now, how did you make the determination that, of the total of $41,408.80 of producing expenses over-all for the year 1933, $31,183.91 should be allocated to Texas operations?

A. Those expenses are carried on the books, segregated.

Q. In other words, it was not necessary to make an allocation in that respect?

A. No sir, it was not.

Q. So this particular figure is taken, then, directly from the books?

A. That is correct.

Q. And those expenses are kept by fields, are they not?

A. They are—I am positive of that.

Q. And you took the geographical location of the fields, and applied the expense shown by the books for the fields?

A. Yes, which was the same basis that they were entered on the books.

[fol. 2705] Q. Now, on the item of gross production taxes, did you take as applicable to Texas operations, only the gross production taxes payable in the State of Texas?

A. That is correct.

Q. In connection with the drilling tools expense, underdistributed, how did you make a segregation of that expense, as applicable to Texas?

A. We used the determined general expense percentage.

Q. Was that in the round figure of 85 per cent of the total?

A. That is correct.

Q. Now, in connection with the dry hole expense, determined by you on page 1 of Exhibit 5 to be over-all $18,704.52, it would appear that you have allocated $17,912.98 to Texas?

A. That is correct.

Q. To Texas operations. Now, how was that allocation made?

A. That is direct, based upon the location of the dry hole.

Q. And the place where the expense actually was incurred?

A. That is correct.

Q. Now, the cancelled and surrendered leases; were they also determined by geographical location of the lease? That is, whether they were leases which were on lands in Oklahoma or Texas, as the case may be?

A. That is correct.

Q. And upon that basis you made the segregation applicable to the Texas properties?

A. That is correct.

[fol. 2706] Q. In connection with the management fees, I believe you stated that there was a small adjustment which should be made?

A. Yes. We charged too much of the management fee to the Texas operations.

Q. And that would be offset to a certain extent by the fact that, according to your testimony, the non-operating revenues for the year 1933 are shown to be slightly in excess of what they should be as allocated to Texas?

A. That is correct.

Q. Did you in the preparation of your Exhibit 4, make a determination of what compressors at the Petrolia compressor station were used solely for the compression of Texas gas?

A. No, I did not.

Q. Did you know how many compressors are located at the Petrolia compressor station?

A. I do not.

Q. Do you know how many of those compressors are segregated solely for the compression of gas produced in the State of Texas?

A. No, I do not.

[fol. 2707] Q. Do you know what proportion of the gas transported from the State of Oklahoma to the Gainesville Compressor Station is compressed by the compressors located at the Gainesville Compressor Station?

A. No; I do not.

Q. Did you make any attempt to determine the relative amounts of Texas and Oklahoma gas which are hand-ed by that Compressor Station?

A. I did not.

Q. Then, how did you say you made your allocation of expenses of those compressor stations?

A. I will have to go back to it, I have so many calculations in here; I am not going to trust my memory. On the compressor stations in the Gainesville District, we did make that allocation on the basis of physical location of the property as furnished to us by Mr. Freese.

Q. In other words, the fact that these compressors were located in the State of Texas caused you to apply those compressors to Texas operations?

A. That is correct.

Q. And it did not make any difference whether they were handling Texas gas or Oklahoma gas?

A. No; particularly under our method of allocating gas sales.

Q. Do you know what proportion of the compressor station at the Petrolia Station, at Petrolia, Texas; is used for the handling of gas produced in the Shamrock Field and [fol. 2708] transported through Line A to Petrolia, Texas?

A. I do not.

Q. Do you know what proportion of the Compressor Station at Petrolia, Texas, is devoted to the compression of gas produced and/or purchased in the state of Oklahoma

ıd transported to Petrolia for compression through Lines
and 2nd H?
A. I do not.
Q. Under your method of allocation, it would not be
ecessary to know that?
A. That is correct.
Q. And you made no attempt to determine it?
A. No.
Q. You similarly made no attempt to determine the use
which the Gainesville Station was put, as far as the com-
ression of Texas or Oklahoma gas was concerned?
A. That is correct.
Q. Now, how did you account for the gas which was
ansported through the transmission system known as Line
and up to Caddo, Hugo, and Durant, Oklahoma?
A. We made no accounting of gas by lines. I have tried
make it clear that we started with the gas produced in the
spective states and then determined what was sold within
e respective states, and we did not make any determina-
ol. 2709] tion in respect to the lines that carried the gas.
Q. Now, of course, so far as these towns on Line A are
ncerned—that is Frederick, Tipton, Manitou, and Moun-
in Park, which are supplied by Line A, do you know
ıether they have ever at any time received any Oklahoma
ıs—that is, gas purchased and/or produced in the state
Oklahoma?
A. I don't know that they did; but we did give Oklahoma
edit for sales in those towns.
Q. Now, as far as the sales of gas by the Company at
ugo, Caddo, and Achille, Oklahoma, are concerned, did
u give any consideration in your segregation as to
ıether that gas was actually produced in the State of
exas, or whether it was produced in the state of Okla-
ma?
A. Not by towns.
Q. Did you just assume that that gas was produced in
e state of Oklahoma?
A. No; we made no assumptions. We made actual deter-
nations of production of gas; but we made no allocations
to towns as to source of supply.
Q. It was not necessary for you to know in connection
th your segregation whether the gas sold in Oklahoma
ıs produced in Oklahoma or elsewhere?
A. That is correct.

Q. For your purposes you were content with the deter-
[fol. 2710] mination of whether there was any net amount of gas left which could be transported out of Oklahoma into Texas after supplying the demands of the Oklahoma customers?

A. That is correct.

* * * * * * *

[fol. 2711] Q. Mr. Phillips, on yesterday afternoon you said that you would refer to the notes which you had in your room, and then tell us the basis of your breakdown in connection with the Vernon and Gainesville districts.

A. Yes, Mr. Griffith. In respect to the Gainesville district we have the property values as furnished to us by Mr. Freese and the percentages determined therefrom. Do you want the——

Q. What were the property values that were furnished to you by Mr. Freese, and the percentages determined therefrom?

A. For the Gainesville district—total property value, $2,961,773.60; applicable to Texas, $2,373,771.20.

[fol. 2712] Q. Now, what did you understand by the term "applicable to Texas"—that that referred to the property which was geographically located in the State of Texas and in the Gainesville district?

A. That is correct, applicable to Oklahoma, $588,002.40, the percentages being: to Texas, 80.15; to Oklahoma, 19.85. For the Vernon district the total property value furnished us by Mr. Freese was $2,465,200.69; applicable to Texas, $2,191,450.61; to Oklahoma, $273,750.08—the percentages being: to Texas, 88.90; to Oklahoma, 11.10.

Q. Then, again, those percentages are determined by the geographical location of the property in Texas and in Oklahoma, respectively?

A. That is right.

* * * * * * *

Q. Will you refer, please, to page 9-A of Plaintiffs' Ex-
[fol. 2713] hibit 4. How did you determine that compression and transmission expense on net gas sold in Texas, neglecting line loss?

* * * * * * *

A. We made a determination of the unit price per thousand cubic feet of over-all compression and transmsission expenses within the State of Texas, and we applied the percentage determined to the gas that we credited to Oklahoma.

Q. Well, now, in the last analysis, your over-all compression and transmission expense was an allocation or segregation, was it not?

A. In some respects it was, as testified to.

Q. Well, then, if that was an allocation or a segregation, how did you arrive at the figures which you use on 9-A of Exhibit 4?

* * * * * * *

A. Well, we made a determination on the basis of allocation to find these expenses for transmission and compres-
[fol. 2714] sion station operation, and we simply took that unit or that total sum determined, and then applied the total of expenses to the gas transported, to find the unit for transportation expense.

Q. And you finally determined that the net compression and transmission expense on the net Oklahoma gas sold in Texas was $3,305.16?

A. That is right.

Q. Now, do you know where Line H and Line Second H are located?

A. I wouldn't say that I do.

Q. Do you know where Line G is located?

A. No, I wouldn't say that I know where it is located.

Q. Do you know how many miles of mainline pipe there are between Gainesville and Red River on Line G?

A. No, I don't know.

Q. You don't know how many miles there are between the Petrolia Compressor Station and Red River on Line H and Second H?

A. I do not.

Q. You made no attempt to allocate that expense in connection with miles of pipe that were used for the transportation of this Oklahoma gas into Texas?

A. I did not.

Q. Refer, please, again to page 9-A of your Exhibit 4.
[fol. 2715] A. Yes, Mr. Griffith.

Q. Do you know that the net gas sold in Texas, neglecting line loss and referring to Oklahoma gas, was 132,381,000 feet?

A. One hundred and thirty-two million, three hundred and eighty-one thousand cubic feet.

Q. Isn't it the same thing?

A. Yes.

Q. Now, in order to arrive at that figure, you had deducted from the Oklahoma gas produced and/or purchased, 171,168,000 cubic feet, covering Oklahoma sales off of Line A, did you not?

A. Is that shown in this exhibit?

Q. No, it isn't, but I am asking you if you didn't do that?

A. I explained yesterday, Mr. Griffith, how we determined this sum. Now, I don't have in mind the figures you have asked me about, but I will be very glad, if you want me to, to again testify as to our determination of our figure.

Q. No, I merely want to show——

A. Well, I don't have those figures in mind.

Q. Well, do you have your working papers with you to which to make reference?

A. I wouldn't know where to look for that figure at all. [fol. 2716] Q. I see. So you don't know whether the figure of 171,168,000 cubic feet would represent the sales in Oklahoma off of Line A of gas produced in the Panhandle territory?

A. No, I don't know.

Mr. Fitzhugh: You are talking now about 1933?

Mr. Griffith: Referring to the year 1933.

Q. Well, if as a matter of fact, there were sales off of Line A in Oklahoma of gas produced in the Shamrock territory of 171,168,000 cubic feet for 1933, and you had treated that gas as Texas-produced gas, then it would have been added to your figure of 132,381,000 on page 9-A of your exhibit, would it not?

A. Well, I don't follow that question, Mr. Griffith, at all.

Q. Well, look at this map, Mr. Phillips—that is Defendant's Exhibit 29. You know where the gas comes from that in the ordinary course of business is sold to Davidson, Frederick, Tipton, Manitou, Snyder, Mountain Park, and Hollis, Oklahoma?

A. Yes, it comes off the line that we have been discussing.

Q. Which comes off of Line A, does it not?

A. Yes.

Q. And the gas ordinarily sold at the city gates of those [fol. 2717] towns is gas which is produced in Wheeler County, Texas?

A. That is right.

Q. But, notwithstanding that fact, in making your determination of the net amount of Oklahoma gas produced and/or purchased and transported into Texas, you took out the amount of gas—whatever it amounted to in volume—covering sales for Hollis, Davidson, Tipton, Frederick, Manitou, Snyder, and Mountain Park, did you not?

A. No, sir, I didn't. I considered all gas sold at those within Oklahoma as Oklahoma sales.

Q. Well, let's get at it in another way. Take the year 1933—what was the amount of gas, in volume, produced and/or purchased by the Company in the State of Oklahoma in 1933?

A. Produced or purchased?

Q. Both.

A. In 1933—gas purchased, 1,076,562 cubic feet; produced, including royalty purchased, 613,780,000 cubic feet.

Q. Giving what grand total amount?

A. There is an adjustment, for the net storage, of 422,567,000 cubic feet, giving a net total of 1,267,775 cubic feet.

Q. Now, can you give me the sales off of Line H or [fol. 2718] Second H?

A. Mr. Griffith, as I testified yesterday, we did not account for sales by line; we simply took the total produced or purchased gas in the State of Oklahoma and took the total sales within the State of Oklahoma.

Q. And that was regardless of the source or origin of the gas supply?

A. Yes, sir.

* * * * * * *

Q. Now, take the year 1933 as reflected by your summary on page 1 of Plaintiffs' Exhibit 4.

A. Yes, Mr. Griffith.

Q. You show in your comparative statement of earnings that for the year 1933 there was available for net earnings before providing for depreciation, depletion and Federal Income Taxes, $4,185,327.48.

A. That is right.

Q. Now, Mr. Phillips, you testified on yesterday that that is based upon what you deem to be a proper segregation of the revenues and expenses applicable to Texas.

A. That is right.

Q. And, of course, it is based upon the actual revenues [fol. 2719] collected by the Company, in so far as the 40-cent city gate rate for domestic gas is concerned?

A. That is right.

Q. Now, how much in thousands of feet or millions of feet or billions of feet was the volume of domestic gas sold which is included in your gas sales figure for 1933 of $7,387,118.42?

A. You want to know the volume of gas that is included?

Q. Domestic gas.

A. For 1933?

Q. Yes, sir, which you allocate to Texas operations.

A. We show for the year 1933, 13,380,727 cubic feet of domestic gas allocated to Texas sales, for the year 1933.

[fol. 2720] Q. Now, the Railroad Commission of Texas in its opinion and order which is in evidence here attempted to reduce that 40-cent rate to 32 cents per thousand cubic feet, did it not?

A. It did.

Q. The difference between the 32 cents and the 40 cents is 8 cents?

A. That is right.

Q. Will you apply that eight cents to the volume of domestic gas that you have segregated in connection with the Texas operations for the year 1933?

A. You want me to make that calculation?

Q. If you please. Do you have some paper there on which to make it?

A. I do have, yes. (Witness figures.) I compute it to be $1,477,423.68.

Q. Now, would that be a deduction from the net earnings which you show for the year, before providing for depreciation, depletion and Federal income tax?

A. Yes; if a rate of 32 cents had been applied instead of 40 cents collected, the revenues would have been decreased by that sum.

Q. Will you therefore make the deduction of the amount you have just computed from the figure of $4,185,327.48 ap-

pearing under the column "12-31-1933" on page 1 of your Exhibit No. 4?

[fol. 2721] A. Making the deduction we have a figure of $2,707,903.80.

Q. Now, will you refer to the last shee- in your exhibit, page 11?

A. I have it.

Q. You determined there that there should be segregated in connection with the Texas properties and operations $44,-053,612.30?

A. That is correct.

Q. Will you please give me the per cent relation of the figure of $2,707,000.00, which you have just determined to your property segregated in connection with Texas operations?

A. You want the percentage that last sum I read into the record is to that figure for property?

Q. That is correct. Just a round percentage will be satisfactory.

A. I don't know that I would like to give a round per cent. It would be something less than six per cent, I believe.

Q. It is so much less that I would like for you to further refine your answer.

A. I think I am in error. I don't believe it is less. The property value that we have used is substantially forty-four million dollars. Well, six per cent of forty-four million dollars would be $2,660,000, and the figure we found is $2,707,000.

Q. You are correct, and approximately within what percentage?

A. Slightly in excess of six per cent.

[fol. 2722] Q. And if we deduct two per cent for depreciation as allowed by the Railroad Commission in its opinion and order, it would be somewhat less than four per cent for net return, would it not?

A. Using a two per cent?

Q. Yes.

A. Slightly more than four per cent.

Q. And that would be without making provision for Federal income taxes?

A. That is right.

Q. In other words, your figure of slightly in excess of six

per cent is before making provision for Federal income taxes, depreciation, depletion,——

A. That is right.

Q. —and amortization?

A. That is right.

Q. Now, on yesterday, Mr. Phillips, I understood you to say that you made allocations in connection with the compressor station expenses. How are these compressor station expenses carried on the books of the Company.

A. You are asking whether or not they were segregated as between Texas and Oklahoma on the Company's books.

Q. No; how do they appear on the Company's books? Do they appear as a common expense?

A. I will have to refer to the sheets. I testified yesterday as to just how they do appear. Some of these expenses [fol. 2723] carried on the books under the designation of Compressor Station Expenses are carried separately as between Texas and Oklahoma. Some of the expenses are carr-ed as common expenses. As a matter of fact, $346,306.81—that is for 1934; let me give you 1933.

Q. We have been using 1933 all along, and I would like to have the 1933.

A. For 1933, the total expenses designated Compressor Station Expenses on the books of the Company is $338,-433.01. All but $16,368.38 are carried separately on the books of the Company as between Texas and Oklahoma.

Q. In other words, they were direct expenses, were they not?

A. That is correct.

Q. That is, out of this total of $338,433.01, $322,064.63 were direct expenses?

A. That is correct.

Q. And there only remains the $16,368.38 to prorate?

A. That is correct.

Q. Now, do I understand that you took the Compressor Station Expense, in so far as it was a direct expense and applied it to Texas or Oklahoma, as the case might be?

A. I did.

Q. How did you prorate the $16,368.38, which was common expense?

A. As testified to yesterday, this expense was prorated on the basis of Direct—that we took the percentage shown [fol. 2724] on your books as being Direct Compressor Sta-

tion Expense for Texas. We took the percentage of that to the total Compressor Station Expense Direct, and found our percentage and applied it to the common expense, with the exception of Repairs to Buildings, which was prorated on the basis of book cost of such buildings.

Q. Will you refer to page 9-a of Plaintiff's Exhibit 4 again?

A. Yes, sir.

Q. You have previously testified, as I understand it, Mr. Phillips, that for the net amount of Oklahoma gas produced and/or purchased and transported into Oklahoma, you gave it credit at the rate of 24.87 cents per thousand cubic feet?

A. That is correct.

Q. That figure appears on page 9-a of your Exhibit 4?

A. It does.

Q. Now, that is the average as determined by you of all gas sales in the State of Texas?

A. Yes; that is right.

Q. What are the three largest industrial customers of the Company?

A. I am not prepared to answer that.

Q. You don't have that any place in your working papers?

A. No, sir; I did not feel that it was necessary to my calculations.

Q. Did you ever hear about the West Texas Utilities Company Power Plant that receives gas from the Company near Quanah, Texas?

[fol. 2725] A. I have heard about it.

Q. Do you recall that it is one of the large industrial customers of the Company?

A. I don't recall that, because I never made any examination with reference to gas to individual consumers.

Q. You have no knowledge of the large industrial customers?

A. I do not.

Q. I will endeavor to refresh your memory, and I think I can. Do you recall that there is a large industrial customer coming off Line A in the state of Texas near Quanah?

A. I wouldn't say that I do.

Q. You wouldn't say that you do. You have no knowledge of it?

A. Not of industrial consumers. We did not concern ourselves with that calculation.

Q. If there is a large industrial customer at Quanah, in the ordinary course of business, would it be your understanding that that customer would be supplied with gas which would be produced and/or purchased in the Wheeler County Field?

A. That would be my assumption.

Q. Did you ever hear of the Oil Belt Power Company plant, or the Texas Public Utilities Company plant, near Eastland, Texas?

[fol. 2726] A. Yes.

Q. You know that is one of the large industrial customers of the Company?

A. I am willing to assume that, although I have no knowledge of how much they consume.

Q. Do you recall the net capital additions in connection with the acquisition of the so-called T. P. U. property?

A. I do.

Q. Do you not now recall, as a consequence, that the Company procured a large industrial contract in that area?

A. I understand they did get a contract.

Q. Did you ever hear of the Atlas Portland Cement Company at Waco?

A. Yes.

Q. Is that a large industrial customer of the Company?

A. I would think it is.

Q. In the ordinary course of business, would it be your understanding that any of the gas purchased and/or produced in the State of Oklahoma would reach these three plants I have mentioned—that is the West Texas Public Utilities Plant near Quanah, the Oil Belt Power Company Plant or the Texas Public Utilities Plant near Eastland, Texas, or the Atlas Portland Cement Company plant near Waco?

[fol. 2727] A. In my opinion, those plants would not use Oklahoma gas.

Q. Of course, the sales of gas to those plants entered into your determination of the average selling price of gas in Texas?

A. That is true.

Q. Now, what was the total volume of gas which you determined was sold within the State of Texas as reflected by your exhibits?

A. Both domestic and industrial?

Q. Yes.

A. For the year 1933, 29,703,000 thousand cubic feet.

Q. How much of that was industrial and how much domestic?

A. Domestic, 13,380,727 thousand cubic feet.

Q. Where is that shown in your Exhibit 4?

A. On page 1-a. Do you want the industrial?

Q. If you please?

A. 16,322,273 thousand cubic feet.

Q. Do you have the average selling price of industrial gas there?

A. $.1243.

[fol. 2728] Q. Now, do you know what the average selling price was for the gas sold to those several large industrial customers of the company in Texas receiving gas purchased and/or produced in Oklahoma?

A. I do not.

Q. Do you know how that would affect your selling price as determined for the credit on net Oklahoma gas transported into Texas?

A. Of course, it would affect the selling price, Mr. Griffith, but in making those applications to Oklahoma on a sales basis there were a lot of factors that entered into our conclusions, so we thought we had been more than fair with the Oklahoma operations in view of all these other elements that entered into the picture by allowing to Oklahoma the average selling price.

Q. Well, if as a matter of fact you had eliminated the sales of gas to those three large industrial plants which I have mentioned, do you know that the average selling price in Texas would have been 27.6 cents instead of 24.87 cents as determined by you?

A. No, I don't know that. I could not know that without I had that data before me.

Q. Would you be surprised to know that that is a fact?

A. No, sir; I would not be surprised.

Q. You are unable to confirm or deny it?

A. I am unable to confirm or deny it. Of course, I could [fol. 2729] determine it by an inspection of the records.

Q. But you don't have the data here in Austin to do that?

A. I have not.

Q. You could not confer with any of your associates and give me that information?

A. I am quite confident I could not, because we undertook our determinations along a different line.

Q. If the average selling price of gas in Texas for the year 1933, exclusive of the three large industrial customers that I have mentioned, were actually 27.6 cents per thousand cubic feet, that would be a figure which would be approximately eleven per cent in excess of the average selling price of 24.87 cents as adopted by you as shown on page 9-A of Plaintiff's Exhibit 4?

A. That is correct, but had we found the average selling price much higher than we did find we would have felt that the amount to Oklahoma would have been so disproportionately large that we would have had to make other calculations.

Q. In other words, that would have thrown your calculations clear out of gear?

A. Yes; we would have known we were giving Oklahoma entirely too much.

Q. Well, now, let's see what Oklahoma is given on your segregation. What do you show as the total of the company property December 31, 1933?

A. The total property account?

[fol. 2730] Q. Yes. Look at page 22 of your Exhibit 5.

A. You mean Exhibit 5?

Q. Yes, Exhibit 5.

A. Page 22 of Exhibit 5, Gas Sales?

Q. Page 22.

A. Page 22?

Q. Yes, sir.

A. We show the total property, book cost—adjusted book cost, $50,283,644.65.

Q. Now, if you will look at page 11 of Exhibit 4.

A. All right.

Q. What do you show to be segregated out of that book cost in connection with the Texas properties?

A. $44,053,612.30.

Q. Would that give a balance applicable to the Oklahoma property and operations?

A. It would.

Q. In what amount?

A. $6,230,632.35.

Q. Now, the Railroad Commission of Texas in its opinion and order determined that approximately two per cent was

sufficient for depreciation and depletion and that six per cent was proper for return, did they not?

A. I believe they did.

Q. Now, if we take a combination of the two, eight per cent, on the Oklahoma property that is segregated, do we get a figure in the amount of $498,402.59?

[fol. 2731] A. That is correct.

Q. Now, what were the operating expenses in connection with the Oklahoma operations as determined by your exhibit?

A. I will have to refer to my working papers. I am confident these figures are right, but if I am going to testify to them I had better refer to my work sheets. I have the utmost faith in the figures. I am going to have to make some calculations.

Q. In order to save your time, Mr. Phillips, I will ask you if I have shown you a sheet which tabulates those calculations?

A. You have. The total expenses are $395,777.22.

Q. Then, in connection with your Exhibit 4, you make an adjustment of gas sales for the Oklahoma gas sold in Texas in the amount of $29,617.92?

A. That is right.

Q. So the net operating expenses would be $366,159.30, would they not?

A. That is right.

Q. And that, added to your pre-determined amount of $498,402.59, would give a total requirement for the Oklahoma operating expenses, depreciation and return in the amount of $864,561.89?

A. That is right, figuring the return at six per cent and depreciation at two.

[fol. 2732] Q. Well, I said "pre-determined". I mean in the manner concerning which you have testified.

A. Yes, that is right, but I wanted to be positive about my answer.

Q. Now, what were the sales of industrial gas in Oklahoma for the year 1933?

A. I don't know. I believe I have that figure, too, though we made no exhibit setting forth the Oklahoma operations on the whole. I may have that figure here.

Q. I believed you testified to it on yesterday.

A. You want me to testify concerning the domestic or the industrial sales?

Q. Industrial sales.

A. 571,288,000 cubic feet.

Q. Giving what amount of money?—was it not $76,915.92?

A. Well, I would have to figure on this.

Q. Didn't you testify to that figure yesterday, Mr. Phillips?

A. I am confident that I did, and I will refer to this control sheet and give it to you again. What was the figure?

Q. $76,915.92.

A. I don't believe I testified to that figure, Mr. Griffith, because that would be a breakdown of Oklahoma sales, and I don't remember having testified to it in the record.

Q. Well, you could make the calculation, could you not, since you have previously testified as to the volume of Oklahoma sales?

[fol. 2733] A. Well, I can give you the over-all Oklahoma sales, both industrial and domestic.

Q. Now, didn't you testify as to the breakdown between the two yesterday?

A. I don't remember, Mr. Griffith. I would be glad to be cited to my testimony.

Q. Well, frankly, I am unable to identify it by the page of the record transcript.

A. Well, I am confident I did not testify in respect to sales of industrial gas in dollars and cents.

Q. Well, on the basis of five hundred million, approximately of industrial sales in Oklahoma, $76,915.92, representing the money value of the industrial sales, would not seem out of line, would it?

A. It would not seem out of line, no.

Q. It would seem approximately correct, in any event?

A. Well, I would have to know the breakdown in industrial sales, with the price paid by industrial consumers, in order to get the exact calculation.

Q. Now, yesterday, in explaining compression and transmission expense, I believe you said that $3,022.52 of the total was allocated to Oklahoma?

A. I believe I did give some figure near that, at any rate.

Q. Now, if we add that figure of $3,022.52 to the amount which you said is approximately correct, $76,915.92, we get a total of $79,938.44?

A. That seems right.

[fol. 2734] Q. And if we deduct that from the total requirements for depreciation, depletion, operating expenses and return we have to get an amount, which must be secured from domestic sales, of $784,623.47?

A. That is correct.

Q. Now, what were the domestic sales of the company in Oklahoma in 1933?

A. In dollars and cents or volume?

Q. In volume.

* * * * * * *

A. 564,106,000 cubic feet.

Q. We have, therefore, to get for return, depreciation, depletion and operating expenses on the Oklahoma property a figure of $784,623.47, and we have a volume of sales of 564,106,000 cubic feet. To get that revenue, what will be the domestic gate rate in Oklahoma per thousand feet—cubic feet of gas delivered at the city gates of all the Oklahoma towns and cities?

* * * * * * *

[fol. 2735] A. That is substantially correct; without doubt it is as near to the even cents as could be determined.

Q. What is substantially correct? What is the necessary domestic gate rate for the Lone Star Gas Company to receive, based upon your segregation in connection with its city gate sales in the State of Oklahoma?

A. And based upon the assumption of the six per cent return and two per cent depreciation rate, as calculated in the figures you have figured here, it would be $1.39.

Q. $1.39 per thousand cubic feet for gas delivered at the city gates of all Oklahoma towns and cities?

A. That's right.

Q. That is as contrasted with the forty cent price actually received?

A. That is right.

Q. Now, will you agree in principle, Mr. Phillips, that from some source or other the company is entitled to earn a fair rate of return upon all of its property?

A. Yes, I agree with that principle.

Q. There may be some doubt as to where it ought to come from but you think it is fair that the company should earn a fair rate of return upon all of its property?

A. Yes, I think any investor is entitled to that.

Q. Now, what do you show as the net amount expressed in volume of the Oklahoma gas produced and/or purchased, which is transported into Texas and sold in Texas? If you refer to page 9-a of Exhibit 4, I think you have it.

[fol. 2736] A. Yes, I have it. I show the net gas produced or purchased in Oklahoma, sold in Texas, neglecting line loss, for the calendar year 1933, to be 132,381,000 cubic feet.

Q. In other words, 132,381,000 cubic feet?

A. That is correct; my answer was 132,381 thousand cubic feet.

Q. Now, let's assume that the regulatory authorities in the State of Oklahoma would not permit the Lone Star Gas Company to charge $1.39 per thousand cubic feet for city gate sales to cities and towns in the State of Oklahoma; if that were true then the company must have some other recourse if it is going to earn a rate of return upon that Oklahoma property?

A. That is true, but I assume you have the same remedy in Oklahoma that you have in Texas.

Q. Now, you previously made a computation to show that in order for the company to obtain two per cent for depreciation and six per cent for return upon the Oklahoma property, as segregated by you, it would be necessary to have $498,402.59. Is that correct?

A. I believe that is the correct figure.

Q. Now, you have shown the net earnings for the entire system of the company for the year 1933; that is, the net earnings before providing for depreciation, depletion and federal income tax, to be $4,123,796.36?

A. For 1933? Yes, I show the total for all operations to be $4,123,796.36.

[fol. 2737] Q. You show the net earnings for the Texas property, on page 1 of your Exhibit 4, to be $4,185,327.48?

A. That's right.

Q. Therefore, the deficit from Oklahoma operations, in the manner that you have made your segregation, is $61,531.12?

A. $61,531.12.

Q. So if we are going to earn an over-all return on the Oklahoma property, after providing for depreciation and depletion, we will have to add the amount of $61,531.12 to

the $498,402.59, which is eight per cent upon the Oklahoma property, as segregated by you?

A. That is right.

Q. That would give you a total of $559,933.71?

A. That is right.

Q. The total amount that would be necessary to be earned upon the Oklahoma properties?

A. The total to be earned if you would have a six per cent return and two per cent depreciation.

Q. And that would be before providing for federal income taxes?

A. It would.

Q. Now, the net gas delivered from Oklahoma into Texas, as shown on page 9-A of your Exhibit 4, is 132,381,000 cubic feet, as you previously testified?

A. That is correct.

Q. Will you divide $559,933.71, which is the amount necessary to be earned to provide for two per cent for depreciation and six per cent for return upon your segregation of [fol. 2738] the Oklahoma properties, by the net volume of gas delivered from Oklahoma into Texas?

A. If you have many of these requests, Mr. Griffith, I will appreciate it if you will give them to me and let me work them out in the noon hour.

Q. This is the last request I have.

A. Now, you want me to divide this 132,381,000 cubic feet into what?

Q. Into the amount necessary to be earned upon your segregation of the Oklahoma properties, to give two per cent for depreciation and six per cent for return, in the amount of $559,933.71.

* * * * * * *

[fol. 2739] A. Well, I am going to assume this figure you have here is approximately correct.

Q. It is approximately correct, isn't it? That if the Lone Star Gas Company was to have two per cent for depreciation and depletion and six per cent for return upon the Oklahoma property as segregated by you, and if that earning was to be obtained through the net deliveries of gas from Oklahoma into the State of Texas, that gas would have to be sold at a price at the city gate in Texas of $4.23 per one thousand cubic feet?

A. That is under the assumption that you are going to sell your produced and purchased gas in Oklahoma at the prevailing city gate rates, and the rest that you send down into Texas, you would expect to get all of your return, depreciation and operating expenses out of. That is true on that assumption.

Q. And if we reverse the assumption, and expect to get it out of Oklahoma, we will have to get $1.39 at the city gate in Oklahoma?

A. That is right.

* * * * * * *

Redirect examination.

Questions by Mr. Fitzhugh:

Q. Now, Mr. Phillips, Mr. Griffith has called to your at-
[fol. 2740] tention Line A, the line that comes from Wheeler County, the Shamrock field, through a corner of Oklahoma, and down to the Petrolia plant?

A. Yes.

Q. Hollis, Oklahoma, takes gas off of that line, does it not?

A. It does.

Q. Now, in figuring your allocation as between the Oklahoma and the Texas properties, you have credited at Hollis the Oklahoma sales with the full price of gas obtained at Hollis, have you not?

A. I have.

Q. Now, have you credited as against Oklahoma for any charges of carrying the gas from Wheeler County to Hollis?

A. I have not.

Q. All that is charged against the Texas properties, is it not?

A. It is.

Q. In so far as the Oklahoma operations are concerned at Hollis, all the Hollis gas gets a free ride from Wheeler County, does it not?

A. It does.

Q. Now then, coming on down here to where the Line A-1 six inch leaves the A line at Oklaunion, transporting gas which originally comes from the Wheeler county field, and delivering gas to the towns of Manitou, Tipton, Snyder, Mountain Park and Frederick, Oklahoma, your allocation assumes, does it not, for credits to the Oklahoma operations,

that the gas is sold as if it were metered at Oklaunion, and [fol. 2741] there credited with the price actually gotten for that gas when sold at Oklahoma?

A. That is right; all the gas sold off that line within Oklahoma is credited at the full sales price received for it, and is credited to Oklahoma.

Q. And all this gas, in just the same way as the gas sold at Oklahoma, so far as the credits to the Oklahoma operations are concerned, gets a free ride all the way down there?

A. It does, to the river.

Q. You do not deduct anything on account of transportation charges from those Oklahoma credits, do you?

A. I do not.

Q. Now, coming on down here to where Lines H and Second H join Line A and Line B and Line Second B at Petrolia; Line H and Second H bring gas from Oklahoma into Texas, do they not?

A. I think so, yes.

Q. You were asked yesterday if you knew which of the compressor units at the Petrolia compressor station were used to compress Texas gas, and which were used to compress Oklahoma gas?

A. I was.

Q. And I believe you answered that you didn't know?

A. That's right.

Q. Now, using the method you have used, Mr. Phillips, did it make a bit of difference?

A. Not a bit, because we charged all the expenses to Texas, except for that small proration.

[fol. 2742] Q. And all the expenses for sending this gas through the line were charged to Texas?

A. That is right.

Q. And not one penny of the compression costs were taken away from the Texas operations, were they?

A. Not except for the allocation of the small amount for charges coming on down to these other points.

Q. All right, sir. Now then, coming over here to Line G, which brings gas from Oklahoma into the State of Texas, and to the compressor station at Gainesville, the same sort of a condition obtains, does it not?

A. Yes, the gas is coming into Texas from Oklahoma.

Q. And how are the costs of compression at the Gainesville compressing station charged as between the Oklahoma operations and Texas operations?

A. They are first treated as entirely Texas charges, and then a proration is made for the haul from the River to Gainesville.

Q. Now, some of this Oklahoma gas goes through Line E from Gainesville over to the E-5 six inch, where it is transported into Oklahoma, and serves the towns of Achille, Durant, Caddo and perhaps another or so. Now, all of that gas, in the same way as the gas at Hollis, and the gas sold through the A-1 six inch, gets a free ride to the point where it goes into Oklahoma does it not?

A. That's right.

Q. And all those costs are charged against the Texas [fol. 2743] operations, are they not?

A. That's right.

Q. That is, the charges of that transportation?

A. That is right.

Q. And in the same way, the gas that goes through the E-16 eight inch to supply the town of Hugo gets a free ride so far as Texas transportation is concerned?

A. It does.

Q. Now then, nowhere have you in your method of allocation, Mr. Phillips, ever charged against this gas that goes into Oklahoma, the depreciation, maintenance or any other cost connected with the transportation?

A. I have not.

Q. Now, the lines B and Second B, and Lines F and C or any of the other lines that participate in any way in the transportation of Oklahoma gas to points where it may be used in Texas—all the maintenance and depreciation and the costs of keeping up those lines and their operation are charged as against the Texas operations, are they not?

A. That's right.

Q. Now then, Mr. Griffith called your attention a few moments ago to some industrial plants, which he says are large industrial plants, using only Texas gas?

A. That is right.

[fol. 2744] Mr. Griffith: Texas produced gas.

Mr. Fitzhugh: Texas produced gas.

Q. Now, he asked you to make some computations based on some figures he gave you that showed that if those industrial consumers had been excluded, a higher average price for industrial gas would have been obtained. Now, I

will ask you, Mr. Phillips, if the domestic consumers served in the same area and with Texas produced gas, had also been excluded, isn't it entirely possible that the average over-all would have come out just about the same?

A. Well, it is certainly possible. I wouldn't say that it is or is not true; it would depend upon the volumes. It certainly is a possibility, depending upon the volumes of domestic and industrial gas.

Q. Well, you know, do you not, Mr. Phillips, that the biggest sales—the largest industrial consumers are located around Fort Worth and Dallas?

A. No, Mr. Fitzhugh, I am not familiar with the history of the industrial consumers. I don't feel like I am in position to testify in respect to them.

Q. So without making those computations, you couldn't tell exactly how the average would work out?

A. That is right.

Q. Now, in no case where you have accepted the figures [fol. 2745] given you by Mr. Griffith are you attempting to say that those figures are correct, are you?

A. No, I am just confirming the calculations as suggested by Mr. Griffith.

Q. And assuming that his figures are correct, the final result would probably be right?

A. The figures given to me by Mr. Griffith, applying his calculation method, were correct.

Q. Now, where Mr. Griffith asked you to make a figure, assuming a 32-cent price, you did not intend to say that if the 32-cent price had actually been used during the year 1932, that the revenues would have been——

A. 1933?

Q. In 1933, that the rate of return or the total net revenues would have come out as computed?

A. No, I make no assumption or statement in respect to that. I merely make the calculation of the rate applied to the gas consumed for that period.

Q. There are a lot of things, are there not, Mr. Phillips, that could come into consideration if a 32-cent rate had actually been applied, such as increased consumption and that sort of thing?

A. Yes, it is very likely that a different rate might result in different volumes.

Q. What was that proposition Mr. Griffith had you work [fol. 2746] out about the price of gas at the city gate in

Oklahoma? What did that finally come out, one-seventy something, wasn't it?

A. I believe it figured $1.39.

* * * * * * *

Q. Now, for the purpose of getting that $1.39 city gate rate, Mr. Griffith asked you to assume six per cent for return and two per cent for depreciation in Oklahoma, did he not?

A. That is right.

Q. In other words, if the rate had been set over-all for [fol. 2747] the whole System and a segregation then made as between Texas and Oklahoma, and the 32-cent rate adopted, there would be $1.07 difference between the city gate rates in the two towns?

A. The two States.

Q. I mean the two States.

A. That is right.

Q. Now, under the Railroad Commission's order, assuming that a rate was being set over-all, who would pay that $1.07 difference in Oklahoma?

A. Well, under the conditions assumed here, the burden would fall on the Texas operations.

Q. In other words, by assuming the conditions of the Company in both States, and considering the proposition as a unified property, a decided advantage was given to the Company in favor of its losing Oklahoma operations, isn't that true?

A. That is right.

Q. In other words, the Company, in its Oklahoma operations, is not showing such good profit, assuming the conditions Mr. Griffith assumed?

A. That is right.

Mr. Griffith: You mean based on your segregation, Mr. Phillips?

[fol. 2748] A. Based on my segregations, and Mr. Griffith's assumptions.

Q. Yes, sir. Can you conceive, Mr. Phillips, of any other method of making a segregation as between Texas and Oklahoma that would be any fairer than the one you have made?

A. I can not. I, with the utmost sincerity, and based upon what I believe to be a sound knowledge of accounting,

I can not believe that any fairer method—and by "fairer" I mean fair to the Company—could have been adopted. I would go further than that, and say maybe a more accurate method could have been adopted, but it would have taken a long time, and it would have been less advantageous to the company.

Q. In every instance, where there was some doubt as to whether credits should be made to Texas operations or Oklahoma operations, you have decided as against the Texas operations, have you not?

A. I certainly have.

* * * * * * *

[fol. 2749] Examination by Mr. Fitzhugh.

Q. Mr. Phillips, referring to your pages 24 and 25 of Exhibit No. 5,—have you made a calculation to get the per cent of the non-public service property, by years?

A. I have made a limited test, and by "limited" I mean this,—I have taken the figures shown on pages 24 and 25 of Plaintiffs' exhibit numbered 5, and shown in the first column as being public and non-public service property cumulative book cost, and from that figure, for the years 1931, 1932, and 1933, I have deducted the public service property cost computed by Mr. Hulcy, the figure for 1931; the figure for 1932 representing the Company public service property cost was submitted by Mr. Hulcy in his examination before the Railroad Commission; for the year 1933 I have used Mr. Hulcy's figure for public service property submitted in this trial. Now, I have a further calculation that shows——

Q. Wait. Now, did you get the percentages?

A. Yes, I have the dollars and cents and the percentages, too, but I hadn't read them; I want to go ahead and complete my statement in respect to what I had been able to [fol. 2750] accomplish. Now, beginning with the period that ended December 31, 1915, our pages 24 and 25 in Plaintiffs' Exhibit numbered 5, have periods identical with periods that Mr. Hulcy adopted in submitting at the hearing before the Railroad Commission of Texas a statement showing public service property for the period beginning with December 31, 1910, down through 1931. That information was submitted by Mr. Hulcy to show the public service property per the books, and if we deduct that figure, or the

figures for the respective years, from the figures shown in our exhibit—Plaintiffs' Exhibit 5, pages 24 and 25, we will then find what we can reasonable consider non-public service property. I have that data worked out in respect to amounts and percentages.

Q. Now, will you read the percentages, by years, for the non-public service property?

The Court: Is that the percentages of the cost of the property—historical property cost, or earnings, or what?

The Witness: The percentage of cost.

The Court: Per cent?

The Witness: Percentage of the non-public service property so determined, to the cost of all the property shown [fol. 2751] in our exhibit.

The Court: Book values or historical?

The Witness: Book costs.

The Court: Book costs. Go ahead.

A. For the year 1931, where I use "total"—if there be no objection, I would like to have it understood that I refer to the figure in our exhibit; it will simplify reading these figures. For the year 1931, total $50,499,794.32; shown in Mr. Hulcy's exhibit as being public service property $47,776,749.63, leaving for designated non-public service property $2,723,044.69; expressed in percentage, 94.61 public service property, 5.39 non-public service property. For the year 1932, total $52,692,574.45, amount sponsored by Mr. Hulcy as being public service property $50,034,431.70; designated non-public service property $2,658,142.75; expressed in percentage, to public service property, 94.96, non-public service property 5.04. For the year 1923——

Mr. Griffith: 1933, I think you mean.

The Witness: 1933, thank you.

A. For the year 1933, $50,482,002.78; sponsored by Mr. [fol. 2752] Hulcy as being public service property $49,837,026,06, or for non-public service property so designated, $644,996.72; expressed in percentage, public service property 98.72, non-public service property, 1.28. That has to do with the property for those three periods. Now, we have a similar comparison beginning with the period December 31, 1915, and coming on down to the point here. Shall I read that into the record?

Q. Well, about how does that average up?

A. If I may, I will first read the percentages. I think that probably gives the best picture. Beginning with the year 1915, and coming right on down—I will not repeat these dates—.01 per cent—non-public service property I refer to when I use percentage. .01; 1.44; 3.37; 3.46; 4.83; 6.57; 6.97; 7.46; 8.28; 6.87; 7.17; 7184; 15.96; 13.91; 6.05; 5.39; 5.04; 1.28. For the arithmetical average for public service over the entire period, 94.11, non-public service 5.88. I believe I can offer some explanation for the gradual increase in the non-public service percentages, which show a decided decrease from the year 1929. About that time, I believe it was, that the Company separately incorporated its gasoline plant operations, and took them out of this group [fol. 2753] of public service property. That is my understanding, that about that time that happened. Now, we have this further data for the years 1933, 1932, and 1931. We show the total earnings as reflected by our exhibits and as reflected over-all for the Company, after giving due consideration to interest and other items and putting them on a comparable basis. Thereby we have determined the sums applicable to the non-public service property and to the public service property in respect to earnings. If it should be desired that I read them into the record——

Q. Go ahead and read those earnings.

A. For the year 1933, total earnings $4,181,183.98; the per cent 8.28 to property public service $4,123,796.36; the percentage 8.27 to property non-public service $57,387.62; the per cent to property 8.90. For the year 1932, total, $5,082,916.35; per cent to property 9.65; allocable to public service $5,010,476.49; percentage to property 10.01; allocable to non-public service property $72,439.86; the per cent to property 2.73. For the year 1931, total $4,966,926.90; per cent to property 9.84; public service operations $4,909,-171.13; per cent to property 10.28; non-public service $57,-755.77; per cent to property 2.12.

[fols. 2754-2765] Q. Do you have it for any other years prior to 1931?

A. Mr. Griffith, I do not have. I did not have the data. You see on the earnings we had to be very careful, and we do not have in these back years a breakdown of your earnings.

Q. At the time you testified and presented a somewhat similar exhibit to the Railroad Commission of Texas, didn't the defendant strenuously object to it?

A. This defendant?
Q. This defendant.
A. Yes; I remember that it did.
Q. Wasn't Mr. Hulcy's exhibit or computations offered subsequently in rebuttal of your testimony, after a comparable exhibit to that shown on pages 24 and 25 of Exhibit 5 had been offered?
A. Mr. Griffith, I don't know. When I got through testifying, I left town. As a matter of fact, I did not know until yesterday afternoon that Mr. Hulcy had sponsored this exhibit.

* * * * * * *

[fol. 2766] ARTHUR A. DOBSON, a witness for the Plaintiffs, being by the Court first duly sworn, testified as follows:

Direct examination.

Questions by Mr. Fitzhugh:

Q. Please state your name?
A. Arthur A. Dobson.
Q. Where do you live, Mr. Dobson?
A. Lincoln, Nebraska.
Q. What is your business or profession?
A. Engineering construction.
Q. Are you associated with any firm or partnership?
A. Yes.
Q. What is the name of your firm?
A. Well, there are several firms. There is Dobson & Robinson; Dobson & Humphreys; Dobson & Carter; V. E. Taylor & Company; Queal Construction Company.
Q. What position do you hold with those various firms?
A. Partner.
Q. Are all those concerns engaged in the construction business?
A. Yes.
Q. Does each one of those different firms have a specialty [fol. 2767] in doing construction work?
A. Dobson and Robinson are engaged purely in paving and road building, and the other firms are engaged in municipal construction in different locations.

Q. Now, Mr. Dobson, will you speak just a little louder?

A. Yes.

Q. You have to talk against these fans, and it's pretty hard to hear. Will you state in general, Mr. Dobson, what your construction experience has been, giving in as short a summary as possible, your education and what engineering work you have done and that sort of thing?

A. I am a graduate civil engineer of the University of Nebraska, and was engaged in engineering work before that time with the Government and various municipalities, and since my graduation I have been engaged in that work as a contractor, operating in territories as far North as Sutherland, Saskatchewan, south to Mobile, Alabama, and as far West as Thermopolys, Wyoming, east to Mayfield, Kentucky.

Q. Over how many years has your experience extended?

A. Twenty-four years.

Q. Twenty-four years. You have done some construction work in Texas, have you not?

A. Yes.

Q. At what places, please sir?

A. At Waco, Sweetwater, Tyler, Archer City and Dallas.

Q. What was the nature of the work done at those places?

A. Tyler was a sewage disposal plant, and the others were sewers.

[fol. 2768] Q. In all those jobs did you have earth excavation?

A. Yes. Tyler was purely slip work.

Q. What do you mean by slip work?

A. Teams and slips, and no trench excavation.

Q. What are some of the major pieces of construction work you have done in recent years, that have involved excavation?

A. At present we are engaged in putting in the sewers and water systems for the Fort Peck development for the Government.

Q. How big a job is that?

A. It amounts to a little over $300,000.00. We recently—well, about two years ago, it was, completed a water supply for the City of Lincoln, $1,500,000.00. This past year we have just completed two P. W. A. jobs in the city of Lincoln, involving hand labor water mains, amounting to $120,000.00. There are quite a number of projects, if you want me to go into that.

Q. Well, I don't know that will be necessary. But could you total about how much construction work you have done in the last three or four years, or some such period of time.

A. Oh, I would say in the last three years we have done about Five Million Dollars worth.

Q. Now, besides your connection with these construction concerns in Lincoln, are you affiliated with any other business enterprises in that city?

A. Yes, I am a director and member of the executive committee of the First National Bank; a director of the First Trust Company; director of the Mid-West Life Insurance Company.

Q. In addition to doing the construction work at Sweet- [fol. 2769] water, Dallas, Tyler, and the other places you mentioned, are you in general familiar with the soil conditions encountered in the north, central, east and west central portions of Texas?

A. So far as I could observe from a trip over the territory?

Q. When was that trip made?

A. That was made in May, 1933.

Q. What was the purpose of the trip just mentioned?

A. To acquaint me with the terrain of the pipe lines, through which the Lone Star Gas Company serves gas to its people.

* * * * * * *

Q. You made this trip over the system with Mr. Nichols, did you not?

A. Yes.

Q. Now, what information were you given about the Lone Star Gas Company system, in general, before you started your trip?

[fol. 2770] A. Just shown a map of the system.

Q. Had you been given any sort of specifications or instructions as to the size of trench, the kinds of excavation, and things of that sort?

A. Not prior to the trip.

Q. The trip was made primarily for the purpose of finding out the general topography of the territory covered by the system, and of the soil conditions, wasn't it?

A. That's right.

Q. Now, how many days did you spend on your inspection of the system?

A. Three.

Q. Three days?

A. Yes.

Q. Just point out, now, to the jury—right behind you, Mr. Dobson, there is a map of the system. Locate, if you can, where you started, and in general show the jury how you went.

A. May I refresh my memory with my own notes?

The Court: Yes.

Q. If you have a smaller map, make use of that, yes. And if you made any detailed inspections at any particular point, will you call attention to where those points were located, please sir?

A. Yes. Would you prefer that I show it on the map, or just tell where it was?

Q. Just tell where the points were located.

A. No. 1, B-16 inch. We drove from Forth Worth to No. [fol. 2771] 1 observation of Line B, 16 inch, near North Fort Worth Warehouse. Then drove by way of Saginaw to Observation No. 2, B 16 inch, near road crossing west of Ned Van Zandt home. Then drove by way of highway to Rhome, to No. 3 observation, b 16 inch near road running east and west from Rhome. Also No. 4, Second B, 20 inch, near northeast edge of Rhome. Then drove to Decatur, turning west on Bridgeport road. No. 5, B 16 inch and Second B, 20 inch, near crossing with Bridgeport-Decatur road. Then drove to Sunset, turning west on Chico road. No. 6, B 16 inch and B 20 inch at road crossing west of Sunset near small brook. Then drove to Bowie for lunch, and then along highway towards Wichita Falls. No. 7, B 16 inch and 20 inch near Bowie, Gate-crossing with Wichita Falls highway. Then drove on highway turning north at Henrietta to Petrolia compressing station. No. 8, B 16 inch, Second B 20 inch, A 18 inch, H 12 inch, and Second H 12 inch and field lines near Petrolia compressing station. Then drove along railroad to Wichita Falls. No. 9 A 18 inch near Wichita River crossing at Wichita Falls, near disposal plant. Then drove through Wichita Falls and turned south at Iowa Park. No. 10, A 18 inch south of Iowa Park near Iowa Park tap. Then drove along highway to Oklaunion, No. 11, A-1 six inch at Junction of Oklaunion tap east of Oklaunion. Pointed out that A-1 six inch connected with A 18 inch only a short distance south. Then

drove to Vernon. No. 12, A 18 inch at road crossing east of Vernon. Then drove south to Mabelle, crossing over [fol. 2772] Lake Kemp dam, spending night in Abilene, and that was the first day's trip.

Q. Now, just taking those observations, that far Mr. Dobson, you started in here at Fort Worth (indicating on map) and went up the Line B and Second B line, to Petrolia, where you inspected the H and Second H lines that come into Petrolia, and then went on up the A system to Oklaunion, where you got a look at the A-1 six inch, and then on up to Vernon, and that takes you to this point here, on the map?

A. Yes.

Q. And then you cut across the country from there to what point?

A. To Abilene.

Q. And that brings you to this point on the map (indicating)?

A. Yes.

Q. And then, starting in from there, how did you go?

A. We went East. Drove east from Abilene to Observation No. 13, Line 18 six inch and KC-8 inch at road crossing north of Elmdale. Then drove to Baird measuring station. Fourteenth Observation: 18- six inch and KC-8 inch near Baird measuring station. Then drove to Putnam. 15th Observation: 18-6 inch near junction of Putnam tap. Then drove across country to Pueblo compressing station. 16th Observation: KC 10 inch and other lines near Pueblo compressing station. 17th observation: Lone Star Gas Company, W. H. Grove No. 7, south of Pueblo. Then drove to Lake Cisco, returning to Moran. No. 18: Line 30 six inch and other lines in the vicinity of Moran compressing station, north of Moran. Then drove across country to Breckenridge. 19th observation: Line O, 16 inch approximately [fol. 2773] 1000 feet east of Breckenridge compressing station. 20th observation was of Line 20, six inch at crossing with Highway No. 67 south of Breckenridge. 21st Observation was of Line K, 16 inch at crossing with Highway No. 67 south of Breckenridge. Then drove to Ranger compressing station No. 3. 22nd observation was KC 12 inch and other lines near Ranger compressing station. No. 23 was Line K, 16 inch at KC Junction east and north from Ranger. Then drove east from Ranger towards Thurber. 24th observation was Line K, 16 inch at KB-12 inch Junction, west of Thurber. Then drove through Thurber, Min-

gus and Gordon. 25th observation was Line O, 16 inch at Road Crossing near Gordon. Line K 16 inch also nearby. Then drove to Santo, turning south. 26th observation: Lines O, 18 inch and K 18 inch, near road south of Santo. No. 27 was of Line O, 18 inch and K 18 inch near Junction KA 12 inch near Lipan. Then drove through Lipan, Thorpe Springs, turning North at Granbury. No. 28 was Line O 18 inch and K 18 inch near road between Granbury and Weatherford. Returned to Granbury, turning west towards Fort Worth. 29th observation was Line O 18 inch and K 18 inch near intersection of Fort Worth-Granbury road. Drove east to Joshua compressing station. The 30th observation was of Lines O, 18 inch, K 18 inch, J 16 inch, O 16 inch, L 12 inch, and other lines near Joshua. We spent the night in Waco.

Q. Now where you said Zero, you probably meant Line O?

A. Yes, these are all designations of the different lines, so far as I know.

Q. Now, referring to the map, Mr. Dobson, you started [fol. 2774] in at Abilene and your observations covered all this territory in here at Breckenridge and Ranger, and the lines at that point, across on the K lines and Line O to Joshua, and then you came down the Lone Star system to Waco?

A. Yes.

Q. And that accounts for that part of the system.

A. Yes.

Q. From there on, how did you make your observations?

A. We went East to Dallas and then up North.

Q. From Waco where did you go?

A. 31st observation was Line L, 16 inch, and L-8 eight inch near Brazos River Bridge. Drove across country to Cooledge. 32nd observation was Line M-11 10 inch near Cooledge measuring station west of Cooledge. Then drove to Corsicana by way of Mexia. 33rd observation was M 8 inch near south side of measuring station at Corsicana. No. 34 was Line M-2 six inch east of Ennis. * * * We had driven across country to Terrell; and No. 35 was O-29 six inch near Sanry.

* * * * * * *

[fol. 2775] A. Observation No. 36, O-3 six inch, and O-3-3 four inch near Terrell. Drove across country to Green-

ville. No. 37 was Line O-10 inch near highway west of Greenville. Drove across country to Bonham by way of Leonard. No. 38 was Line E, 10 inch near airport north of Bonham. Returned to Sherman, turning North. No. 39 was Line E 10 inch, E-2 six inch and E-2 ten inch at Whitesboro Junction north of Sherman.

The Court: What was that last?

A. I said we drove to Bonham by way of Leonard and observation 38 was of Line E 10 inch near airport North of Bonham.

The Court: No, at Whitesboro. Where is that Whitesboro Junction?

A. It's right East of Gainesville in Grayson county.

Mr. Fitzhugh: It is just about three miles here, as shown by the map. This Line E, ten inch, comes along and then there is a little spur that goes off to Whitesboro, about two or three miles, it looks like.

* * * * * * *

A. Drove to Gainesville by way of Whitesboro. No. 40 was E ten inch at highway crossing east of Whitesboro, and [fol. 2776] the 40th observation was Line E, 10 inch, Line F 16 inch, Line G 16 inch, near Gainesville Junction, south of Gainesville. Then returned to Fort Worth.

Q. Now just to show the line of these general observations, you started in at Waco, and cut across country and intersected at various points on these lines, at the various places you indicated in reading there where you made observations, and then came up to Greenville and crossed north of Greenville along the E 10 inch line, over to Gainesville and back in on the F lines, is that right?

A. Yes.

Q. Now, was the inspection that you made, Mr. Dobson, a longer inspection, or did you use more care in making this observation or less care than you would ordinarily use if you knew you were going to be asked to make bids for excavation work which would be necessary in the kind of work required to reconstruct the lines of the company? What I mean by that is, was this sufficient inspection, in your opinion, to get a good idea of the actual excavation consitions that would be necessary to build lines like the company has?

A. Under the specifications it was, with the specifications giving the classifications of soil and rock and so on.

Q. And you think your examination of the company's lines that you made was sufficient, taking into consideration the specifications you had been given?

A. Yes.

[fol. 2777] Q. Now, what are the specifications to which you referred?

A. I was handed these specifications by Mr. Nichols.

* * * * * * *

Q. Incidentally, in making this inspection, who accompanied you and Mr. Nichols?

A. Mr. Minter, I believe it was.

Q. This is an entirely separate examination from the examination of the company's system that Mr. Robinson, a witness who had already testified in this case, gave to the system, is it not?

A. He was not with us.

Q. Now, do you have with you the original specifications?

A. Yes.

Q. Will you kindly read those?

A. Yes. "Specifications for trenching, Lone Star Gas Company system. 1. Done by Other Contractors: (a) Right of way will have been cleared — feet with stumps out to ground and all boulders and other obstructions blasted and removed so that trucks can pass right of way and string [fol. 2778] pipe. Gates will have "been installed in fences, and fences cut for trucks, etc.

2. Machine Excavation. This Contractor (a) include in machine excavation price necessary blasting, grubbing for ditch and machine leveling up for machine, getting machine across obstructions, creeks, etc., necessary hand work at obstructions, creeks, etc.

3. Hand excavation: This Contractor (a) Include in hand excavation price necessary blasting, rubbing for ditch.

4. Rock Excavation: This Contractor (a) Include in rock excavation price necessary grubbing for ditch, powder, compressors, caps, fuses, etc.

5. Backfill: This Contractor (a) Include in backfill price consolidated price to include backfill of machine, hand and rock excavation. Only one price to be applicable to all backfill. Where backfill is in rock, dirt is to be placed over pipe to a depth of at least six inches before placing rock in ditch.

6. Classification: Ninety per cent of the yardage has been classified by driving a bar down on either side of the ditch every 500 feet. All yardage below lowest point bar can be driven is classified as solid rock. Ten per cent of the yardage has been classified from construction records.

Hand excavation is on short lines where no machine is used at all—short taps—usually less than 100 feet in length.

7. Miscellaneous Items: This contractor is to clean up [fol. 2779] along ditch, shaping up backfill over ditch. This contractor is to furnish all labor necessary to lining up for trenching work, getting men, supplies, etc. to the work. The estimate is to include among other things your profit, overhead, wear and tear on equipment, necessary supervision, etc. Ditch is to be delivered in a smooth uniform condition.

Additional payment will be made for highway and railroad crossings.

This trenching is for gas line construction. Due consideration is to be given for delays usually incident to such construction.

Contractor will be required to give bond and to carry workmen's compensation, property damage, $20,000.00 limit, public liability $10,000.00 and $20,000.00 limits.

The work will be done in units requiring an average of two machines for construction period of eight months. In general the eight months' period will be during spring, summer and fall.

The estimates are to be as of December 31, 1931.

Payment will be in cash on monthly estimates with ten per cent retained. Retainage in no event will be held longer than one year.

8. Estimated cost as of December 31, 1931: 2,893,325 cubic yards of Machine Excavation, at — per cubic yard. 39,072 cubic yards hand excavation, at — per cubic yard. 342,911 cubic yards rock excavation at — per cubic yard. [fol. 2780] 3,275,308 cubic yards of backfill, at — per cubic yard.

Then there follows the total excavation quantities, the pipe, the clearing, and the trench sizes. Do you want me to read those?

[fol. 2781] No, sir; you need not bother about that. Now, when you read the first part there, that "right of way will have been cleared blank feet", you had in mind that the right of way would be from twenty-five to thirty feet?

A. Yes, sir.

Q. What other information were you given after the original specifications?

A. I was handed this specification this morning.

Q. Will you tell the jury now what additional information is given you by those specifications?

A. Read the specifications?

Q. Yes, sir.

A. "Specifications for Trenching, Lone Star Gas Company System"——

Mr. Griffith: Wait a minute. Who gave you those, Mr. Dobson?

A. Mr. Nichols.

Mr. Griffith: The same Mr. Nichols?

A. The same Mr. Nichols. "1. Done by Other Contractors: (a) Right of way will have been cleared 20 to 30 feet with stumps out *to* ground and all boulders and other obstructions blasted and removed so that trucks can pass along right of way and string pipe. Gates will have been installed in fences and fences cut for trucks, etc. 2. Machine Excavation: This contractor (a) Include in Machine excavation price necessary blasting, grubbing for ditch and machine [fol. 2782] leveling up for machine, getting machine across obstructions, creeks, etc., necessary hand work at obstructions, creeks, etc. 3. Hand Excavation: This contractor (a) Include in hand excavation price necessary blasting, grubbing for ditch. 4. Rock Excavation: This Contractor (a) Include in rock excavation price necessary grubbing for ditch, powder, compressors, caps, fuses, etc. 5. Classification: 90 per cent of the yardage has been classified by driving a bar down on either side of the ditch every 500 feet. All yardage below lowest point bar can be driven is classified as solid rock. 10 per cent of the yardage has been classified from construction records. Hand excavation is in general on short lines where no machine is used at all, short taps being usually less than 100 feet in length. Some excavation is classified as hand on lines involving rock excavation. Some lines classified as 100% hand are a mile in length. 6. Miscellaneous Items: This Contractor is to furnish all necessary labor to lining up for trenching work, getting men, supplies, etc. to the work. The estimate is to include among other things your profit, overhead, wear and tear on equipment, necessary supervision, etc. Ditch is to be delivered in a

smooth uniform condition. Additional payment will be made for highway and railroad crossings. This trenching is for gas line construction. Due consideration is to be given for delays usually incident to such construction. Contractor will be required to give bond and to carry workmen's compensation, property damage $20,000 limit, public liability $10,000 [fol. 2783] and $20,000 limits. The work will be done in units requiring an average of two machines for a construction period of eight (8) months. In general the eight months' period will be during Spring, Summer and Fall. The estimates are to be as of June 15, 1934. Payment will be in cash on monthly estimates, with 10 per cent retained. Retainage in no event will be held longer than one year. 7. The estimate of unit prices is to be as of June 15, 1934, based on the following approximate quantities: Machine Excavation, 2,533,-302.0 cubic yards; Hand Excavation, 74,265.0 Cubic yards; Rock Excavation, 355,367.0 cubic yards."

Q. Now, Mr. Dobson, besides that, you were given, were you not, excavation quantities by systems?

A. Yes.

Q. Showing the cubic yards for machine work, the cubic yards for hand excavation, the cubic yards for rock, and the total by lines?

A. Yes.

Q. You were given another tabulation by systems showing the total length of feet and the percentage of each system to the total?

A. That is right.

Q. You were given another tabulation showing the amount of clearing by systems, showing the per cent of the total length for the system to the whole, the per cent of clearing on [fol. 2784] each system, and the weighted per cent cleared?

A. Yes.

Q. You were given another tabulation, were you not, showing by systems the minimum depth and width and the maximum depth and width of trench by systems?

A. Yes.

Q. Now, do you and your partners own enough machinery to undertake an excavation project of this size?

A. Not if it all had to be done in eight months.

Q. How is that?

A. I say, not if it all had to be done in eight months.

Q. How many ditching machines do you have now, do you know?

A. Approximately thirty.

Q. And approximately how many backfillers or machines of that kind?

A. Ten.

Q. Using your own equipment, how long would it take you to dig a ditch of this size?

A. It would take two eight-month seasons.

Q. I understand this is a very large order of excavation?

A. It certainly is.

Q. Now, did you, using those specifications and the number of units of the various types of excavation as given you, and from your general knowledge of the territory covered by the company's lines and from the information that you picked up on your inspection tour of the lines seen by you [fol. 2785] and inspected, arrive at some unit cost per cubic yard for the various types of excavation as applied to those unit costs?

A. As of June 15th?

Q. Yes.

A. Yes, sir.

Q. As of June 15th, 1934?

A. Yes.

Q. What was the cost estimated by you for machine excavation?

• • • • • • •

[fol. 2786] Q. Mr. Dobson, you have done numerous jobs of cross-country work for the laying of other than gas pipes?

A. Yes, sir.

Q. Including water lines and sewer lines?

A. Yes.

Q. Can you see any difference from an engineering standpoint between digging a trench for a water pipe and another ditch of the same size for a gas pipe?

A. No, I can not.

Q. It costs just as much to dig one ditch as another?

A. Yes, I think so.

Q. Well, now, Mr. Dobson, will you kindly tell us what allowance per cubic yard you estimated to be correct for machine excavation?

A. Twenty-eight and one-half cents.

Q. What was the unit cost per cubic yard you found for hand excavation?

A. $1.41.

[fol. 2787] Q. And what was the unit cost per cubic yard for rock excavation?

A. $4.00.

Q. Now, in general, will you describe how you went about estimating your cost of 28½ cents per cubic yard for the machine excavation?

A. I figured an output for a trench machine of 280 cubic yards per day for an eight-hour day, figuring the expenses and dividing it into that yardage; I figured the operator, $8.00 per day; helper, $3.20; two men cleaning up the ditch back of the trencher, $6.40; gas, $4.80; oil, 80 cents; repairs, $10.00; miscellaneous items, transportation, etc., $6.00; cost of ownership of the trench machine, $16.00; this is arrived at by using the A. G. C. Schedule cost of ownership. That gave me a total of $55.20 for an eight-hour day. Divided by 280 yards, that is 20 cents per yard. In addition, I charged seven-tenths of a cent for grubbing right of way; eight-tenths of a cent for insurance; 1.8 cents for superintendence, making a total cost of 23.34 cents, to which I have added 4.7 cents, 20 per cent, profit, making a total of 28.1 cents; to which I have added cost of bond, one and one-half per cent, which figured four-tenths of a cent, making a total of 28½ cents.

Q. In general, how did you find your unit cost for hand excavation?

A. I had dug a trench just before that for the Lincoln, Nebraska, water supply line, using labor from the Labor Bureau there, to find the cost of ditching by hand labor, and [fol. 2788] arrived at a cost of 60 cents per yard on that line. That was on the basis of 30 cents per hour; the Code called for 40 cents, and I increased it, making 80 cents per yard; for insurance eight cents; tools, 15 cents; foreman and overhead, 12½ cents, making 1.15½, to which I added 20 per cent profit, 23.1 cents, making $1.386, to which was added cost of bond, one and a half per cent, two and one-tenth cents, making a total of $1.41.

Q. Now, will you in general describe how you arrived at your cost of rock excavation?

A. That is a general estimate.

Q. You have made a speciality, have you not, of machine excavation?

A. Yes, sir.

Q. So you would not be as sure of your rock price as you would on the machine?

A. No, sir.

Q. The four dollar cost for rock excavation is the price at which you would estimate you could do work of that sort?

A. I think I could.

Q. Now, either you or one of your partners has developed some sort of a ditching machine?

A. Yes, sir, the Humphries ditching machine.

Q. Who invented that?

A. Mr. W. G. Humphries of Omaha.

[fol. 2789] Q. He is one of your partners?

A. Yes, sir.

Q. Are you familiar with the type of machine known as the Buckeye ditcher?

A. Yes, sir.

Q. Have you used that machine?

A. Yes, sir.

Q. What machine do you consider the better for machine excavation?

A. Well, we have always considered the Humphries as more economical for our work.

Q. Is you company or your companies, the ones with which you are associated, in financial position to undertake a construction job of this size?

Mr. Griffith: You mean the affiliated companies?

Mr. Fitzhugh: Yes.

A. We might have to have some help on a job of this sort.

Q. I mean would you be able to undertake a job of this sort?

A. I would not want to say as to that, because of the precarious condition of the bond market—I mean the effort that has to be made to get a bond of that size; probably I would have to call in somebody else.

Q. You would be very glad, would you not, Mr. Dobson, to get a contract containing these unit costs as applied to this amount of excavation?

A. Yes, sir.

Q. As of this date?

[fol. 2790] A. Yes, sir.

Cross-examination.

Questions by Mr. Griffith:

Q. Mr. Dobson, Lincoln, Nebraska, is quite a distance from Austin?

A. It surely is.

Q. How do you appear here on this 6th day of July, 1934?

A. At the request of Mr. Marvin Nichols.

Q. The same Mr. Nichols you previously referred to?

A. Yes, sir.

Q. In other words, Mr. Nichols, one of the engineers for the State, procured your attendance here?

A. Yes, sir.

Q. You have been a friend of Mr. Nichols for some time?

A. Yes, sir.

Q. Naturally, you want to assist him in any way you can?

A. Well, I don't know——

Q. I mean legitimately, of course?

A. Yes, sir.

Q. You have acted as a contractor on several municipal engineering jobs of sewerage or water plant construction where Mr. Nichols has been one of the engineers, have you not?

A. Yes, sir.

Q. You hope to act in that capacity in the future?

A. I will be glad to.

[fol. 2791] Q. What insurance rate did you use in computing your unit costs per cubic yard for hand excavation and machine excavation?

A. Ten per cent.

Q. Ten per cent of the direct labor?

A. Yes, sir.

Q. Is that the insurance rate that you are paying?

A. No; that is the rate used a year ago from the Manual at that time. I was not able to verify it in Texas. I thought that was approximately correct.

Q. Do you know whether that is the Manual rate in Texas now?

A. No, I don't know.

Q. Now, I don't understand from your testimony, as to whether you are testifying on the cost of excavation solely with reference to the company's properties in Texas, or

whether you are also testifying as to its system in Oklahoma?

A. Well, it is only as to that in Texas.

Q. In other words, the Nichols specifications handed you this morning relate only to the excavation in Texas?

A. That is right.

* * * * * * *

Q. Now, when you appeared before the Railroad Commission of Texas—or did you appear before the Railroad Com-
[fol. 2792] mission of Texas in connection with this investigation of Lone Star Gas Company's rates?

A. Yes, sir.

Q. You appeared at that time at Mr. Nichols' request?

A. Yes.

Q. And testified as to unit costs of excavation?

A. Yes.

Q. Now, your testimony at this time is that your estimated cost of machine excavation would be 28.5 cents per cubic yard?

A. Yes.

Q. What did you testify before the Railroad Commission for the cost of machine excavation about a year ago?

A. Twenty-one cents.

Q. Your testimony is that the cost of hand excavation, or, rather, your estimate would be $1.40 per cubic yard?

A. Yes, sir.

Q. What was your estimate when you testified before the Commission a year ago?

A. 98.5 cents.

Q. Your testimony today is that your estimate of the cost of rock excavation would be $4.00 per cubic yard?

A. Yes, sir.

Q. What did you testify as to that before the Commission?

A. $3.00.

Q. Your figures are for over-all something in excess of thirty-five per cent of the costs of excavation as computed by you a year ago?

[fol. 2793] A. I think it would be a little under that, wouldn't it?

Q. Well, it is a mathematical calculation.

A. Around thirty per cent, I think, because machine excavation is the large item.

Q. Well, that is up thirty-three per cent, isn't it?

A. Yes, sir.

Q. So it would be around thirty-five per cent?

A. Around thirty-five per cent.

[fol. 2794] Q. Now, in connection with these excavation costs that you have testified to, how long would you be willing to maintain the open ditch after it was dug?

A. Not very long.

Q. Well, how long?

A. Oh, twenty-four hours.

Q. Twenty-four hours—in other words, if the ditch caved in after a period of twenty-four hours, why, you would want to be paid extra for cleaning out that ditch?

A. Yes, sir.

Q. And if, due to the necessities of pipe line construction, the pipe could not be laid within twenty-four hours after you had excavated the ditch, you would assume no responsibility?

A. That would be right.

Q. Now, where, if at all, in connection with your allowances for excavation per cubic yard have you made provision for the hauling in of dirt for the bedding of pipe and rock?

A. That didn't enter into the specification on excavation.

Q. In other words, it was not in the specifications?

A. No.

Q. And, as a consequence, you made no inclusion of any [fol. 2795] allowance for that item?

A. No.

Q. How much bell hole excavation did you figure on in making your estimates?

A. Only so much as could be handled by two men back of the machine.

Q. Only so much as could be handled by two men back of the back-filling machine?

A. No, behind the trenching machine.

Q. Behind the trenching machine. Well, how would the two men behind the trenching machine know where to dig the bell holes?

A. They would have to be staked out by somebody.

Q. They would have to be staked out by somebody?

A. I think so.

Q. And that is the only time you would know where the bell holes should be dug?

A. Why, I should think so.

Q. In other words, frankly, any allowance for bell hole excavation is only such as could be done by the two men following immediately behind the trenching machine?

A. That is right.

[fols. 2796-2797] Redirect examination.

Questions by Mr. Fitzhugh:

Q. Now, Mr. Dobson, you have included in these unit costs an allowance for contingencies, have you not?

A. Yes.

Q. A 20 per cent contractor's profit, I believe you say.

A. Yes.

Q. And in your rock excavation unit costs, besides the 20 per cent contractor's profit you have kept for yourself, you have put in there enough to cover the subcontractor's profit, have you not, where that work would be sub-contracted?

A. Well, that was only in case of the rock.

Q. Well, I say, in case of the rock, yes, sir.

A. Yes, sir.

* * * * * * *

[fol. 2798] Q. Suppose that through the rock excavation there should be two inches of soil, which is bedding, and [fol. 2799]for the quantities of rock excavation shown some of this soil would have to be hauled in, and that some of this soil would have to be hauled in—would your contingencies for rock excavation be sufficient in your unit costs to cover that item?

A. I don't believe they would. I have made no provision.

* * * * * * *

Q. If in addition to the specification given you, it should be specified that there should be two inches of bedding in the trench where rock excavation was necessary, and assuming, if, as you say, that your contingencies may not cover that item—I will ask you if you would still be willing to undertake the rock excavation at the unit costs you have

got, without any addition, but instead let your profit absorb that much?

* * * * * * *

[fol. 2800] The Witness: Well, if my getting the job depended upon that, I probably would.

Q. Now, ordinarily, as a matter of fact, Mr. Dobson, you know from your experience, do you not, that the cost of bedding soil or dirt for the pipe being laid through rock excavation is usually included in the cost of backfilling rather than as a cost for rock excavation?

A. Yes, I do.

Q. And it would be a most unusual thing on specifications on trench work for rock excavation to include any cost of that sort in the unit costs for rock excavation?

A. I would think so; it would have to be put back.

Q. And not having prepared any cost of backfilling which would normally include this bedding cost, you naturally did not consider that in this estimate, did you?

A. That is right.

* * * * * * *

[fol. 2801] S. W. Freese, a witness for plaintiffs, having been duly sworn, testified as follows:

Direct examination.

Questions by Mr. Fitzhugh:

Q. Will you please state your name?

A. S. W. Freese.

Q. Where do you live, Mr. Freese?

A. Fort Worth.

Q. What is your business?

A. Civil Engineer.

Q. Are you connected with any firm?

A. I am a partner in the firm of Hawley, Freese & Nichols.

Q. What are the full names of the persons comprising the partnership?

A. John B. Hawley, Marvin C. Nichols, and myself.

[fol. 2802] Q. All of Fort Worth, Texas?

A. All of Fort Worth.

Q. How long has your engineering firm been organized and doing business?

A. Mr. Hawley has been doing business in Texas since 1895; I came with him in 1921, and became a partner in 1923; and Mr. Nichols came with us in 1928.

Q. The Mr. Hawley to which you refer is the Major Hawley generally known over the State?

A. He is the senior member of the firm, yes.

Q. Where did you receive your education?

A. At the Massachusetts Institute of Technology.

Q. Did you obtain a degree from that institution?

A. Yes, in 1921.

Q. Did you do any special work at any universities, after graduating from that school?

A. Yes, I did some graduate work at the University of Cambridge.

Q. Cambridge, England?

A. Yes.

Q. Now, after you had finished your education, tell in a general sort of way, Mr. Freese, what your engineering experience has been.

A. Beginning in 1921—I should say that this work I did at Cambridge came later on, after I had worked with Major Hawley for some time. In 1921 I went as Assistant [fol. 2803] to the Lamar County, Texas, Highway Engineer on county bridge and concrete highway projects. In the latter part of that year I became Assistant to John B. Hawley in the design and supervision of the Paris, Texas, waterworks, consisting of a dam, filtration plant, pumping equipment, supply mains to the city, elevated tank, and distribution system,—costing approximately $1,000,000.00. In 1922 I was associated with Hawley and Sands—Mr. Sands being of Houston—in the design of the Fort Worth, Texas, sewerage system, costing $1,200,000.00. In 1923 I worked with Mr. Sands in the design and supervision of the Center, Texas, water and sewerage system; and also in 1923 I was associated with Hawley and Sands in the design and supervision of the Lubbock, Texas, water and sewerage system; and worked on the Sweetwater, Texas, filtration, and the Stamford, Texas, disposal plant. I was associated with Major Hawley in the design and supervision of the Breckenridge, Texas, storm sewer and paving system, costing $900,000.00. In 1923 we made an appraisal of the Arlington Heights Water System at Fort Worth, which I supervised.

In 1924, after I became a partner with Major Hawley, we made a redesign of the water distribution system and [fol. 2804] sewerage system for the City of Fort Worth, and assisted in the supervision of that work. This project amounted to $2,950,000.00. In 1924 and 1925 we designed and supervised the street paving and other improvements at Lubbock, costing $600,000.00. And in 1924 and 1925 we designed and supervised a $500,000.00 water plant and distribution system for Austin, Texas. In 1926 we designed and supervised the sewerage system costing $350,000.00 at Corpus Christi, Texas. In 1926 we designed and supervised additions to the water supply at Tyler, Texas. In 1927 we made appraisal of the Raymondville waterworks. In 1927 we designed and supervised water supply improvements at Graham, Texas, including a $250,000.00 dam, and water supply main to the city. In 1927 we were engineers on storm sewers for Amarillo, Texas, costing $500,000.00. Beginning in 1927 we designed and supervised the construction of two dams in Wise and Tarranty Counties, for the water supply and flood control protection of the City of Fort Worth, costing $6,500,000.00. That work is just now being completed, but it started in 1927. In 1928 we were engineers on additional sewerage work at Fort Worth, costing $800,000.00. In 1928 we were also engineers for the [fol. 2805] City of San Antonio on sewerage work costing $1,250,000.00. In 1928 we were engineers on water system improvements for Big Spring, Texas, this work being done for the Texas & Pacific Railroad. In 1928 we made an appraisal of the sewerage system of Coleman, Texas. In 1928 we were engineers with Mr. W. W. McClendon on waterworks improvements at Corsicana, Texas. In 1928 we made an appraisal of the Red River bridge at Terral, Oklahoma; and appeared before the War department in connection with that appraisal. In 1929 we were engineers on flood protection works at San Antonio, costing $500,000.00. In 1929 Mr. Nichols came with the firm, and in that year we were engineers on the water filtration plant and sewerage disposal plant at Sweetwater, costing $700,000.00. In 1929 we were consulting engineers on the Waco filtration plant, the actual design and supervision being done by Floyd and Lochridge. In 1929 we designed and supervised the Rio Grande City and Harlingen waterworks improvements. In 1929 we designed a storm sewer system for Cuero, Texas.

In 1929 we made an investigation and report on flood control works for Oklahoma City, Oklahoma. Also that year we were consulting engineers on a disposal plant for Waco, Texas. [fol. 2806] Also for Graham, Texas, on drainage and paving improvements. We made that year an appraisal of the Vernon, Texas, water and sewerage systems. In 1930 we made an appraisal of the San Saba waterworks. Also in 1930 we designed and supervised the water system and sewers for Refugio, Texas. The same year we made an investigation for the City of Austin, on the Austin dam. In 1930 we built a water well to increase the water supply at Gainesville, Texas. In 1930 we made an appraisal of the Rosen Heights water system at Fort Worth. We also designed, in 1930, an addition to the filtration plant at Beaumont, Texas. In 1930 we were engineers on a sewerage system for Big Spring, which was an addition to their sewerage system. In 1930 we handled sanitary sewerage improvements for the City of Dallas, Texas. In 1931 we designed and supervised an enlargement of the filtration plant at Fort Worth, Texas, costing $500,000.00. We were also engineers for a dam on the Waggoner Estate at Vernon, Texas, costing $100,000.00. We designed also in 1931 a filtration plant at Chickasha, Oklahoma. Also we designed, and I think assisted in the supervision, but anyway we [fol. 2807] designed the boulevard system, paving and bridges out through the University Campus, there where they remodeled the Campus. In 1931 we designed and supervised the storm sewers and paving for Refugio, Texas. Also designed the new Dallas sewage treatment plant, at an estimated cost of $1,250,000.00. That plant has not been built as yet, but we designed it. In 1931 we started an appraisal of the Texas properties of the Lone Star Gas Company for the Railroad Commission of Texas. We were engineers for water and sewer improvements at Gladewater. We appraised also in 1931 the Royse City gas distribution system. We made an appraisal of the telephone and power lines and railroad properties and pipe lines in the Bridgeport and Eagle Mountain Lake Basins,—those properties being worth approximately $300,000.00. In 1932 we made an appraisal of the gas system at McLean, for the City of McLean. In 1932 we made an appraisal of the properties of the Municipal Gas Company for the City of Sherman, Texas. In 1931 we made an appraisal of the

1731

Oklahoma properties of the Lone Star Gas Company for the Railroad Commission of Texas, and also for the Corporation Commission of Oklahoma; and concerning which [fol. 2808] we testified before the Corporation Commission of Oklahoma. In 1932 we made an appraisal of the Meridian Gas Company properties of the Lone Star Gas Company for the Railroad Commission of Texas. In 1933 we made an appraisal of the Community Natural Gas properties for the City of Sweetwater, Texas. In 1933 we designed a sewerage system for Pilot Point, Texas, and a waterworks and sewerage system for Bryson, Texas, and a waterworks and sewerage system for Bridgeport, Texas,—on which we were awarded contracts last week. We also designed the waterworks and sewerage system for Big Sandy, Texas. In 1933 we made an appraisal of the Municipal Gas Company properties at Denton, Texas, for the City of Denton. In 1933 we started an appraisal of the Corsicana plant of the Municipal Gas Company for the City of Corsicana,—that appraisal is just now being finished. In 1933 we also made an appraisal of the Canadian, Texas, gas distribution system properties of the Public Service Company. In 1934 we designed for the City of Lubbock, Texas, a gas distribution system, and a gas supply line from New Mexico, from the gas field known as the Jal-High area. Also in 1934, in connection with W. D. Howren, of Amarillo, Texas, we designed gas systems for San Saba, Lometa, Lampasas, Gold- [fol. 2809] thwaite, Fredericksburg, Burnet, and Llano. This work was done for these cities for the purpose of obtaining a loan from the Federal Government with which to construct gas distribution systems at those cities. In 1934 we have designed with Mr. H. N. Roberts a supply line from the new Lake Sweetwater, which we built for the City of Sweetwater, to the City of Sweetwater. During this year we have made an appraisal of the Waco, Texas, plant of the Texas Cities Gas Company, for the City of Waco, Texas. Also, during the first part of this year and up until I came to Austin on this case, I had been retained by the Government Commission consisting of Ex-President W. B. Storey, of the Santa Fe Road, Professor Daniel W. Mead, of the University of Wisconsin, and Major General Koutz, to prepare estimates and check plans for $21,000,000.00 worth of sewerage work at the City of Chicago, now being financed by the Federal Government. That brings me up to date.

[fol. 2810] By Mr. Fitzhugh:

Q. The last piece of work you referred to, and which you said you had just completed before coming down to start in this case was work that you did for the Chicago Sanitary District, did you not?

A. It was work done on the Chicago Sanitary District; however, it was done for a Government commission.

Q. Now, then, from the experience that you have had, and which you have just detailed to the jury, Mr. Freese, do you feel that you can accurately estimate the costs of excavation as they would be incurred on the building of a pipe line system similar to that of the Lone Star Gas Company system?

A. Yes; from the data which we have gathered and the information furnished us by contractors, I feel that I can make a fair estimate of what the work should cost.

Q. And from an engineering standpoint do you feel like you could accurately estimate the costs of construction of the various kinds of property such as the Company has to make up its integrated system as it is today?

A. Yes.

Q. Do you feel that your familiarity with the kinds of property and the types of material that would go into a system of this sort is such that you could properly price, apply the proper discounts, and obtain as unit costs for the property as installed, the proper costs as they would be incurred in a reconstruction of the Company's property?

[fol. 2811] A. I do.

Q. Now, have you made an investigation of the Company's property to arrive at a value on a reconstruction basis as of today?

A. Yes.

Q. What is the date of your appraisal?

A. It is dated June 15, 1934.

Q. Have your findings been incorporated into an exhibit for introduction in this cause?

A. Yes.

Q. The exhibit to which you refer is entitled on its cover sheet, "Lone Star Gas Company, Texas Gathering, Transmission, Compressing and General Property, Reproduction Cost New Appraisal, June 15, 1934. Hawley, Freese and Nichols, J. A. Phillips Co."?

A. That is correct.

Mr. Fitzhugh: I will introduce the exhibit so identified in evidence.

(Thereupon the document referred to above was marked for identification as Plaintiff's Exhibit No. 6.)

* * * * * * *

[fol. 2812] Examination by Mr. Griffith:

Q. Mr. Freese, does the exhibit just identified by you and tendered in evidence purport to be a reproduction cost new appraisal as of June 15, 1934, covering the public service property of Lone Star Gas Company which is geographically situated in the state of Texas?

A. Not exactly. There are certain sections of some of the lines, like Line A-14, where I have taken a junction between that line and Line A as the division point.

Q. And it does not include all of the lines and property of the Company located in the state of Texas?

A. No; but it does include the section of Line A that goes through the corner of Oklahoma.

Q. That is main line A?

A. Yes; main line A, 18-inch.

Q. In other words, it is a sort of hodge-podge, in that you have some property in Oklahoma included in your Texas property, and some of the property that is actually geographically located in Texas you have not included in this appraisal?

A. There are some small remnants of Oklahoma property which I felt should properly—or rather some remnants of small lines in Texas which I thought should properly be allocated to Oklahoma property. On the other hand, that Line A I thought should be allocated to Texas properties, and I have so done.

Q. Mr. Freese, I have listened with a great deal of in-
[fol. 2813] terest to the recital of your experience as an engineer, but it was not apparent just what experience you had had in connection with the construction of natural gas properties. Have you ever constructed any natural gas property?

A: No. The companies do not usually retain outside firms, but do most of this work themselves.

Q. Have you ever been engaged in any phase of the construction of natural gas pipe lines or compressor stations?

A. No.

Q. Have you ever been identified with the ownership, operation, management, or control of any natural gas enterprise of any kind or character?

A. Lately we have designed some gas systems, including a transmission line to Lubbock and a distribution system there.

Q. Those plans are merely paper plans, are they not?

A. They are. They have been checked by the Government for the purpose of making a loan to the city of Lubbock.

Q. Have you ever actually designed the construction of any natural gas property that has ever been built?

A. We have never actually constructed any natural gas property.

Q. Have you ever prepared designs or plans for any natural gas property which was built in accordance with your plans or designs?

A. No.

Mr. Griffith: If Your Honor please, we will object to the [fol. 2814] introduction in evidence of the exhibit just identified by the witness Simon W. Freese, styled on the title cover "Lone Star Gas Company, Texas Gathering, Transmission, Compressing and General Property. Reproduction Cost New Appraisal, June 15, 1934," for these reasons: In the first place, the appraisal so-called is wholly irrelevant and immaterial and not competent for the proving of any issue made by the pleadings in this case, it purporting to be by the name an evaluation solely of the Texas property of the Lone Star Gas Company, and that would not furnish us a segregation of property which would be used and useful in connection with the interstate and intrastate operations, respectively, of the defendant Lone Star Gas Company. Objection is further made for the reason that the witness is not qualified as an expert to prepare and present and testify in respect of a reproduction cost appraisal of the Company's property.

The Court: The objection is overruled.

Mr. Griffith: Note our exception. And will it be understood, so that the witness and counsel for the State will not be interrupted, that our objection will continue to run to all testimony in aid of, in explanation of, or in amplification of the exhibit so tendered?

The Court: Yes, sir.

[fol. 2815] Direct examination continued.

Questions by Mr. Fitzhugh:

Q. Now, Mr. Freese, will you turn to your exhibit—the first sheet inside the title page—what do you show on that sheet?

A. That is the table of contents.

Q. The next page, which is numbered page 1, represents what?

A. It represents a summary of the reproduction cost new as of June 15, 1934 of the Texas Gathering, Transmission, Compressing, and General System Property of Lone Star Gas Company.

Q. The detail sheets which make up the items shown in the summary follow this page 1, do they not?

A. That is correct.

Q. Now, take up the items in order and make the explanation that is necessary to show the jury what you have done in this exhibit.

A. On pages 1 and 2 is given the summary, the total for the properties, as shown on page 2, being $40,256,862.39. Now, throughout this exhibit, wherever it has been possible, and where I thought that the prices used in the Company's Exhibit 28 were fair and reasonable, I have accepted and adopted those figures. That will explain the absence of detail in a great many instances. Where there has been any deviation I have shown in detail the exact prices which we have used.

[fol. 2816] Q. Now, in the case of items of property or classifications of property where you have not made a change, you don't intend to say, do you, that you accepted all of the calculations that went into the Company's exhibits, or as testified to by Company witnesses who have appeared heretofore in this case; but only that you have accepted their end result?

A. That is correct.

Q. Now, will you proceed?

A. I should explain first just how we have segregated the properties. We have assumed that the Line A, which comes down through the corner of Oklahoma, should be charged in its entirety against the Texas properties. However, we have not assigned any of this pipe line capacity, or of the cost of this pipe line, for the bringing of gas

to the end of the Hollis, Oklahoma, tap; nor have we allocated to the Oklahoma properties any of the Line A which brings gas to the junction between "A-1" six inch and "A" Main Line. We have, however, cut off the Line A-1 six-inch at the junction and assigned all of that property to Oklahoma. We have cut off Line H at the junction here at Petrolia and have assigned all of that line to the Oklahoma operations. However, in segregating the Texas properties we have not charged against the Oklahoma operations or the Oklahoma properties any of the compressor station capacity at Petrolia, nor have we charged against the Oklahoma properties any of the Lines B and 2nd B used for the transportation of Oklahoma gas that came [fol. 2817] down through that line. The same way with Line G. We have cut line G off at Gainesville, charging this part of the line to Oklahoma, and charging all from that point south to Texas, making no charge or allocation of any part of the capacity of this line which handles Oklahoma gas.

Mr. Griffith: You refer, Mr. Freese—I want to understand this, Mr. Freese—in other words, included in your appraisal is nothing for that part of the line G in Texas which extends from Gainesville to the Red River?

A. That is correct. That has been charged against the Oklahoma properties.

* * * * * * *

Mr. Griffith: Mr. Freese, as I understand your answer to my question, you have included in your exhibit here, which has been marked Plaintiffs' Exhibit 6, no part of the evaluation of Line G, a 16-inch line extending from the city of Gainesville north to the Red River?

A. Well, I should perhaps phrase my answer this way: That the only part of the Texas properties which we have charged against the Oklahoma operations is this section of the line which handles Oklahoma gas exclusively.

The Court: What part is that?

[fol. 2818] A. That is the part between Gainesville and the Red River that handles Oklahoma gas exclusively, or substantially exclusively, and we have assigned that to Oklahoma; but we have made no charge of that portion of the line south and east of there which transports Okla-

homa gas to the Oklahoma properties. In other words, we have charged one hundred per cent to these lines against the Texas properties.

The Court: Let me get it clear.

Mr. Griffith: All right.

The Court: As I understand it, that part of that line down to Gainesville is charged exclusively to Oklahoma?

A. That is correct.

The Court: And that line south and east of Gainesville is charged exclusively to Texas and none to Oklahoma?

A. That is correct, on this theory, that since that Line G from the Red River to Gainesville was handling Oklahoma gas one hundred per cent; and although the line south and east of there handled Oklahoma gas to a certain extent, we have not charged any portion or any allocation of those properties to Oklahoma.

The Court: Do you know, or can you tell me the distance of that line north from Gainesville to Oklahoma, that you have charged to Oklahoma?

A. I cannot tell you exactly, but it is approximately sixteen miles.

* * * * * * *

[fol. 2819] Q. Using that method you simply assumed that all of the gas coming through Line G is one hundred per cent Oklahoma gas all the time?

A. That is correct.

Q. Notwithstanding that there is some testimony that occasionally there may be some north-bound gas in line G?

A. That is correct; and the same way with Line E-5 six-inch, we have charged all of that line to Oklahoma at the junction with "E" 10-inch, a short distance there of two or three miles, that line being used wholly for the transportation of gas delivered in Oklahoma. However, we have made no charge against Oklahoma of any part of Line E ten-inch which brings gas to the junction.

The Court: Where is that place?

A. The junction is east of Denison about five miles, and about three miles from the River. And similarly, with the line up into Hugo, which delivers Oklahoma gas exclusively; [fol. 2820] or rather, the gas delivered is gas used in Oklahoma. We have excluded that line, but have made no charge

against the Oklahoma property for bringing the gas to the junction. And similarly with the Gainesville Compressor Plant, although that compresses some Oklahoma gas, we have charged the entire Gainesville Compressor Plant against the Texas properties.

Q. Is there any additional explanation you care to make as to your summary?

A. No; I think we will get to each item.

Q. The first item appearing in the detail sheets appears on page 3 as Gathering System Rights of Way.

A. Yes; for Gathering System Rights of Way, for Field Measuring Station Structures, for Field Measuring Station Equipment, and Field Line Equipment, also Transmission Measuring Station Land, Transmission Measuring Station Leaseholds, Other Transmission System Land, and Other Transmission System Leaseholds, we have accepted the figures shown in the Company's Exhibit 28. Now, we have eliminated from those what are known as the Petrolia Field Gathering System Rights of Way and Field Line Equipment.

[fol. 2821] Q. That covers the first eleven pages?

A. Yes.

Q. What—That is, the detail sheets, from page 3 through page 11, inclusive?

A. Yes. The reason that we have eliminated the Petrolia field lines which make up the principal item, is by reason of the fact that the actual out of pocket operating expenses in this field have exceeded for the past three years at least, the years for which we have records, the value of the gas in that field. For the year 1931, the cost of producing gas in that field, the actual out of pocket expense, was $23,307.64; the value of the gas was $21,960.72. For the year 1932, the operating expenses were $22,508.82, and the value of the gas was $13,934.04. For the year 1933, the operating expenses were $21,633.92, and the value of the gas was $16,634.82. That field has just about played out, and is now operating at a pressure very much lower than that at which fields are usually abandoned. For that reason we did not regard this property, by and large, as being useful in the public service operations. However, I should add in that regard that we have allowed the full salvage value of all the property in the Petrolia field as part of the working capital.

Q. Now on page—On no page, of the pages 3 to 11 inclusive, would there be any mention of the Petrolia account, would there?

A. No.

[fol. 2822] Q. Nor of the Petrolia field property?

A. No.

Q. Because of this elimination which you have just stated?

A. That is correct.

Q. Now, just to make the matter clear, Mr. Freese, you had better take these pages one by one, beginning with page 3 and show just what you do show on those pages.

A. Well, for gathering system rights of way, the three other fields in Texas other than the Petrolia field are the Pottsboro, the Panhandle and the West Texas fields. There are shown for the Pottsboro field rights of way $132.60; for the Panhandle field $2,778.00; and West Texas, $6,269.01. These are the figures shown in the company's exhibit, and were arrived at on the basis of taking three times the cost of the payment to the land owner for the right of way. The total of $9,179.61 is carried back to the summary page and is shown under gathering system property, rights of way, at $9179.61.

For field measuring station structures, we show a total of $27,319.78. This is also carried forward to the summary page. Similarly, for page 5, for the field measuring station equipment, total of $93,943.02 is carried forward to the summary sheet.

Q. And the same for page 6?

A. For field line equipment; a figure of $205,731.85, being the total taken from the company's Exhibit 28. Similarly for the Pottsboro and West Texas fields. Now, when it comes to transmission system measuring station land, the [fol. 2823] totals could not be taken from the company's Exhibit 28, so we have shown for each town the value of the transmission measuring station land, or rather, the reproduction cost new of the transmission measuring station land as shown by the company's Exhibit 28. For example, on the A system, A-1-1 Oklaunion, $426.89; that figure of $426.89 includes the cost of the land as actually paid for the land, plus the cost of purchase, which was 15 per cent, with a minimum of $25.00, plus the reproduction cost new of the improvements. However, that total of $426.89 is shown in the company's Exhibit 28. On the A system, there being some transmission land in Oklahoma, we have shown

that by individual measuring stations. On the B system and C system, there being no property in Oklahoma, we have taken the totals. On the E system, there being property in both Oklahoma and Texas, we have divided that up, item by item. The total on the next page, page 8, of $82,596.45, is carried forward to the summary sheet.

Q. Now, in the case of the B, C, F, J, K, L, M, O, R and numbered systems, you have taken the figures exactly as they show in Defendant's Exhibit 28, have you not?

A. That is correct.

Q. Now, on page 9 what does the detail on that page show?

A. Page 9 shows the transmission system measuring station leaseholds, and this was arrived at in exactly the same way as the transmission measuring station land. The values, or rather, the reproduction cost new figures shown on that page include the improvements at each of the meas- [fol. 2824] uring stations listed, plus the unexpired value of the leaseholds, that unexpired value being taken as given in the company's Exhibit 28.

Q. Proceed to the next page.

A. Other transmission system land. This page shows each item of property of the company listed as other transmission system land and includes all of the other transmission system land in the State of Texas. The same explanation is applicable to other transmission system leaseholds shown on page 11.

Q. Now what do you show on pages 12 and 13?

A. On pages 12 and 13 we show the transmission system rights of way, with the roddage for each line and the cost, based upon the actual cost to the company as experienced by the company in a study of those costs. It does not include the twenty per cent contingent item allowed by the company for condemnation suits which they figured might be incurred in a wholesale reproduction cost, but which were not actually incurred in the past.

Q. Why did you feel, Mr. Freese, that you were not justified in leaving in that twenty per cent for condemnation costs?

A. Well, in the first place, it is purely a matter of policy with the company whether they pay what the land owner asks, and avoid condemnation costs, or whether they take the risk of trying to get a lesser cost through the courts.

No condemnation costs were actually incurred on the lines studied by the company, and if they use the same policy and the same methods in procuring the rights of way under [fol. 2825] reproduction cost new, no such costs would be incurred. Furthermore, these rights of way costs which run from 92 cents, or rather, from 83 cents to 92 cents per rod, are made up largely of labor costs, the actual payment to the land owner being approximately 25 cents per rod. Those actual purchases studied were made in the years 1929 and 1931, when labor costs were somewhat higher than they are now. Furthermore, the lines studied had an average length of 109 varas, whereas the average length on the system as a whole is 139 varas.

Mr. Griffith: You say the lines; don't you mean the rights of way?

A. Yes, the rights of way; however, the right of way is almost identical or equal to the length of the lines, except for road crossings and such deductions as that.

The Court: Did you say 109 varas?

A. Yes, 109 varas.

The Court: Varas?

A. Yes, that is the way they measure these rights of way.

The Court: I just wanted to understand the word. It's a land measurement term, and I didn't know whether I understood you correctly or not.

Q. To illustrate, now, Mr. Freese, on the A system, main line per rod, you used a cost of $.9258?

A. That is correct.

Q. How did you find that unit cost?

A. Well, that is the cost used by the company in their [fol. 2826] Exhibit 28 before the addition of the 20 per cent.

Q. So it is the same cost as has already been testified to by the company witnesses?

A. Yes.

Q. Minus the 20 per cent addition for contingencies?

A. Yes.

Q. Now what do you show on pages 14, 15 and 16?

A. Pages, 14, 15 and 16 show the reproduction cost new figures for the transmission system measuring station structures, on the A system, E, G and H systems, parts of which are in Oklahoma and parts of which are in Texas, and there we show the individual measuring station locations, with the reproduction cost new at each station. For the B sys-

tem, the C system, F system, the J, K, L, M, O, R and the numbered systems, the Government ten inch line, and the T. P. U. system, we show the totals, as none of the measuring stations on these lines is in Oklahoma.

Q. What do you show on page 17?

A. Page 17 shows the other transmission system structures.

Q. Now, on the A system, you show the Byers cleaner house, and Petrolia cottage No. 41 as a deduction, do you not?

A. No, those are the only two items on the H system which we have included in the Texas properties, and the rest of the other transmission system structures on the H system being located in the State of Oklahoma, and being applicable to the Oklahoma properties.

[fol. 2827] Q. On pages 18, 19 and 20 what is shown?

A. On pages 18, 19 and 20 are shown the transmission system measuring station equipment, and the explanation which I have given with reference to the transmission system measuring station structures, is also applicable to transmission system measuring station equipment.

Q. Now we come to page 21, to the transmission line equipment, Mr. Freese.

Mr. Griffith: Did he explain where he got those figures?

Q. Which figures?

Mr. Griffith: The figures on page 18, for example—are they taken from the company's Exhibit?

Q. Where did you get those figures, Mr. Freese; where did they come from, as shown on pages 18, 19 and 20, where you have detailed, by systems, the various items?

A. For transmission system measuring station equipment we have accepted the figures as shown in the company's Exhibit 28.

Q. For instance, on page 18, for the A system, where you show A, Iowa Park, Road No. 1, transmission system measuring station equipment, in the amount of $491.97. Where did that figure come from?

A. That came from the Company's Exhibit 28, and each one of the figures shown on the pages 18, 19 and 20 is reflected by the Company's Exhibit 28.

* * * * * * *

[fol. 2828] Q. On page 21 where you show transmission line equipment, and continuing through pages 21, 22 and 23, what is shown?

A. On the A system, for example, this item is broken down in to transmission line equipment, exclusive of excavation, amount of $3,255,171.87. Machine excavation, 347,016.5 cubic yards at 37½ cents per cubic yard, $130,131.19; hand excavation 1,343.2 cubic yards at $1.31 per cubic yard or $1,759.59; rock excavation 28,518.8 cubic yards at $3.50 per cubic yard or $100,165.80 for rock excavation. The total for the whole system being $3,487,228.45.

Now, the figure of $3,255,171.87 for the transmission line equipment exclusive of excavation was arrived at by taking the cost as shown in the company's exhibit 28 and deducting from that the excavation costs used by the company on this line, or rather I should say deducting the excavation cost on this line as shown by the company. We have also deducted 15.7 cents per ton from the hauling costs.

On Line A, the transmission system equipment in Texas as reflected by the Company's Exhibit 28 amounted to $3,567,591.90 and the excavation on that line amounted to $307,652.68 according to the cost used by the company. The hauling deduction of 15.7 cents per ton on the 30,365.3 tons used on Line A amounted to $4,767.35, and deducting the excavation costs used by the company, plus this deduction of 15.7 cents per ton on hauling of pipe, or $4,767.35, we arrived at the figure of $3,255,171.87 as being my cost, exclusive of excavation.

[fol. 2829] Now the 15.7 cents per ton hauling cost is the addition made by the company to the costs as derived from a study of the actual costs incurred by the company for contingencies which they expected or anticipated would take place in a reproduction cost new. First, ten cents for unloading in stock piles, and second 5.7 cents for moving gangs from one place to another. These costs were not incurred on the very sizable amount of work studied by the company in arriving at their costs. I see no reason why they should be incurred in a reasonable reproduction cost new program.

[fol. 2830] Now, we did not deduct ten per cent contingency allowed by the company on the actual hauling costs. These costs were that part of the total costs made by simply unloading the pipe from the cars into the trucks. The excavation costs which we have arrived at are costs which we

think are fair, or which I think are fair, based upon the information given us by Messrs. Dobson and Robinson, who have appeared as witnesses in this case. During the last few days we have taken bids on a water and sewerage system for the city of Bridgeport, Texas. These bids were received on June 14, 1934. The bid of the contractor whom we recommended for the award of that work was $2.25 for solid rock excavation and 75¢ for loose rock excavation. The contractor's bid on this work covered 5965 yards. Incidentally, Bridgeport is served by the "B" System. The amount of rock estimated for this system was determined by borings, and we found there that of the 5965 yards of rock excavation estimated, 4115 yards would be classified as loose rock and 850 yards would be classified as solid rock, taking the $2.25 unit price rather than the 75¢ unit price. Now, by the method of determining the classification of rock used by the company—that is, sticking down these bars as far as they go—it is my opinion that all of this work would have been classified under that method as solid rock, whereas, we found a large part of it is loose rock and can be excavated without the use of blasting. Now, these figures of 75¢ for loose rock and $2.25 are in addition to what [fol. 2831] the contractor would receive for his earth excavation; in other words, they should be increased by approximately 50¢ per cubic yard to $2.75 per cubic yard for solid rock and $1.25 for loose rock.

The Court: Is that earth above rock?

A. No; that is by reason of the way we pay them. We pay them so much per linear foot for the complete job of laying the water line or the sewer line, and then if they strike rock we pay then in addition to that his unit price for the rock so that he will have been compensated in addition to this amount of earth excavation cost the figure for straight earth excavation. Now in connection with Transmission Line Equipment, which amounts to $27,052,546.81 for the Texas lines the excavation costs which we have used are excavation costs as of the date of our appraisal, which is June 15, 1934. For the rest of the costs we have adopted the company's figures as shown in their Exhibit 28, that appraisal being dated as of January 1, 1933. Now, the price of pipe on the system as a whole had, according to the company's Exhibit No. 40, increased on May 1, 1934, in the amount of $1,105,652.54. Since that time it has decreased—that is, the quoted price has decreased $309,693.44. Con-

struction costs, according to the company's witnesses and according to the company's Exhibit 40, have increased $352,574.45. That includes the estimated increase in cost of excavation also. Taking into consideration welding and pressure couplings, the net increase over and above Janu- [fol. 2832] ary 1, 1933, was $1,269,688.28. We have used the 1933, January first, figure, as introduced by the company as of to-day for the following reasons; In the first place the company has included contingencies and omissions in the approximate amount of one million dollars. Practically all of their studies were based upon actual construction costs, in which case any omissions and contingencies were taken into consideration. One of the biggest items in omissions and contingencies is the two and a half per cent. on main lines, which amounts to $797,360.98. Now, the length of these main lines according to a test check of some two million feet which we made—that is, the measured length—is shown in the appraisal as almost identical with the actual amount of pipe purchased, so there could not be any omissions and contingencies on the pipe item itself. Now, if we were estimating the estimated costs of a piece of construction—for example, when we estimated the cost of the Eagle Mountain and Bridgeport dams at a cost of some six and a half million dollars, we estimated contingencies of approximately 5 per cent. and those contingencies were actually incurred, but the day after that construction work has been actually accomplished and we go back and analyze our actual construction records, we could tell exactly what the reproduction costs of those two dams should be without having to make any allowance for omissions and contingencies. Now, with reference to the [fol. 2833] pipe the company in the purchase of a good many millions of dollars worth of pipe has always been able, so far as our investigation goes, to obtain a discount of from 10 to 15 per cent. off of the quoted price. I am of the opinion that that would be so to-day on any large purchase of pipe. The last large purchase of pipe made by the company was for the 21 inch O. D. 71.25 pound pipe, to which reference has already been made. The actual price paid for this pipe was $2.00, whereas the quotation as of the date of this appraisal, which was just a few weeks before the pipe was actually purchased, was $3.00; in other words, the money actually paid for this pipe, which is the only large

purchase in 1933, was approximately 33⅓ per cent less than the quoted price.

Q. The prices you just gave are the prices per foot?

A. The prices per foot. We also investigated the price of some two million dollars worth of pipe bought in 1929, 1930, and 1931, and for each and every one of those purchases the price ran from 10 to 15 per cent. less than the quoted price used in this exhibit, or rather the quoted price has been used in Exhibit 28 and it has been accepted by us. For these reasons we feel that the prices used by the company, except for excavation, would be fair and reasonable as of to-day. There is one other item or one other line on which we made a small correction other than the changes in the prices of hauling and of excavation. That was on the "K" System Line "K"-5. On this System the com-[fol. 2834] pany used for some $91,913.00 of plain end seamless casing the quoted price for 6⅝ inch seamless casing, threaded and coupled, at $1.2286. Instead of that, we have used the price for 6⅝ inch seamless plain end pipe of $.8718, a saving of $.3568 on 71,913 feet of pipe on Line "K"-5. This amounts to $25,658.56. The only reason why the company should use seamless casing on a job of this sort would be because they could make a saving on the price of that pipe. Now, the price actually paid for pipe during a time when prices were higher than they are now—that was in 1929—was 64¢ per foot as compared with 87¢, which we have used, and the $1.22 price which the company put in their Exhibit 28. I believe, Mr. Fitzhugh, that completes the explanation of Transmission Line Equipment.

* * * * * * *

[fol. 2835] Q. Now, passing to the next classification of property, we come to Compressing System Property, page 24. What do you show on that page?

A. We show on page 24 the reproduction cost new for each of the compressing stations located in Texas, the total amount being $4,146,111.57. That is carried forward to the summary sheet. For this compressing station property, in the amounts shown for each of the compressing stations, we have accepted the figures as shown in Exhibit 28.

Q. The next item is General Office Land, on page 25. Will you explain your total arrived at on page 25?

A. The General Office Land cost, as shown by exhibit 28,

is $44,345.00—I believe it is $545.00. We have allocated to the Texas properties 86 per cent of this cost, and to the [fol. 2836] Oklahoma properties, or to the properties excluded from this appraisal, 14 per cent.

Q. How did you find the percentage 86 per cent to use as an allocation percentage for the Texas properties?

A. The 86 per cent was arrived at by taking the ratio of the Production System Property as evaluated in Exhibit 28, the Gathering System Property, the Transmission System Property, Compressing System Property, and Telephone System Property, segregating to Texas, on the basis heretofore explained, the properties applicable to Texas, and taking that total as compared to the total cost in both States of the properties which could be definitely allocated as between the two States, 86 per cent is found to be in Texas and 14 per cent in Oklahoma; and we have therefore allocated the General Office Land on this same basis. This compares to the 85 and 15 per cent figure which has been found in most of the accounting exhibits—that is, 85 per cent chargeable to Texas and fifteen per cent chargeable to Oklahoma.

Q. What do you show on page 26?

A. 26 shows Other General Land. The cost of this land as shown by Exhibit 28 is $49,273.87. We have allocated to the Texas properties 86 per cent, or $42,375.53.

[fol. 2837] Q. On page 27 you show the General Office Structure.

A. Yes, and we have allocated to Texas $276,436.36, that being 86 per cent of the cost of $321,437.63, as shown in Exhibit 28.

Q. The next is Other General Structure, shown on page 28.

A. This has also been allocated on the basis of 86 per cent to Texas and 14 per cent to Oklahoma, the net result being an allocation to Texas of $40,239.02.

Q. Now, on the General Office Furniture and Fixtures shown on page 29, and Other General Furniture and Fixtures shown on page 30, and General Shop Equipment shown on page 31, and General Tools shown on page 32,—in all instances you have used an allocation percentage to Texas properties of 86 per cent, have you not?

A. That is correct.

Q. And the same sort of explanation is made as to the use of that per cent?

A. Yes.

Q. What do you show on page 33?

A. On page 33 we show Automotive and Construction Equipment. Now, for Automotive and Construction Equipment we have taken the net worth as shown in the Company's Exhibit 10, on the last page,—this being the net book cost as [fol. 2838] of April 30, 1934, and amounts to $84,547.82. Of that we have allocated 86 per cent to Texas and 14 per cent to Oklahoma. The reason we took the book value for this item of property, rather than the book cost is by reason of the way the Company treats the depreciation on this property. The way they handle the use of this equipment on the books of the Company, if an automobile is used by any particular department of the Company, or any particular operation, they charge out to that operation the cost of the—or rather they made a charge for the use of the automobile, which is charged in to the operating expenses or in to the new construction, as the case may be, at that cost, and the depreciation included in that charge is credited to this account. Any other policy of evaluating this equipment would result in burdening the operating expenses, on the one hand, to the benefit of this charge, or, on the other hand, burdening this cost at the—or to the benefit of the operating expenses.

Q. On pages 34, 35, and 36, you show the detail on your amounts for the General Telephone System. Will you explain those, please?

A. On these pages are listed each one of the telephone lines owned by the Company. We have charged against [fol. 2839] Texas the telephone lines actually located in Texas, and against Oklahoma the telephone lines located in Oklahoma, except in the case of the line along H and the line along G, which case we have charged the lines north of Gainesville and Petrolia to the Oklahoma properties.

Q. Now, refer——

Mr. Griffith: May I ask a question, Mr. Fitzhugh?

Mr. Fitzhugh: Yes, sir.

Mr. Griffith: As I understand it, in connection with the telephone systems on Line G and Lines H and Second H you did exactly that which you did in connection with the pipe lines?

The Witness: That is correct.

Mr. Griffith: That is, you charged, or you did not include in your Texas property the telephone lines running from

Gainesville north to the Red River, nor did you include in the Texas property the telephone line running from the Petrolia Station north to the Red River, along Line H?

A. That is correct. We considered those as purely applicable to the transportation of the gas from or to Oklahoma. However, I should also state that we did not allocate [fol. 2840] any of the properties in Texas, even though they may have been concerned to some extent with the transportation of Oklahoma gas.

By Mr. Fitzhugh:

Q. Now, referring back to your summary sheets, pages 1 and 2, you have completed, have you not, an explanation of all the items appearing in your reproduction cost new, up to the non-physical properties?

A. That is correct.

Q. The first of those, Administration and Legal Expenses During Construction is shown on page 37, is it not?

A. That is correct.

Q. Will you explain how you found the Administration and Legal Expenses During Construction. Incidentally, you have included on this page the Engineering and Supervision and Taxes During Construction, have you not?

A. That is correct. We have applied to the items on which Administration and Legal Expenses During Construction would be incurred two per cent, the total of these items being $34,393,713.13, or a total for Administration and Legal Expenses During Construction of $687,874.26,—the two per cent being the same charge as has been set up on the books of the Company during the past several years for this [fol. 2841] item of cost. Now, for Engineering and Supervision During Construction we have allowed five per cent, on $34,117,276.77, this being the sum-total of the items to which engineering and supervision costs are applicable,—the only difference between the thirty-four million, one hundred and seventeen thousand dollar figure to which the Engineering and Supervision percentage was applied and the thirty-four million, three hundred and seventy-three thousand dollar figure to which the Administration and Legal Expense charge was applied, being the General Office Structure in the amount of $276,436.36; that figure of two hundred and seventy-six thousand dollars includes the architect's services on that building, which we consider as being equivalent to

the engineer's services on the other parts of the System. This five per cent for Engineering and Supervision is sufficient to provide a complete engineering and supervision service, including the drawing of the final-as-built plans of the System. Now, during the year 1927 the Company actually constructed some $6,600,000.00 worth of property. The administration and legal and the engineering and supervision actually capitalized by the Company on its books amounted to .43 per cent, or slightly less than a half per cent, [fol. 2842] as compared with the 7 per cent figure which I have used. During the year 1928 there was accomplished some $3,600,000.00 worth of work by the Company; the general overheads capitalized—that is administration and legal and engineering and general supervision, were $35,958.69, or 1.00 per cent, compared to the 7 per cent which we have used. During 1929 approximately $7,000,000.00 worth of work was accomplished and the general overheads capitalized amounted to $59,912.56, or .86 per cent. However, in addition to these general overheads capitalized, the Company made certain direct charges to the work. I have been able to analyze some $4,260,000.00 worth of this work accomplished during 1929 and 1930, and the direct charges—that is, the engineering and office payroll charged direct to this work, amounted to .77 per cent. Taking the cost capitalized on the books as administration, legal, engineering and general supervision, plus the direct charges made to the work, we get a weighted average for the three years of 1.49 per cent, being 1.20 per cent for 1927, for the $6,600,000.00 worth of work; 1.17 per cent for 1928 for the $3,600,000.00 worth of work; and 1.63 for the $7,000,000.00 worth of work done in 1929. Now, I have gone through and assumed that [fol. 2843] for the year 1927 one-half of the General Administration and Legal salaries and expenses, insurance, telephone and telegraph; Engineering and Geological Department salaries and expenses; and Office Building expenses, that half of those expenses, in the amount of $386,002.08, might have been capitalized on the books of the Company or charged against this $6,600,000.00 worth of construction at that amount, or 3.14 per cent, and the amount actually charged direct or capitalized on the books, gives me a total of 3.91 per cent for the year 1927, for the $6,600,000.00 worth of work. This 3.91 per cent compares with the 7 per cent which I have allowed for Total Administration and Legal,

Engineering and General Supervisions Costs in this appraisal. For the year 1928 there was only $3,600,000.00 worth of work done. I have assumed that one-third of the General Administration and Legal Salaries and Expenses, Insurance, Telephone and Telegraph, Engineering and Geological Department Salaries and Expenses, Office Building Expenses, which were charged during those years to operating expenses for operating the System's properties, might conceivably have been charged against this construction work.

[fol. 2844] That results in 4.27 per cent, which added to the actual charges of 1.17 per cent, gives a total of 5.04 per cent, as compared to the 7 per cent that I have used. For the year 1929, when construction went back to seven million dollars, I have allocated a possible one-half of all the operating expenses, the operating expenses being $494,664.96; that is, these general operating expenses, and amounting to 3.96 per cent, which added to the actual charges, gave 4.73 per cent. The weighted average for the $17,200,000 worth of work was 4.48 per cent, 1.49 per cent being the actual amount charged on the books, and the 3.71 per cent being the amount which might conceivably have been charged of the operating expenses, giving a total of 4.48 per cent of the $17,200,000 worth of work, which compares to the 7 per cent which I have used for these two items of overhead.

Q. You have not made your explanation of Taxes During Construction yet, have you?

A. In arriving at my estimate of Taxes During Construction, I have segregated the property in different divisions, depending upon the estimated construction period. We have based our estimate of Interest During Construction on an interest rate of 6 per cent. For example, take the division of property into which we have put Gathering System Rights of Way, Transmission Measuring Station Land, Transmission Measuring Station Leaseholds, Other Transmission System Land, Other Transmission System Lease-[fol. 2845] holds, Transmission System Rights of Way, and Other General Land, totaling $1,063,886.91, we have applied 6 per cent. Now, this 6 per cent was arrived at by assuming that the money would be provided three months ahead of the beginning of construction, and that—perhaps, I should explain it this way——

Mr. Griffith: Just a moment. Did you ask him for Taxes During Construction?

Mr. Fitzhugh: Yes.

Mr. Griffith: You are explaining Interest During Construction.

Q. Take Taxes During Construction.

Mr. Griffith: Pardon my interruption.

A. Will it be all right to finish the explanation of this Interest During Construction?

Q. Go ahead with the Interest During Construction since you have started on it.

A. All right. Well, we have taken what we estimate to be the probably construction period for each one of these items of property, and have assumed that the money would be used uniformly during the progress of the work, and that the money would be provided three months ahead of the actual need of the money, and based upon a six per cent interest rate we arrive at the percentages allowed for each item. Now, to get back to Taxes During Construction, for which we have allowed $8,500.

Q. That is shown on page 37?

[fol. 2846] A. Yes. Very little, if any, taxes during construction have actually been paid by the Company, nor would they be paid by the Company in a reasonable reconstruction new program. It is the policy of very few of the taxing districts to tax any work in progress of construction. Furthermore, most of this work would be done during the summer working months.

Q. I will ask you, Mr. Freese, if you are yourself a member of a taxing body of this state?

A. I am a member of the Fort Worth School Board, which includes the Fort Worth Division of the Lone Star Gas Company——

Q. Is there quite a substantial portion of the Company's property, in addition to the Fort Worth Division, within the school district of which you speak?

A. Yes; there are several millions of dollars worth of the Fort Worth Division property, and also some of the general property of the Lone Star Gas Company.

Q. What is the general policy of taxing property under

construction but not completed as of the taxing date in that school district?

Mr. Griffith: We will object to that as being irrelevant and incompetent, and not having any bearing upon this case.

The Court: Yes; I think that is as far as you better go.

* * * * * * *

[fol. 2847] Q. Complete your explanation of this item.

A. We asked the auditors to make as complete a search as possible for a record of any taxes paid during construction. During the years 1927, 1928, and 1929, during which period something like $17,200,000 worth of work was accomplished, they were able to find taxes, which might have been taxes during construction, in the amount of $1,616.73. Now, this $17,200,000 being somewhat more than a third of the property, we multiplied that by three and then doubled that figure approximately to get the $8,500 we have allowed. In other words, we have allowed a factor of safety of two to one.

Q. Now, in connection with this item and others where you have mentioned the figures actually shown on the Company's books, Mr. Freese, I will ask you what was your source of information?

A. Those figures were furnished us by J. A. Phillips Company.

Q. And the investigation was made at your request and under your general supervisory direction?

A. That is correct.

Q. Now, pass on to Preliminary and Organization Expenses, shown on page 39. Will you explain the items appearing on this page?

[fol. 2848] A. The items Preliminary Geological Investigations, $114,444.00; Preliminary Engineering Investigations, $49,695.00; Attorney's Fees, $15,000.00; Charter and Qualification Fees, $10,000.00; Franchise Tax, $17,144.00; Corporation License Tax, $3,273.00; and Engraving Common Stock Certificates, $136.00, were taken from the Company's Exhibit 28; all of the items except Franchise Tax and Corporation License Tax being included under the heading of Preliminary and Organization Expenses. Franchise Tax and Corporation License Tax, in the amounts given, were included under the head of Taxes During Con-

struction. Now, we have allocated to Texas 86 per cent of the total for those items.

Q. And you have already explained how you obtained the 86 per cent allocation factor?

A. That is correct.

Q. On page 40 is shown the detail on Working Capital. Will you explain these computations?

A. Yes, sir. Most of those figures were arrived at in consultation with the auditors. Materials and Supplies amounting to $416,000.00; Cash Working Capital, consisting of bank balances in the amount of $300,000, which I believe was also the figure used by the Company, we have allocated 86 per cent to Texas, or $258,000.00; 45 days' Operating Expenses, $200,000.00; Advances on Gas Purchase Contracts, $360,000.00; Prepaid Insurance and Rentals, $32,000 for the entire system, and 86 per cent for Texas [fol. 2849] is $27,500.00; Gas in System, 150,000,000 cubic feet at $.06, giving $9,000; and Petrolia Field Line Equipment Salvage Value, at ten per cent of that line's cost, or $18,500; giving a total of $1,289,000.00. All of these items are carried forward to the Summary as shown on pages 1 and 2, and which totals $40,256,862.39.

Q. And that does represent, in your opinion, does it not, Mr. Freese, the present value of these properties?

A. Of the Texas Gathering, Transmission, Compressing, and General System properties.

Q. Now then, I notice in your non-physical properties, and in fact, nowhere in your summary is there a separate allowance for going concern value, or going value. Does that mean, Mr. Freese, that you have not evaluated this portion of the Company's property as a going concern?

A. No; that does not mean that we have not taken this at its reproduction cost new as a going concern, rather than its junk value as a going concern.

Q. Why have you felt justified in not making some sort of additional and separate allowance for going value?

A. In the first place, the history of the Company indicates that no losses on idle plant were actually incurred; or, if any such losses were incurred during the early years of the Company, that they have been easily made up in the meantime. In the second place, during the operating [fol. 2850] periods considered in the auditor's exhibits, most of the items which are ordinarily considered as contributing

to the building up of going value have been charged to operating expenses.

Q. In your theory in reconstructing the Company's property and using that reconstruction cost as a measure of its present value, did you make any assumptions such as Mr. Connor made in assuming that various cities and towns were operating artificial gas plants?

A. No; it was not necessary to make any such assumption under the methods I used.

Q. From your knowledge of the history of the Company, Mr. Freese, I will ask you if it would be reasonable to suppose that numbers of towns, instead of reluctantly attaching to the system, actually came on the system, willing and anxious and ready to pay a good price for gas as soon as it could be furnished to them?

Mr. Griffith: We will object to that unless the witness says he actually knows.

[fol. 2851] Q. Do you know those historical facts, Mr. Freese?

A. Not covering the system as a whole. I know for individual towns where I happened to observe it, that the customers were very largely attached—that is, where they have built the gas systems in late years. In fact, most of them were signed up ahead of the building of the gas system into the towns.

Mr. Griffith: I will ask you, Mr. Freese, to specify the particular towns.

A. Well, there is one town, and I am not sure whether it is on the Lone Star system, but I happened to be doing some work when the gas system was laid, Comanche. Royse City is another town. Those were some of the towns I happened to know about.

Mr. Griffith: Is Comanche on the Lone Star system?

A. No, it is not.

Q. It is a common practice, though, of the companies when they are about to build into a town, to sign up prospective customers before they ever agree to put the system in; isn't that a fact?

A. Yes, I know at Lubbock for instance, where we have been preparing estimates for purposes of securing a loan from the Government, we signed up, or have already signed up the prospective customers in advance.

Mr. Griffith: Lubbock is not on the Lone Star system, is it Mr. Freese?

A. No, it is not on the Lone Star system.

Q. Royse City is a part of the Lone Star system, is it not? [fol. 2852] A. It is a small system on the Lone Star system.

Q. Now, you have included in your appraisal all the direct structural costs which include the cost of installing by units the physical property of the company, and you have included in those costs as part of the unit costs, all the job overheads, have you not?

A. That is correct.

Q. In addition to all those expenses and costs, you have included in your non-physical properties: administrative and legal expenses during construction, engineering and supervision during construction, taxes during construction, interest during construction, preliminary and organization expense, and working capital, in a total amount of $5,407,-711.99?

A. Yes, or exclusive of working capital, in the amount of approximately $4,120,000.00.

Q. Does the company operate in competition with any other pipe line company in the territory it serves?

A. I started to say at Waxahachie they did, but they supply both the sister company and the independent company there. At Wichita Falls, I believe another company serves certain industrial consumers. At Dallas and Fort Worth there is another company which serves the power companies located at those two cities. Now, there may be some other cases of which I do not know, but so far as I know those are the only instances.

Q. Looking at the business as a whole, would it be safe to say as a general proposition that the company in the territory which it serves in supplying gas at the various cities [fol. 2853] and towns at the city gates which it serves, operates practically without competition?

A. With the minor exceptions which I have noted, that is true with reference to Texas. I am not so sure with reference to some of the Oklahoma towns. Perhaps at Guthrie there may be some competition too.

Q. We do have some more questions that we would like to ask Mr. Freese in connection with a different matter, but we would like to turn him over on cross examination at this time as to the matters about which he has already testified.

* * * * * * *

Cross-examination.

Questions by Mr. Griffith:

Q. How old are you, Mr. Freese?

A. Thirty-three years old.

Q. 33 years old?

A. Yes.

Q. And I believe you graduated from the Massachusetts Institute of Technology in 1921?

[fol. 2854] A. That is correct.

Q. So you are twelve years out of college?

A. That is approximately correct—twelve or thirteen.

Q. Now, in practically all of that twelve years time, you have resided in the City of Fort Worth?

* * * * * * *

A. Yes, that has been my home, and my office.

Q. And for most of that time, you have been identified with your present engineering firm?

A. During all that time.

Q. Is your engineering firm of Hawley, Freese & Nichols known as natural gas engineers?

A. No, we are known as consulting engineers.

Q. As a matter of fact, you are known as municipal engineers, are you not?

A. Yes, we are known as municipal engineers.

Q. And if you have any specialty, it is in the field of municipal engineering, in the construction of water and sewage plants?

A. We have done more water and sewage plant work than any other line of construction.

Q. Well, you previously testified that you have never had any natural gas plant experience?

A. That is correct.

[fol. 2855] Q. Has Mr. Marvin Nichols, your associate, ever had any natural gas construction experience?

A. If any it has been very small.

Q. It has been negligible?

A. Yes.

Q. Is the same thing true of Major John B. Hawley, the senior partner of your firm?

A. So far as I know. He has probably done some, from

time to time, but it has been a very small amount, and a long time ago.

Q. Well, Major Hawley hasn't had anything to do with this Lone Star case, has he?

A. No——

Q. You and Mr. Nichols have conducted this Lone Star Gas Company case, haven't you?

A. Yes; we have advised with Major Hawley from time to time on this work.

Q. Well, Major Hawley has been in Europe during this time, has he not?

A. Well, about half of the time.

Q. And if you wanted to consult with him, did you wire him, or cable him or write to him, or how?

A. We got in communication with him.

Q. Now, you testified you had never had any experience in the operation of a natural gas plant or property?

A. That is correct.

Q. In the City of Fort Worth are there many men and [fol. 2856] many concerns engaged in the natural gas business and the oil business?

A. There are a great many in the oil business, and perhaps a few in the gas business.

Q. Well, has any man in the City of Fort Worth, who has ever had so much as a dime invested in the natural gas business, ever called upon you for engineering services in connection with the design, construction or operation of a natural gas plant or property?

A. Well, we have advised with some of them. For example, with reference to this Lubbock work, the T. P. Coal & Oil Company is to furnish the gas, and we have advised with them in that matter.

Q. Well, have you ever been called upon to supervise the construction or to actually construct any natural gas plant or property of any kind or character?

* * * * * * *

[fol. 2857] A. You mean the actual construction?

Q. Yes.

A. No.

Q. You never have?

A. No, sir.

Q. Didn't you testify before the Railroad Commission

of Texas that so far as the installation of any property was concerned which partook of the nature of the Lone Star Gas Company's public service property, that your total experience would not cover more than $3,500.00 worth of construction work?

A. I think that is probably true.

Q. Now, I want you to refer to Plaintiff's Exhibit 6, being your alleged valuation of the Texas property of the Lone Star Gas Company in relation to the public service, and I want you to point out a single page to me in that appraisal where you have exercised your independent judgment as an engineer in arriving at the over-all costs of any unit of property—and I refer to physical property.

A. You do not mean as it is made up of the different parts, but of the total for any particular item?

Q. That is correct.

A. No sir. We have been able to accept for a large part of the properties, the values set out in Exhibit 28. However, the segregation in each case has been our own segregation.

Q. But there is not a single item of the physical prop- [fol. 2858] erty appearing in Plaintiff's Exhibit 6, which represents—in so far as the physical property is concerned —which represents your own independent judgment as an engineer in this case?

A. Parts of the transmission line equipment, particularly, do.

Q. All right; let's turn over to transmission line equipment. That starts at page 21, does it not?

A. That is correct.

Q. Now, of what kind of pipe is the A system of the company constructed?

A. It is constructed of steel pipe.

Q. What kind of steel pipe?

A. Lap weld, plain end.

Q. Is it all lap weld, plain end.

A. That is my memory at the present time; it is alternate dresser coupled and welded joints.

Q. Alternate dresser coupled and welded joints. Well, did you ever have any experience with welding?

A. Not of natural gas transmission systems. We have had incidental welding at various times, involved on our work.

Q. Have you ever personally done any welding work?

A. No.

Q. Have you ever supervised the doing of any sizable welding construction job?

A. From time to time we have had welding work to be done, which it was necessary for us to inspect and pass upon; small amounts from time to time on almost every job.

[fol. 2859] Q. That has been a relatively small amount, has it not?

A. Comparatively speaking, yes.

Q. Now, how do you know that the welding costs as adopted by Mr. Biddison and included in Defendant's Exhibit 28, were correct?

A. Because in the hearing before the Railroad Commission we checked very carefully the basis of all of the figures, and which are now being used by the company in this exhibit.

Q. From your own personal knowledge, or as a result of any construction experience of your own, how do you know that the welding costs used by Mr. Biddison in Defendant's Exhibit 28 are correct?

A. It is only from our check of the actual costs incurred by the company.

Q. And outside of that, you have no other factual data upon which to predicate your acceptance of Mr. Biddison's figures, have you?

A. No sir, but for example—on a great many of the lines, built in 1929, 1930 and 1931, we had detailed breakdowns of all the costs.

Q. Who made those detailed breakdowns—Did Mr. J. A. Phillips make them?

A. He furnished us with the actual costs as shown by the company's books, and we made our own analysis and breakdown of those costs.

Q. You did not make the analysis from the books of the company or make any actual cost studies based upon the [fol. 2860] costs as shown by the company's books yourself, did you?

A. I made all the cost analyses that were made. I was simply furnished with the data and the actual costs from the company's books and records, but the analysis of those construction costs was made by myself.

Q. You did not actually inspect the books, records or accounts of the company for the making of that determination?

A. No, all those figures were furnished to me at my request.

Q. How do you know that the cost of laying and testing the alternate dresser coupled and welded pipe on the 18 inch line A system of the Company, as used by Mr. Biddison in Defendant's Exhibit 28, were correct?

A. Well, by reason of knowing the methods used by Mr. Biddison. He took most of his costs, except for the laying of dresser coupled pipe (in which case he worked up a hypothetical gang) but they were based on costs as shown by the books of the company, and we were furnished with those costs in the hearing before the Railroad Commission, and we also had our auditors dig up the costs on a great many of these lines in those respects.

Q. All right now, outside of the information that has been furnished to you by the company, or information which you have obtained through Mr. Phillips from the books of the company, what has been our own experience in connection with those costs? Have you had any experience?

A. Not in the laying of natural gas pipe lines, no sir.

[fol. 2861] Q. You have had no such experience?

A. We have laid lots of other kinds of lines, and some steel lines, too, but not natural gas pipe lines.

Q. As a matter of fact, most of your experience has been in the nature of laying cast iron lines, has it not?

A. Yes, most of it.

* * * * * * *

[fol. 2862] Q. Mr. Freese, prior to December, 1931, you had never been employed by anybody in connection with any natural gas work?

A. No; however, I have been almost continuously on that work since 1931.

Q. In December, 1931, you were hired by the Railroad Commission of Texas?

A. Yes, sir.

Q. But prior to that time you had never even made an appraisal of a natural gas property?

A. That is correct.

Q. Now, you say the pipe prices which are current as of this date and as reflected in Defendant's Exhibits, would be subject to a discount of teh to fifteen per cent, if this property were to be reproduced?

[fol. 2863] A. Yes, I said that the Company always had received, when they had a large amount of construction work, from ten to fifteen per cent discount off of the quoted price, but that in the last sizable purchase of pipe, according to our information, they got about thirty-three and one-third per cent off.

Q. When was that purchase, Mr. Freese?

A. That was in the first part of 1933.

Q. Was it prior to or subsequent to the adoption of the Steel Code?

A. It was prior to the adoption of the Steel Code.

Q. Now, do you know the circumstances attendant upon the purchase of the pipe that you refer to?

A. No, I only know that it was the only large purchase of pipe that was made during the year 1933 by the Company.

Q. Mr. Freese, can you refer me to a single instance where in the last eight months any pipe has been bought by Lone Star Gas Company, or any other gas pipe line company, below the quoted Steel Code prices?

Mr. Fitzhugh: Well, now, Your Honor, we object to that question, because the Steel Code does not set any par-
[fol. 2864] ticular prices where any sizable purchase is made.

The Court: You may ask what the prices are and what the prices have been; but let's stay away from anybody's code.

Mr. Griffith: All right, sir.

Q. Can you cite me to a single instance in the last eight months where the Lone Star Gas Company, or any other large pipe line enterprise purchased pipe for less than the quoted price for large lot purchases?

A. I do not know of a single large lot purchase. I do know that in making—that in securing quotations on pipe for a pipe line they told us that the quoted prices did not govern in that matter, and that they would have to take it up with the mill to secure the price for a particular pipe line.

Q. Have you made any inquiry, Mr. Freese, to ascertain what are the lowest quoted prices by any of the large manufacturers in the United States for steel pipe, and which prices are current as of this date?

A. Yes; the quoted prices as shown in the Company's exhibits conform to the quoted prices as given us.

Q. And you are unable to point out to this jury a single purchase of pipe that has been made at less than the quoted [fol. 2865] prices of the manufacturers within the last eight months?

A. I don't know, particularly in this part of the country, of a single large lot purchase having been made in the last eight months.

Q. Well, do you know of any small lot purchases that have been made below the quoted prices for small lot pipe?

A. No, I don't know of any carload or less than carload purchases that have been made at less than the quoted price.

Q. Within the last eight months period?

A. Within the last eight months period.

Q. Now, Mr. Freese, in your Exhibit 6 you adopt the Company's figures for the valuation of all structures shown in Defendant's Exhibit 28, do you not?

A. That is correct.

Q. What is the cost of lumber to-day, as compared with the January 1st, 1933, prices used in Defendant's Exhibit 28?

A. I do not know exactly; it has gone—the price has gone down ten per cent within the last few days. However, I should say that lumber, on the whole, is up from twenty-five to thirty per cent. However, the lumber part of this whole appraisal is a very small item.

[fol. 2866] Q. What about the price of brick as of January 1, 1933, and now?

* * * * * * *

Q. Will you answer the question, Mr. Freese?

[fol. 2867] A. Brick have gone up some. I think that on the Lone Star System, as a whole, possibly it amounts to about twenty-five hundred or three thousand dollars, mostly in the Dallas office building; but other things have gone down, to offset that.

Q. All right; what things have gone down as between January 1, 1933, and June 15, 1934, the date of your alleged appraisal?

A. Well, dresser coupling—I mean threaded and coupled pipe, for example, has gone down considerably.

Q. All right, what other item?

A. Well, that is the main item I think of right now.

Q. Well, can you think of any other item? I want you to relate to the jury all of the items that have gone down from January 1, 1933, to June 15, 1934, the date as of which Plaintiffs' Exhibit 6 was prepared.

* * * * * * *

[fol. 2868] A. Well, threaded and coupled pipe was the principal item that I had in mind. Generally, the other items have gone up. Some of the valves have gone down in price.

Q. But the general trend of prices of materials entering into the reconstruction of the Company's property has been upward from January 1, 1933, has it not?

A. Not generally; a lot of things, for example, the compressors—our inquiry of the compressor manufacturer brought forth the information that prices were exactly the same to-day as they were on January 1, 1933. Next after pipe, that is probably the largest item in the system.

Q. Well, the largest item of property in the System, is plain end steel pipe, is it not?

A. That is correct.

Q. That amounts, in the entire System, to approximately $20,000,000.00, does it not?

A. That is correct.

Q. And that is by far the largest item of physical prop-
[fol. 2869] erty found in the System?

A. By far.

Q. And has the trend been upward or downward on the prices of steel pipe from January 1, 1933, to the present time?

A. Part of the time it has been up and part of the time it has been down.

Q. What is the over-all tread from January 1, 1933 to date?

A. It is upward, to a small extent.

Q. Now, as a matter of fact, Mr. Freese, in your Exhibit 6, dated June 15, 1934, you made no attempt to apply prices which were current as of that date, did you?

A. Yes, it is my judgment that the prices which we have applied and which we have used will take care of the current costs.

* * * * * * *

[fol. 2870] Q. Did you apply, in connection with your transmission system, your adopted evaluation cost of transmission system prices current on pipe as of June 15, 1934?

A. Mr. Griffith, I read into the record in detail just how much the pipe had gone up between January 1, 1933, and the date of our appraisal, and I also stated here I thought, [fol. 2871] that this—the over-all prices which we had used were sufficient to take care of that rise in price of steel pipe.

Q. Mr. Freese, you adopted the pipe prices taken from Defendant's Exhibit 28, did you not?

A. No, I adopted the over-all cost taken from Exhibit 28.

Q. Exclusive of excavation costs?

A. Exclusive of excavation and hauling.

Q. Well, did you adopt the pipe prices which constituted a component part of the cost of the transmission system which were set forth in Defendant's Exhibit 28?

A. No, I stated that the rise in pipe prices, in the first place, was offset by certain allowances for contingencies which had been made; and, in the second place, I thought if you were actually buying a large lot of pipe—an actual purchase for actual construction, that you could get prices off of the quoted prices.

Q. Well, let's turn to Transmission System Equipment—Transmission Line Equipment, as set forth commencing at page 21 of your Exhibit 6. Just tell the jury what prices you did use for pipe of the various sizes in the A System in the compilation of your exhibit.

A. Well, the prices I used were the prices as of June 15, [fol. 2872] 1934. However, as I stated before, I thought there would be some discount from those prices on actual purchases.

Q. Didn't you testify on yesterday that the pipe prices you used were the quoted prices as of January 1, 1933?

A. No, sir, I didn't so testify. I testified that quoted prices on pipe had risen something like $700,000.00, as I recall the figure, and that that figure was offset by certain allowances for contingencies which were made by the Company; that I had accepted the rise in pipe prices, but I had not accepted those contingencies; therefore, the prices which I have used are, in effect, the ones of June 15, 1934.

Q. Well, take the 18-inch pipe that is in the A System,—what price per lineal foot or per hundred lineal feet, at the mill, or f.o.b. the railroad siding, did you use in connection with your appraisal—that is, Plaintiffs' Exhibit 6?

A. What size and weight did you ask for—18-inch?

Q. Yes, weighing 59 pounds plus per foot.

A. Well, the price, delivered, was—on June 11, 1934, was $2.66 plus per foot, and the over-all cost which we have used was intended to take care of that cost.

[fol. 2873] Q. In other words, you used a price of $2.66 per lineal foot for that pipe, delivered, f. o. b. the railroad siding, Oklahoma-Texas common points?

A. Texas common points.

Q. Texas common points?

A. Yes, sir.

Q. Well, some of the pipe on Line A went into Oklahoma, did it not?

A. Yes; well, the freight rate for that section across there is the same as it is to Texas common points.

Q. Well, isn't that territory called Texas-Oklahoma common points?

A. Yes, I believe you are correct.

Q. All right. Now, you have got a price of $2.66 per lineal foot for that pipe, delivered at the railroad siding. What cost did you apply for the hauling, in connection with that pipe, per lineal foot or per hundred lineal feet?

A. We accepted the price used by the Company for that hauling, except for the 15.7 cents per ton which the Company had set up for unloading into stock piles and for moving gangs, which costs were never actually incurred by the Company and would not be incurred in a reasonable estimate of the reproduction cost.

[fol. 2874] Q. Have you finished your answer?

A. Yes.

Q. Will you kindly tell me what cost you applied for hauling and stringing of that pipe?

A. Well, I don't have——

Q. Based either on a basis per hundred lineal feet of pipe or per lineal foot of pipe?

A. I don't have the exact cost used by the Company on that line, and which we accepted, but for the 15.7 cents. The Company did not use a uniform price for all lines; it all depended upon the average haul, and I don't have those figures in mind; they were not put into the record by the Company, but I assumed from the method used by the Company, that they were substantially correct. I think they were fair and reasonable, although they did include a ten

per cent contingency allowance or the actual hauling, whic
we did not eliminate.

Q. In truth and in fact, you don't know what the haulin
and stringing amounted to, do you, Mr. Freese?

A. I don't have those exact figures, no.

Mr. Fitzhugh: You mean by lines?

Mr. Griffith: I am asking him about Line A.

[fol. 2875] Q. I want to know whether you know, M
Freese, what cost per lineal foot, per hundred lineal fee
or per ton, for the hauling and stringing of pipe you a
plied in connection with Line A?

A. No; I didn't break down the Company's detailed cost
on that. I simply went into the method used by the Co
pany and thought it was fair and reasonable and adopte
that.

Q. As a matter of fact, you thought it was fair and rea
sonable except for the deduction you made?

A. That is correct.

Q. Now, if you did not know how the Company's cost
were developed, how did you know your deduction wa
correct?

A. I did know how the Company's cost was developed.

Q. Well, what was the cost used by the Company in co
nection with Defendant's Exhibit 28, in connection with th
hauling and stringing of this pipe?

A. We did not request the information with reference t
each specific line. We did ask how the price was arrive
at—the method used in arriving at the price. I might b
able to give you what the average price is.

Q. No; I want the price used in connection with Line A
on this 18-inch, 59-pounds per foot, pipe.

A. Well, the hauling costs per ton mile on that line we
$.1312 per ton mile.

Q. All right; what was the average haul?

A. I don't recall that figure. It was about eight or ni
[fol. 2876] miles on Line A, as I remember our examinatio
of the line.

Q. As a matter of fact, all you know about it is that yo
made a deduction of a certain amount from the Company
hauling costs?

A. No; that is not all I know about it. I know I went in
the Company's prices enough to know that at least we we

not being unreasonable when we accepted those prices. The price for loading on the wagons used by the Company was $1.512 per ton, and that was the figure arrived at on the analysis of the actual hauling and stringing of some 19,000 tons of pipe.

Q. Are you able to tell the jury now, Mr. Freese, just what is allowed in your evaluation of the transmission line equipment in the "A" System for the hauling and stringing of the 18-inch pipe which weighs 59 pounds plus per lineal foot.

A. For the unloading from the cars into trucks we allowed $1.355; for hauling we allowed $.1312 per ton mile.

Q. And those figures which you have just related are obtained by deducting your deduction from the Company's evaluated cost for hauling and stringing?

A. No; the $.1312, we left the ten per cent which the Company had arbitrarily added on to their actual cost in that. We deducted the 15.7 cents per ton where it was estimated that in a wholesale reproduction program you would have [fol. 2877] to unload it on the ground and then load it back on trucks, which costs were not incurred on the tonnage studied and which would not be incurred in a reasonable reproduction cost new.

Q. You have set forth on page 21 of your Exhibit 6 the excavation costs for machine, hand, and rock excavation on line A?

A. Yes.

Q. It would include this 18-inch pipe which weighs around 59 pounds plus per lineal foot?

A. That is correct.

Q. Now, what costs for laying and testing that pipe did you use in connection with your evaluation of that equipment as it appears on page 21 of Exhibit 6?

A. We accepted the Company's cost as set out in the Company's Exhibit 28.

Q. Well, what are the Company's costs as set out in Exhibit 28?

A. I don't know those exact costs. The only thing I went into in detail on that was the method used by the Company in arriving at those costs.

Q. In your evaluation of that 18-inch pipe on the "A"

System, did you just adopt one hundred per cent the Company's laying and testing costs?

A. Yes; except for the 2½ per cent addition for omissions [fol. 2878] and contingencies which was made overall.

Q. But you are unable to relate to the jury just what was the figure that you adopted, either on a foot, per hundred feet, or total basis?

A. Yes; I can relate the general method used in arriving at that cost.

Q. You mean you are unable to give the exact figure?

A. I cannot give the exact figure on Line A; I made no inquiry by lines.

Q. Can you give the exact figures on any line in the "B" System?

A. No; we only asked with reference to certain particular lines. Those appear in the records, and I took those as being fair and reasonable.

Q. You include in your evaluation of Transmission Line Equipment the various systems commencing with "A" and ending with the T. P. U. System, on pages 21 to 23, inclusive, of Exhibit 6?

A. Yes.

Q. Is there a single pipe line in any one of these systems where you can give me a complete breakdown on a footage basis or per hundred lineal feet basis of the cost that you have adopted and set forth in your appraisal?

A. No; I have not worked that out. I could take the information that was given us, and which I studied in determining whether or not those prices were reasonable, and I [fol. 2879] could work it out on these lines as to just what it was.

Q. But you never did work it out in connection with the preparation of your Exhibit 6, did you?

A. No; I accepted the Company's costs as fair and reasonable. However, in checking the costs we wanted to inquire into, we had prepared the appraisal before, and we knew the trend of pipe prices, and that is the way we checked as to whether the prices were fair and reasonable or not.

Q. Will you refer to page 24 of the order and opinion of the Railroad Commission of Texas in Gas Utilities Docket No. 75? What machine excavation costs did you adopt in your appraisal as testified to before the Railroad Commission?

A. Thirty cents. We had received an estimate by Mr. Robinson, of the McKenzie Construction Company, of 29 cents; from Mr. Lee of Kirkwood, Wharton and Lee, 28 cents; 30 cents from Mr. Sherman of the Sherman Iron Works at Oklahoma City; 21 cents from Mr. Dobson, who appeared here yesterday; 25 cents from Mr. Minter, formerly of Smith Brothers Construction Company; an average of 26½ cents; and I adopted a figure of 30 cents.

Q. Your adopted figure was based in that case, as here, on information given you by contractors?

A. All of our work is done by contractors; and that is the way we pay them, based on their bids; and that is the way we determined and estimated the cost of the work, based on what the contractors will actually do the work for. [fol. 2880] Q. Were the actual performance studies of the Company based on the ditching of nearly 500 miles of pipe line trench available to you at the time you adopted your figure of 30 cents for machine excavation, as testified to by you before the Railroad Commission?

A. Certain information was made available to us. However, it was not in such shape as we could analyze it and make heads or tails of it. I think that is apparent in this particular case. When you analyze in the Panhandle Field, according to the Company's records you show a cost of rock and earth excavation of less than a dollar; in Oklahoma of around sixty or seventy cents on field lines; then when you analyze what is set forth in connection with machine excavation it runs up to over two dollars.

Q. Compare that price of thirty cents which you used in your testimony before the Railroad Commission with the price which you set forth for machine excavation on page 21 of Plaintiffs' Exhibit 6.

A. Instead of 30 cents, we have used 37½ cents.

Q. Now, did the Railroad Commission in its order and opinion adopt your 30 cent figure for machine excavation?

A. I think so.

Q. On hand excavation what figure did you use in your appraisal before the Commission?

A. We used a dollar per cubic yard, Mr. Robinson having given us a figure of $.70; Mr. Lee, $1.00; Sherman, $.60; [fol. 2881] Dobson, $.985; Minter, $.90; the average being $.8375 per cubic yard, and we used $1.00.

Q. Again, in the case of hand excavation you relied upon information furnished you by contractors?

A. That is correct.

Q. Now, what is the price per cubic yard for hand excavation which you used in connection with the transmission line equipment in your Exhibit 6?

A. $1.31, which also happens to be the price used for lines in excess of 200 feet by the Company.

Q. What price for rock excavation did you use in connection with your appraisal before the Railroad Commission of Texas in Gas Utilities Docket No. 75?

A. $3.25 per cubic yard.

Q. What price do you use in connection with your exhibit 6 in this case as set forth on pages 21 to 23 thereof?

A. In answer to the question as to what we arrived at for rock excavation in our testimony before the Railroad Commission of $3.25, Mr. Robinson gave us a price of $2.30; Mr. Lee of $3.50; Mr. Sherman, $3.00; Mr. Dobson, $3.00; and Mr. Minter, $3.37; or an average of $3.035; and we used $3.25.

Q. And that price is to be contrasted with the price of $3.50 which you apply on pages 21 to 23, inclusive, of Plaintiffs' Exhibit 6?

A. Yes.

[fol. 2882] Q. Now, the Railroad Commission of Texas adopted in their entirety your estimate for machine excavation, hand excavation, and rock excavation, did they not?

* * * * * * *

A. Yes; but they did not adopt the backfill costs.

* * * * * * *

Q. Coming to this matter of backfill costs, what backfill costs per cubic yard or per foot did you use in connection with your evaluation of the 18-inch pipe which is included in the "A" System on page 21 of your Exhibit 6?

A. We used the cost as used by the Company.

Q. What was that cost?

A. Fourteen cents plus.

Q. What was the cost for backfill on the 16-inch pipe which represents Line "B" in your "B" System?

A. It was the same thing.

Q. What was the cost for the backfill on the mainline in the "E" System?

[fol. 2883] A. It was the same thing, the Company having used the uniform cost for backfill on all systems.

Q. Did the Company use a uniform cost for backfill on all systems?

A. Except as between Texas and Oklahoma.

Q. And you adopted in toto that cost?

A. There is a slight difference in insurance rates as between Texas and Oklahoma.

Q. As a matter of fact, when you testified before the Railroad Commission of Texas you had adopted in connection with your appraisal as there presented a price of 10 cents per cubic yard, had you not?

A. That is correct.

Q. And that is shown at the top of page 24 of the Railroad Commission's opinion and order?

A. However, I might say that that ten cents which I had adopted was lower than the average of 12¼ cents found by Robinson, Lee, Sherman, Dobson, and Minter; and that the Railroad Commission added to that 12¼ per cent about the same leeway that they added to all of the other average costs found by those gentlemen.

Q. As a matter of fact, you have had no experience of your own as a contractor in the incurrence of excavation and backfill costs?

A. No; I have never been a contractor on excavation and backfill work.

[fol. 2884] Q. And everything that you have applied in connection with excavation and backfill costs in the preparation of Plaintiffs' Exhibit 6 was furnished to you, either by some contractor, or by some witness for the Lone Star Gas Company in this case?

A. With reference to excavation?

Q. Yes, sir.

A. Well, the prices which we have used are based upon the information given us by contractors.

Q. And on backfill the prices that you have used were the prices given to you by the Company's witnesses in this case?

A. Yes; however, we checked those by the contractors to see that they were reasonable; and in my opinion, they were reasonable. Now, I do know of my own knowledge

how these prices run from my observation of bids coming to us from time to time on our own work.

Q. Mr. Freese, are you able to produce here at this hearing any cost records or performance records on construction work in excavation and backfilling which would be similar in all essential respects to the excavation and backfill work which would be encountered in the reproduction of the transmission line equipment which you have evaluated in this case?

A. I can produce bids which we have received in the last few days at Bridgeport covering rock excavation. I can [fol. 2885] see no difference between the rock excavation for a sewer line and the rock excavation for a gas line.

Q. Now, Mr. Freese, I did not ask you about any bids. I asked you about any cost records or performance records in connection with work actually done. Can you produce any such records at this hearing?

A. So far as we are concerned, the cost is what we pay the contractors; that is the cost record; when we award a contractor a job and pay him so much, why that is the cost to us.

Q. Have you any cost or performance records recovering actual excavation and backfill work of a nature similar to that which would have to be done in the reproduction of the transmission line equipment of the Company, which you can produce here at this hearing?

A. I think I have answered your question, Mr. Griffith, that the cost as far as we are concerned is what we can get a contractor to do the work for.

[fol. 2886] Q. Is your answer "yes" or "no", Mr. Freese?

A. The answer is "yes", that I do have here records showing what is the actual cost to us for rock work at the place where we have latest taken bids.

Q. Based upon bids?

A. Yes.

Q. Mr. Freese, what kind of a gang would you use in laying and testing dresser coupled pipe?—just tell the jury in a general way how you would lay and test dresser coupled pipe?

A. I don't know what sort of a hypothetical gang I would set up for that. If I should set up a gang of that sort I don't think the cost I would arrive at would be worth anything to me as compared with the actual costs incurred by the company or bids as to what a contractor would do the

work for. If I estimated they would do two thousand feet in one day it would give me one price; if I estimated they would do three thousand, it would give me another price. If I should throw in another laborer or a couple of laborers, that would affect it. If I could use the actual performance records, I think it would be worth something.

Q. Mr. Freese, do you know as the result of any actual experience of your own the kind of a gang which is used in the laying and testing of dresser coupled pipe?—can you answer that question "yes" or "no"?

* * * * * * *

[fol. 2887] The Witness: I answered, "no".

* * * * * * *

Q. Mr. Freese, what experience have you had in connection with the painting of steel pipe?

A. Why, only the painting of various sections of steel pipe running from six inches up to 72 inches, where it has been incurred on work on which we were designing and supervising and checking the work; that is largely in connection with air lines at disposal plants, running up to 72 inches.

Q. Were they relatively short lines?

A. Well, something like a million dollars' worth of lines were involved in this work at Chicago which we were planning, and quite a bit of that work was being done on other plants while we were there.

Q. Well, you haven't done that work at Chicago you were planning, have you, Mr. Freese?

A. Yes, sir; there was work being done and in progress all the time.

Q. Well, it wasn't being done under your direction, was it?

A. We kept a general check on a job at San Antonio where 36-inch steel pipe was painted under our direction at the plant there.

Q. Well, what was the cost per lineal foot in the San Antonio job or the cost per hundred of the area for the [fol. 2888] painting of the steel pipe?

A. I don't know.

Q. Can you relate any actual costs as applied to one hundred lineal feet of pipe of any size or as applied to the

square foot of pipe surface, based upon your own experience?

A. No; the only information we would have of that nature would be coming from the books of the Lone Star Gas Company.

Q. Now, what cost for painting of pipe did you use in connection with your development of the costs of Transmission Line Equipment?

A. I don't have the exact figure, having accepted the company's figure on that. I can dig that out and let you know what it is.

Q. As a matter of fact, Mr. Freese, you have had no occasion to keep any cost or performance records in connection with the painting of large amounts of steel pipe?

A. No. However, we have had occasion in this investigation to investigate costs actually incurred by Lone Star Gas Company.

Q. Mr. Freese, what kind of a gang is used in the laying of threaded and coupled pipe?

A. I would not like to hazard a guess as to just what sort of a gang you would set up for any particular size or weight of pipe or for other conditions.

Q. As a matter of fact, you don't know, do you, Mr. Freese?

A. Well, if I set up a gang, that would simply be an [fol. 2889] estimate—a hypothetical estimate. It would not be a matter of knowledge; it would be a matter of estimating out of my head what I thought would be required. It would be based on no actual experience of the company.

Q. Have you had any actual experience in the laying of threaded and coupled pipe in open country construction?

A. No. We have had considerable threaded and coupled pipe laid on water lines in city streets.

Q. Well, how many men are necessary to be utilized in the economical laying of threaded and coupled pipe of any particular size?

A. I would not like to make a guess as to that.

Q. Well, what is the least number of men that can be used in a gang engaged in the laying of six-inch threaded and coupled pipe?

A. I am not willing to guess what that would be. It all depends upon the circumstances.

Q. Do you know the personnel of the gang ordinarily

used in laying threaded and coupled pipe and what each man does in connection with that operation?

A. Yes, I think I have a general knowledge.

Q. All right. What do they call each of the men that engage in the operation of laying threaded and coupled pipe?

A. I don't know necessarily what you call them in the parlance of the natural gas industry, but I know what they do.

Q. Well, what do they call them in the parlance of the [fol. 2890] oil industry or any other industry that uses threaded and coupled pipe?

A. Well, you have the men that carry the pipe to the side of the ditch; you have the men that prepare the joints and threads and couples, paint the threads and couples, the men that turn the pipe, the men that hammer the joints as the pipe is being turned. Just what you call those various men I don't know.

Q. As a matter of fact you never had occasion to lay any threaded and coupled pipe or supervise the laying of it as a construction superintendent?

A. No, only as an engineer inspecting the work on water lines where we have used threaded and coupled pipe.

Q. Well, now, you have related to the jury all you know about the laying of threaded and coupled pipe or screw pipe?

A. Well, I will try to answer your particular questions the best I can.

Q. Mr. Freese, what testing costs have you adopted in connection with the testing of pipe which is solid welded throughout?

A. Mr. Griffith, except for excavation and hauling costs and the cost of pipe on that line "K"-5, we have adopted the costs in every particular as set forth by the company. As I stated before, I think the increase in pipe prices has been offset by certain other allowances, but for testing and all of the other items we have accepted the company's costs, which I think were certainly reasonable, in so far as the company is concerned.

[fol. 2891] Q. Mr. Freese, what would be your best estimate as an engineer of the cost of testing a 10-inch welded line on a mileage basis or footage basis or any other basis that you care to use?

A. Mr. Griffith, we accepted the company's figure on that. I can dig that out. We studied the company's cost records and the methods used by the company in arriving at those costs. I think they are fair and would compare with the actual cost of any items in connection with this work. I can dig them out, and will be glad to.

Q. In the preparation of your Exhibit 6, had you had any experience which enabled you to determine reasonable costs for the testing of welded pipe lines on a mileage basis, a footage basis, or per hundred lineal feet?

A. No, only my experience was in examining the costs as actually incurred by Lone Star Gas Company.

Q. Now, what are included in these backfilling costs, Mr. Freese, of the company which you adopted? Give us the breakdown on this 14 cents plus which you say the company used for backfilling costs on the 18-inch pipe in the "A" system, how much of it was labor, how much of it was for the use of equipment, how much for insurance, how much for superintendence and supervision.

A. I do not carry those figures in mind. I can dig them out and give them to you.

Q. Do you have them here in your data?

[fol. 2892] A. Not right before me. I have them in my work papers, and they would be based upon the costs as reflected by the company's own records.

Q. Mr. Freese, what natural gas pipe lines in the United States have been built under the supervision, or, rather, built under the specifications which were submitted by your partner, Mr. Marvin Nichols, to the contractors, Messrs. Dobson and Robinson?

A. Well, those specifications were designed to meet the particular condition here and to cover the particular thing which we were pricing. No pipe lines have been constructed under those particular specifications. However, I am sure that where an earth work contractor would take a separate contract for earth work excavation on a pipe line he would use substantially similar specifications.

Q. Have you ever seen any specifications for natural gas pipe line construction which are similar to the specifications submitted by your associate to Messrs. Dobson and Robinson?

A. Yes, I have seen those specifications, and at this time I do not recall anything that would cause me—or at the

time I read those specifications I did not note anything that would cause me to think the specifications which we used were not proper specifications. We checked those specifications against other specifications.

Q. But you are unable to recall or relate any single natural gas pipe line that was built under specifications similar [fol. 2893] to those which Mr. Nichols prepared for the two contractors who have testified?

A. No. We have in our files specifications for a number of pipe lines which were actually built, and in arriving at the specifications we checked them against other specifications.

Q. Now, you did not accept Mr. Biddison's or the company's cost of excavation?

A. No, we did not.

Q. You related yesterday the reasons which, to your mind, were sufficient for the exclusion of omissions and contingencies in connection with certain of the Transmission Line Equipment and possibly other property?

A. Yes.

Q. Didn't you state that the reason for the exclusion of omissions and contingencies was in large part due to the fact that the company's costs were based upon actual performance records and cost records?

A. Yes, that is correct.

Q. Now, since you did not adopt Mr. Biddison's costs, doesn't it eliminate in part your reasons for the elimination of omissions and contingencies?

A. No, and I will tell you why. On Line "B" for the north end—Line "B", incidently, was built before Line Second "B" was, and certainly had the pick of the route. Certainly the excavation on the second line would not be any better than on the first line. Now, the excavation on [fol. 2894] Line "B" was classified by the barring method —that is, where they are parallel and only 75 feet apart; the classification there was 13.8 per cent hand excavation. On Line Second "B", where actual measurement of the quantities was made, hand excavation was less than one per cent, and if you assume that all of the hand excavation on Second "B" was thrown into the north end it would be but slightly over one per cent, which compares with the 13.8 per cent on Line "B". On rock, there was 9.07 per cent actually incurred on Line Second "B". The rock estimated

by the barring method was 6.7 per cent. There is a divergence there as between the two methods. Now, when you apply the prices used by Mr. Biddison as found by the actual measurement method, he would get an average price of 76 cents per yeard, and using the barring method you would get a price of $1.00 per yard—that is, for 81 per cent machine excavation on the whole system. In other words, if he had taken those lines which may be said to be typical of the whole system, and used those prices rather than applied those prices to the results of the classifications made by this barring method, he would have a price some six hundred thousand dollars less for his excavation than by the classifications as found by the barring method, and which found a great deal more rock than found by the actual measurement method for rock, and also that the excavation by hand is a great deal more than actually was incurred in the construction of the properties.

[fol. 2895] Q. Have you completed your explanation, Mr. Freese?

A. That is one of the reasons why I think that the allowance for omissions and contingencies was in error. There is just as much reason to have an offset of the other kind, and I think that is shown by the field line equipment, particularly, where we found that there were some Forty or Fifty Thousand Dollars worth of equipment which should not have been included and that $50,000 has not been deducted in this appraisal.

Q. Mr. Freese, speaking of Line Second B, will you give me the total cubic yards and the cost per cubic yard for machine excavation which you have used?

A. 281,137.1 cubic yards of machine excavation at 37½ cents, or $105,426.41.

Q. Will you give me the same figure for the cubic yards and cost on hand excavation in connection with the machine excavation?

A. Well, that 281,137.1 cubic yards includes the hand excavation which would be done along with the machine excavation.

Q. How many men would accompany the machine for that hand excavation work?

A. I don't know?

Q. You don't know?

A. No.

Q. Well, didn't Mr. Dobson testify on yesterday that two men would accompany the machine in connection with that machine excavation?

A. No sir; you misunderstood Mr. Dobson. The purpose [fol. 2896] of those two men behind the machine was simply to clean up, and not to make any hand excavation at all, but simply to clean up and follow the machine. He had an entirely different allowance for that hand excavation work, and he so stated.

Q. As a matter of fact, didn't Mr. Dobson state that those two men were to dig the bell holes?

A. Yes, if any such were incurred, but that was not to include the hand excavation for skips at all; I think he did mention the bell holes, but he didn't say anything about skips in the machine excavation.

Q. In other words, any hand excavation which accompanied the machine excavation, under your method of determination, is included in connection with your cost of 37½ cents per cubic yard for the machine excavation?

A. It certainly is, and that was understood by the contractors, and when they went over the lines they understood it, and when they examined the lines, that all of that work would be included in that price.

Q. Now, will you give me the total cubic yards and the cost per cubic yard for the hand excavation?

A. For the hand excavation, there were 1,345.2 cubic yards, at $1.31 per cubic yard.

Q. Will you give the same for rock excavation on Line Second B?

A. I beg your pardon—that was on Line A that I read into the record there for hand excavation. On the B system, it is one thousand——

[fol. 2897] Q. No, not line B. I want it for Line Second B, and second B only.

A. All of the hand excavation on second B was encountered in connection with the machine excavation, and there were no taps off of that line which would be done purely by hand, and there was no hand excavation on that line except that incurred in skips which the machine could not handle.

Q. I believe my question was as to the number of cubic yards and the cost per cubic yard for the rock excavation on Line Second B.

A. Well, I had given the hand excavation in error, and I wished to correct that error. The rock excavation on Second B was 15,215.4 cubic yards.

Q. In what total amount? Well, if it is necessary for you to make a computation, Mr. Freese—you merely applied $3.50 per cubic yard to it, did you not?

A. That is correct.

Q. Now, will you give me the cubic yards and the cost per cubic yard for the machine excavation on KB 16 inch—and of course throughout, Mr. Freese, I am asking for the information in connection with your exhibit.

A. Certainly. The yardage for machine excavation on KB 16 inch was 26,780.2, which we priced at 37½ cents per cubic yard.

Q. Now, will you give me the same information covering the hand excavation on KB 16 inch?

A. There was no hand excavation on Line KB 16 inch, [fol. 2898] except in *con-* connection with the machine excavation. In fact, the company in their estimate of the hand excavation did not include any hand excavation on that line, even, separate from the machine excavation.

Q. Can you give me the cubic yards for rock excavation on Line KB 16 inch?

A. 2,487.8.

Q. Now, Mr. Freese, I would like to have similar information covering Line K-5—that is the quantity of machine excavation and hand excavation and rock excavation?

A. On Line K-5, the machine excavation was 21,658.5 cubic yards. That is the combined machine and hand, although the company does not show any actual hand excavation incurred even in connection with the machine work. The rock excavation was 2,284.1 cubic yards. Now did you ask for another line besides K-5?

Q. I would like to have it for K5-1.

A. Now, on K-5, that is the six inch section of K-5 which I just read into the record. For the four and the three inch, there was 12,612.3 cubic yards of machine excavation and 1330.1 yards of rock excavation. No hand excavation is shown by the company for this line K-5, and of course our figures are for the combined machine and hand anyway.

Q. Give me the same information for Line O-29.

A. I have not given it for Line K-5-1; that was for K-5. Now for Line K-5-1 six inch, 9268.6 cubic yards of combined [fol. 2899] hand and machine excavation. There was 635.9

cubic yards of rock excavation. On Line K-5-1 four inch, there was 9,568.1 cubic yards of combined hand and machine excavation and 656.4 cubic yards of rock excavation. Now, which was the O line you wanted?

Q. Line O-29.

A. On Line O-29, eight inch, there was no rock excavation nor on the O-29 six inch, and the combined hand and machine excavation on O-29 eight inch was 20,333.6 cubic yards, and O-29 six inch was 29.466.6 yards.

Q. Did you give the rock excavation?

A. There was no rock excavation on O-29.

Q. And you have given the hand excavation?

A. That is included in our combined hand and machine excavation figure.

Q. In other words, as you figured it, there was no separate hand excavation in connection with that line?

A. Not where the hand excavation and the machine excavation is figured as a combined figure.

Q. Will you give me the yardage of hand excavation, machine excavation and rock excavation on L-26?

A. L-26, six and four inch. 16,084.3 yards of combined hand and machine excavation, or rather, machine and hand excavation. There was 1.15 per cent of that which had hand excavation in connection with the machine excavation, and there was no rock excavation.

Q. Now Mr. Freese, you have adopted a figure of 37½ [fol. 2900] cents per cubic yard for machine excavation, covering the entire transmission line equipment?

A. That is correct.

Q. How would you segregate that 37½ cents as between the clearing for the ditching machine, the ditching machine operation and the crumming of the ditch behind the machine?

A. I have made no such segregation. I have simply asked the contractors for their over-all price, and except for the segregation which you requested the contractors for, since our information is based on the over-all bid given by them, that information is the only information I would have in that respect.

Q. How many men would accompany the ditching machine, on the basis of your 37½ cents price, for the doing of excavation work along with the machine?

A. I do not recall, just now, what Messrs. Dobson and Robinson included in the figures they gave for that, but

our figure of course is based upon their detail in that respect.

Q. Well, what is the cost of crumming the ditch?

A. I do not know that separately, but only the total.

Q. Well, what would be a fair cost, irrespective of these contractors bids, for the cost of crumming the ditch?

A. I don't know. We used no such figure in any way in this appraisal, but took only the total cost given us by the contractor.

Q. Well, you are an engineer, and I am asking you for [fol. 2901] your independent judgment as an engineer, as to how much should be allowed for crumming costs, in connection with machine excavation.

A. Without making a detailed study and getting the detail together, I would not be willing to make any such an estimate.

Q. Well, you never have made any such an estimate, have you, Mr. Freese?

A. Yes, I think possibly in connection with the appraisal which we made before the Oklahoma Commission, that I did make such an estimate.

Q. What was that crumming cost as determined by you at that time?

A. I do not have those figures with me.

Q. Were any condemnation costs included in Mr. Steinberger's analysis of rights of way costs, which resulted in disclosing a cost of ninety-two cents, plus, for rights of way in connection with the transmission line equipment?

A. As I recall those detailed figures as we examined them from the company's books, there were some small condemnation costs incurred in connection with Line O, or some of the O taps.

Q. Are you able to state to what extent condemnation costs entered into the determined cost of the company of 92 cents plus per lineal rod?

A. No, it is practically nil, though. Practically no condemnation costs were included in there.

Q. In other words, in the actual costs from a number of lines and rights of way, as studied and determined by Mr. [fol. 2902] Steinberger, there were no substantial condemnation costs included?

A. That is correct.

Q. Now, do you know what the experience of the company was in 1924, 1925 and 1926, in connection with condemnation work?

A. No. It is quite possible that you had quite a bit; but I only assumed that if there was a change in that respect, that the company was willing to pay what was asked rather than go to the trouble of condemning.

Q. Does the company have any lands through the five civilized tribes of the State of Oklahoma.

A. Yes, but not included in our appraisal.

Q. Do you know whether any of the costs of rights of way which were studied by Mr. Steinberger included any costs for rights of way in Oklahoma?

A. A very small amount?

Q. A very small amount.

A. Yes.

Q. Do you know how many miles of rights of way were included in that study, or did you give it in varas on yesterday?

A. Well, I gave the average length per piece of right of way bought by the company in that study, which as I remember it now was 107 varas.

Q. Did you have the total amounts of rights of way, or are you now able to give the total amounts of rights of way, expressed in roddage or otherwise, which were included in that study by Mr. Steinberger?

[fol. 2903] A. I have that figure—not with me, but I can look it up for you if you like.

Q. Now, on yesterday Mr. Freese, you testified that on welding costs of the company, that they were given to you by Mr. Phillips—J. A. Phillips or by his organization. Do you now wish to correct that testimony?

A. No. Mr. Phillips furnished us the costs, as set up on the books for about the fifteen major lines which have been last built by the company. He did not break it down into any further detail than was given from the books, but simply copied it from the books, and we made all analyses from those figures furnished to us by Mr. Phillips. I have those costs on each particular line, and I have in my papers here a breakdown of the costs incurred on those lines, and a comparison of the actual cost with the appraised cost.

Q. As a matter of fact, instead of those being given to

you by Mr. Phillips, from the books of the company, weren't those costs furnished to you by Mr. Steinberger, valuation engineer for the company?

A. No, sir. However, I did check very carefully the costs as found by Mr. Steinberger and as read into the record in detail, by him, in the hearing before the Railroad Commission. However, on our part, on every line built by the company since 1929 of every size, we had every cost incurred by the company taken off the books, and I have with me a breakdown of those costs which I will be glad to read into the record.

[fol. 2904] Q. During the progress of the hearing of this case before the Railroad Commission, didn't you request, and didn't Mr. Steinberger furnish a complete breakdown of the company's actual experience in connection with its actual welding costs?

A. Yes, he did. As far as I know, Mr. Steinberger has furnished us with every bit of information, as to the actual costs incurred by the company, which we have ever asked him for—and we have asked him for a great deal.

Q. Now Mr. Freese, when you came to your determination of the so-called non-physical values, or general construction overheads the first item is preliminary and organization expense, is it not?

A. Yes.

Q. Does that appear on page 39 of your Exhibit?

A. That is correct.

Q. Now, where did you get the several figures covering preliminary geological investigations and preliminary engineering investigations, and so forth, as appearing on those pages?

A. As testified to yesterday, I took those figures—except for federal capital stock tax, which we have based upon the actual capital structure of the company rather than the hypothetical structure—and except for that figure, we took them all from the company's Exhibit 28, and adopted those figures.

Q. In other words, each and every item of preliminary and organization expense as set forth on page 29 of your exhibit, is a result of your adoption of estimates of costs made by the company's engineers?

[fol. 2905] A. Yes, and I certainly do not think any of them are too low.

* * * * * * *

Q. But each and every figure that appears on page 39 of your Exhibit 6, is merely an adoption of some figure contained in Defendant's Exhibit 28?

A. Yes, where there would be any costs incurred at all of this sort, I have taken the company's full figure in that respect, and I think that they are liberal.

Q. On page 37, you give a detail of your computation of administration and legal expense during construction?

A. Yes.

Q. Engineering and supervision during construction, and taxes during construction?

[fol. 2906] A. Yes.

Q. Do you know what the historical experience of other companies has been in connection with wholesale construction of natural gas projects, similar in all essential respects to the reproduction of the Lone Star Gas Company system?

A. No, but in connection with these costs, I made an examination of some Seventeen Million Dollars worth of actual construction costs incurred by the Lone Star Gas Company.

Q. And the actual construction costs or actual administration and legal expenses of the company incurred by the company during some $17,000,000.00 worth of work was the real basis for your determined allowance, was it not?

A. Well, as explained in detail on yesterday, the allowance of seven per cent for combined engineering and legal and administrative costs, is substantially in excess of the maximum of 4.48 that could have been incurred by the company. The actual cost charged on the books of the company was only 1.49 per cent as compared with the seven per cent which I have used.

Q. Mr. Freese, are historical reproduction costs, incurred by a large operating organization, comparable to the costs which would be incurred—that is, I refer to general undistributed costs, comparable to the costs which would be incurred in the reproduction of a new project?

A. Mr. Griffith, I think the only sane way to reconstruct a property like the Lone Star Gas Company would be to construct it partly during operations, during the period when it was being operated, and I think the $17,000,000.00 [fol. 2907] in three years represents a fairly sizable construction program, and if all of the work were done at that same rate, that would certainly not be an unreasonable wholesale construction or reproduction program.

Q. Mr. Freese, have several large natural gas pipe line projects been constructed in the United States in the last three or four years?

A. Yes. I don't know of any as large as the Lone Star Gas Company. The Northern Natural Gas pipe line, which is a sister company, is a very large company. I won't say it is a sister company, but the Lone Star Gas Corporation owns one-third of it, as I understand it.

Q. Did you make any attempt to find out and ascertain what the actual administrative and legal expense had been in connection with the construction of that company's properties?

A. No, and if I had made such an attempt, I would probably have been unsuccessful.

Q. Was the Southern Natural Gas Company, another large natural gas project which was constructed in the last three or four years?

A. I don't know whether it has been built within the last three or four years or not. It was substantially completed three or four years ago.

Q. Did you make any attempt to ascertain what the actual administration and legal expense of that company was?

A. No, sir.

Q. You did not?

[fol. 2908] A. No sir.

Q. In connection with its wholesale construction?

A. No.

Q. Did you make any attempt to ascertain what the actual undistributed and general expense of any of these large natural gas projects were, in construction?

A. No. I felt like the information that I had with reference to the $17,200,000.00 worth of work done by the Lone Star Gas Company, was the best possible information I could get with respect to the Lone Star Gas Company.

Q. But where the company had excavation costs on 487 miles of machine excavation, you did not see fit to adopt those costs, did you Mr. Freese?

A. I think I have explained why I did not see fit to apply costs where the actual yardages were measured, and where the percentage of hand excavation was very low, to the system as a whole, where the yardages and classifications were determined by an entirely different method, which gave ten times as much hand excavation as was incurred on the lines studied.

Q. And you are now referring to Line B and Line Second B again, are you not?

A. I am referring to the system as a whole. And I can read those classifications for the system into the record, if you please.

Q. Well, you can have your counsel do that, if you wish. Take the item of engineering supervision on page 37 of Plaintiff's Exhibit 6. What do you allow for engineering supervision?

[fol. 2909] A. Five per cent.

Q. Computed to be $1,705,863.84?

A. Yes.

Q. Now, that would be made up of a number of various items, would it not Mr. Freese?

A. Yes.

Q. All right; how much of that total amount would be for preliminary designs and plans?

A. Well, on a system like the Lone Star Gas Company system, the preliminary plans and estimates and such as that could be done for between one-half and one per cent.

Q. Well, which would you adopt?

A. I would adopt about three-fourths of one per cent.

Q. About three-fourths of one per cent?

A. However, as stated before, the seven per cent was checked back against the actual costs, and if you take the actual costs as incurred, they would probably run less than that.

Q. Now, Mr. Freese, I am questioning you about your adoption of this figure of five per cent that you testified to.

A. Yes, and you want a breakdown of this figure into the different parts.

Q. Yes, that is it exactly; I want a breakdown of that five per cent.

A. I should say that three-fourths of one per cent is attributable to the preliminary plans.

Q. How much do you attribute to field supervision?

[fol. 2910] A. Field supervision would be two and one-half per cent, of that five per cent.

Q. And that would be three and one-fourth per cent, would it not, so far?

A. Yes.

Q. That you have accounted for?

A. Yes.

Q. How much would be taken up by general office supervision?

A. That two and one-half per cent includes all general office supervision, in connection with the actual supervision, and the three-fourths of one per cent, includes all the general office supervision in connection with the preliminary work, and the remaining one and three-fourths per cent would include all of the office supervision in connection with the detail and final as-built plans.

Q. Now, Mr. Connor, in his estimate of the reproduction cost of the final engineering plans and drawings of the company, determined that the final engineering records of the company would cost approximately $800,000.00.

A. Yes.

Q. That is, to reproduce them, did he not?

A. I assume that is the correct figure; it is substantially that, anyway, as I recall.

Q. And that figure was included by Mr. Biddison in his direct structural costs of the physical property of the company, was it not?

[fol. 2911] A. Yes.

Q. How many hours have you spent checking and inventorying the records in the engineering department of the company at the city of Dallas?

A. We have made no inventory of the records of the company, and I think it would be just as foolish for me to go into our own map room and take the plans there and estimate the costs that have been incurred on some Twenty or Thirty Million Dollars worth of engineering work, in looking at those and counting them, and trying to estimate what they would cost.

The Court: Gentlemen, I think we will take a few minutes recess at this time.

(Thereupon, at 10:30 o'clock A. M. a recess was taken until 10:40 o'clock A. M.)

[fol. 2912] The Court: All right, gentlemen.

Q. Mr. Freese, how many days *after* you actually spent in the Engineering Department of Lone Star Gas Company at Dallas?

A. Oh, I don't know that it has been necessary for me to go there. I was probably over there for some reason or other at a time or two, but I don't recall just now why

it was necessary for me to go over there. I have gone to Mr. Steinberger's office for information a great number of times.

Q. Well, would you say that you had ever spent as much as an hour in the Engineering Department of the Company at Dallas?

A. I don't know that I have ever been in the Engineering Department at Dallas.

Q. Have you ever been in the Geological Department in the office of the Company at Dallas?

A. The only time I can recall was when we were first getting our geologist, Mr. Maddren, lined up for some of his investigations over there. However, we have secured a great deal of information from time to time from the Geological Department by men that I have sent there to get the information. Just how much time has been neces- [fol. 2913] sary for them to spend up there getting the information I wanted, I don't know.

Q. What examination have you personally made of the geological records which the Company has in the Dallas office?

A. I have made no examination. I have analyzed or examined a complete list of all of the information that generally is submitted by the Company in these hearings before the Railroad Commission, but that is the only knowledge I have of the records of the Company in that respect.

Q. Mr. Freese, is your Exhibit 6 an historical reproduction cost estimate?

A. It is based largely upon the historical experience of the Company, yes. However, it is plenty high to take care of any reasonable reproduction wholesale program undertaken at this time.

Q. Mr. Freese, in your computation of taxes and interest during construction, do you assume any fixed or definite construction period in which the property would be reproduced wholesale, or reconstructed wholesale?

A. No; as I say, we took the actual taxes paid during a certain period—1929 and 1930—that could possibly be ascribed to work under construction. During that period there was some seventeen million dollars worth of work [fol. 2914] done; we multiplied that by three to get the equivalent that the properties—that is, as the ratio of seventeen million to all the properties, and then we just doubled that, as a factor of safety.

Q. Well, you didn't use, then, any definite wholesale construction period in your determination of taxes and interest during construction?

A. No; however, I am of the opinion that in a wholesale reproduction cost new program that until that property was put into service, that practically none of it would ever be taxed by any Texas taxing body.

Q. Did I ask you that, Mr. Freese?

A. You asked me if I had assumed a wholesale reproduction new program, and I made the best answer I knew how to make to what I thought you were driving at.

Q. Well, now, Mr. Connor and Mr. Biddison and Mr. Steinberger estimated that the construction work involved in the reproduction of the Lone Star Gas Company's property would take place over a three-year construction period, did they not?

A. Yes.

Q. Do you agree that it would take three years in which to reproduce the property of the Company in a large wholesale construction project?

A. Well, that would be rushing it pretty fast. It might [fol. 2915] be physically possible to do it in three years.

Q. As a matter of fact, when you testified in the Oklahoma case, didn't you say that you thought three years was about right?

A. Before I would answer that question, I would like to see my testimony, Mr. Griffith, in that case.

Q. You are unable to recall what you did testify to?

A. No, but right now I would say that what I did testify to was that three years was a minimum.

Q. Three years was a minimum period?

A. Yes.

Q. For the construction of the property?

A. Yes.

Q. Now, you did not determine your interest during construction by assuming any fixed or definite wholesale construction period?

A. No, I took the actual time that I thought it would take to construct each particular piece of property, and I assumed that the work would not be started on that particular piece of work before there was some reasonable hope that the unit would be used when it was finished.

Q. Mr. Freese, have you had any experience in connec-

tion with the raising of the sum of money which would be necessary for the reproduction of the Lone Star Gas Com-
[fol. 2916] pany's property?

A. Well, I have had experience in the raising of money in sizable amounts—not that much, but four and one-half millions in one case and six and one-half millions in another case, for the construction of projects on which we were working, and lately, in connection with the work for the Fort Worth Independent School District, where we raised four and one-half millions of dollars for the work there.

Q. All of the experience you have had in connection with the raising of sizable sums of money for construction work has been in connection with municipal, state, county, city, or some other political subdivision, was it not?

A. No, right now we are negotiating with the Government for the construction in one case of a natural gas pipe line.

Q. Well, that is to be a governmental loan, if it is made, is it not?

A. In two cases. Yes, that is to be a governmental loan; but I think the biggest pipe line that has been constructed lately has been constructed out of Government funds, and I refer to the big line from El Paso west to Phoenix, which is constructed out of R. F. C. loans at five per cent.

[fol. 2917] Q. Is it your testimony that the pipe line extending from El Paso to Phoenix is constructed by Federal Government money?

A. There is one large line in that neighborhood that has been financed out of R. F. C. funds within the past year or so. Now, I think I am right in the fact that it is the line from El Paso to Phoenix, but I am not positive.

Q. Mr. Freese, on yesterday Mr. Fitzhugh asked you concerning your failure to include a separate allowance for Going Value, Going Concern Value, or Cost of Reproducing the Business.

A. Yes.

Q. You made no separate allowance in connection with your Exhibit 6 for Going Value, Going Concern Value, or Cost of Reproducing the Business, did you?

A. No.

Q. Was it your testimony that you had, nevertheless, allowed something for Going Value?

A. No; as I recall my specific statement, it was that we

had priced everything as usable, as something that was in use, or could be used, and not something that had no business or no use, or was junk value, or something to that effect.

Q. Well, did you include anything in your Exhibit 6 for [fol. 2918] what is commonly known as Going Value, Going Concern Value, or Cost of Reproducing the Business?

A. No.

* * * * * * *

[fol. 2919] You and your associate, Mr. Marvin Nichols, made appraisals of the Denton and Sherman distributing plants of the Municipal Gas Company, did you not?

A. Yes.

Q. In those appraisals did you include anything for [fol. 2920] Going Value, Going Concern Value, or Cost of Reproduction of Business?

A. Yes; in those cases we capitalized the historical losses or the loss of revenue on idle plant that would probably be incurred in the reproduction cost of those plants. However, in this particular instance I don't believe that such cost would be incurred. I think that the lines could be built in such way that no such losses would be incurred, for the simple reason that there are three or four lines going into Dallas and Fort Worth. I think if you even imagined, if you were building up a hypothetical plant, that you would just as well imagine that you would build those lines over as needed. Now, as far as the history of the Company is concerned, I think there have been no such historical losses on idle plant.

Q. Mr. Freese, when you and Mr. Nichols determined Going Value or Going Concern Value or Cost of Reproducing the business in connection with your appraisals of the Sherman and Denton distributing plants, did you make that determination by computing the fixed charges on idle plant in somewhat the same manner as used by Mr. Connor in connection with his determination of Going Value or Cost [fol. 2921] of Reproduction of Lone Star Gas Company's business, as set forth in Defendant's Exhibit 28?

A. Well, what we did do was to figure out what the losses on idle plant would probably be in the reproduction of those properties, and included what we thought that would be, in those appraisals.

Q. You refer to operating losses or lack of return or in-

terest during the period when the business was being developed?

A. Lack of return or interest.

Q. Your determination of Working Capital on page 40 of Plaintiffs' Exhibit 6 is made as of what date?

A. As of the date of our appraisal—June 15, 1934. Now, as to whether those materials and supplies, in the amount of $416,000.00, were the exact amount on that particular date, I don't know; but I do know that they were somewhere in that neighborhood.

[fol. 2922] Q. But as of what date did you take the materials and supplies in the amount of $416,000.00 set out on page 40 of Plaintiffs' Exhibit 6?

A. March 31st, as I recall it.

Q. You mean March 31, 1934?

A. Yes. I would like to check that date, but as I recall it, that was the date.

Q. Do you think you used the Advances on Gas Purchase Contracts, and Prepaid Insurance and Rentals, as of the same date?

A. Yes.

Q. You are now unable to state with certainty as to the specific date used?

A. I am fairly positive that it was March 31st.

Q. 1934?

A. 1934.

Q. Now, Mr. Freese, is there included in any place in connection with Plaintiffs' Exhibit 6 anything covering gas wells, gas well equipment, gas leaseholds, reserves, or other production system property of the Company?

A. No.

Q. That is not included in your appraisal as set forth on pages 1 to 40, inclusive, of your Exhibit 6?

A. No, sir.

Q. The Company does have a number of gas wells, a lot of gas well equipment, and gas leaseholds and gas reserves, [fol. 2923] and other production system property situated in the geographical confines of the State of Texas?

A. Yes.

Q. But that is not included in your exhibit?

A. No; as the Exhibit very specifically sets out, this exhibit covers only the Texas gathering, transmission, compressing, and general property.

Q. Therefore, to the extent that you have excluded what might be called the production system property, your total of $40,256,862.39 is less than any value which could be determined for the entire property—public service property of Lone Star Gas Company, within the geographical confines of the State of Texas?

A. That is correct. This was not intended to take care of or compensate in any way for that gas production.

Q. How many appraisals of the Lone Star Gas Company system and property have you prepared, Mr. Freese?

A. Oh, we prepared a detailed appraisal for the Corporation Commission of Oklahoma, and one for the Railroad Commission of Texas, and then——

Q. As of what date?

A. December 31, 1931. And then later on in the hearing before the Railroad Commission, to simplify matters, as we have done in this case, we accepted certain of the Company's costs where they were substantially the same as the [fol. 2924] costs which we had found in our detail appraisal; and also in this case we have accepted certain of the Company's costs.

Q. Mr. Freese, the appraisal which you first presented to the Railroad Commission of Texas was dated as of December 31, 1931, was it not?

A. Yes; I have so stated.

Q. You were paid $45,000.00 for that appraisal and report out of the funds of this state, were you not?

A. That is correct.

Q. Whatever happened to that report after you presented it to the Railroad Commission?

A. Well, it has been mainly used for checking all of the prices that have ever come into any of these cases.

Q. Was that appraisal presented by you in the hearing before the Railroad Commission in Gas Utilities Docket No. 75?

A. No; we presented an entirely new appraisal in that case.

Q. Now, in the first appraisal which you prepared and presented to the Railroad Commission of Texas did you determine that the reproduction cost new of the Lone Star Gas Company's public service property in Texas and Oklahoma was $53,005,251.39?

A. I would like to see that figure. I assume that is correct, but I would like to check it.

Q. I hand you what purports to be Volume 1 of the [fol. 2925] appraisal that I have just been referring to, and I will ask you to refresh your memory.

A. Yes; we found a reproduction cost of fifty-three million dollars, and a present worth of forty-one million dollars.

Q. Now, in connection——

A. That included both Texas and Oklahoma, whereas this includes only Texas; and that included all of the production properties, and this does not include the production properties.

Q. And in connection with this appraisal, did you segregate the properties in Texas and the state of Oklahoma?

A. No; but I think in the three or four volumes that follow setting up the details, they are segregated.

Q. Again to refresh your memory, Mr. Freese, will you refer to page 1, Volume 1, of the appraisal which I have just presented to you? Does that show a segregation in Texas?

A. No; the summary does not show a segregation. However, the detail work papers show in each case just where the property is located.

Q. As a matter of fact, on page 1 of the Exhibit which I have just tendered to you, do you not show a total evaluation of the Texas property in the amount of $47,355,114.77?

A. Yes; it has also been segregated in this second summary here.

Q. Is the figure——

[fol. 2926] A. The first summary, however, does not segregate as between the two.

Q. But the second summary does segregate the Texas property and shows that your estimate of the reproduction cost new of the Lone Star public service properties in Texas as of December 31, 1931 was $47,355,114.77?

A. That is correct.

* * * * * * *

Q. Did the Railroad Commission ever make any use of this report, as far as you know, except to receive it, and file it, and pay you your forty-five thousand dollars?

A. Yes; they have used that continuously up until now

in checking the prices as they vary from time to time. Pipe has gone down a great deal since 1931.

Q. Mr. Freese, I hand you a copy of the findings, order, and opinion of the Railroad Commission of Texas in Gas Utilities Docket No. 75. I will ask you to point out to me where on any page of that finding—those findings, opinion, and order of the Commission, any reference is made to the appraisal date as of December 31, 1931, and which appraisal was the first appraisal you ever presented to the Railroad Commission?

A. No. Where they have used our figures, or refer to our [fol. 2927] figures, they refer to the second appraisal, which was submitted in Gas Utilities Docket Number 75. That appraisal was not submitted in Gas Utilities Docket Number 75.

Q. Now, when you did——

Mr. Fitzhugh: You mean the one he is talking about?

A. The one he has referred to has never been submitted to any hearing before the Railroad Commission.

Q. When you did finally testify before the Railroad Commission in Gas Utilities Docket Number 75, you completely abandoned your first appraisal, did you not?

A. We did not use it in that hearing. We used a new appraisal.

Q. As of the same date?

A. As of the same date.

Q. All right. And in that new appraisal, which you did testify to before the Railroad Commission of Texas, your reproduction cost new of the property had shrunk some seven million dollars, had it not?

A. No; I don't know that they cover exactly the same property.

Q. As a matter of fact, both appraisals were made as of the same date?

A. They were made as of the same date; but there were certain corrections; for example, in the one case we used what the Company had actually paid for the leaseholds, which included a great deal of gas well construction bought along with the leaseholds; in the other appraisal, they were set up separately.

[fol. 2928] Q. Mr. Freese, when you finally did testify before the Railroad Commission of Texas in Gas Utilities

Docket No. 75, what did you determine to be the reproduction cost new of the Lone Star Gas Company's public service property in both Texas and Oklahoma?

A. I don't have the volume that shows our total figure.

Q. I want to refresh your memory about your numerous exhibits, Mr. Freese, and I, therefore, present to you Volume 3 of a report on the reproduction cost new appraisal of physical properties of Lone Star Gas Company, December 31, 1931. Now, this was your second appraisal, was it not?

A. This report does not contain the figure which we finally arrived at as the total cost of the Lone Star Gas Company. I had that volume.

Q. What did you finally determine was the total reproduction cost of the Lone Star Gas Company's public service property in both Texas and Oklahoma as a result of your second appraisal?

A. As I say, we found what was fair and reasonable as of that date. Now, what that particular figure was I don't know, but I will be pleased to look it up for you and bring it to you.

Q. I want to refresh your memory again, Mr. Freese. Wasn't the grand total of the reproduction cost of that property determined by you in your second appraisal to be $46,810,134.34?

A. That is not our exhibit. So far as I know that may be [fol. 2929] exactly correct, but I don't know just what computations were made and what they include; but it was somewhere in that neighborhood, whether forty-six or forty-eight million, I don't know.

Q. As a matter of fact, you know that $46,810,134.34 is correct, do you not?

A. No.

* * * * * * *

A. I don't know that it is not correct; but I certainly don't know that that is the right figure.

* * * * * * *

Q. It so happens that the figure which you used of approximately forty-six million dollars—you say it might have been forty-eight million dollars—was almost the iden-

tical figure which was adopted by the Railroad Commission of Texas in its evaluation; isn't that true?

A. Well, the figure which they have used here——

Q. Well; what was that figure?

A. Well, they determined a rate base as of December 31, 1931 of $46,246,617.53. However, that is not their figure for reproduction cost new exactly, because they have taken [fol. 2930] the depleted value of the leaseholds, and of automotive equipment, and of drilling repair and cleanout tools and equipment.

Q. That would not occasion the difference between your first determined reproduction cost figure of fifty-three million dollars as set forth in your first appraisal made for the Commission, and the amount of $46,810,134.34 set forth in your second appraisal for the Commission, would it?

A. No; but if you like I will be glad to explain those, and correlate them, and tell you just what they represent in each case.

* * * * * * *

Q. In connection with your exhibit 6 in this case you stated that you made no allowance for going value, going concern value, or cost of reproducing the business?

A. That is correct.

Q. In the first appraisal which you made for the Railroad Commission and covering the Texas property, what did you include in that appraisal for going concern value?

A. Now, this report was not presented in any hearing before the Railroad Commission. This was reported and [fol. 2931] testified to before the Corporation of Oklahoma, and that amount so testified to was $1,250,000.00, which included the losses of return during the first years of the Company's history, and which we feel like have been amply amortized since that time.

Q. Mr. Freese, if you will turn to the first part of the first appraisal which you presented to the Railroad Commission of Texas, did you set forth in the appraisal a letter of transmission?

A. We did.

Q. Sending this appraisal to the Railroad Commission of Texas, and signed by "Hawley, Freese and Nichols"?

A. Yes, sir.

Q. And in that first appraisal, and covering the Texas

properties alone, you did advise the Railroad Commission of Texas that the going concern value of the Lone Star Gas Company property in Texas was $1,250,000.00?

A. That is the figure included on that page, as pointed out. I notice we have the same figure for the combined properties of $1,250,000.00.

* * * * * * *

[fol. 2932] Q. Does the figure of $1,250,000.00 set out at page 1, Volume 1, of the first appraisal which you presented to the Railroad Commission of Texas show that you allowed for going concern value $1,250,000 covering the Oklahoma and Texas property and business of the Lone Star Gas Company?

A. Yes.

[fol. 2933] Redirect examination.

Questions by Mr. Fitzhugh:

Q. Mr. Freese, the appraisal which you submitted at the hearing before the Oklahoma Corporation Commission and to which Mr. Griffith has been referring was composed of a number of volumes besides the one which he had?

A. Yes; I think there were five or six volumes.

Q. As a matter of fact you had volumes comparable to those we have here on this desk with nice gold letters and leather covers and all that sort of thing?

A. I think I recognize some of them over on Mr. Griffith's desk at this time.

Q. Almost as nice as those the company has in this case?

A. No, not quite.

Q. Now, your judgment in that appraisal was your independent judgment on every item; is that correct?

A. That is correct. It was my best independent judgment on every item.

Q. And at the hearing before the Oklahoma Corporation Commission Mr. Griffith examined you at length, did he not?

A. That is correct.

Q. Having made a breakdown on your costs for grubbing and crumbling and everything?

A. Everything I had.

Q. For many days?

A. Yes, sir.

Q. Now, later on you appeared before the Texas Railroad [fol. 2934] Commission?

A. That is correct.

Q. About how many months later was that?

A. Oh, possibly a year.

Q. I mean from the time you completed your first appraisal about how many months was it before you came before the Texas Railroad Commission?

A. I don't remember just exactly how long it was between the time we finished and when we came before the Railroad Commission. I can get that.

Q. Well, it was quite a while?

A. Yes, sir.

Q. During that time did you have your men and were you working yourself at the appraisal that was to be presented before the Texas Railroad Commission?

A. Yes. We worked for several months revising those figures.

Q. Did you in the interim between the time the appraisal was presented for presentation before the Oklahoma Corporation Commission and the time when you went into the hearing before the Texas Railroad Commission find out quite a number of new facts?

A. Yes. I think I can specify each one of the differences between the two reports and explain just exactly why there is quite a difference between the two reports.

Q. Will you do that in a general way for the jury's benefit?

A. Well, one of the principal things was the Petrolia field [fol. 2935] account. We found that the company was losing money, that the amount gotten for the gas was less than the actual out-of-pocket operating expenses, and we could see no good reason for including that in the rate base. In the second place, when we presented our appraisal before the Oklahoma Commission it was our intention in evaluating costs to use actual costs to the company, and those figures were furnished to us by the company. We later found out that the costs for the leaseholds included gas well construction of a large part of the wells of the company, and we made that deduction. We made a deduction of a million two hundred and fifty thousand dollars for going value.

* * * * * * *

A. Well, the million two hundred and fifty thousand dollars going value accounts for part of it and those others for the difference.

Q. Now, then, when you included in your Oklahoma appraisal the item of going value as a separate allowance you did so for wholly different reasons from any reasons which you have expressed here in this present hearing, did you not?

A. That is correct.

Q. At the present time you know, do you not, Mr. Freese, [fol. 2936] that the company has charged as a matter of historical fact from the inception of the business to this time all the costs which are ordinarily considered as going value as operating expenses?

A. Substantially so, yes, sir.

Q. You also know that the company has a substantial earning record in the past as a historical fact?

A. Yes, sir.

Q. Based on rates in the past?

A. Yes, sir, and with reference to going value we carefully examined the earning records of the company during the past to determine what, if any, losses on return existed or had been incurred.

Q. You also know, do you not, from your general knowledge of the history of the company that in many cases the attachment of business has been instantaneous and without cost to the company?

A. I know that in many cases it was very quickly acquired.

Q. On page 33 of the Railroad Commission's order, in speaking about the cost of attaching business and the matter of acquiring customers, and so on, the Railroad Commission's order reads as follows: "It is just as logical to suppose that there existed at the inception of the business a waiting public urgently in need of natural gas service, with towns anxious to attach to the company's lines, in which case there would have been little, if any, development cost or expense of any sort in overcoming the inertia of a [fol. 2937] state business and in getting the business under way." Do you subscribe to that statement?

A. I think if there were no natural gas system the folks would be anxious to obtain service of such a company.

Q. The Commission's order goes further: "Such a business should pay its own way from the start and there is no

reason to assume that rates would not be sufficient from the beginning to pay all development costs, as, when, and if incurred." Do you subscribe to that statement?

A. Yes, except for a few years at the very beginning of the company, when the losses of return and book investment amounted to about four hundred thousand dollars, but which were very quickly made up in succeeding years without any such losses on investment.

Q. The Railroad Commission's order continues: "The company serves a territory which has shown a substantial growth in both its population and in its business life and the company has expanded its system naturally as new markets have appeared. It is inconceivable that the company could have prevented new business from presenting itself as a natural consequence of the territory's development and it is certain that much of such new business came without any development expense whatsoever being actually incurred." Do you concur in that statement?

A. Yes, I think it is true.

Q. Now, what is the advantage, Mr. Freese, as between the method you have used in finding value and in present-[fol. 2938] ing your exhibits as opposed to coming in here and dumping on the table a big appraisal independently made?

A. Well, the main advantage is that it saves about three or four weeks time looking into the matter after it is presented.

Mr. Griffith: You mean three or four months, don't you, Mr. Freese?

A. Well, I was putting it at the minimum.

Q. That is, if you had come in and dumped your appraisal here the way the company did, we would have to go through it item by item and find the differences and work it out to get the value from the exhibits; is that correct?

A. That is correct, but where I thought their figures were fair and reasonable I accepted those figures.

Q. Now, if we had gone into the company's appraisal thoroughly and meticulously the way we did before the Railroad Commission to find item by item how each item was arrived at it would have taken from now until past Christmas?

A. It took some eight months in that case.

Q. Then, if I understand you, Mr. Freese, wherever your final result as to an item of property was pretty close to

the company's to eliminate differences and to come to some conclusion you adopted their results?

A. That is correct.

Q. It didn't mean that you adopted everything they did to get that result, but simply the final, ultimate result?

A. What it means is that every figure in that appraisal is my best jus*t*ment as to what is fair and reasonable as of [fol. 2939] this date or as of the date of the appraisal.

Q. And where you have agreed with Mr. Biddison or any of the company's witnesses, that agreement does not prevent your exhibit as it now stands from being your independent opinion as an engineer as to value expressed page by page throughout your exhibit, does it?

A. No. Where I have accepted their figures I have used my judgment, as much or more so as where I used new figures set out in the exhibit.

Q. What is the natural connection—or I will ask the question this way: Is there any connection, Mr. Freese, between the accounting system the company is using and has used in the past and the method or mode of finding value which should be used in finding the company's present worth?

* * * * * * *

[fol. 2940] A. There is a very close connection between the periods, or, rather, between the bookkeeping methods of the company which were used during the periods when operating expenses were being considered in connection with a case like this. It is true with reference to physical properties—take, for example, during the year 1930, they charged to operating expenses the actual construction of some physical properties; then those, of course, should be eliminated from either the expense account or from the appraisal. Now, that is ordinarily true with reference to depreciation and maintenance. If we charge certain items to maintenance accounts during the operating periods which are being considered, then we certainly should not include those as part of the percentage value applied to these reproduction costs.

Q. You are familiar, are you not, Mr. Freese, with the testimony of Mr. Hulcy heretofore given in which he said that all or most all, I believe he said, of the general overheads in the past have been charged to operating expenses?

A. Yes.

Q. That means, does it not, that the company has been [fol. 2941] repaid through operating expenses for all those expenditures?

A. They have been included in the operating expenses. Except for going value, we did not take that matter into consideration at all; in other words, we simply allowed the full amount of those overheads, regardless of whether they had been charged to operating expenses or not. Now, during these periods which were considered, there was considerable work done.

* * * * * * *

[fol. 2942] A. They allowed during this time—well, we will take for the year 1930—or 1931, for which I have all the details; on every item of construction during that year, they allowed for engineering and supervision two per cent, capitalized, instead of the five per cent allowed by me. Now, if the engineering and supervision did actually cost more that this two per cent or if it cost five per cent as allowed by me, that difference was paid out of operating expenses and the profits which we are considering here, or the net earnings which we are considering, would have been greater by that amount, if they had charged the five per cent. Now, as to the administration and legal expenses, including clerical hire, two per cent was allowed on the books, the same as the two per cent allowed by me; that would be a washout in that respect.

* * * * * * *

[fol. 2943] Q. It is your opinion, though, is it not Mr. [fol. 2944] Freese, as a valuation proposition, that where the costs of general overheads and going value have been paid out historically through operating expenses in the past, that the inclusion of those items in a valuation to find present value for that company is a rather liberal procedure?

* * * * * * *

A. I think, particularly with reference to going value, that how they have charged those expenses in the past and more particularly how they are charging them now—in other words, the whole purpose of this evaluation after it is all finished is to see what percentage relation the net

[fols. 2945-2946] earnings bear to this evaluation. Now if, during the period considered, they have been charging the costs incurred to those operating expenses, you not only decrease the net earnings, but if you included the property itself, you would increase the rate base, and you would thus work both ends against the middle in that respect.

* * * * * * *

[fols. 2947-2950] Recross-examination.

Questions by Mr. Griffith:

[fols. 2950a-2968] Reporter's certificate to foregoing transcript omitted in printing.

[fol. 2969] R. H. MONTGOMERY, a witness for plaintiffs, having been duly sworn, testified as follows:

Direct examination.

Questions by Mr. Stout:

Q. State your name to the jury, please, sir.

[fol. 2970] A. R. H. Montgomery.

Q. Where do you live, Mr. Montgomery?

A. Austin.

Q. How long have you lived in Travis County, or Austin, Texas?

A. Twelve years.

Q. You were born, I believe, out here in Menard County?

A. Born in Blanco, and lived in Menard about nineteen years.

Q. What schooling and what education have you had, Mr. Montgomery?

A. I am a graduate of the Teachers College at San Marcos, and have an A. B. from the University of Kansas and A. M. from the University of Texas, and my doctor's degree from the Robert Brookings Graduate School in Washington. I have been connected with various other institutions, doing some graduate work in two or three of them.

Q. Do you hold a chair at the present in Economics in the University of Texas?

A. Yes, at the present time.

Q. In your courses that you teach and in your studies do you teach any courses in public utility matters?

A. Yes. That course is my principal field, both of study and teaching.

Q. For the past ten or twelve years has your speciality in studying and in teaching been in utility matters?

A. Yes.

Q. Have you lectured at various universities in the United States upon this subject, or these subjects?

[fol. 2971] A. Yes.

Q. Are you familiar, Mr. Montgomery, with the economic conditions of the State, the Nation, and the world—have you made a study of those conditions?

A. Yes, of course.

Q. You have opinions, have you, in regard to them?

A. Yes, many.

Q. Are you familiar with the cost of money and the so-called term of "cost of financing"?

A. Yes, of course, in my studies we have to cover such subjects——

Q. Yes.

A. —to know anything about corporate finance, utility finance.

Q. From your study, from your observation, and from your experience do you have any opinion as to the effect that reduced rates have or tend to have upon the volume of increased business of a public utility?

A. Yes, I have my opinion, of course.

* * * * * * *

Q. Do you have a similar opinion as to what rate a utility should earn, or what would be a fair rate of return for a public utility?

A. Have I an opinion on that?

Q. Yes.

A. Yes.

[fol. 2972] Q. Mr. Montgomery, in this case, briefly, the facts show or tend to show that the Lone Star Gas Company—this cause being a contest between the State of Texas on the one hand and the Lone Star Gas Company upon the other hand—that the Lone Star Gas Company is a pipe line company; it operates in Texas and Oklahoma

and transports and furnishes to the smaller communities and towns more gas and serves more of the smaller communities and towns than any other gas pipe line company in the United States.

Mr. Griffith: Your Honor, we object to that. There is no testimony here to support it.

The Court: No, there is no testimony that they furnish more gas than any other pipe line in the United States.

Mr. Stout: I mean to small communities and towns, Your Honor.

The Court: Well, I can't remember that evidence.

Mr. Stout: I can promise the Court it is in testimony from their own witnesses.

The Court: Well, if it is, I just don't remember it.

Mr. Stout: All right.

Q. Anyway, the testimony shows that the Lone Star Gas Company is a pipe line company; that it transports gas to its affiliated corporations, which in turn carry it on to the domestic consumers within the towns and cities; the Lone Star Gas Company and the distributing companies connected to it and which in turn carry it to the domestic consumers in the [fol. 2973] towns and cities are affiliated to what is known as the Lone Star Gas Corporation which owns in excess of 99 per cent of the common stock of the Lone Star Gas Company and of distributing or other affiliated companies; and that on September 13, 1933, the Railroad Commission of Texas passed an order and promulgated it, the effect of which was to reduce the rate of 40 cents charged by the Lone Star Gas Company to the distributing companies to the amount of 32 cents per thousand cubic feet, being a reduction in the amount of 20 per cent. Now, from your knowledge, from your experience and study, can you tell the jury whether or not the effect of such a reduction is to increase the amount of consumption of gas and to tend to increase the volume of gas that would be served by the Lone Star Gas pipe line company if the lower rate were put into effect?

Mr. Shannon: Well, now, we object to that question and to any answer upon the part of the witness for the reason that the witness has not testified to any experience he has had in connection with the natural gas business or the way a fluctuation in rates in the natural gas business would

affect either the volume or the number of customers. We object because he is not qualified to express the opinion he has been called upon to express. We object further because the question is hypothetical and theoretical and because both the question and any answer which the witness would give are necessarily of a speculative nature and can [fol. 2974] not be based on any actual facts or actual experience of the company in the past or other natural gas companies located in this particular territory. We object because the question and the answer sought to be adduced are of no probative force or effect and are immaterial and irrelevant; and further, because there are no pleadings to support it.

(Thereupon counsel went up to the Judge's Bench and discussed the objection.)

Q. You understand, of course, that in theory and in form the Lone Star Gas Company—or, at least, I will put it this way: The Lone Star Gas Company alleges in this cause and claims to be a wholesale company; in other words, it distributes gas at the city gates to the distributing companies and then they in turn carry the gas and transport it to the domestic consumers at the burner tips. Now, bearing that fact in mind, I will ask you whether or not the reduction to a 32 cent rate being put into effect would have the effect or tend to have the effect to increase the consumption of gas and increase the volume of gas business?

A. Yes, sir.

* * * * * * *

Examination by Mr. Griffith:

Q. Doctor Montgomery, have you had any experience in connection with the natural gas business?

[fol. 2975] A. No. You mean by "experience" have I worked for a natural gas company?

Q. Have you had anything to do with the financing, construction, operation or management of any natural gas enterprise at any place?

A. No. In my work, of course, such a thing would not be permitted by the State.

Q. Do you know what the volume of sales is of the Lone Star Gas Company of domestic gas for any yearly period?

A. No. I have not made any study of the Lone Star Gas Company as to that. Of course, I have seen the fields.

Q. You are not familiar with the volumes of sales of either domestic or industrial gas of Lone Star Gas Company over any period of time?

A. No.

Q. You understand that the Lone Star Gas Company is a wholesaler of natural gas?

A. So I have just been told.

Q. Prior to that time you didn't know anything about the Lone Star Gas Company?

A. Well, not quite that. Of course, I have gone over their reports and such reports as Moody's Manual and Poor's Manual to know something about the financial and managerial tie-ups of the gas business and something of the price of gas, and those things.

[fol. 2976] Q. Now, the testimony in this case shows that the Lone Star Gas Company sells gas at wholesale to the city gates of some 250 to 300 towns in the States of Oklahoma and Texas and that the distributing plants in those several towns and cities are owned and operated by the several distributing companies; for example, in the city of Dallas the Dallas Gas Company and the County Gas Company are the distributing companies which do the retail distribution.

The Witness: Your Honor, may I ask questions, too, because I want to know——

The Court: I think you had better understand it before you try to answer.

A. Are those local companies owned by the Lone Star Gas Company?

Q. No, they are not. They are affiliated companies, however. The testimony in this case also shows that the distributing plants in Denton, Denison, Sherman, Hillsboro, Waxahachie, Wichita Falls, and other towns and cities are owned by the Municipal Gas Company. The testimony also shows that the distributing plants in the cities and towns of Temple, Greenville, Sweetwater, and others are owned by the Community Natural Gas Company. The testimony also shows that the distributing plants in the towns and cities of Waco and Paris, Texas, are owned by the Texas Cities Gas Company. The testimony further shows that the distributing plant in the City of Gainesville is owned

by the Gainesville Gas & Electric Company, and that the [fol. 2977] distributing plant in Waxahachie is owned by the Waxahachie Gas Company. Do you know anything about the historical cost, or the book cost, or reproduction cost of the public service facilities of those several distributing companies in the several towns and cities which I have enumerated?

A. Do you mean do I know what those various costs are?

Q. Yes.

A. Or what they are claimed to be?

Q. Well, do you have any knowledge as to what they are?

A. Well, now, of course not, until a court has passed upon it.

Mr. Stout: Have you any idea what they are claimed to be?

A. Yes; I have, of course, seen the records in the Railroad Commission office of the various appraisals that have been of these properties.

Q. Well, what appraisals have been made which are in the files of the Railroad Commission covering the properties of the Dallas Gas Company and the County Gas Company at Dallas?

A. I don't know. I haven't seen any such at all.

Q. You haven't seen any such at all?

A. No.

Q. What appraisals are on file in the office of the Railroad Commission covering the Wichita Falls, Corsicana, Denton, Sherman, Hillsboro and Waxahachie plants of the Municipal Gas Company?

A. I don't know. Of course, I know there has been one valuation made by the Commission—I think about 1925—on Wichita Falls.

Q. About 1925?

A. 1924 or 1925.

[fol. 2978] Q. The property may have changed very decidedly since 1925, may it not?

A. Yes.

Q. Well, have you ever seen in the office of the Railroad Commission — covering the distribution plants of the Texas Cities Gas Company at Waco and Paris, Texas?

A. None at all.

Q. Are you familiar with the earnings, either gross or net, operating expenses and net operating revenues cover-

ing the distributing plants which I have enumerated in these several towns and cities?

A. No, of course, if you mean by that do I carry in my head those figures; obviously not. I know where they can be secured; I have seen them.

Q. You didn't make any tabulation of those figures for the purpose of testifying in this case?

A. Oh, no.

* * * * * * *

[fol. 2979] Questions by Mr. Stout:

Q. I believe you stated that you did have some knowledge of the claimed value of a good many of the companies Mr. Griffith asked about, or the reported value by them?

A. No, the only one that I know is the Lone Star Gas Company.

Q. The Lone Star Gas Company, which is the defendant in this case?

A. Yes.

Q. Have you in your studies and in your experience, made a detailed study of the effect that a reduction has—what effect a reduction in rates has on these kind of commodities, both in the United States and in Canada?

A. I have made two detailed studies, one on transportation rates between 1869 and 1893, and one on the experience in electricity, which runs from 1900 to 1934, the latter being a much more detailed study.

Q. But you have made studies, of course, generally, and observed generally all such matters?

A. I have also made such a study, which is not in this field at all of course, on cotton—the effect on takings with the changes in price, and then in general, of course, every economist has to know, obviously, something about the effect of changes in price on consumption and on supply.

* * * * * * *

[fol. 2980] Q. I will ask you to state whether or not, after the World War, if you did not make a detailed study and a detailed investigation in Washington, D. C., in regard to utilities generally in the United States, with the Federal Trade Commission?

A. Yes, I have been with the Federal Trade Commission

a number of times, not as an official representative, but as a student in the field, studying their records that they have been collecting, notably during the last six years.

Q. And with their permission and approval?

A. Yes.

Q. And you had a desk along with the rest of them, did you not, in those studies?

A. Yes, and access to their files.

* * * * * * *

Questions by Mr. Griffith:

Q. This study of transportation rates, which you said included the years 1869 to 1893, did not include natural gas transportation, did it?

A. No.

Q. What kind of transportation are you referring to?

A. I am talking about steam rail transportation.

[fol. 2981] Q. Oh, steam rail transportation?

A. Yes.

Q. Have you ever made any specific studies in relation to the rates now in effect and charged by the major natural gas pipe lines in the United States?

A. No.

* * * * * * *

Q. Doctor, state whether or not the 32 cent rate, if put into effect, would tend to increase the consumption of gas [fol. 2982] and the volume of gas by the customers of the Lone Star Gas Company?

A. You mean give my opinion on it?

Q. Yes, your opinion.

Mr. Shannon: We object to that question, your Honor, for all the reasons heretofore stated.

The Court: I believe that the Doctor is sufficiently qualified to let him give his opinion as an expert, and that is all he is giving. I will overrule the objection.

Mr. Shannon: Note our exception.

Q. All right; answer the question.

A. I would like to say first that it must of course be my opinion.

Q. Yes, it is all opinion, of course.

* * * * * * *

A. My opinion is: Yes, it would certainly increase consumption.

Q. Now you have stated, have you not Dr. Montgomery, that you are familiar with the cost of money, the rates of returns generally, the cost of financing and particularly the rate of return as applied to public utilities?

A. Yes.

Q. State in your opinion what would be a fair rate of return per annum on the fair value of its property for a company such as the Lone Star Gas Company would be entitled to earn each year.

Mr. Shannon: We object to that question, if your Honor please, because the witness has not qualified himself to ex-
[fol. 2983] press an opinion as to what would be a fair and reasonable rate of return for this company or for companies of this character operating in this general territory at this time.

The Court: Well, Doctor, let me ask you a question.

A. Yes.

The Court: From your studies, in your opinion, do you feel qualified to answer such a question as an expert?

A. I do, as an expert, if I may be allowed to make explanations as I go along. That is to say, that a man is not qualified as an expert on this particular case here and now, and that of course is not saying anything at all.

The Court: We are talking about such utilities as this.

A. It would be utterly impossible to be so qualified as to this particular case.

Q. What is your answer, please sir, to the question asked you before the objection.

* * * * * * *

A. In my opinion, that question involves some guess as to what is going to happen in the future, since it is obvious that we can not set for one year a fair rate of return. I should say that a fair rate of return on any property in this year, or in 1933, would be nothing at all.

Q. In other words, they would be lucky to get anything?
[fol. 2984] A. They would be lucky to get out alive.

Q. Yes.

A. But, if you are looking, let us say, as far as one might

have the temerity to guess, ten years—my opinion is that five per cent——

Q. Yes sir.

A. Now, that is my opinion and that is not the court's opinion, you understand—that five per cent would be exceedingly liberal.

Q. And that is based upon your life time study in the field of economics and in the field of public utilities and in these kind of matters?

A. And specifically in the field of the study of the trend of interest rates in this particular economic period.

* * * * * * * *

[fol. 2985] Mr. Stout:

Q. I believed you stated that at the present time and for this particular time, almost any rate whatsoever would be a fair rate of return and that the gas company would be fortunate to get it, in view of the present conditions in business in general?

A. Yes.

Q. Now, I hand you here some kind of an exhibit, which I am frank to say I do not understand. By looking at it, can you tell what it shows or purports to show? This is an exhibit introduced by the witness Connor in this case, showing something about the cost of financing as taken from Fitch's Manual—or rather, the cost of bonds.

A. I think I understand what it means.

Q. Fitch's Manual, is a manual that shows the curb prices or rather the quotation price on Wall Street up in those tremendous money centers. Now, would a thing like that show what the over-the-counter price was on transactions—Fitch's Manual, which just represents the Wall Street exchange price?

A. It ought to show approximately the price at which these securities are sold from day to day.

Q. Does that so reflect the price—that computation there?

A. I think it does.

Q. Have you any explanation to make upon it?

A. Yes, I should think that this indicates not what the effective rate of interest is today, which is certainly one of the major elements to be considered in determining a fair [fol. 2986] rate of return. This indicates rather, I should

think, that the effective interest rate plus the fear of the investor, of these particular securities—in other words, this yield to maturity figure indicates that at a certain price for the bond, they would yield a certain amount of return for the next eight years or ten years or forty years. That is not in any sense an accurate measure of the effective rate of interest that would be expected today by a man investing money in a safe security. In fact it has today of course very little relation to that thing, because this undoubtedly represents primarily the risk involved in such securities as these that are listed. If a man—for instance, the bonds of some of our great railroad companies are selling today for Ten Dollars; they are, I believe, five per cent bonds; that would show a rate of fifty per cent. That surely does not mean that a man who was investing today in a reasonably safe security would expect a return of fifty per cent.

Q. In other words, those calculations show what they get on Wall Street at the Exchange, and not the actual transactions away from there?

A. And I should say that it is of little value in determining——

Q. Little, if any?

A. That is right—little, if any, value in determining the effective interest rate today. That can be shown of course by innumerable figures of offerings of today.

Q. Is money cheaper at this time? Or rather, is there [fol. 2987] more money accessible for a business venture than there has ever been before? Is the interest rate cheaper than it has ever been before?

A. I believe I should answer both of those questions in the affirmative. That is, there is more free capital for investment today than at any time in the history of the world, insofar as we have records, and under our present form of government today; and that the interest rate is lower.

Q. That is, where they are safe?

A. Yes.

* * * * * * *

Q. The question was, if your Honor please, that on an investment in a public utility—that is, forgetting about watered stock, but on an investment adequately secured, do

you know of any safer investment in the United States or that has any greater guarantee to it than utility bonds, save with the possible exception of a government bond?

A. I do not. Of course there it is not a matter of having invested in such securities, but I know that the funds of such physical institutions as trust companies and life insurance companies, are larger in such bonds—that is, are invested in those bonds to a greater extent than any other [fol. 2988] major enterprise, as I think they should be. I believe it is the opinion of all financial writers, your Honor, that public utility bonds, if you take the bonds of those whose funds are invested in physical properties, are the best ones in the country—that is, greater security is offered by them.

Q. Now, that computation you have, only shows listed sales as contra-distinguished from sales not there made—that is, at the general markets away from that point, they are not shown at all. Now, do you understand the term of going value.

A. I understand, I believe, what I mean by going value.

Q. As an intangible, considered only as an intangible, in your opinion does it have any value whatsoever?

* * * * * * *

A. What was the question?

Q. I asked you whether or not, in your opinion, considering going value as an intangible only, does it have any value?

[fol. 2989] A. In my judgment, absolutely none. I believe that is the judgment of all economists in the field, without any exception so far as I know. I think that is the ruling of the courts, but I don't know.

Mr. Shannon: Your Honor, we ask that be stricken.

The Court: I strike that as to the rulings of the courts, and the jury will not consider it.

Q. Will you tell me this, Dr. Montgomery; well—that's all. Now, wait just a minute. I will ask you this question. Considered on the theory of speculative fancy of the reproduction new value of this company's property, to know what interest rate it might have to pay, wouldn't you have to know the entire history of the company?

A. I missed that question.

Q. I say, considered on the speculative theory that this

company's property was to be blotted out overnight, just wiped out, and were to be reconstructed again, in order to know what interest rate it would have to pay, wouldn't you have to know the history of it from beginning to end?

A. Your Honor, I still do not quite get the question. If you mean could I offer an opinion——

Q. Let me put it this way:

The Court: The lawyer should make you understand what he wants.

Q. I will ask you this. In order to know what interest rate this company would have to pay, if any, at this time, [fol. 2990] wouldn't you have to know the history of it and its present standing, in order to accurately determine that interest rate?

A. It seems to me that the question has a contradiction in it; that is what bothers me. If you mean you would have to know the history of this particular company in order to know what interest rate another company would have to pay——

Q. No, I want to know the interest rate it would have to pay. In order to know that?

A. Certainly—its credit rating would certainly be an important factor in determining the interest rate it would have to pay for current or for new capital.

Q. That is all.

Mr. Shannon: Your Honor, at this time, we ask that the testimony of the witness, with respect to what he terms to be a fair rate of return at this time, be stricken from the record and the jury be instructed that they are not to consider it, for the reason and because the Railroad Commission of Texas has stated in its opinion that six per cent is the minimum rate of return to which the company should be entitled, and I think the plaintiffs in this case are estopped to go beyond that in this case.

The Court: In ruling on that objection or motion, don't overlook the fact that I have already stricken a good deal of his testimony as to the rate of return, particularly as to the future.

Mr. Shannon: Yes.

[fol. 2991] The Court: Your objection as to the balance of his testimony will be overruled.

Mr. Shannon: Note our exception.

Cross-examination.

Questions by Mr. Griffith:

Q. Dr. Montgomery, you are an advocate of government control of utilities, are you not?

A. Yes, to some extent, but as to what extent, I could not say because I am not familiar with all of them.

Q. All that you are acquainted with, you are in favor of the government taking them over and operating them, are you not?

A. No, I am not.

Q. As a matter of fact, haven't you persistently and continuously been an advocate of municipal ownership of public utilities?

A. I have not.

Q. You have lectured a great deal over the State of Texas, before civic bodies and other organizations, have you not Doctor?

A. Yes.

Q. Wouldn't it be a fair characterization of those lectures to say that in so far as they related to public utility matters, that they were violently anti-utility?

A. You mean anti-private utility?

Q. Yes.

A. By that you mean that I do not wish to do justice to investors in public utility plants. Certainly not.

Q. That has not been your attitude?

[fol. 2992] A. Certainly not.

Q. Now, what is the cheapest money that a public utility can obtain, under any capital structure?

A. It should be on their best form of bond.

Q. Would that be the first mortgage bonds?

A. It might be and might not. In the case of a railroad, it happens that it is not.

Q. In the case of utilities generally, is it true that the money obtained on first mortgage bonds is the cheapest money that can be obtained?

A. As a general proposition, I should say so.

Q. Now, what is the next cheapest money that a utility can obtain?

A. It should be, in so far as it is a matter—and this is obviously the point of the question—of the risk involved in the security, it should be the next junior bonds issued.

Q. And if there were no next junior bond issue, would not the next money be obtained through the sale, or rather through the issuance and sale of preferred stock or preference shares?

A. It should be.

Q. And what would be the next cheapest money which the utility could obtain?

A. If you mean to list the great groups of securities, bonds, first, preferred stocks and then classified common and then unclassified common, I should think it would be——

* * * * * * *

[fol. 2993] Q. Do you know what the cheapest money is that the Lone Star Gas Company procures?

A. No, I do not.

Q. Do you know what has been the cost to the Lone Star Gas Company of the cheapest money that it has been able to secure over a period of a number of years past?

A. No, I don't.

Q. Now, you spoke of trust companies investing in the bonds of public utility enterprises. Can you refer me to trust companies which have invested their funds in the bonds of natural gas producing and pipe line enterprises, similar in all essential respects, to the property and business of the Lone Star Gas Company?

[fol. 2994] A. I can not, because I don't know and I am quite certain that there does not exist another property exactly like Lone Star Gas Company.

Q. Did you ever hear of the Cities Service Gas Company?

A. Yes.

Q. Where does it operate?

A. It operates in a great number of states. Of course, I have here charts, showing where it operates, but I do not, of course off-hand, know all of the communities.

Q. Did you ever hear of the Arkansas Natural Gas Company?

A. I don't know it at all.

Q. Did you ever hear of the Southern Natural Gas Company?

A. I have heard only the name.

Q. Do you know where it operates?

A. No.

Q. Can you tell this jury the name of six major natural gas producing and pipe line companies operating in the United States?

A. Do you mean exclusively natural gas?

Q. Yes.

A. No, I can not. I rather doubt that there are six major natural gas companies, pipe line companies, if by major you mean of a size comparable to the Lone Star Gas Company.

Q. Yes, or half its size or twice its size.

A. No.

Q. Do you know what the current cost of money now is to natural gas producing and pipe line companies, similar in all essential respects to the property and business of the [fol. 2995] Lone Star Gas company?

A. I do not. I doubt if it would be possible to answer that question, because there has been so little financing during the past two or three years.

Q. Well, do you know what the current—or do you know what the coupon rate has been on natural gas producing and pipe line bonds issued over a period of the last four or five years?

A. No.

Q. Don't you know, Doctor Montgomery, that it would be substantially in excess of the five per cent that you mentioned?

A. I mentioned five per cent, as I explained, for the present, and the conditions of the future and not 1928 and 1929 which is obviously taken into your five year consideration.

Q. Well, make it three years. Are you able to tell, Doctor, the current cost of money to any natural gas utility?

A. No.

Q. Whether it is a producing or pipe line company or natural gas distributing company, operating in Texas, or any place in the world?

A. Such a calculation depends so much on the specific requirements of that utility, its past financial history and its present credit rating, that I think it would be impossible to make a general statement.

Q. Will you read my question, please?

(Thereupon the following question was read to the witness: "Are you able to tell, Doctor, the current cost of [fol. 2996] money to any natural gas utility, whether it is a

producing or pipe line company or natural gas distributing company, operating in Texas or any place in the world?'')

Mr. Stout: Now read the answer, please?

(Thereupon, the following answer of the witness was read: ''Such a calculation depends so much on the specific requirements of that utility, its past financial history and its present credit rating, that I think it would be impossible to make a general statement.'')

Mr. Griffith: I think the witness has not answered the question.

Mr. Stout: I think he did.

The Court: Let the jury decide whether he did or not.

Q. I will ask him again: Doctor, are you able to tell me, and to tell this jury, the current cost of money to any natural gas utility operating in the United States?

A. I can only give my opinion in the case. I can tell you approximately what the real interest rate is. That means the interest rate on long term investments, where there is very little risk of losing the money you invest. Now, you understand that as to the interest rate in any specific case, involving a certain corporation or a farm or a grocery store, that the lender of the money would have to take into consideration the chance of losing his capital. The real interest rate in the United States, is certainly as low as two per cent today, as shown by the fact that the federal government can issue bonds today at slightly [fol. 2997] over two per cent, and get offers for ten times as many bonds as they offer for sale at that figure. Now, that does not mean that you can borrow money on your farm or your grocery store or public utility plant at two per cent; but it does mean that that is the basic rate. To that would have to be added the risk involved in that particular case.

[fol. 2998] Q. Are you through with your answer now, sir?

A. Sir?

Q. Are you through with your answer now, sir?

A. Yes—just one moment, not yet. May I say this, too,—there are other elements obviously entering into the interest rate, other than the risk involved. We usually list taxes and the costs of making the loan and the risk as the three elements involved in setting the effective interest rate,

other than the true interest rate as represented by United States bonds.

The Court: Pardon me, Doctor, I don't believe you understood the question.

The Witness: I beg your pardon.

Mr. Griffith: We move to strike the answer as not being responsive to the question.

The Court: Let's let him understand the question. I don't believe Doctor Montgomery understood the question.

The Witness: All right.

Mr. Griffith: Well, we move to strike his answer as not being responsive to the question asked, and ask that the jury be instructed not to consider it.

The Court: I sustain the motion. The answer is not responsive, and the jury is instructed not to consider the [fol. 2999] answer made as an answer to the question asked.

Mr. Griffith: Now, will you read the question.

(Thereupon the Reporter read the question, as follows: "Q. Doctor, are you able to tell this jury the current cost of money to any natural gas utility operating in the United States?")

The Court: Now, that is just any natural gas company—do you know of any, and if so, give the current rate of interest for any company.

A. No.

Mr. Griffith: That is all.

The Witness: I am sorry I misunderstood your question. I understood your question to apply to—to be, what would the rate probably have to be to attract capital into such an industry.

Direct examination.

Questions by Mr. Stout:

Q. If you were computing the interest rate, Doctor, how would you compute it?

A. I should—one effective device would be to see in the past what the interest rates have been to such companies as this, or to this one specifically.

[fol. 3000] Q. Yes, sir.

A. And compare that with the true interest rate, which,

as nearly as we can estimate to-day, is the interest rate on United States Government bonds that are tax exempt; and then I should take the United States Government credit to-day and make my computation from that.

Q. Yes, sir.

A. Understanding that that would not apply as against the risk involved in one particular case, but as a general statement for the rate that would necessarily have to be paid in such industries.

Q. Mr. Griffith asked—or, rather, isn't the true interest rate in the United States to-day lower than it has been for many, many years?

A. Yes.

* * * * * * *

[fol. 3001] Mr. Stout: Well, my question, substantially, was that Mr. Griffith asked him a good many questions about the financial workings of the gas industry, and from his last study, or a study of a great many years, and his investigations, and his experience with the Federal Trade Commission, was it not a hard task to find out the answers to the questions asked by counsel, Mr. Griffith.

* * * * * * *

[fol. 3002] A. Yes.

* * * * * * *

Q. Now, you spoke of the interest of the Federal Reserve Bank. That, of course, is on secured loans, is it not—the interest rate you were speaking about?

A. The interest rate I spoke about was on Government bonds.

Q. Yes, sir.

A. Which are, presumably, as secure as any type of credit instrument that we have.

Q. Isn't the interest rate of the Federal Reserve Bank now at this time on secured loans cheaper than it ever has been before?

A. As far as I know, it is cheaper than it has ever been before.

Q. Yes, sir.

A. It is approximately one-third of what it was during the twenties.

[fol. 3003] Q. Would that indicate that there is more money available for safe investments than there has been perhaps in your lifetime and mine?

A. There is no question on that score whatever; there is more.

Q. Yes, sir. Now, the testimony shows, Doctor Montgomery, in this case that the Lone Star Gas Company has executed a note—an unsecured, plain promissory note in the amount of $17,500,000.00 to the Lone Star Gas Corporation, the parent company, of Delaware; the interest rate on that loan is six per cent interest.

* * * * * * *

[fol. 3004] Q. In any event where the money is obtained directly, there being no other indebtedness whatsoever on a company claiming a value of around seventy million dollars, which is valued by the State at around some thirty-nine or forty million dollars, and that being the debt—an unsecured note of $17,500,000.00,—in your opinion as an economist and as an expert, could a lower interest rate be secured if it were done by first bond mortgages, like Mr. Griffith interrogated you about?

* * * * * * *

[fol. 3005] A. In my opinion, it should be secured to-day—if you mean that.

Q. Yes, sir.

A. It should be secured to-day at a much lower rate than that.

The Court: Than what?

A. Than six per cent. In view of the fact that I noted in my paper I got to-day—The Business Week—that one of the large companies has just refunded its five per cent first mortgage bonds—it is not a natural gas company, it [fols. 3006-3007] is a public utility company—with a three per cent issue.

Q. With a three per cent issue?

A. Three per cent.

Q. As a general proposition, is it a simple statement of a plain fact that a secured loan can get cheaper interest than one unsecured or a plain promissory note?

A. Yes.

Q. For the same company?

A. I understand, and under the same conditions.

Recross-examination.

Questions by Mr. Griffith:

Q. Doctor Montgomery, the fact that the Federal Government is able to obtain money at two per cent is very little consolation to you and to me and to other- who have to borrow money and pay from six to ten per cent, is it not?

A. I do not borrow at present at from six to ten per cent. If you mean that it does not indicate a surplus of capital funds ready for investment in safe securities, then, of course, my answer is No.

* * * * * * *

[fol. 3008] S. W. Freese, a witness for plaintiffs, recalled, testified as follows:

Direct examination.

Questions by Mr. Fitzhugh:

Q. Mr. Freese, in your experience as an engineer have you during the years of your experience made studies of the wearing out of pipe and materials in service?

A. Yes.

Q. Have you noted from your general experience the exhaustion of machines and machinery, and the moving parts of machines and machinery, due to their wearing out in service?

A. Yes.

Q. Have you during the time you have been working on the investigation of the Lone Star Gas Company made a study, or caused assistants working under you to make studies and to get data and material from the books of the Company in Dallas?

A. Yes; I have studied in detail the charges to the depreciation reserve of Lone Star Gas Company as furnished to me by the auditors, and also the history of replacements [fol. 3009] to the various units and classifications of property, and have also made a detail of the pipe mortalities in the Lone Star Gas system as reflected by its history from the very beginning.

Q. From your study of the charges made and the replacements, do you understand the charges that the company used in making those replacements?

A. Yes.

Q. Do you understand how the Company takes care of replacement being made currently to its system?

A. Yes.

Q. Do you understand how it handles the matter of pipe mortality and replacements?

A. Yes.

Q. Have you in your study and analysis of the actual experience of the Company made curves and graphs showing the mortality of pipe, and showing replacements, and so forth?

A. I have.

Q. Have you prepared for introduction in this cause an exhibit showing the estimates of the annual amounts necessary to take care of the wearing out of the Company's property, obsolescence, and so forth, generally known as annual depreciation allowances?

A. Yes.

Q. Will you produce your exhibit?

A. Yes.

[fol. 3010] Q. This exhibit is entitled "Lone Star Gas Company, Texas Gathering, Transmission, Compressing and General Property, Annual Depreciation June 15, 1934. Hawley, Freese and Nichols"?

A. That is correct.

Mr. Fitzhugh: We introduce this exhibit in evidence.

(Thereupon the exhibit above referred to was marked for identification as Plaintiffs' Exhibit No. 7.)

The Court: Have you any objection, Mr. Griffith?

Mr. Griffith: I would like to ask a few questions.

The Court: All right.

Examination by Mr. Griffith:

Q. Mr. Freese, the exhibit just tendered in evidence purports to relate to the annual depreciation allowances in connection with the property purported to be evaluated in Plaintiffs' Exhibit 6, does it not?

A. Yes; I have made application of the annual rates to the property evaluated by us in our Exhibit 6.

Q. The calculations in regard to annual renewal rates and annual depreciation allowances are upon the so-called [fol. 3011] sinking-fund method, are they not?

A. That is correct.

Q. The sinking fund method of accruing depreciation allowances presupposes the use of an undepreciated rate base, does it not?

A. That is correct.

Q. What is the method actually used by the Company in connection with its accrual of depreciation allowances?

Mr. Fitzhugh: You mean your exhibits?

Mr. Griffith: No; as actually used by the Company on its books.

A. Well, they set up on their books each year a certain allowance for depreciation and they make certain charges to that reserve. Now, those are not labeled by any particular label. They just set aside certain amounts to depreciation reserves and they make certain charges.

Q. As a matter of fact, don't you know, Mr. Freese, that the accruals made by the Company are upon the straight-line method?

A. I think that is true, in general. However, in some years you set aside very little to the depreciation reserves, and some years you set aside a larger amount to the depreciation reserves.

Q. In determining your annual depreciation allowances, as summarized on page 1 of the exhibit just tendered, do you base those depreciation allowances upon the use of any [fol. 3012] credit balances existing in the Company's depreciation reserve account?

A. No; we do not.

Q. As a matter of fact, in connection with your allowance for depreciation on that Transmission System Property do you not presuppose the use of a credit balance in the depreciation reserve account in the approximate amount of five million dollars?

A. No; we do not presuppose, or have not taken into consideration the specific amount set aside by the Company. What we did do—or rather the result of this method, if applied by the Company is that they would have set aside whatever the proper amount would have been; whether they have or have not set aside the proper amount does not affect this study one way or the other.

Q. Have you assumed that there are certain credit balances in the depreciation reserve account in the computa-

tion of your annual depreciation allowances as summarized on your page 1 of the exhibit just tendered?

A. Well, I have assumed that during the life of say Transmission Line Equipment, that as the service life expires the proper amounts would be set aside each year, and that the proper amount has been set aside in accordance with the expired service life of the transmission line equipment.

* * * * * * *

[fol. 3013] Direct examination continued.

Questions by Mr. Fitzhugh:

Q. The first sheet inside the title sheet is a table of Contents?

[fol. 3014] A. Yes, sir.

Q. What do you show on Sheet 1?

A. Sheet 1 shows a summary of the Annual Depreciation Allowance. It also makes application to the reproduction Cost New of the items which should carry an annual depreciation allowance of the annual rate as set out in detail for each item in the succeeding pages of the report, the total Annual Depreciation Allowance being $831,946.08 per annu-. The reproduction cost new figures, as shown in the first figure column are taken from the reproduction cost new exhibit which has been previously introduced. The Annual Rate shown in the next figure column reflects the detail figures given in the body of the report. The product of the annual rate and the Reproduction Cost New—and that annual rate is the per cent of the Reproduction Cost New—gives the annual amount, as shown in the figure column on the right.

Mr. Griffith: When you say "reproduction cost new, you mean the reproduction cost new as determined by you and as set out in Plaintiff's Exhibit 6?

A. Yes; as set out in Exhibit 6.

Mr. Griffith: And that is true of each and every item appearing under the iteam headed "Reproduction Cost-New" on page 1 of Plaintiff's Exhibit 7?

A. Yes.

[fol. 3015] Q. Now, Mr. Freese, you say you have used for the computation of your annual depreciation allowance the sinking fund method?

A. That is correct.

Q. There is another method of finding depreciation known as the straight-line method, is there not?

A. That is true, yes.

Q. Can you explain, in a general way, so the jury may understand, what the difference is between these two methods of finding depreciation?

A. We will take for example one of the Company's cottages, which is estimated to have a life of twenty years. Suppose that it has an actual life of twenty years. Then by the straight line method five per cent would be set aside each year by the Company to take care of the costs of that cottage at the end of its life. In other words, assume that it went out of existence in the twentieth year, and they would have set aside five per cent each year for the twenty years, and they would have had one hundred per cent of the value of that property set aside at the twentieth year; that five per cent per annum would have been taken by the Company and used as it saw fit. By what we call the sinking fund method of depreciation they set aside each year an amount which, with the interest on what has been set aside, at the end of the twenty years amounts to one hundred per cent of the value of that property.

[fol. 3016] Q. There is no difference, is there, Mr. Freese, as to whether you use the sinking fund method or the straight-line method, each method, if properly applied, will bring you out at exactly the same place, will it not?

A. That is correct.

Q. Now, suppose you start on the detail sheets following your summary page, turning first to page 2, and state what you show on that page.

A. The first item is Gathering System Rights of Way. There are no replacements, of course, to rights of way. Now, we have estimated that the average life of the Gathering System Rights of Way is 13 years. Now, 5.296 per cent of the cost of those rights of way set aside annually, with an allowance of 6 per cent interest on the amount set aside, will equal one hundred per cent of the cost of those rights of way in 13 years. Such an allowance of 5.296 per cent per annum will accumulate in 13 years to 100 per cent of the cost of those rights of way, and the Company would receive at the end of the average life of these rights of way a return of 100 per cent of the investment in those rights of way. The next item is Field Measuring Station Structures, amortization of 100 per cent in 13 years. These field measuring

station structures are small houses which, when they reach the end of their usefulness in the field, are generally picked up and put on a truck and carried to some other location. [fol. 3017] They are just small houses which can be picked up and put on a truck and carried to some other location. However, we have allowed for the complete amortization of 100 per cent of those costs at the end of the average life of the field measuring station structures. If there be any salvage value in those structures at the end of the 13 years the Company will gain the benefit of that salvage value. The cost of making all current replacements to field measuring station structures have been, and are being charged to Maintenance accounts as part of the operating expenses. Now, if that continues to be so, and so far as we are concerned it does not make any difference whether it continues to be so or not—as long as they are charging to present operating expenses all maintenance of these field measuring station structures, why they could keep on just as long as the Company lasted or had any use for these field measuring station structures, if they kept them maintained in good condition, the only loss to the Company would be the cost of moving them from place to place. However, whenever one of the major fields is abandoned, they would probably lose one hundred per cent of the cost of those structures, and that has been provided for each thirteen years. Now, when it comes to Field Measuring Station Equipment, the cost of keeping this equipment up, which consists largely of meters, is also charged to the maintenance accounts as part [fol. 3018] of annual operating expenses. We have allowed for the setting up of a fund which, at the end of the estimated average life of 13 years, will equal 70 per cent of the costs of the field measuring station equipment, it having been estimated that 70 per cent of the costs of these meters will be lost upon the removal from one site to another site, but the 13 per cent—or rather the percentage allowed per annum will in 13 years amount to the 70 per cent loss which would be incurred upon their removal. Current replacements in this case are also charged to operating expenses, and so far as this allowance is concerned, should not enter into these figures.

Q. Now, under Field Line Equipment, you show a table, showing a column for the year, a column for replacements, a column for annual rate or per cent, and a column for amortization fund per cent. Explain that table.

A. At the bottom of the right-hand column is found a figure, 88.5 per cent. This 88 per cent is estimated to be the loss, taking into consideration the cost of making the removal—taking into consideration the salvage value of the pipe, the 88 per cent will be the losses at the end of the average life of this Field Line Equipment, which is estimated to be 13 years. In the column headed "Replacements," which is in increasing amounts up to the thirteenth year, is given the percentage which it is estimated will be [fol. 3019] required for each of those years to make the replacements due to the wearing out of the pipe in service. Now, the figures for the replacements during each of the thirteen year estimated life of field line equipment are taken from the tables shown on pages 9 and 10 of Exhibit 7, and this table conforms to the mortality curve and distribution curve of replacements and abandonments on pipe as shown on page 11 of this exhibit. The per cent, or rather the annual rate percentage required each year to make all replacements in the field line equipment and to build up this fund which will take care of the total losses of 88 per cent at the end of 13 years is 5.085 per cent. That has been given as an even amount for each year, and has been carried back to the sheet shown on page 1. In other words, that rate of 5.085 will make all replacements and will take care of the total losses involved at the end of the average life of the property.

[fol. 3020] Q. Proceeding on page 3, the next item is Transmission System Measuring Station Leaseholds?

A. Yes. There we have set up a figure of $401.31. That is the annual lease accrual—in other words, that sum of money each year will at the end of the life of the leaseholds have completely paid off the value of the leaseholds. Similarly, for Other Transmission System Leaseholds, the lease accruals amount to $71.68 per annum; that is the actual accruals on these leaseholds. That covers the accruals on both Texas and Oklahoma. There would be a slight credit by eliminating the Oklahoma leaseholds, but it would be very small. The next item is Transmission System Rights of Way. This covers the rights of way on the main lines, estimated to have a value of $899,090.73. We have amortized 100 per cent of the cost of those rights of way over a period of fifty years. Some ten to fifteen years of the

life of these rights of way have already elapsed. Now, as to whether at the end of thirty-five years these rights of way will still be used for the transportation of gas or not, I am unable to say. However, I am of the opinion that these rights of way will be useful for at least another thirty-five years, and we have amortized the cost of these rights of way 100 per cent over that lifetime. The next item is Transmission System Measuring Station Structures. We have allowed for an amortization of 100 per cent of the value of these structures in twenty-five years. Most of [fol. 3021] the current replacements and repairs, such as painting and similar repairs, are being charged to operating expenses by the company. However, once in a while there is what might be called a major rehabilitation of one of these Transmission System Measuring Station Structures, and that is charged to depreciation reserve. However, we could not divide very well between these charges to Transmission System Measuring Station Structures and similar charges to the Equipment, so we have made an allowance under the head of Transmission System Measuring Station Equipment covering all such rehabilitation charges which are being charged to depreciation reserve. The estimate of life of these Transmission System Station Structures of twenty-five years—that is, the allowance of amortization of 100 per cent in twenty-five years—is probably liberal because of the fact that those structures are maintained in excellent condition from year to year, and if any replacements are required those replacements are made out of operating expenses. There is no reason why those structures should not last as long as the property itself lasts. The next item is Transmission System Measuring Station Equipment. This equipment consists largely of meters, or, rather, that is the biggest item—meters and regulator equipment in these stations. It is maintained in perfect condition at all times, well painted. However, we have figured on an amortization of 100 per cent of the cost of this equipment in forty years. We have also allowed for current replacements in the amount of 1.332 per cent per annum. This covers current replacements also to the [fol. 3022] structures themselves where such replacements have been made out of the depreciation reserve. In 1927 the actual charges to the depreciation reserve by reason of current replacements to either Transmission System Measuring Station Structures or Equipment was $2,088.63;

for 1928, $2100.59. As of that date, or between the accounting periods 1928 and 1929, the company changed its policy with reference to making charges to depreciation reserve, and that year the charges jumped to $7,548.19—that is, from the $2,088.63 and $2100.59. In 1930 it was $7115.94; the next year it was $3577.98. We took the average for the three heavy years and did not include the years 1927 and 1928. This resulted in a percentage of 1.332 per cent per annum for current replacements. Now, I checked that figure against the actual charges made to the depreciation reserve in 1933, and find that the allowance was more than sufficient to take care of such charges during the last year examined, 1933. The next item of property is the big item, Transmission Line Equipment.

Q. Starting out on page 4?

A. Starting out on page 4. Transmission Line Equipment has been divided into main lines, tap lines and gathering lines, and the weighted average for annual rate for this item is 2.183 per cent per annum, which, when applied to the $27,052,546.81, gives an annual amount of $590,557.10. That is almost two-thirds of the total annual depreciation allowance. As shown on page 4, for main lines, the second column gives the percentage of replacements for each year; [fol. 3023] in other words, starting out with the first year, the replacements would be quite small; ending up with the forty-fifth year—that is what we have taken as the cycle for Transmission Line Equipment—it ends with 3.46 per cent per annum. However, we have started out with an annual rate of 1.70 per cent and have carried that through the entire life cycle of this particular piece of property. That 1.70 per cent is sufficient to not only make the necessary amount of annual replacements, but is sufficient to build up a reserve fund of 101.51 per cent of the cost of the property during the life cycle of the property. To this annual amount of 1.70 percentage, sufficient to both make replacements and amortize 100 per cent the cost of the property during its lifetime, we have added a percentage of .289 per cent to make major removals and .150 per cent to make major rehabilitations, giving a total of 2.139 per cent per annum. There is very little regularity about the way these major removals took place. The heavier removals were in the early history of the company, when there was a comparatively small amount of pipe in the system. However, the total of major removals during the

history of the company up through 1931 was 659 miles of three-inch equivalent pipe.

[fol. 3024] Now the percentage relation of those major removals to the total amount of pipe in the system as of December 31, 1931, was 8.54 per cent, and the ratio would be substantially the same today. The loss incurred in these major removals is 74.51 per cent. Therefore the average loss during the history of the company for these major removals has been .289 per cent. That is, over the history of the company, of twenty-two years up to December 31, 1931. The history of the company; that is, the fact that these major removals came during the early history of the company, you might say, when the company was getting settled, might be called growing pains, indicates that there should not be any great increase in the future in this item.

We have also allowed for major rehabilitations in the amount of .150 per cent. That was the amount testified to by the company in the hearing before the Railroad Commission as being the actual amount incurred in the past history of the company, although they did raise that amount to .20 per cent, as a matter of taking care of what they estimated would be a future increase in that amount.

Now the main lines amount to 69.58 per cent of the total cost of transmission line equipment. That, multiplied by 2.139 per cent for the main lines, gives a weighted percentage for the main lines of 1.488 per cent.

The next division of transmission line equipment is tap lines. The annual allowance for tap lines of 1.989 per cent [fol. 3025] was computed in a manner similar to that for main lines, except that there have been no major rehabilitations on tap lines, and we have only included the annual rate necessary for all replacements and for complete amortization, plus the item of major removals. In this case the amortization fund amounts to 101.51 per cent. That shows here as 100.51 per cent, but it should be corrected to read 101.51 per cent. Tap lines amount to 18.91 per cent of the total cost of transmission line equipment, and multiplying this 18.91 per cent times the annual rate found of 1.989 per cent, covering the tap lines, gives the weighted per cent as part of transmission line equipment of .376 per cent.

Gathering lines have been found as follows: An annual amount has been set up which would not only take care of annual replacements but at the end of a twenty-year esti-

mated life of these gathering lines, would provide a fund of 76.982 per cent, which is sufficient to take care of the loss incurred when these lines are taken up at the end of the average life of twenty years and moved to a new location. No allowance has been made for major removals, in as much as this allowance of 76 per cent is designed to take care of what would constitute major removals on gathering lines. Nor is the item of major rehabilitations incurred on gathering lines. Applying the rate of 2.770 per cent found for gathering lines to the percentage of gathering lines in the transmission line equipment, or 11.51 per cent, we get a weighted average, or rather, the part applicable to gath- [fol. 3026] ering lines, as part of the weighted average for the whole item of transmission line equipment, is .319 per cent.

Now, adding together the weighted amounts found, for the main lines of 1.488 per cent; for tap lines of .376 per cent and for gathering lines of .319 per cent, we have a total of 2.183 per cent, covering transmission line equipment.

Now, the replacements as shown in each of the tables covering the three divisions of transmission line equipment, that is the percentages for replacements have been taken from the tables on pages 9 and 10, which show the calculation of the total annual renewal rates, including replacements of replacements. Now that total in turn is taken from the mortality curve, and the distribution curve of replacements and abandonments shown on sheet 11.

Now the test as to whether the tables and the mortality curve which have been used throughout this exhibit are correct or not, is shown on page 12. On page 12 it shows the calculated replacements and abandonments as used by me throughout this exhibit. The black heavy verticle lines show the actual replacements as experienced by the company. The year 1933 has not been plotted on this curve, but it would be considerably less than the amount which I originally estimated for the year 1933. The year 1932 was only some one-tenth of the amount estimated by me for the year 1932.

Another test of the reasonableness of those tables and [fol. 3027] the curves which have been used throughout this exhibit is the company's experience on the two oldest lines in the system of the company, being Lines B and C, which were laid in 1910 and 1911. The actual mortalities on Lines

B and C in twenty-one years, amounted to 9 per cent. The mortalities which would have been incurred, according to the tables and curve which I have used throughout this exhibit for pipe, would have been twenty per cent, as compared to the nine per cent actually incurred. I believe, Mr. Fitzhugh, that covers the transmission line equipment.

Q. The next item is that of compressing stations, appearing on page 7. Will you explain your per cents shown there?

A. We have divided the item of property, compressing stations, into two main divisions: main line stations, which are the Petrolia and Joshua stations, and the field stations which are all of the other stations scattered through the fields of the company.

Mr. Griffith: What did you do with the Gainesville station?

A. We have taken the Gainesville station as a field station, subject to the same possibility of major removals as the field stations, the stations which I have included in main line stations being Petrolia and Joshua. The property at each one of these stations has been broken up into the divisions to which the different annual rates would be applicable, and for example it has been divided into land and [fol. 3028] improvements, leaseholds, joint property, class A structures, Class B structures, main units, and so on. The annual average life for each one of these different divisions has been estimated, and for each division there has been set up an annual rate which would completely—or which would provide completely a fund which would take care of 100 per cent of the cost of that particular division during the estimated life of the property. In addition to that, for both main line stations and field stations we show an allowance for current replacements, in the one case of .392 per cent for main line stations and for field stations of .413 per cent. In checking over these figures, I find that that allowance should be increased by 4/10 per cent per annum, which will amount to approximately $16,000 per annum for this item of property. These current replacements are based upon the current replacements, actually experienced by the company.

* * * * * * *

[fol. 3029] Q. Had you finished your explanation of the compressing station rates as shown on page 7?

A. No; I had not.

Q. Will you explain that at this time?

A. I was explaining the matter of current replacements which I feel should be increased by .4 per cent over what I have shown here, or in the amount of approximately $16,000 per annu-. The charges for current replacements made to depreciation reserves for compressing stations during 1927 were $10,460.83; 1928, $6,559.69. Then at that time the Company changed its policy of making these charges, so in 1929, these charges jumped up to $41,709.60; 1930, $42,775.20; 1931, $37,049.56; or an average for the three years of $40,511.45; and the figure, after I make the [fol. 3030] correction of .4 per cent is sufficient to take care of those charges. Now, in checking the 1933 charges against that annual amount for replacements, I find that that would be sufficient for the year 1933 also. That gives us a total for main line stations of 2.571 per cent. Now, field stations were computed in an exactly similar manner, except that an additional allowance has been made for removals and abandonments of these field stations, and I have used for that 1.360 per cent. The Company estimated in the hearing before the Railroad Commission that that allowance should be 1.240 per cent. That was based on a 7 per cent sinking fund basis. The Railroad Commission changed that to a 6 per cent sinking fund basis, and increased it to 1.360 per cent. That allowance on a 6 per cent sinking fund basis is sufficient to take care of all major removals and abandonments. Now, there is some measure of duplication in these three allowances. We have, first, the current replacements and repairs. We have, second, an allowance which will take care of the complete replacement of these units over their natural life; and then we have a third allowance in the case of field stations, which will take care of the removal or *or* the loss when one of these stations is moved to another location. Take, for example, main compressor units. Out of this allowance for current repairs and replacements, for [fol. 3031] example, one of the items that enters into that is cracked bed plates. In other words, this fund is sufficient to put in entire new bed plates. Another big charge is cylinders, like particularly at the Petrolia Station—new cylinders in the compressor engines. If that process was

kept on, and the replacement of these worn out units charged to operating expenses, that would keep those engines going indefinitely. Now, take for example this item of water supply or auxiliary units, for example—we have allowed for complete amortization by reason of the depreciation of these units in twenty years. We will suppose, for example, that the whole station was removed in twenty years, then we would have a fund in there to take care of the loss by reason of that removal. There is a certain amount of duplication there that cannot be avoided and work out definite figures for each one of those items. For that reason I feel that the figure is safe. As applied to the one item of auxiliary units, for which we have allowed a 20-year life, supposing that the station had a 20-year life, well, out of the replacements would come repairs to those auxiliary units; out of the replacement fund would come sufficient to amortize the whole cost of the property in twenty years; and out of the charges for removals and abandonments there would be a sufficient amount to remove the equipment to a new station and put it in new condition. That completes the explanation of the rate as applied to compressing stations.

[fol. 3032] Q. The next item at the top of page 8 is General Office Structure. Explain the rate that you use in connection with it.

A. We have provided for current replacements and repairs to the structure, not charged to operating expenses, .750 per cent. Elevator repairs, and such as that, have been charged to depreciation reserve; and this percentage of .750 is sufficient to take care of such replacements as have been charged to that reserve. That provides about $2400 per year. For the year 1933 the actual charges to that reserve were $29.65. Of course, that was a very low figure, and some years they would go more than that,—possibly more than the $2400 we have allowed; and we have also allowed for the complete refund, which will equal 100 per cent of the cost of the building over a period of 40 years. Part of that life, of course, has already elapsed.

For Other General Structures we have allowed for the setting up of a fund which will amount to 100 per cent in 25 years. All repairs and replacements to Other General Structures have been charged to Operating Expenses, and were being charged during the accounting periods which are

being considered in this case. With reference to General Office Furniture and Fixtures and Other General Furniture and Fixtures, those have been divided up into the different classifications, such as furniture and Fixtures, Machine [fol. 3033] equipment, Law library, draperies, rugs, and Dictographs, and the life for each class has been estimated, and a fund set up which will take care of the complete replacement of that property over the life of the property. In this case also, all repairs to this furniture and fixtures, and such as that, have been charged to operating expenses and are included in the operating expenses as set up by Mr. Phillips and by the Company's witness.

General Shop Equipment, we have allowed for a fund which will equal 100 per cent of the cost of this equipment in 15 years. In that case, current replacements and repairs were charged to operating expenses.

With reference to General Telephone System, we have allowed for the replacement of that property completely in 40 years, and have set aside for current replacements .402 per cent. There is some question whether this allowance of .402 per cent should be made or not, as practically all telephone replacements and repairs are being charged to operating expenses. There were no repairs or replacements charged to that fund during the year 1933.

Now, for all of the Non-Physical Property we have allowed for a fund—by non-physical property, I mean administration and legal expenses, $687,000; engineering supervision, $1,700,000; taxes during construction, $8500; interest during construction, $1,522,000. We have set up [fol. 3034] a fund such that the annual increments will equal 100 per cent of the appraised value of this non-physical property at the end of 50 years, part of which 50 years has already transpired.

Q. You have already referred to pages 9 and 10, but you have not made a detailed explanation of those pages. Perhaps you had better do that at this time.

A. Pages 9 and 10 simply show the calculation of the total annual renewal rates, including replacements of replacements, as taken from the mortality curve shown on page 11. This mortality curve is for pipe having an average life of 33½ years. The reasonableness of this curve has been tested on page 12 by plotting the calculated mortalities against the actual mortalities incurred by the Company. Up

to the end of 1931 the calculated mortalities were almost identical with the actual mortalities incurred up to that date.

* * * * * * *

This curve at the bottom of page 11, known as a distribution curve, shows the way that the replacements will come. [fol. 3035] In other words, they start out low; when you get up to about the average life of the pipe they reach a maximum, and then they taper off, as the original units have all disappeared. This tabulation here simply shows for each year the figures taken from that curve, and also the replacements of replacements put on there each year, such that the total at the bottom will be not only the replacements of the original units, but the replacements of the original units that have been replaced—replacements of replacements. Now, this figure here shows a comparison of the calculated curve, which, of course, would be a smooth curve, with the replacements as actually experienced by the Company. Now, the sum total up through 1931 of these calculated replacements equals the sum total of the actual replacements experienced by the Company. Now, the estimate for the year 1932—this was made based on the experience up to 1931—was approximately 60 miles. As a matter of fact, there were incurred only about 6 miles of replacements. Now, for 1933 there — considerably more than there was in 1932; yet for this year the actual mortalities run somewhat less than the calculated mortalities for the year 1933.

Q. Now on that sheet, page 12, for 1931, what is that "J" portion, and that "C" portion shown there?

A. The "J" portion is the replacements on Line "J", which were due to—that is the pipe that comes out of the [fol. 3036] Joshua Compressor Station, and that replacement was due either to defective pipe, which would not be incurred in the future, or it was due to the nature of the gas that was being put out at the Joshua Station which caused the corrosion of the pipe, or possibly both factors;—That should not recur in the future. Line "C" was the removal of Line "C" made necessary by the rehabilitation of the Dallas County Levees, and that should not be a recurring item in the future. However, the total of these calculated mortalities up to this point is sufficient not only to take care of these regular replacements, but also sufficient to take care of the replacements which occurred on Line "J" and Line "C" in the year 1931.

Q. Where did you get the 33½ year average life that you used in the finding of your mortality curve?

A. Well, any mortality curve of this sort must be based upon the experience that—in connection with the particular kind of material with which you are dealing—in this case steel pipe. That was worked out similar to practically all symmetrical mortality curves; that is, that the replacements during the latter half of the life of a pipe line will correspond roughly to the replacements during the first half of the life cycle of the pipe; but the whole test of a mortality curve of this sort is the graph shown on page 12, which shows a comparison between the calculated replace-
[fol. 3037] ments based on a mortality curve of this sort and the actual replacements that have occurred.

Q. Turning back to your summary sheet on page 1, after applying the rates that you have found in the detail sheets that you have just been explaining to the reproduction cost new as found by you, and already testified to heretofore, you find that the total annual depreciation allowance will be the amount of $831,946.08; is that correct?

A. That is correct, except for that correction of .4 per cent for replacements on compressing station property. That would be .4 per cent per annum of the $4,146,111.57, which would be $16,600.00 approximately. I find in carefully checking back through all my notes that my allowance was not sufficient to take care of those current replacements in that amount.

[fol. 3038] Q. So that, adding the sixteen thousand dollar figure to the total annual allowance which you have found on page 1, you would have the amount which in your estimation is sufficient to take care of all annual depreciation?

A. I think that that would be fair and reasonable to take care of the depreciation—annual depreciation on the property covered by us on this page, particularly in view of the way the Company charges maintenance to operating expenses on a part of these items.

* * * * * * *

[fol. 3039] F. S. FRENCH, a witness for plaintiffs, having been duly sworn, testified as follows:

Direct examination.

Questions by Mr. Fitzhugh:

Q. State your name, please.
A. F. S. French.
Q. Where do you live, Mr. French?
A. Austin.
Q. What is your business?
A. Civil Engineer.
Q. Are you connected with any of the State departments?
A. The Gas Utilities Division of the Railroad Commission.
Q. How long have you been connected with the Gas Utilities Division of the Railroad Commission?
A. About two years.
Q. Prior to that time in what work were you engaged?
A. Civil Engineer for the City of Amarillo.
Q. Where did you get your education, Mr. French?
A. Ohio State University.
Q. Did you graduate from that institution?
[fol. 3040] A. I do not have a degree, no, sir.
Q. How long have you been engaged in the practice of Civil Engineering?
A. About thirteen years.
Q. Before coming to the Railroad Commission, where was your home?
A. Amarillo, Texas.
Q. How long did you live there?
A. About six and a half years.
Q. Are you fairly well acquainted with all the Panhandle territory between Amarillo and—that is, at Amarillo and around in Wheeler County and on down as far as Vernon?
A. Yes, sir.
Q. Have you been engaged at any time during your employment with the Railroad Commission in the investigation of a pipe line running from the Wheeler County Field down toward Vernon?
A. Yes, sir.
Q. What is the name of the Company?
A. Northern Texas Utilities Company.
Q. What is the general route taken by the line of the Northern Texas Utilities Company to which you just referred? Can you indicate on the map?

A. Approximately—one line comes down here (indicat-
[fol. 3041] ing on map), and then it cuts back to Childress and goes to Vernon—it bends at Vernon, and goes into Wichita Falls; the other lines y's at Wellington and cuts across just one corner of Oklahoma, in approximately the same location as the Lone Star Gas Company, and comes in at Vernon.

Q. As indicated on this map, this line starts about the middle of the group of lines shown in Wheeler County on this map, does it not?

A. Yes, sir.

Q. And comes south, cutting about the middle of Collingsworth County, through Wellington, down into Childress County,—is that correct?

A. That is right.

Q. Through Childress County, how does it run?

A. It continues on through Childress County——

* * * * * * *

A. Yes, sir. It continues on through Childress County, running north, right through Kirkland, into Quanah.

Q. Does it pass through the town of Childress, in Childress County?

A. There is a tap off the main line serving Childress.

[fol. 3042] Q. But the main line proper does not go through the town of Childress?

A. No, sir.

Q. The line to which you refer is a route wholly in Texas, is it not?

A. Yes, sir.

Q. And referring to this map again, the line which you have just described, which is the line of the Northern Texas Utilities Company, is a route west and at the lower part—the southern end of the route is slightly south of what is shown on this map as Line A, is it not?

A. That is right.

Q. Where does this line of the Northern Texas Utilities Company take gas to?

A. All—Well, to Texas points, ending at Wichita Falls.

Q. That is, this line receives gas in Wheeler County, does it not—from the Shamrock Field?

A. Yes, sir.

Q. And transports it south towards Wichita Falls and other points in that vicinity?

A. That is right.

Q. What is the size of the line?

A. The line is 16-inch from the Shamrock Field to the Wellington Y; it divides there into two 12-inch lines, and [fol. 3043] picks up at Quanah again as a 16-inch line, and continues on into Wichita Falls on that size pipe.

Q. Now, in making your investigation of this pipe line did you investigate all of the soil conditions through Collingsworth and Childress Counties, on down to or as far as Vernon?

A. Yes, sir.

Q. At how frequent points did you make your observations?

A. Well, the lines were all classified, and some of them ran ten feet up to a thousand feet; where the classification would change, why, we would get all points where the soil classification would change.

Q. You mean at some points you took observations at thousand foot intervals?

A. And other places we might run fifteen thousand feet, where the soil was the same; and then on top of that, to recheck the line, we went back and made observations at every mile point, and test holes were dug.

Q. And that's from the Wheeler County Field as far south as Vernon?

A. Yes, sir.

Q. Would you read a sample of the notes that you made in taking these observations?

A. From Shamrock to Wellington Y, 16-inch pipe, Sta- [fol. 3044] tion 0-plus-00 to Station 69-plus-43, sandy loam and clay; all machine work. 69-plus-43 to 70-plus-00, 57 feet, red clay and rock, that is 50 per cent solid rock; Station 70-plus-00 to Station 70-plus-23, 123 feet, is 20— that is red clay and rock, 20 per cent loose rock and the other hand earth. Station 70-plus-23 to 71-plus-77, 80 per cent loose rock; 71-plus-77 to 77-plus-00, 223 feet, red clay and small boulders.

* * * * * * *

Q. The rest of your observations, Mr. French, read along about the same, do they not? That is, you classified hand earth and rock excavation at each observation point?

A. Yes, sir.

Q. Now, at each observation point that you have listed, a hole was dug?

A. Not at these points, but at the mile points they were.

Q. Have you there an observation made at one of the mile points?

A. Yes, sir.

[fol. 3045] Q. And at each mile point you did dig holes, did you not?

A. Yes, sir. Well, this is just one sample; it gives the location. This particular one was on the slope of a wheat field. It gives the diameter of the pipe, and the type of couplings; whether it was new or second-hand pipe; the depth to cover; the amount exposed; the amount inspected. The type of soil at this particular place was sandy loam, and the sub-soil at the pipe was also sandy loam. We noted in this inspection if the top soil would crack when it was dry, and we have notations as to the vegetation and the topography and the drainage, and the type of treatment, and the condition of the coating, and the depth of the pits, if they were observed.

Q. After making these observations you worked out a soil classification, did you not?

A. Yes, sir.

Q. What are the results of that analysis?

Mr. Griffith: Covering what territory?

Mr. Fitzhugh: From the Wheeler County Field to Vernon.

A. Well, I have that here as far as Quanah. Shamrock to Wellington Y, per cent machine work 87.11; loose rock [fol. 3046] 1.97 per cent; solid rock 1.23 per cent. Per cent hand earth 9.69 per cent. Childress Branch, from Wellington Y to Quanah, per cent machine work 91.94, loose rock 1.53, solid rock .45; per cent hand earth 6.08. Wellington Y to Quanah, on the North Branch, 95.47 machine earth; .92 per cent loose rock; 3.20 solid rock; .31 per cent hand earth.

Q. Now, in making those classifications, Mr. French, did you run across any soil conditions through Collingsworth and Childress—any of those counties, down as far as Quanah, where the sand was what is generally known as blow sand?

A. Yes, sir.

Q. Did you find any pipe exposed anywhere?

A. No, sir.

Q. Did you find any soil conditions anywhere along that route where you would expect the ditch not to be able to hold on account of the sand condition?

A. No, sir. There is one place—no, sir, there were none.

Q. What did you start to say?

A. There was one place south of Prairie Dog Fork of the Red River of about a mile and a half, of real fine sand, but it would be—it would hold the ditch.

Q. Well, that's right in the river bed almost, isn't it?

[fol. 3047] A. Well, within about a mile and a half south of the river.

Q. Yes. That Prairie Dog Fork shifts around considerably, does it not?

A. Yes, sir.

Q. Did you find any bad river crossings or ditches or topography of the land generally that would be extremely difficult to excavate?

A. No, sir, except one place that is fairly rough, between Shamrock and—it is about twelve miles south of Shamrock, is a river break or a branch break, that you would have to take care of that by a good bit of hand earth.

Q. About how long a stretch is that?

A. That is about two thousand feet.

Q. And you say in your classification you have classified all of that excavation as hand earth excavation?

A. Yes, sir, and rock, where it is——

Q. Yes, sir; down around the section of the country where you get to the Prairie Dog Fork of the Red River, are there a lot of breaks down there, and branches, where you would have a hard time with excavation?

A. No, sir, most of that is under cultivation.

Q. Yes, sir. Where this line crosses the Prairie Dog Fork of the Red River what kind of a crossing is it? Is it a [fol. 3048] special crossing?

A. That is a special crossing, yes, sir.

Q. And what sort of excavation did you figure that would be?

A. That is all hand.

Q. All hand?

A. All hand, yes, sir.

Q. And so classified by you and included in those totals?

A. No, sir, not included in my totals.

Q. Because of its being special construction?

A. That is special construction and was handled entirely separate.

Q. What is the length of that crossing?

A. 2673 feet from gate to gate.

Mr. Griffith: What was the last part of your answer, from gate to gate?

The Witness: From gate valve to gate valve.

Q. Did you see any place along in this part of the country—this part of Childress County, along the Prairie Dog Fork of the Red River, where the crossing looked like it would be as much as 7,000 feet?

A. Well, I didn't go up the—I didn't make any particular study of that, but I didn't——

Q. Well, along this particular section. (Indicating on [fol. 3049] map.)

A. No, sir; no, sir.

Q. The North Branch of the Wellington Y, of the 12-inch, on this line you are talking about, does cross through the corner of Oklahoma, does it not?

A. Yes, sir.

Q. For about what distance?

A. About six miles.

[fol. 3050] Q. But the South Branch is entirely within the State of Texas?

A. Yes, sir.

Q. How far apart are the two crossings for the North Branch and the South Branch of the Prairie Dog Fork of the Red River?

A. About, I would say, fifteen miles—between twelve and fifteen miles.

Q. Would you say, following the Texas route—that is, the South Branch of the 12 inch—that there were any unusual construction difficulties of any sort in the building of that line?

A. No, sir.

Cross-examination.

Questions by Mr. Griffith:

Q. Mr. French, have you ever had any experience in cross-country construction of natural gas pipe lines?

A. No, sir.

Q. Were you present when the lines of the Northern Texas Utilities Company extending from the Shamrock field to the city of Wichita Falls were constructed?

A. No, sir.

Q. Upon what basis did you make your classification of hand earth, rock and machine excavation?

A. By direct observations.

Q. By walking over the territory?

A. Yes, sir.

Q. Did you only dig down in order to get the soil classification every mile?

[fol. 3051] A. That is correct.

Q. Now, the soil classification changes very quickly on that line, does it not—that is, you have sand for a stretch and then have red clay and then have solid rock and then loose rock and boulders, will you not?

A. That is correct.

Q. Did you make any attempt to drive a bar down, say, at intervals of five hundred feet between these mile post observation points in order to determine the soil classification underneath?

A. No, sir. But we were accompanied on the line by the General Superintendent of the United Gas System, and we took his classification as knowing—if there was any break between the surface and the pipe we took his classification.

Q. So, except for these observations that you made every mile, you did not dig down or bar down in order to determine the soil classification as between loose rock, solid rock, hand earth excavation and machine excavation?

A. No, sir.

Redirect examination.

Questions by Mr. Fitzhugh:

Q. When was this line built, Mr. French?

A. 1927, I believe.

Q. And this Mr. Kirby to whom you refer was an employee of the company which built the line, was he not?

A. I don't know.

[fols. 3052-3054] Q. That is, he is an employee of the company that is managing the line now?

A. Yes, sir.

Q. And he had the actual soil classifications, did he not?

A. They were in field books, direct quotations, which we took photostats of and checked in the field.

Q. After you completed your field check you had virtually the same classifications, did you not?

A. Yes, sir.

Recross-examination.

Questions by Mr. Griffith:

Q. It is rather rough in there south of that field, is it not —a good many gullies?

A. Not a great many, no, sir.

Q. Well, don't they call them young canyons up there?

A. No, there isn't any canyons through that particular section. There is one bad stretch.

Q. About how far south of the field?

A. I think it is at Mile Post 11—about eleven miles south.

Q. About eleven miles south of the field?

A. Yes, sir.

* * * * * * *

[fol. 3055] S. W. Freese, a witness for Plaintiffs, resumed his testimony, and testified as follows:

Cross-examination.

Questions by Mr. Griffith:

Q. Mr. Freese, did anyone who ever had a dollar invested in the natural gas business at any time hire you to make a determination of depreciation reserve accruals?

A. No, the natural gas companies have their own experts that do that for them, and there would be no occasion, so far as I know, for the natural gas companies to obtain such a firm as ours for that purpose.

Q. And your firm has never been retained by anybody operating in the oil or gas industry for the purpose of making such determinations?

A. We have never been retained by one of the natural gas companies to make such a determination as that.

Q. Have you ever been retained by an oil company to make such a determination as that in respect of steel pipe lines and similar facilities?

A. No, we have not worked for any of the oil companies either.

Q. On page 2 of Plaintiff's Exhibit 7, you provide for the [fol. 3056] amortization of rights of way on the gathering system in thirteen years?

A. That is correct.

Q. Does that mean that you estimate the average life of the gathering lines to be thirteen years?

A. That is correct.

Q. What is the factual basis for that assumption, if any?

A. It is based on the information furnished to the Railroad Commission by the company, that of the 347 connected Texas wells, the weighted average original rock pressure was 619 pounds. The weighted average rock pressure on December 31, 1931, was 521 pounds. Then, deducting from the December 31, 1931, pressure fifteen pounds to allow for probable average pressure on abandonment, the indicated life of these wells is 17.6 per cent expired. The weighted average life, to December 31, 1931, was 2.44 years. Therefore, the total life expectancy was 13.86 years, and we have used thirteen years.

Q. Please hold up the book that you are reading from, so the jury can see it. Where did you get that book from?

A. This is an exhibit submitted by the company to the Railroad Commission in the hearing before the Railroad Commission of Texas.

Q. Was it compiled by Mr. Ed C. Connor?

A. It was.

Q. Now as a matter of fact, Mr. Freese, all that you know about any of these depreciation matters is predicated upon [fol. 3057] your interpretation of exhibits offered by the company before the Railroad Commission of Texas. Isn't that so?

A. No, it is based entirely upon a study of all of the records either furnished before the Railroad Commission in the hearing held by the Railroad Commission, and we have had the auditors take off all of the charges to the depreciation reserve. We have been furnished with all of the pipe mortalities by the company, and some of that information was submitted to the Railroad Commission, but we have been able to obtain all of the information necessary to make a definite determination of each one of these matters set forth in our exhibit.

Q. Can you refer to the exhibit offered by Mr. Ed C. Connor before the Railroad Commission of Texas, and read-

ing from that exhibit, show me any place where gathering lines are said to have an average life of thirteen years?

A. No, this was worked out for the Texas wells. Now, these gathering lines have a minimum total life expectancy equal to that of the wells to which they are connected. In some cases the gathering lines serve two or more wells, in which cases the gathering lines would have a greater life expectancy than the wells which they serve.

Q. Now, as a matter of fact, no place in the exhibit of Mr. Ed C. Connor, offered to the Railroad Commission of Texas, is there any statement to the effect that the average life of the gathering lines is thirteen years. Isn't that correct?

A. So far as I know, that is correct.

Q. And what you have testified to——

[fol. 3058] A. But, as a matter of fact, Mr. Connor did not, in the hearing before the Railroad Commission, allow for the amortization of gathering line rights of way at all.

Q. And as a matter of fact your estimate of a thirteen year life as to those gathering lines is merely your construction of the data that was furnished by Mr. Ed C. Connor—isn't that so?

A. No, that is not entirely so. In the first place, we made a check of each one of the wells, to determine what was the original rock pressure, and that was information furnished to us by the company—the only possible place for it. We also checked the rock pressure on December 31, 1931, for all of the company owned wells. In addition to that, in the estimate of future drilling costs, in connection with Mr. Hulcy's Exhibit as to the value of gas leaseholds, the life as worked out from that was in excess of thirteen years, and in this Exhibit 42 the average life submitted by the company in this hearing—the average life for field lines and well lines is fifteen years.

Q. Now, Mr. Freese, you have testified as to certain data up to the year 1931; where have you secured any data for the years 1932 and 1933, relative to rock pressures of wells and life of gathering lines?

A. We have not secured that information. However, if this was correct then, it is correct today.

Q. In other words, your assumption of a thirteen year life is predicated upon data which was known as of De-

[fol. 3059] cember 31, 1931, and upon any data acquired from that date on?

A. Well, as I stated before, the data submitted by the company in this case in connection with Mr. Hulcy's exhibit, indicates that the way wells will be drilled in the future shows them to have a life greater than thirteen years, and also exhibit 42 estimates an average life for field lines and well lines of fifteen years.

Q. Did you make any independent study for the period of 1932 or 1933 or this far in 1934, to ascertain the data which was available and which would be disclosed relative to the life of gathering lines as between the period December 31, 1931, and this date?

A. Yes, I have a good check on that, knowing the amount of the gas reserves of the company and the amounts that were drawn out in 1933 and 1932, the decline in rock pressure per unit of delivery was bound to have been less those two years than before that time.

Q. Did you make any determination of rock pressures as of December 31, 1933?

A. No.

Q. Did you make any as of any period following December 31, 1931?

A. No, we made one for each well as of December 31, 1931, but have not made any since.

Q. Now, as a matter of fact, Mr. Freese, you have not been in the office of the company in Dallas for a year and a half, have you?

A. Not that I recall at this time. I don't remember [fol. 3060] having been there in the last two years.

Q. You don't remember having been there in the last two years?

A. No.

Q. And isn't that the only place that the rock pressures would be available to you?

A. Well, I stated I have not made a definite determination of the rock pressures since December 31, 1931. However, if thirteen years was the average life of those wells at that time, there has certainly been nothing to decrease the average life of the wells since that time.

Q. Mr. Freese, you referred on yesterday to Lines B and C as having an indicated longer life than you had estimated for the average of the lines in the transmission line equipment?

A. No. I made no such statement—what I said was, that according to my mortality curves, that the mortalities of

those two oldest lines in the company's service would have been twenty per cent, instead of the actual mortalities on those lines of nine per cent.

Q. All right, we will accept your version of what you said, but I will ask you this: Do you know what happened to Lines B and C, so far as major rehabilitations were concerned?

A. Yes, and I know that in Line B, that the joints in line B were reworked. I also know that any mortalities which took place by reason of that major rehabilitation are included in the mortalities which we have given credit to those lines for.

Q. When was there a major rehabilitation of Line B?

[fol. 3061] A. I do not recall just when that took place.

Q. All right, when did it take place, or when it did take place, what did the work of rehabilitation include?

A. It included taking up the pipe, reworking the joints, throwing out the bad pipe, resurfacing or repainting the other pipe.

Q. And putting it back in the ground?

A. Yes.

Q. Now, you don't know when that took place. Well, do you know when the rehabilitation on Line C took place?

A. No, at this time I do not recall.

Q. Well, what did the work consist of in rehabilitating Line C?

A. It was similar to the work done on Line B.

Q. What would be the effect of such major rehabilitation work on the expected service life of those lines, and the joints of pipe in the lines?

A. It would prolong the life. However, we have made an allowance for major rehabilitations which would be—that is, for all of your lines or certain parts where that work was necessary—made in the future, just as it has been done in the past.

Q. As compared with the average of transmission line equipment which you have evaluated, are Lines B and C laid in soil which is conducive to longer or shorter life of pipe?

A. Lines B and C give a very good cross section of the section where there are more lines than in any other section—that is, from Dallas to Fort Worth and from Petrolia to Fort Worth, there being Lines B, Line Second B and the [fol. 3062] Government ten inch. The largest volume or

capacity of gas being right down that line. Now on Line Second B in Clay county, are encountered the worst soil conditions on the whole Lone Star Gas Company's system.

Q. Now, what about Lines B and C over-all as compared with Lines E and G? Are Lines B and C laid in soil which is more favorable for the longer life of pipe than is the soil where Lines G and E are located?

A. Of course, Line G is practically all in Oklahoma, and we are not considering that in this work.

Q. All right—Lines F and E.

Mr. Fitzhugh: Are you talking about Line E proper?

Q. Yes.

A. Well, parts of Lines F and E are in black soil which is fairly hard on pipe, and part of them are in sandy soil which is very light on pipe, and I should say as typical of the whole system that B and C are not any better or worse than the average.

Q. You would say then that B and C are typical of all the transmission line equipment, which you have included in your evaluation, which is known here as Plaintiffs' Exhibit 6?

A. Substantially so, yes.

Q. Now, on page 7—or rather, on page 3 of Plaintiffs' Exhibit 7 you have provided for the amortization of transmission system measuring station equipment, in a forty year period. Is that correct?

A. That is correct.

[fol. 3063] Q. What is the type of measuring device used in those stations?

A. Well, they are practically all positive meters such as the Emco meters; that is the largest item; then there are regulators and valves——

Q. Well, are they all positive meters?

A. No, I don't know that all of them are, but the common type is the positive meter. There are very few orifice meters in those stations.

Q. As a matter of fact, aren't there a number of those orifice meters in those stations?

A. Yes, but compared to the cost of the larger meters, that would be a fairly small amount.

Q. Mr. Freese, how long have the Emco positive meters, of the type used by the company and in service at these measuring stations been in use?

A. I do not know, but I do know that these meters are constantly being rehauled, reworked and renewed, and that the cost of doing this work is charged one hundred per cent to operating expenses; by the method that the company has adopted in handling these, they should last indefinitely.

Q. Mr. Freese, did I ask you where the expense of the maintenance of these meters was being charged?

A. No, but my answer was that the way the company handled these meters, the life of them should be indefinite.

Q. All right; now how long have meters of this type been in use? Can you guess within five years?

A. No.

[fol. 3064] Q. All right; meters of the orifice type which are found in the transmission system measuring station equipment—how long have they been in use?

A. I should say from twenty to thirty years.

Q. From twenty to thirty years—orifice meters of that type have been in use in connection with this measuring station equipment?

A. Well, my only knowledge of that is with reference to water. Orifice meters have been used on water, I know, for twenty years.

Q. Don't you know as a matter of fact that the orifice meters of the type used in connection with transmission system measuring station equipment of the company are the product of the last ten to fifteen years?

A. That may be true, and as I stated before, it would not make any difference if the life of them were only three years; if you renew all of them every three years, charging all that to operating expenses, you will get an indefinite life of these meters.

Q. Did I ask you anything about an indefinite life of those meters?

A. I understood you wanted to know how long they would last.

Q. No, I asked you how long they had been in use. Now are you able to state how long these orifice meters have been in use?

A. No.

Q. Now this company started in business in 1909, didn't it, Mr. Freese?

A. Yes.

Q. What was the type of measuring device which was in

[fol. 3065] use in 1909 for the measurement of gas wholesale at the city gates?

A. I don't know.

Q. You don't know?

A. No.

Q. What was the type of measuring device that was in use in 1915 for the measurement of gas sold in wholesale volumes at the city gates?

A. The present types of larger meters have been in use substantially since 1915.

Q. Did you ever hear of the Westinghouse proportional meter?

A. Yes.

Q. Did you ever hear of the Venturi meter?

A. Yes.

Q. Were those meters in use from the period 1909 to 1915?

A. Yes, the Venturi meter was invented along about 1900 and was in use during the period to which you refer.

Q. Now, this company has had a corporate existence of twenty-five years, has it not, Mr. Freese?

A. Yes.

Q. Do you know of your own knowledge whether there is a single measuring device in connection with the transmission system measuring station equipment, which has not been outmoded and replaced by newer and more efficient devices in that period of twenty-five years?

A. That is entirely possible.

Q. Upon the basis of your amortization of the present [fol. 3066] equipment in forty years, do you make any allowance for change in the mode or manner of measuring gas wholesale or for the fact that this equipment will doubtless be replaced by better and improved equipment within a period of time substantially less than forty years?

A. Yes, I do. In the item of current replacements, in the percentage of 1.322, there has been charged to the depreciation reserve and was included by us in making our study in which we arrived at this figure, certain major rehabilitations—for example, in 1933, the Haines station was one of the stations which was completely reworked and rebuilt, and that figure is sufficient to take care of such major rehabilitations and reworkings as that.

Q. Now, how far back did your study go—the study that you spoke of there?

A. 1927.

Q. To 1927?

A. Yes.

Q. Well now, what change in the mode or method or manner or the device for the measuring of gas has taken place since that year of 1927?

A. I do not know of any major changes in the method.

Q. All right, if you don't know of what major changes have taken place since 1927, do you know what substitution of measuring equipment was made in connection with the Haines station, concerning which you have testified?

[fol. 3067] A. No, I do not know, but I do know that during these years it was necessary to make certain major rehabilitations, and they probably included changing the type of metering devices. However, we have taken into consideration the full costs of making those changes, made on the books of the company.

[fol. 3068] Q. Why, Mr. Freese, if you don't know what changes were actually made, how could you take into consideration, in your percentage of 1.322 per cent, replacements that you didn't know anything about?

A. Because I know that these amounts—1929, $7,548.19; 1930, $7,115.94; 1931, $3,577.98,—that whatever major rehabilitations of these stations there were, they were charged to this account.

Q. Well, can you tell me where in those years, or can you tell me, in dollars, how much of that major rehabili-ation was attributable to a change in measuring devices?

A. No; those included changing the stations, and reworking the stations entirely in several cases.

Q. Mr. Freese, refer to page 4 of your exhibit—Plaintiffs' Exhibit 7. Now, you have an adopted annual rate for replacements and amortization of 1.70 per cent, do you not?

A. That is correct.

Q. How much of that is for replacements, and how much of it is for amortization?

A. Well, it varies from year to year. In the first year of the 1.70 per cent, .02 per cent is for replacements, the rest of it goes into the amortization fund; in the forty-fifth year [fol. 3069] the amortization fund had to be called upon for the difference between 3.46 per cent and 1.70 per cent to make replacements; in other words, the replacements that year amounted to about twice as much as the even annual amount, and the amortization fund, which at that time

amounted to identically one hundred per cent of the whole cost of the system, was called upon to make up the deficiency.

Q. Now, Mr. Freese, as I understand it, a breakdown of your column headed Annual Rate for Replacements and Amortization,—in so far as those portions of 1.70 per cent, which would go for replacements and amortization, respectively, could be obtained by deducting from 1.70 the replacement percentage shown in the second figure column on page 4?

A. Yes; that would show during the early years what went into the amortization fund, and during the later years of the life of the pipe what came out of the amortization fund.

Q. Now, Mr. Freese, in the first column on page 4 of Plaintiffs' Exhibit 7 you start out with the first year of a brand new property, do you not?

A. Yes.

Q. Is Lone Star Gas Company brand new property?

A. No, it certainly is not.

[fol. 3070] Q. Where are we in the year column on page 4 of your Exhibit 7, in relation to the public service plant and property of Lone Star Gas Company?

A. You are along about the eleventh or twelfth year.

Q. Along about the eleventh or twelfth year?

A. Yes, sir.

Q. Now, in order for your reserve accrual rates to work out, isn't it true, Mr. Freese, that you must presuppose the existence and use of substantial balances in the depreciation reserve account being accumulated up to the present time?

A. That is correct. The whole purpose of this fund—of an amortization fund or a depreciation fund is to take care of the used up life of those units of property. In other words, the present operating expenses are not designed to take care of the replacements of pipe which will be used in future years, but are designed to take care of what is actually used up during that particular accounting period. Now, if during the past period a certain amount of the life of this pipe system has been used up, then during those years there should have been set aside a reserve to take care of the final using up of those units of property.

Q. Now, Mr. Freese, I want to ask you this question,— [fol. 3071] isn't it true that in order for your annual reserve accrual rates to work out satisfactorily in respect of the transmission line equipment, you must presuppose, and do

presuppose, the existence and use of a credit balance in the depreciation reserve account applicable to transmission line equipment in the approximate amount of $5,000,000.00?

A. That is substantially correct; that $5,000,000.00 may or may not be the amount which the Company has actually set aside as part of these $14,000,000.00 worth of reserves which have been built up. However, that is, according to this table, the correct amount which should have been set aside for the wearing out of this property in use in past years.

Q. Mr. Freese, what you have testified to in respect of transmission line equipment is equally applicable to your reserve rates—reserve accrual rates in respect of all other classifications of property, is it not?

A. All other classifications, yes.

Q. In other words, in order for your annual reserve accrual rates to work out, it would be necessary to draw upon the balances in the depreciation reserve account for replacements and retirements and amortization?

A. Absolutely.

[fol. 3072] Q. Without the use of credit balances in the depreciation reserve account as of this date, would your reserve accrual rates be inadequate?

A. They certainly would be. However, when I say the adequate reserves, I do not mean what the Company may or may not have actually built up. I mean what they should have built up; and what the proper amount should have been as of this date.

Q. As a matter of fact, has the time now either arrived, or will it presently arrive, when your depreciation reserve accrual rates will be inadequate to provide for the replacements, major rehabilitations and amortization of the property?

A. Well, it shows between the seventeenth and eighteenth years that the annual rate for replacements and amortization will equal the replacements, and from that time on it will be necessary to draw upon the reserves which have been built up during the first seventeen or eighteen years, when there were very few replacements, the pipe being practically new, and during which time the pipe was gradually giving up its service life, and during which periods those reserves should have been set up in the proper amounts.

Q. In other words, Mr. Freese, if we look at the column headed "Year", and we go down to the eighteenth year, we

[fol. 3073] observe that in the column headed "Replacements", immediately opposite the percentage factor of 1.78 appears?

A. Yes.

Q. And that is 8/100 of 1 per cent over and above your annual rate for replacements and amortization of 1.70 which you use during the years 1 to 45, inclusive?

A. Yes. The whole purpose of any depreciation fund, or amortization fund is to take care of such deficiencies as occur in the last years of the life cycle of a unit of property.

Q. Now, Mr. Freese, have you testified that the Sinking Fund Method as used by you is only applicable where an undepreciated rate base is used or where the reproduction cost new is used?

A. Yes; that is necessary, because it is assumed that these reserves will gain or make the same rate of interest as the rate base itself.

Q. As I understood your testimony, you used a six per cent interest factor?

A. That is correct.

Q. Why did you use a six per cent interest factor rather than some other interest factor?

A. In the first place, because the Railroad Commission settled or determined upon a six per cent rate of return. [fol. 3074] Now, since practically all of this amortization fund or depreciation reserves have been invested in the property of the Company itself, if a six per cent return is allowed to the Company, then these funds so invested will also draw six per cent. Furthermore, the Company has a large reservoir for such investments in the money which it owes the Corporation—some seventeen million, six hundred thousand dollars—which draws a six per cent rate of interest. So every cent of this money that can be invested in paying off that debt will earn six per cent, or will save six per cent interest.

Q. Mr. Freese, can you refer me to any determination of an actual sinking fund accrual where a six per cent interest factor is used in connection with any public utility property, any place?

A. No. However, I cannot refer you to none other than six per cent. They vary according to the circumstances of the case.

* * * * * * *

[fol. 3075] A. It is my opinion that the sinking fund rate of interest should be the same as allowed for the rate base. Now, if seven per cent were allowed, then these figures should be changed accordingly.

Q. As a matter of fact, in connection with sinking fund accruals, Mr. Freese, isn't it customary to use a low rate of interest which will insure them, because securities which [fol. 3076] are of the better sort will only yield a lower rate of interest?

A. It all depends upon the particular circumstances. In each case the percentage should be determined which can or could be earned at that particular time by the Company under consideration.

Q. Now, Mr. Freese, will you refer to page 12 of your exhibit? On page 12, which purports to be Plate II, Depreciation Analysis—Steel Pipe,—you show Lines J and C as not in solid colors in connection with the year 1931, do you not?

A. That is correct.

Q. Now, as a matter of fact Lines J and C—there were substantial replacements on Lines J and C?

A. In the amounts shown on this graph.

Q. And the spacing which is enclosed, covering Lines J and C on this graph, represents actual replacements?

A. That is correct.

Q. Now, it was your testimony that those replacements would not need to be made again?

A. Well, here was the point which I was trying to make in connection with that, Mr. Griffith,—in the first place, that the calculated mortalities up to this point equal the actual mortalities, including Lines J and C; that the replacements on Lines J and C were of such a nature that it should be ex- [fol. 3077] pected that they would be distributed more evenly throughout the life of the property.

Q. That is, the replacements on those particular lines?

A. No, not just the replacements on those particular lines, but all similar replacements to be made on other lines.

Q. All right. Now, that was for the year 1932, was it not?

A. No, that was for the year 1931. In 1932, we estimated that the replacements would be about sixty miles; whereas, they were only six miles.

Q. All right; what happened in 1933 in regard to similar replacements?

A. Well, they jumped up, but they still didn't reach the—our curve for the predicted mortalities for 1933.

Q. Now, the replacement on Line J was of about 35,000 feet of pipe, running in a northerly direction from Joshua Station towards Fort Worth, was it not?

A. Yes.

Q. And you stated that that replacement was caused by two causes, which would be non-recurring, did you not?

A. Substantially so. There are two reasons which would be attributed to that failure,—one was defective pipe; the other—which seems more probable—was the nature of the inert gas or the mixture which came into that pipe from [fol. 3078] the Joshua Station.

Q. And you testified that the reason that the Line C replacement would be non-recurring was because that change and removal which was made in connection with the Dallas County Levee District changes?

A. That is correct. However, I didn't mean to leave the impression that we had not included this mortality in arriving at this curve. We have given full credit to those mortalities.

Q. Now, in 1933, what happened to Line J-2, running between Fort Worth and Dallas?

A. Well, a continuation of those replacements on Line J, and I take it from the case causes, were made on Line J-2, and we have taken those into consideration.

Q. As a matter of fact, don't you know that the changes that were made in Line J-2 had nothing whatever to do with the causes which necessitated the replacements on Line J?

A. No.

Q. You don't know that?

A. No.

Q. Was there any substantial amount of pipe removed in connection with Line J-2 for the year 1933?

A. Yes, about 17,000 feet of 3-inch equivalent.

Q. You don't know, from any information in your pos- [fol. 3079] session, as to what caused that change?

A. No.

Q. Well, now; in 1933 were there any substantial replacements on Line J or Line L?

A. There was very little on Line J; on Line L, yes, there was; the most replacements which the Company made during 1933 were on Line L—16-inch.

Q. Line L, that is a 16-inch line running south from Joshua, Texas, is it not, in the general direction of Waco?

A. That is correct; and——

Q. Now, what were the replacements on Line L?

A. 119,000 three-inch equivalent feet.

Q. That would be, in round figures, twenty-two miles, would it not?

A. Yes; and that was a further curing of the situation caused by reason of the nature of the gas which had been going into the lines at Joshua.

Q. So while there was no recurrence of the factor which made for the replacement of the pipe on Line J, as far as Line J was concerned, the factor was present and necessitated the removal of pipe in connection with Line L?

A. That is correct, and it occurred during the same period of time.

[fol. 3080] Q. Now, on page 11, Mr. Freese, of Plaintiffs' Exhibit 7 is your mortality curve for steel pipe—is that correct?

A. Yes.

Q. Your mortality curve shows your adoption of a thirty-three and one-half year life for steel pipe, does it not?

A. Yes.

Q. And all of your calculations in respect to transmission line equipment, and gathering line equipment, and pipe lines generally evaluated by you, and for which you have made depreciation reserve accrual calculations, are predicated upon a thirty-three and one-half year life for steel pipe?

A. Yes, not taking into consideration—in other words, in addition to those allowances, there would be one for major rehabilitations and one for major removals.

Q. Yes, but the thirty-three and one-half year life might be what you would call the foundation stone——

A. It is the basic mortality curve.

Q. It is the basic mortality curve?

A. That is correct.

Q. In connection with your calculation of reserve accruals applicable to all of the steel pipe of the Company?

A. That is correct.

[fol. 3081] Q. How long has steel pipe been made?

A. Oh, about since 1900.

Q. Since 1900. When was the first steel pipe used in Texas?

A. Along about 1904 or '5, I believe; possibly some sooner than that.

Q. In other words, there is no steel pipe in Texas that is more than thirty years old?

A No, but there is a lot of it that is thirty years old that is in perfect condition.

Q. Where is that?

A. Well, you can examine most any of your lines and find lots of pipe that is in excellent condition.

Q. Where is there any pipe in the Lone Star System that is thirty years old?

A. Well, there is none of it in the Lone Star System that is thirty years old. What I was referring to particularly was stretches of Line B and—or Line B particularly, which was laid in 1909, which would only be twenty-five years old.

Q. Now, do you know of a single piece of steel pipe in Texas that is thirty years old—can you refer me to a steel pipe line, as distinguished from a pipe joint, in the State of Texas, which is thirty years old?

A. No; some of those small lines around the Petrolia Field are just about that old now.

[fol. 3082] Q. When was the first gas well drilled in the Petrolia Field?

A. It must have been along about 1904 or 1905, because some of those early lines the Company bought were put in about 1904 or 1905.

Q. As a matter of fact, wasn't the first well drilled in the Petrolia Field in 1906 or 1907?

A. Yes; that is probably true. I have here lines laid in 1908.

Q. Now, Mr. Freese, if you are wrong in taking as a basic factor a 33½ year life of the steel pipe, would it necessarily follow that your reserve accrual rates covering transmission line equipment and other pipe lines would be too low?

A. Yes, if I am wrong in that 33½ years is not the probable average life—that is, that it is less than that—then my reserve accruals for that particular purpose would be too

low. It does not mean, necessarily, that my overall allowance would not be sufficient, however.

Q. Where would be your sponge in your overall allowance that would make up for the difference or for the excess life which you have attributed to the steel pipe?

A. Well, I was speaking of the properties as a whole. I explained yesterday why I thought there were certain duplications in the three allowances that were made on compressor stations.

[fol. 3083] Q. If the average life of steel pipe is 25 years, would your allowance in connection with your reserve accruals be substantially affected?

A. It would be affected—just in what amount I do not know offhand; I can find out.

Q. In connection with your calculations and estimates of proper annual reserve accruals, you have made some allowance for major removals, have you not?

A. Yes.

Q. That is predicated upon the history of the Company up to December 31, 1931, is it not?

A. Yes.

Q. There have been no substantial major removals from December 31, 1931 up to the present time?

A. No; and if we had brought our figures forward to the present time and taken an average over the past up to the present time it would have decreased our allowance in a slight amount.

Q. There is some testimony in the record to the effect that Line 2nd H will either be taken up and moved to another location or taken up and rehabilitated and put back in its present location; and there is also some testimony in the record to the effect that Line K-A will be removed in its entirety during this present year of 1934. If either of those things happen would they not have a substantial effect upon [fol. 3084] your allowance for major removals?

A. Of course, so far as Line K-A is concerned, or any gathering line, we have allowed for the complete removal of that pipe every nineteen years, and some of those are bound to occur from time to time. So far as Line H is concerned, it is in Oklahoma, and I do understand from the testimony that you contemplate a major removal of that line.

Q. You stated also that Line K-A is a gathering line, and that in connection with your gathering lines you have allowed for their removal in 19 years?

A. Yes.

Q. When was Line K-A built?

A. I don't have that figure with me right now.

Q. As a matter of fact, don't you know, Mr. Freese, that Line K-A was built in the period of the last four to six years?

A. I would not say that it was not, as I am not certain.

Q. Well, what is your best guess?

A. I say I don't know whether it was or was not.

Q. If the testimony show- that it was built in the last four or six years, the fact that you have allowed for its removal in 19 years would show that in so far as that particular line is concerned your allowance for removals is inadequate?

A. In so far as that line is concerned; but if other lines in the Panhandle Field last much longer than 19 years—the [fol. 3085] average was the only thing I was driving at.

Q. If there is a major removal of Line 2nd H and of Line K-A during 1934 do you know how much in mileage of 3-inch pipe equivalent feet that would be?

A. No; but I could work it out.

Q. My rough calculation leads me to believe that it is about 70 miles of 12-inch pipe, and that would be 280 miles of 3-inch equivalent pipe?

A. That is correct.

Q. And that would represent a 3-inch pipe line running from San Antonio, Texas on the south, to Fort Worth, Texas, on the north, would it not?

A. That is correct. However, as I stated before, the gathering lines are not intended to be taken care of out of the allowance for major removals. That applies only to the main lines and tap lines.

Q. Mr. Freese, in connection with your depreciation reserve accrual rates covering compressor stations, have you made any study of the probabilities of removal of the Ibex, the Ranger Plants 1 to 4, and the Breckenridge Compressor Stations?

A. No. It is my impression that part of the Ibex plant is being gradually removed.

Q. Do you know of the factors which will make for the necessity of the removal of those stations in the near future? [fol. 3086] A. Well, the depletion of the gas supply to those stations.

Q. Well, what is the gas supply to those stations—where does it come from?

A. Well, those plants around Ranger, their supply comes largely from gasoline plants.

Q. Are you able to state the trend of the volume of gas which the Company has been able to secure as residue gas from those casinghead gasoline plants over the last several years?

A. It is decreasing—that is, the amount being taken from these stations is decreasing.

Q. And has been decreasing very substantially, has it not?

A. It has been decreasing.

Q. Now, what consideration did you give to the probability of the removal of those stations in the near future in the determination of your annual reserve accrual rates as applied to compressor stations?

A. Well, as before stated, in arriving at this figure of 1.360, we simply checked the data submitted by the Company in a hearing before the Railroad Commission, and felt like it was substantially correct, and in which it was estimated that an amount of 1.240 per cent was necessary to take care of these major removals and abandonments. That was on a 7 per cent sinking fund basis, which the Company used. We changed that to a 6 per cent sinking fund basis, and increased the figure from 1.240 to 1.360 per cent per annum.

[fol. 3087] Q. Now, as a matter of fact, in connection with your determination of annual reserve accrual rates, as testified to by you before the Railroad Commission of Texas, you used a seven per cent interest factor, did you not?

A. Yes; but as I stated in the hearing there, if the Railroad Commission set any other figure for rate return than seven per cent, that this sinking fund interest rate should be correlated to exactly the figure they used; and I think that was stated very clearly by me in the hearing before the Railroad Commission.

Q. I think it was, Mr. Freese; and when you use the term, "We changed that to six per cent", I assume you refer to what you and the Railroad Commission ordered and did in Gas Utilities Docket No. 75?

A. No; I refer to my own particular firm or myself when I say "we".

Q. Mr. Freese, at any place in connection with your Plaintiff's Exhibit No. 7, do you make any allowance for the decline in per cent condition of property?

A. No; we do not.

Q. Is that for the reason that the sinking fund method presupposes the use of an undepreciated rate base?

A. It not only presupposes the use, or supposes the use of an undepreciated rate base, but it also is designed to completely amortize one hundred per cent the value of the property.

[fol. 3088] Q. Mr. Freese, what causes the corrosion of steel pipe?

A. Almost entirely some form of electrolysis.

Q. Is it a matter of local or general conditions?

A. Usually local.

Q. When is it general?

A. Well, when the soil conditions are general which are conducive to electrolysis.

Q. What soil conditions are peculiarly conducive to electrolytic action?

A. Of course, there may be some cases where the corrosion is due entirely to direct chemical action. I think that is more or less rare. The best—if I may start in reverse order—the best soil would be sandy soil where the drainage is good. The next worst condition would probably be black land, which is a breakdown of limestone. The next worst condition would probably be alkali soils; and in that connection, even worse, are certain gyp-rock areas, or gyp-soil areas.

Q. Well, don't you find alkali substances present in sand many times?

A. Sometimes; but in general, on the Lone Star Gas Company's system, wherever the pipe has been in sand, the pipe has been in perfect condition. I don't recall an exception to that.

[fol. 3089] Q. And would you say that, as a general rule, the pipe has been in the worst condition in the black soil areas?

A. Well, no; the worst condition is where there is some peculiarity about the drainage condition, or an alkali soil; although by and large, the worst condition,—that is, in the big aspect of the case—is in the black land territory.

Q. Mr. Freese, when you add in the correction of $16,600

which you testified to on yesterday, your annual depreciation allowance covering the gathering system property, transmission system property, compressing system property, general system property, and non-physical property, that figure of $848,546.08, in Plaintiff's Exhibit 6, represents what percentage of your total evaluation of the properties set forth in Plaintiff's Exhibit 6?

A. Something over two per cent. Of course, this does not include the automotive equipment, the depreciation on which is handled as an operating expense by the Company.

Q. But if we express $848,546.08 as a per cent of the reproduction cost new of the property set forth in Plaintiff's Exhibit 6, what is the exact percentage?

A. You mean, leave off—just on the physical property?

Q. No; as applied to the overall reproduction cost new?

A. 2.16 per cent.

Q. 2.16 per cent?

A. Yes.

[fol. 3090] Q. As applied to the physical property, what is the percentage—or as applied to the depreciable property, I should say, Mr. Freese?

A. 2.48.

Q. 2.48 per cent?

A. No; 2.38 per cent.

Q. Of course, Plaintiffs' Exhibit 7, in so far as depreciation reserve accrual rates are concerned, is based upon the sinking fund method, throughout?——

A. Yes.

Q. —for the determination of your reserve accruals?

A. Except for current replacements.

Q. You testified before the Railroad Commission of Texas, did you not, Mr. Freese, in connection with annual reserve accrual rates?

A. Yes.

Q. Did any other witness testify in behalf of the Commission?

A. No.

Q. On reserve accrual rates?

A. No.

Q. Did you present to the Railroad Commission of Texas in Gas Utilities Docket No. 75 any determination of reserve accrual rates for the Texas property only?

A. Well, these rates would be equally applicable to Texas and Oklahoma properties, but there was no working out of

[fol. 3091] the detail amount for Texas as differentiated from the properties as a whole.

Q. As a matter of fact, Mr. Freese, you merely made a determination of the annual reserve accrual expressed in percentage and dollars for the overall property in Texas and Oklahoma, did you not?

A. Well, the total amount, after applying the particular rates, was for the overall property, yes.

Q. You made no attempt to segregate the Texas properties?

A. Not in arriving at that overall amount.

Q. And you similarly made no attempt to segregate the Texas properties as far as the evaluation of the properties was concerned, when you testified before the Commission?

A. No; we had made for the Commission and presented to them an evaluation of Texas property only; but before the Railroad Commission we presented the properties as a whole.

Q. Well, you are referring now to your first appraisal which you made to the Commission, and which appraisal was never used?

A. That is correct.

Q. That appraisal was not introduced in evidence in Gas Utilities Docket No. 75?

A. No.

Q. Now, you have three separate determinations, have you not, of proper annual reserve accrual rates to be applied to the Lone Star Gas Company's public service property?

A. That is correct.

[fol. 3092] Q. The first determination was in connection with the first appraisal that was presented to the Railroad Commission and was never used by the Commission in evidence?

A. That is correct.

Q. The second determination was when you testified before the Railroad Commission in Gas Utilities Docket No. 75?

A. That is correct.

Q. And the third determination is represented by your Exhibit 7 in this case?

A. Yes, but it is not a different one; it is almost identi-

cal, except for the change in the interest rate, which increased it from what was stated before.

Q. Expressed as a percentage of the reproduction cost new of the property, the per cent for annual reserve accrual as indicated by your Exhibit 7 is in excess of the percentage which was indicated by your exhibits before the Railroad Commission?

A. Yes; it is more by reason of the fact that we have used a lower rate—lower interest rate for the accruals.

Q. As a matter of fact you changed some of the other percentages, have you not, Mr. Freese, in connection with pipe and the Transmission Line Equipment—did you use the annual rate of 1.70 when you testified in Gas Utilities Docket No. 75?

A. No, but it would have been 1.70 in this case if we had based it upon a seven per cent sinking fund basis.

Q. Your testimony is that the only change, then, is by [fol. 3093] reason of the shift from a seven per cent interest factor to a six per cent interest factor?

A. As far as I recall now. There may be some minor changes.

Q. Now, Mr. Freese, expressed as a percentage, you say that your determined annual accrual as set forth in Exhibit 7, in the amount of $848,546.08, is 2.16 per cent of the reproduction cost new of the property set forth in your Exhibit 6?

A. Yes, including non-physical property.

Q. Mr. Freese, I hand to you Volume 1 of the first appraisal and report which you presented to the Railroad Commission of Texas covering Lone Star Gas Company's public service property. In that connection you made a determination of annual reserve accrual rates on a straight-line method, did you not?

A. That is correct.

Q. As distinguished from the sinking fund method?

A. That is correct, and which would be applied to the depreciated values of the property.

Q. Now, in this case your percentage for depreciation is 2.16 upon the sinking fund method?

A. Yes.

Q. As of December 31, 1931, what did you determine was the proper annual accrual expressed as a percentage applicable to the physical property of the company?

A. 4.205 per cent, which includes all of the Production [fol. 3094] System property, which, of course, carries the higher rates of depreciation, and when that correction is made I think you will find that for those on a straight-line basis the figures which we have used on a sinking fund basis are almost identical.

Q. Referring again to your determination of annual reserve accruals on the straight-line method in the first valuation and report which you made to the Railroad Commission of Texas, and which report was never used, and tell me what was the over-all percentage applicable to both physical property and non-physical property which you determined was a proper annual reserve.

A. 3.0902 per cent, and it also included Production property, which carried higher depreciation rates, which, if corrected back to the sinking fund method, would give almost identical results with what we have obtained here.

Q. Mr. Freese, you up to this time have not testified as to the proper reserve accruals covering depreciation or depletion in connection with Production System Property?

A. No.

Redirect examination.

Questions by Mr. Fitzhugh:

Q. Mr. Freese, you have been questioned about the use of straight-line and sinking fund methods of providing for annual depreciation?

[fol. 3095] A. That is correct.

Q. I believe you heard the testimony of the company's witnesses where it was said that the straight-line method had been recognized by the Interstate Commerce Commission and in some of the cases appearing before the United States Supreme Court?

Mr. Griffith: I don't believe that the witnesses said that it had been recognized in cases appearing in the Supreme Court, Mr. Fitzhugh.

Q. Well, at any rate, the straight-line method has been recognized generally, has it not?

A. That is correct.

Q. That is also true of the sinking fund method, is it not?

A. They are the two well recognized methods, and al-

though we have used the sinking fund method, the company in its exhibits used both methods.

* * * * * * *

Q. Now, the old type Westinghouse and Venturi meters are not in use now?

A. No; they have been replaced with newer types.

Q. The present type meter used in the company's in-
[fol. 3096] stallations is a very satisfactory meter, is it not?

A. Yes; I think they are well within the range of accuracy necessary for such meters.

Q. State whether or not it is a fact, in your opinion, Mr. Freese, that even if some new measuring devices should be invented, for the present the metering system would not serve adequately for the company's purposes?

A. The present metering devices are serving the company's purposes.

Q. And there is no reason to believe that they could not serve throughout their service life to accurately measure the company's gas; is that correct?

A. Yes; being properly maintained, as they are.

Q. Now, you were questioned to some extent about the thirty-three and a half year life in connection with steel pipe. Of course, if there is no steel pipe in any pipe line in Texas that has been in the ground thirty-three and a half years you wouldn't have any way to test your assumed age for that pipe, would you?

A. That is correct. We can only test it by mortalities which have happened in the future, and of course we know the shape of the mortality curves for pipe in some similar units of property.

The Court: You don't mean mortalities that happened in the future, do you?

[fol. 3097] A. No; I mean in the past. Excuse me.

Q. There are considerable units of the original installation of steel pipe serving in the company's system, are there not?

A. Oh, yes, a very large part of them.

Q. I will ask you this question, Mr. Freese: What was the type of pipe used before the advent of modern steel pipe?

A. Wrought iron and cast iron.

Q. There are quite a number of old cast iron systems in the United States, are there not?

A. Yes, both in this country and abroad.

Q. Are you familiar with the age of any installation of cast iron pipe?

A. Yes.

Mr. Griffith: Well, now, we object, if Your Honor please, to any testimony as to the age of cast iron pipe, for the reason that there is not a single foot of cast iron pipe involved in the public service plant and property represented by these eight volumes.

The Court: I can't see the materiality of showing anything about cast iron pipe any more than copper pipe.

Mr. Fitzhugh: It may follow to some extent the mortality of steel pipe. That is what I was going to ask the witness.

The Court: I sustain the objection.

Mr. Fitzhugh: All right, sir.

Q. Now, in working out your curve as shown on page 11, [fol. 3098] or, rather, in working out your curve as shown on page 12, for the historic replacements and abandonments by years, you included not only the pipe replacements on Line "J" and Line "C", but the replacements, no matter for what purpose, through the years, did you not?

A. That is correct, except the ones, of course, involved in major removals where the pipe was not thrown away.

J. A. Phillips, was recalled by plaintiffs, and testified as follows:

Direct examination.

Questions by Mr. Fitzhugh:

Q. You are the same Mr. J. A. Phillips that we have seen before in this case, are you not?

A. That is correct.

Q. Mr. Phillips, from the examination of the company's books and records are you able to state how the company was financed?

A. Yes.

Q. How were the funds raised, historically, to finance the Lone Star Gas Company's business and property?

A. You mean during its period of growth and development?

Q. Yes. Or perhaps we had better start this way: The only securities outstanding at the present time are rep-
[fol. 3099] resented by an issue of common stock. Am I correct in that?

A. Yes. If you mean capital securities, that is true.

Q. About how many shares of common stock are outstanding?

A. 540,000 no par value shares.

Q. No par common stock?

A. That is correct.

Q. And the company has outstanding no preferred stock or bonds; is that correct?

A. That is correct.

Q. Are all the shares of common stock voting stock?

A. Well, I believe that they are. They are all of the same class.

Q. Now, those 540,000 shares of common stock represent the whole capital of the company, do they not?

A. The whole capital stock of the company?

Q. Yes.

A. Yes, sir.

Q. Now, how was the money raised, historically, to finance the building of the company's properties?

A. Well, the funds were provided by the issuance of capital stock for cash or property, by the borrowing of money, by the use of accumulated and undistributed earnings, and by the use of the depreciation reserve.

Q. Now, Mr. Hulcy, who has testified heretofore, has testified that he did not know the exact amount of prop-
[fol. 3100] erty and money put in as capital stock. Were you able to tell from your examination of the books that amount, Mr. Phillips?

A. Our examination of the books disclosed that there was paid in by stockholders the sum of $12,500,000.00, either in cash or property.

Q. Now, then, in addition — the $12,500,000.00 that was actually paid in for capital stock, you say there were additional amounts provided by the use of depreciation reserve funds and surplus; is that correct?

A. That is correct, and borrowed money.

Q. What was the amount of money raised out of surplus?

A. I don't have that figure in mind exactly. The capital structure of the company today—that is, I mean the sum set aside as being representative of the no par shares of stock is something in excess of twenty-eight million dollars. That includes an allocation of surplus earnings and, I believe, an allocation of revaluation surplus, and the surplus amount now shown on the books is in the neighborhood of eight or nine million dollars.

Q. Now, then, what is the amount that has been provided and which has been reinvested in building the properties out of depreciation reserve?

A. I believe the depreciation reserve as of December 31, 1933, was substantially sixteen million dollars.

Q. Now, you were asked a question by Mr. Griffith as [fol. 3101] to whether the books of the company are well kept. I believe your answer to that question was "yes", that they are?

A. That is correct.

Q. You mean by that, do you not, Mr. Phillips, that the financial transactions in the past have been recorded on the company's books so that one looking at the books can now trace the recordings of those transactions?

A. Well, I mean by "well kept" that the books do accurately reflect transactions—that is to say, that no considerable difficulty would be experienced by any one in examining the records of the company to make a determination of what the business and operating result had been. While all the details may not be disclosed on the general books or in the control accounts, subsidiary records have that detail, and it is available. That is what I meant by being "well kept".

Q. Yes, sir. Did your examination of the books disclose that prior to about 1927, 1928 and 1929, along in those years, that the books of the company failed to reflect as a part of book cost the general overheads in connection with the construction of the company's properties?

A. Yes, that is true. The books did fail to reflect the capitalization of overheads in any appreciable amount.

[fol. 3102] Q. Did your examination show that such overheads as were incurred, if any were incurred, were charged to operating expenses?

A. Substantially all of them in prior years; I would say that prior to 1927 or 1928.

Q. Now, what would be the effect of this system of keeping the books, Mr. Phillips, with reference to the effect it would have on the net profits, the amount of operating expenses and the capital accounts as shown by the books?

A. Well, of course, if items of property or items of capital expenditure are charged to operating expenses, the effect would be to have the books show less earnings than actually had been experienced and have the property accounts show total sums less than had actually been invested.

Q. To have an accounting system of this sort, Mr. Phillips. wherein the actual operating expenses would be overstated, the actual capital expenditures under-stated, and the actual profits under-stated, would allow the Company to benefit in the matter of payment of Federal Income Tax, would it not?

A. Well, if the Treasury Department of the Bureau of Internal Revenue accepted those book costs without verification, it would.

[fol. 3103] Mr. Griffith: They don't do that, do they, Mr. Phillips?

The Witness: Oh, we usually have some controversies with them. (Laughter.)

Q. Oh, yes; one other question in connection with the capital paid in. The original amount paid in at the time the Company first started business was put in in leases and property, was it not?

A. Substantially all of the first payment.

Q. Practically all of that was in the Petrolia Field, was it not?

A. Yes, that is correct.

Q. The rest of the twelve million, five hundred thousand was paid in in cash, was it?

A. There may have been some property included in that additional sum; but I would say that substantially it was paid in in cash.

Q. Now, in the contract with the Railroad Commission made with Hawley, Freese & Nichols, and under which you were employed as an accountant—that is, the firm of J. A. Phillips & Company, along with Smith Rogers——

A. Rogers, Smith & Company.

Q. Rogers, Smith, of San Antonio,—provided, did it not, that you were to be the authorized representatives of the Railroad Commission?

[fol. 3104] Mr. Griffith: Well, now, we will object. The contract would be the best evidence.

Mr. Fitzhugh: All right, sir; I will ask the question in another way.

Mr. Griffith: However, I have no objection to a recital of what those gentlemen did.

The Court: I think you are willing to admit, aren't you, that he was the authorized agent of the Railroad Commission and save proving it?

Mr. Griffith: Yes, I think he was.

Q. But under your employment, acting as an authorized representative of the Railroad Commission, you had the right to go in and ask for whatever books and records you wanted to obtain, did you not?

A. I so understood, yes.

Q. So that the Company's giving you the books would not be any particular act of generosity on their part, would it?

A. Well, I never thought of it in that light. I did understand that I had the authority to examine the books.

Q. Nevertheless, you were refused access, were you not, Mr. Phillips, to the books of the Lone Star Gas Corporation kept in Dallas?

[fol. 3105] A. Yes, we were not permitted to examine the books of the Lone Star Gas Corporation.

* * * * * * *

Q. You did, however, want to look at the books of the Lone Star Gas Corporation, in connection with the management fee charge made on the books of the Lone Star Gas Company, did you not?

A. I did ask for permission to examine the books of the [fol. 3106] Lone Star Gas Corporation.

* * * * * * *

[fol. 3107] S. W. Freese, a witness for plaintiffs, upon being recalled, testified as follows:

Direct examination.

Questions by Mr. Fitzhugh:

Q. Mr. Freese, at the hearing had before the Railroad Commission was there there presented data showing the temperatures for the years 1931 and 1932?

A. Yes; not only for the years 1931 and 1932, but the average over a long period of time; in other words, what the normal temperatures would be.

Q. Did a study of that temperature data show that the years 1931 and 1932 were normal years?

A. Yes; those varied very little from the normal; taking the two together, they were almost exactly the normal, and it was safe to use those years in predicting future operating results.

* * * * * * *

[fol. 3108] Q. I asked you first, Mr. Freese, if you had made a comparison as between the year 1933 and previous years.

A. Yes.

[fol. 3109] Q. Now, then, what did that comparison show?

A. It showed that 1933 was the warmest year in the history of the operations of the Company.

* * * * * * *

[fol. 3110] Q. Now, have you prepared an exhibit, Mr. Freese, to show the effect that the temperatures of 1933 would have on revenues and earnings?

A. Yes.

Q. Will you produce that exhibit?

A. Yes, sir. (Witness hands exhibits to counsel.)

* * * * * * *

Mr. Griffith: We desire to examine the witness briefly, touching the exhibit just rendered, which is styled on the cover "Report on Effect of Degree Day Deficiencies on Revenue and Earnings for Years Ending December 31, [fol. 3111] 1933, March 31, 1934."

The Court: All right.

Examination by Mr. Griffith:

Q. Mr. Freese, the substance of this exhibit is, in effect, found in the summary on page 1, is it not?

A. Yes.

Q. The revenues shown for the twelve months ended March 31, 1934, are actual, are they not, as far as the 40-cent rate is concerned?

A. Yes.

Q. The same is true for the twelve months ended December 31, 1933.

A. Yes.

Q. Then, have you applied in the next figure the amount of the reduction which would be occasioned by the application of the 32-cent rate?

A. That is correct.

Q. To-wit, eight cents per thousand cubic feet?

A. That is correct.

Q. Now, from what source did you obtain these revenues?

A. From the audit prepared by Mr. Phillips, and that figure appears in the exhibit covering defendant's properties, submitted by Mr. Phillips.

Q. Did you make any examination of the books, records [fol. 3112] and accounts for the purpose of making this determination?

A. No, I took that as given in Mr. Phillips' report. However, I think it is almost identical with that given in the Company's exhibits.

Q. Now, the items of gas purchased expenses, gathering system expenses, compressing station expenses, transmission system expenses, general expenses, taxes other than gross production and Federal income taxes, auto and truck expenses, bad debts and adjustments, miscellaneous non-operating expenses,—are those the expenses which are attributable to Texas or to the over-all property of the Company?

A. To Texas and/or as they appear, were taken directly from the exhibit introduced by Mr. Phillips.

Q. Well, do you mean Mr. Phillips' Exhibit 5 or his Exhibit 4?

A. It is the one covering Texas properties only. I don't happen to have it numbered.

Mr. Fitzhugh: Exhibit 4, is it not?

A. Yes; it was the first one submitted; it would be No. 4.

Q. In other words, that is based upon a allocation of expenses, is it not?

A. Yes.

[fol. 3113] Q. From what source did you get the Texas-Oklahoma Gas Sales Adjustment of $62,234.07?

A. That is also taken from page 1 of Exhibit 4.

Q. And the figure of $29,617.92 covering the Texas-Oklahoma gas sales adjustment for the twelve months ended December 31, 1933, is likewise taken from Exhibit 4?

A. Yes.

Q. Now, the depreciation of $831,946.08 appearing under each twelve months' period, that is your determination as set forth in Exhibit 7, is it not?

A. Yes, and I proposed to make a correction of the $16,000.00 in my testimony.

Q. That is subject to an additional $16,000.00 correction?

A. That is correct.

Q. And that $16,000.00 correction would serve to reduce the percentages shown at the bottom of each column?

A. Yes.

Q. For the year ending March 31, 1934, and the year ending December 31, 1933?

A. That is correct, and I propose to make that correction.

Q. Now, where did you get the value of Company produced gas—what does that represent?

A. That is the value of the Company produced gas at the prevailing field price. That is derived from two sources, one of which are the gross production tax statements of the [fol. 3114] Company; it was also checked by our auditors from the books of the Company; and this—if I may explain further, that this method of evaluating the gas at the wellhead is identical with the method used by Mr. Hulcy, except that he took all of the future production at the prevailing field price and reduced it back to a capitalized value of that future production, and then applied a rate of return. Now, if he had just taken it as it came—as the gas was produced, it would have given the identical figure which I have used here, and would be identical to the method used by Mr. Hulcy in his determination.

Q. Included in the figure of $40,256,862.39, shown in the southwest corner of page 1 of the exhibit just tendered,—is there any inclusion of developed and undeveloped gas leaseholds, gas well construction, gas well equipment, or other production system property?

A. No; and in that respect it also corresponds to Mr. Hulcy's exhibit, because he put it into this appraisal—rather, it was put into this appraisal, and then Mr. Hulcy

deducted it in its entirety in his valuation of leaseholds, and the net result was that it was not included—not one penny was included in either one for gas well equipment.

Q. Now, Mr. Freese, we will get along much faster if you [fol. 3115] will just answer my questions. I didn't ask you what Mr. Hulcy did. Does the Company actually own developed and undeveloped leaseholds and gas reserves, gas well equipment, gas well construction, and other production system property in the State of Texas?

A. Yes.

Q. Is there any inclusion of any of those capital items embraced in production system property in the figure of $40,256,862.39 shown in the southwest corner of page 1 of the exhibit concerning which I am examining you?

A. No. However, the $232,646.75 does provide a return on whatever value there is in that property. Therefore, on the page as a whole, a return on that property has been included.

Q. If a return is—can be made out of gas at the field price,—isn't that what you mean?

A. Certainly, we have taken that the value of the gas at the well-head was what was prevailing in the field at that time, and what the Company was paying other producers in the field at that time.

Q. Now, what is this temperature correction of $268,829.64 which you apply for the twelve months ended December 31, 1934, and the twelve months ended December 31, 1933?

A. Well, we have worked up the normal temperatures, and *and* that is explained in detail throughout the rest of [fol. 3116] the body of the report—the normal temperatures for a long period of time covering the Lone Star Gas Company's system. And it is a well known fact that for each degree day of temperature the normal consumption of gas for heating is from sixteen to eighteen cubic feet. And we have applied that correction. Now, that is explained in great detail, every step, in arriving at those figures, in the successive pages.

Q. Well, now, that is the additional consumption which you estimate that the Company—or additional sales which you estimate that the Company would have had over and above what you say would have been normal temperature conditions, or——

A. No, no; not at all. During any normal year or normal

period in the future or in 1933, this would have been the correction which would have been necessary to have brought it to normal. Now, if it had been colder than usual, it would not have been fair to use the year 1933 to predicate future earnings on, and a reduction would have been necessary.

Q. Is this a gross figure?

A. What do you mean by "gross figure"?

Q. Well, in making your temperature corrections did you allow for the cost of gas purchased and/or produced and the cost of compression?

A. Most certainly.

[fol. 3117] Q. Where are those figures shown?

A. On page 4 is shown the Gain in Net Revenue for Average Temperature Year, Gas at 26 cents. This applies only to domestic gas which would be sold at 32 cents, and we have made a 6 cent deduction for the cost of the gas and of compression, and I have those figures in detail here before me and am ready to testify in respect to them.

Q. Did you take 6 cents as representing the costs of the gas in the field and the cost of compression?

A. Yes.

Q. Are those the only two items entering into the six cents?

A. No; that includes all of the additional costs which would be incurred by the Company by reason of the increased domestic demand.

Q. All right. What additional costs—give me a breakdown of that 6 cents figure as to the various component items that enter into it?

A. The average price paid by the Company for gas for the year 1933 in the fields where it produced gas was $.0390 for the year ending March 31, 1933.

Q. That is in Texas?

A. In Texas, yes. For the year ending March 31, 1934, it was $.0396—slightly less than four cents. The compression charge per thousand cubic feet for the year ending December 31, 1933 was $.011180. Now that included all of [fol. 3118] the labor, miscellaneous supplies and everything of that sort. The only additional charges for compressing this additional gas would be the cost of fuel for running the engines, largely. There would be little more labor, and very little more of the items entering into the cost other than the fuel itself. Now, the cost of transmission, including all labor of any kind was $013787, giving a total of

$024967. Now, that covered the overall cost for compression and transmission. Now, the cost that would have been incurred simply for the compression and transmission of this gas, in addition to that which was already incurred,—that is for this extra amount of gas which would be used if the temperatures should have been normal—would have been very little greater than what was incurred anyway and what is included in the operating expenses. However, we have taken this total cost and added that to the cost of the gas, giving slightly more than six cents; in other words, four cents for the gas at the well-head, and two cents for these costs of transmission and compression; and I think in the Company's testimony in this case, those costs have been estimated—that is, for the additional increment—at considerably less than two cents.

Q. Did you make any examination of the records, books, and accounts of the Company for the determination of these [fol. 3119] transmission and compression costs?

A. No; they were furnished me by the auditors.

Q. Now, have you related all of the costs that enter into this figure of 6 cents per thousand cubic feet, which you deducted from the 32-cent domestic rate as fixed by the Railroad Commission, and which deduction gives you the figure of 26 cents, which appears in the right-hand column on page 4 of the exhibit you are testifying about?

A. Yes; substantially.

Q. Did you include any gross production taxes?

A. Yes.

Q. Where are they—in what amount?

A. I beg your pardon. We have taken those into consideration in that the field price of the gas which we have used was the field price after the gross production taxes had been paid.

Q. All right. Now where in your six cents is any allowance for gross receipts on sales—gas utilities tax?

Mr. Stout: That tax is not but about one-fourth of one cent, is it?

Mr. Griffith: It is still a tax.

A. No; we have not included that; and that is an omission to that extent. I would have to figure what that would be. However, I must say we figured the actual use per customer per degree day at 18.63; whereas we used a figure of 16.00, so there would be considerable leeway in that

[fol. 3120] respect. I think that would more than offset that figure.

Q. Look at page 4 in this exhibit, under Cubic Feet Per Customer Per Degree Day Efficiency, you have some asterisks opposite some of the figures, and below a note, "Figure testified by P. M. Biddison——

A. The 16.00.

Q. —Sherman Transcript, page 356?

A. Yes.

Q. As a matter of fact, do you know anything about this exhibit that Mr. Biddison testified to?

A. I certainly do. We worked it out from the records shown in detail, and it came out 18.63, whereas we used the lower figure of 16.00.

Q. Refer to page 5. On that page you have shown a computation of Degree Days Deficiencies at Dallas, Texas, have you not?

A. That is correct.

Q. From what source were those taken?

A. Those were either taken from the exhibits submitted by Mr. Hulcy before the Railroad Commission, and for the years which he did not cover, as we extended the table considerably further, they are from the Weather Bureau's records.

Q. Did you personally verify the Weather Bureau's records for 1914 or 1915?

A. No; I took those directly from the Government publication.

Q. Did you do the same in respect of Degree Day De-
[fol. 3121] ficiencies on page 6 covering the degree day deficiencies at Fort Worth, Texas?

A. No; I took those also from the records of the Weather Bureau, which I have with me here.

Q. All right. On page 7, where did you get those?

A. Those were from the Weather Bureau's records.

Q. Is the same true of pages 8 and 9?

A. The same is true of Abilene on page 8, and of Sherman on page 9.

Q. Now, there is a wide variance in degree days of deficiency as between Sherman, Texas, and Waco, Texas, is there not?

A. That is correct; and we have the actual meters covered by *by* the places where we have these temperature mea-

surements, constituting over half the meters. However, we weighed these out strictly in accord to the number of meters in each town.

Q. Except for these five places—Dallas, Fort Worth, Waco, Abilene and Sherman,—you made no determination of the average daily degree days of deficiency?

A. No; they correspond very closely. However, that covers over half of the customers, and we have weighed them out. In other words, we weighed Dallas in there more than Sherman; we took the actual number of customers at each place and weighed the degree days of deficiency accordingly.

[fol. 3122] Q. Now, Wichita Falls, and the territory off Line A in the northwestern part of the Texas system, that represents a very sizeable part of the company's business, doesn't it?

A. Yes; we checked the records there, and the trend there is exactly the same as these other places; and I have the records for Wichita Falls here with me now.

Q. You did not take into consideration any degree day deficiencies as determined for the Wichita Falls Area, did you?

A. We checked it to see if it made any difference in our figures. We took what we considered a representative cross section of the system as a whole.

Q. Did you make any determination of degree days of deficiency for any part of the territory south and southeast of Waco, Texas?

A. No; there is very little territory—very few consumers south and east of Waco. I consider that this is as representative a study as has been made covering this matter of the Lone Star Gas Company's system.

Q. Refer to page 14. You purport to show on that page Net Profit before Federal Income Tax?

A. Yes.

Q. Now, then, you add to that amount the Depreciation as per your schedule, $831,946.08?

A. That is correct.

Q. And, of course, you stated you are about to make a [fol. 3123] correction to that by adding $16,000?

A. That is correct.

Q. Now, the actual depreciation expressed as a percentage, as determined by you is 2.16 per cent in relation to the

reproduction cost new of the property, evaluated in Plaintiffs' Exhibit 6, is it not?

A. That is correct.

Q. But when you come to make your determination for Income Tax calculations you deduct 5 per cent for depreciation, do you not?

A. Yes. You can't tell exactly what the Government would allow on that; but that is from my best information as to what they would allow; and that is the amount used by Mr. Hulcy, except he based his on the book cost, rather than on the appraised cost.

Q. But where you are actually allowing only $848,000 for depreciation, is it your contention, Mr. Freese, that 5 per cent would be allowed for depreciation in connection with Income Tax calculations?

A. That is correct.

Q. And by that method you have determined the Income Tax was $97,534.45?

A. The theoretical Income Tax. What they actually paid——

Q. Do you know what the actual Income Tax was for the calendar year 1933, as contrasted with the figure of $96,073.64 that you used?

[fol. 3124] A. It was somewhat more than that; but it was based on a 40-cent gate rate, rather than a 32-cent gate rate, as herein used. I think these computations conform to Mr. Hulcy's computations for Income Tax.

* * * * * * *

Mr. Griffith: Yes, sir. If the Court please, we object to the introduction in evidence of the exhibit which has just been tendered by the witness Freese and styled "Report on [fol. 3125] Effect of Degree Day Deficiencies on Revenue and Earnings for Years Ending December 31, 1933, and March 31, 1934," for the following reasons:

First, that the exhibit so tendered, and the data and information therein set forth, are irrelevant and immaterial, and not competent for the purpose of proving any issue as made by the pleadings in this case.

Second, that the exhibit and the data and information therein contained do not purport to be based upon the actual revenues and expenses of the Company for any particular accounting period of twelve months, whether it be

for the calendar year of 1933, or for the twelve months period ended March 31, 1934.

The Court: Go back and state that objection again.

Mr. Griffith: That the exhibit does not purport to be based upon any study by this witness of the books, records and accounts of the Company, or to be based upon the actual revenues and expenses of the Company for the calendar year of 1933, and the six months ended March 31, 1934; and to that extent is purely speculative and theoretical.

The Court: Mr. Freese, is his statement correct, that that is not based upon an accounting study?

A. It is based on a study of those two specific calendar [fol. 3126] years, and all my figures for revenues and expenses were taken directly from the actual operating revenues and expenses shown both in the Company's exhibits and in our exhibits.

The Court: I have asked that question for my information.

Mr. Griffith: We object for the further reason that the value of Company gas produced, as shown on page 1 of the exhibit so tendered, is a computation of the witness based upon what he considers to be the market price in that field for gas produced by the Company, including gross production, compression, and transmission charges; and for the reason that it is grossly improper to make any determination in respect of the developed or undeveloped leaseholds, the gas well equipment, gas well construction of the Company, and other production system property, which does not take into account the actual present fair value of the property used and useful in the matter of producing that gas; and next, for the reason that, as a matter of law, the computation of Federal Income Tax, as made by the witness, is upon a basis which is not in accordance with the Federal Income Tax Law, the witness having applied a depreciation allowance in connection with the computation of Income Tax in the amount of five per cent, whereas he has only allowed the sum of $848,000 for depreciation [fol. 3127] in connection with his determination of net amount available for return.

Objection is further made to the introduction of the exhibit, and to any evidence or testimony which may be given by the witness in aid or in explanation of the so-called exhibit, because the percentages of return, expressed as 6.74 per cent for the Twelve Months Ended March 31, 1934, and

expressed as 6.76 per cent for the Twelve Months Ended March 31—December 31, 1933, I mean—do not appear as an expression of a percentage of a value or property which includes the leaseholds developed and undeveloped, the gas well construction, gas well equipment, and other production system property which the Company actually owned and was used and useful in the public service during the period from January 1, 1933 through March 31, 1934.

We further object to the introduction in evidence of the exhibit which purports to show Degree Days of Deficiency for the periods stated, to-wit, for the year ended December 31, 1933, and the twelve months ended March 31, 1934, because it purports to show and reflect that which in truth is not the fact, this being a case wherein the constitutionality of the Commission's order fixing a rate of six per cent as the minimum net return is applicable, the constitutionality test to be applied is the actual result of the [fol. 3128] operations which did happen, and not that which might have happened.

Mr. Shannon: May I supplement those objections with some additional ones?

The Court: Yes, sir.

Mr. Shannon: We further object to the determination of the amount which the witness has included on page 1 of his exhibit as covering an addition for temperature correction, because the determination of this amount involves a determination of conditions which might have existed, but which did not actually exist, and involves speculation as to those conditions, and involves an invasion of the province of the jury, in any event, which may ultimately be called upon to determine whether or not any correction should be made for temperature conditions.

We further object to the manner in which the witness has treated the value of Company produced gas, and the failure of the witness to incorporate in this exhibit, or in the amount of $40,256,862.39, being the amount shown on page 1—I have lost the thought—go back—the failure of the witness to include in that amount the present fair value of the production system property of the Company, because the manner in which the witness has treated this item by this elimination results in varying the findings of the [fol. 3129] Commission, which findings did include an amount to cover this element of value, and involves chang-

ing the method upon which the Railroad Commission of Texas reached its determination of the final value of the property, and the plaintiffs are estopped in this case to proceed on the theory upon which they are undertaking to proceed.

The Court: The objections are overruled. Bring in the jury.

Mr. Griffith: Note our exception.

* * * * * * *

[fol. 3130] (Thereupon the Report on Degree Day Deficiencies, above referred to, was marked as Plaintiff's Exhibit No. 8.)

Q. Turn to the first page inside the title cover of your Exhibit 8, which has just been introduced. You there show a table of contents, do you not?

A. That is correct.

Q. Turn now to the first numbered page and explain to the jury what you show there.

A. The first item coming under the head of Revenues——

Q. First, what is this page, Mr. Freese?

[fol. 3131] A. This page shows Amount Available for Return at 32 cent Domestic Gate Rate after correction to Normal Temperatures for the years ending December 31, 1933, and March 31, 1934.

Q. And you show that calculation in two columns, do you not?

A. Yes, one for the year ending December 31, 1933, and the other for the year ending March 31, 1934.

Q. Now, beginning with Revenues, explain the tabulation you have there by items.

A. The revenues at the 40 cent domestic gate rate in the amount for the year ending December 31, 1933, of $7,423,680.87, and for the year ending March 31, 1934, in the amount of $7,663,034.50, are the actual revenues which were received by the company for those two periods. Now, the next line shows what the eight cent reduction—that is, the reduction from the 40 cent city gate rate to the 32 cent gate rate promulgated by the Railroad Commission—would have amounted to. During the year ending December 31, 1933, the domestic sales of gas in Texas were 13,380,727 thousand cubic feet, which, at the eight cent reduction, would have made a reduction of $1,070,458.16, and for the year ending March 31, 1934,

would have made a reduction of $1,106,537.68. Now, the next head shows what the company would have received during those two accounting periods if the gas had been sold at the reduced rate of 32 cents. For the year ending December 31, 1933, they would have received $6,353,222.71, and for year ending March 31, 1934, there would have been received [fol. 3132] $6,556,496.82. I think that covers the explanation of what the revenues would have been at the 32 cent rate.

Q. Now, take up the expense items and explain those to the jury.

A. The expense items, starting with Gas Purchased, in the amount of $1,071,170.87 for the year ending December 31, 1933, on down through Miscellaneous Non-Operating Expenses, were the expenses actually incurred by the company in connection with all their operations, except the management fee paid the Lone Star Gas Company, and what are known as production expenses—in other words, expenses in connection with the production of the gas and the delivery of the gas to the well head. These expenses, along with the Texas-Oklahoma gas sales adjustment, were taken from the figures furnished us by Mr. Phillips and which have been testified to by him. Now, this Texas-Oklahoma gas sales adjustment represents the selling price in Texas of the excess gas which came out of Oklahoma—in other words, the gas over the total usage of all of Oklahoma; that gas was given at the State line or at Petrolia or at Gainesville, as the case might be, the full sales value of the gas delivered in Texas. That accounts for the $29,617.92 Texas-Oklahoma gas sales adjustment for the year ending December 31, 1933, and the $62,234.07 for the year ending March 31, 1934. Deducting these expenses from the revenues given for the year ending December 31, 1933, $3,420,665.19, and for the [fol. 3133] year ending March 31, 1934, $3,608,172.77.

Q. Now, Mr. Freese, just to make clear what you did, what was the deduction that you made to get this figure you just read?

A. Well, the expenses deducted for the year ending December 31, 1933, were $2,932,557.52. Deducting this amount from the revenues at the 32 cent domestic rate—domestic gate rate, or what the revenues would have been at the 32 cent rate, in the amount of $6,353,222.71, leaves $3,420,665.19, which is the net amount left after deducting the expenses set

forth from the revenues at the 42 cent rate. A similar procedure was followed for the year ending March 31, 1934.

Q. All right. The next item is Depreciation.

A. The next item is Depreciation, which is taken from the exhibit which I explained this morning, and is taken at $831,946.08 for each accounting period. Now, that has not been corrected in the amount of the $16,500.00 which I testified it should be corrected to.

Q. That is, to this $831,946.08 should be added $16,500.00?

A. Yes. Now, the correction of the $16,500.00 would mean that the return given in the last column at the bottom of the page would be lowered from 6.74 per cent to 6.70 per cent for the year ending March 31, 1934, and would be lowered for the year ending December 31, 1933, from 6.76 per cent to 6.72 per cent. The next deduction is that of [fol. 3134] Value of Company Produced Gas. The Lone Star Gas Company produces only some one-fifth of all the gas sold by it. It buys the other, the gas which it does not produce, which amounts to 80 per cent, approximately, from other owners. We have valued this gas at the well heard at exactly what the Lone Star Gas Company would have had to pay and was paying other owners in the gas fields at that time; in other words, if you take the amount of gas produced by it and multiply it by the prevailing field price which they were paying to other owners and according to the basis they were paying as royalty, you would arrive at, for the year ending December 31, 1933, $212,031.46, and for the year ending March 31, 1934, $232,644.75. Now, this figure will compensate the company for the actual expenses incurred by it in producing this gas and will also give them a return on the actual value of that property; in other words, the value of a property of this sort would be determined by deducting from the current sales of this gas the operating expenses; that would be the return on the investment in those production properties. Now, that method is similar to the method used by Mr. Hulcy, but Mr. Hulcy predicted what the revenues would be in the future. He capitalized that on a present worth basis and then he figured a return on that, which is the same operation, except that it is not as simple as this return is here, by simply taking the actual amount of gas produced and applying the well head price to the gas. [fol. 3135] Q. Your method avoids, does it not, Mr.

Freese, the necessity for predicting what the future withdrawals will be by years?

A. It not only avoids that, but in the case of Mr. Hulcy he capitalizes these future earnings.

Mr. Griffith: Now, we object to that, if the Court please. The witness expressly said he did not capitalize future earnings. The witness specifically stated that he was showing what the recovery values would be, and this witness is not shown to be an accountant to pass judgment upon the testimony of Mr. Hulcy.

Mr. Fitzhugh: It has been testified to here——

The Court: Wait a minute. You can not prove by this witness what some other witness testified. It would be admissible only to prove it when he is attacked, as in the case of impeachment. You are not attempting to do that, so I sustain the objection.

Q. All right.

A. The resulting figure for the year ending December 31, 1933, of $212,031.46 compensated the company that year for the gas actually produced—compensates them including both operation expense and production cost and gives them a return on whatever the value of the property actually is.

Q. Does that complete your explanation?

A. Yes. Now, taking the value of the company produced gas, or, rather, allowing them these sums and deducting that amount from the sub-totals previously found, leaves [fol. 3136] $2,376,687.65; that is the net amount for the year ending December 31, 1933, and $2,543,581.94, for the year ending March 31, 1934.

Q. The next item is Temperature Correction. Will you please explain that?

A. The year 1933 was the warmest year in the history of the Lone Star Gas Company's operations. Now, the amount of heating load varies directly with the temperatures below 65 degrees. The consumer demand for heating gas is between 16 and 18 or 19 cubic feet per day for each degree below 65; in other words, if the temperature is 60 during the day, the average consumer will use five deficiencies below 65 degrees times this figure of, we will say, 16; in other words, they would use 80 cubic feet of gas. Now, we have taken for Dallas, Texas, the temperatures, or, rather the degree day deficiencies—that is, the number of degrees per

day that the temperature dropped below 65—for each year beginning with 1914, clear up through 1933. The way that is determined is by the Weather Bureau records issued for Dallas, Texas, the daily temperatures, both maximum and minimum. Here, for example, in Dallas on June 1, 1915, the maximum temperature was 81 and the minimum temperature was 59. The total of those two is 140; the average temperature was 70 degrees. Well, now, there would be no gas used for heating the houses then, because the temperature was higher than 65 degrees. We have taken the aver-
[fol. 3137] age between the maximum and minimum and checked each day during the years 1914 to 1933 for Dallas.

Q. On what page do you show the degree days for deficiencies for Dallas?

A. That is shown on page 5. Now, for the years 1921 to 1933 we took the degree days as submitted by the company in the hearing before the Railroad Commission, and we checked those with the temperatures shown by the Weather Bureau records. It shows for the twenty-year period ending in 1933 the average number of degree day deficiencies was 2,326. For the year 1933, however, they were only 1,850. Now, for the years 1932 and 1931 we have 2,477 and 2,183. Now, the average for those two years, which were considered by the Railroad Commission, is substantially normal. Similarly, for Fort Worth, we took the records beginning in 1909 through the year 1933.

Q. That is shown on page 6, is it not?

A. Yes. Now, the average over the twenty-five years covered was 2,323. For Waco we have a twenty year average of 2,075.

Q. That is on page 7?

A. Page 7. On page 8 we have 2,573 for Abilene. On page 9 we have 2,498 as a fifteen-year average for Sherman. Now, the big load of the company is at Fort Worth and at Dallas. We also show Abilene, which is out at this point
[fol. 3138] here (indicating on map). We took Waco, which is in this area here, and we took Sherman, which is in this area here. However, we did not average those towns. What we did was to weigh the temperatures or degree day deficiencies, in accordance with the number of meters at these towns in the year 1933. There were 65,000 at Dallas, at Fort Worth, 33,000; at Waco, 10,000; at Abilene, 6,000, and at Sherman, 4,000. The weighted yearly average of the

daily deficiencies below 65 degrees was 2,322 for the system as a whole, considering those towns and the meters in each town as representative of the system as a whole. For the year 1932, however, the temperature averages for those was such that the deficiencies below 65 degrees were only 1782.

* * * * * * *

[fol. 3139] Page 10 takes the findings for each one of the separate towns—that is, Dallas, Fort Worth, Waco, Sherman, and Abilene—and it combines those figures so as to show the weighted average for the system as a whole, that is, weighting each town in accordance with the number of meters in the towns. It shows that the yearly average weight for the system as a whole is 2322 degrees below 65. [fol. 3140] That is multiplied by the number of days. That for the year 1933, however, the deficiencies amounted to only 1782 degrees, such that the year 1933 was warmer as measured by the degree day deficiencies in the amount of 540, or an average for the year 1933 of 1782. Now, on page 11——

Q. Wait just a minute before you go to page 11.

A. Yes, sir.

Q. On page 10 in several places you have "DDD"; what does that stand for?

A. That stands for Degree Day Deficiencies. In other words, if the average temperature of a day was, say, 60 degrees, that would mean 5 degree day deficiencies. In other words, that 5 would be a measure of the amount of heating load that would be used per customer for that day, because they start using gas at 65 degrees. Now, nowhere in this exhibit have we made any modification of the industrial load or of the domestic load which is used for cooking and water heating or for the small industries. In other words, this simply takes care of the variations in the house heating load.

Q. All right. Now, turn to page 11. What do you show on that page?

A. Pages 11 and 12 show the similar computations for the year ending March 31, 1934. Now, for that period the deficiency was only 329 degree days as compared with the 540 [fol. 3141] as found for the year ending December 31, 1933.

Although those periods overlap each other nine months, the period ending March 31, 1934, was very quickly getting back to normal temperatures. Page 13 shows our computations of the amount of gas used for space heating or house heating per domestic consumer per degree day of deficiency. In the first column we show the years 1927 to 1933, inclusive. In the second column we show the domestic gate sales in thousands of cubic feet. In the next column we show the domestic consumers for June of each one of those years. In the next column we show the thousands of cubic feet of consumption per customer per month, the average being 3.13. Now, during the month of June there was no space heating load, so that the remaining figure during that month would show what the consumption was for cooking and for water heating, and such as that. We have made similar computations for July, for those seven years, showing that the cooking load and such as that for July was 2.83; for August we find that to be 2.76 M, or thousand cubic feet, were used per customer per month. Now, the average for those three months is 2.91 thousand cubic feet per domestic customer per month; and that would be the cooking load, which would go on throughout the year. The total domestic gate sales in Texas in 1933 were 13,380,727 thousand cubic feet. Now, if we multiply the average number of customers [fol. 3142] by this monthly use for cooking, and including the small industrial load which takes the domestic rate;—multiply that by the twelve months of the year, we find for 1933 they would have used 6,859,021 thousand cubic feet, leaving for space heating or house heating 6,521,706 thousand cubic feet. Now, we divided that by the number of customers and by the number of degree days deficiency during 1933 and it worked out 18.63, as determined there. We used 16.00, that having been the amount testified to by the Company in a previous rate hearing.

Q. You did that, did you not, simply to eliminate any differences that might be between you and the Company?

A. Simply to play safe. Now, multiplying that usage by the number of customers, by the amount of the deficiency in 1933 of 540, and of 329 for the year ending March 31, 1934, we found as set out on page 4, that using the 16.00 foot usage, that for the year ending December 31, 1933, the earnings were off $441,240.12, by reason of these warm temperatures. However, if we had used the 18.63 determined

on page 13, the amount would have been $513,568.97. However, we have used the $441,240.12, and that is carried forward to page 1 and shown for the year ending December 31, 1933, for the temperature correction for that year. Now, for the year ending March 31, 1934, which was a cold year, and more nearly normal, using the 16.00 cubic feet per customer per day per degree of deficiency, we arrive at a [fol. 3143] figure of $268,829.64, and that also has been carried forward to page 1, where the temperature correction in that amount is shown. Now, if we had used the 18.63 per customer per degree day deficiency, we would have $313,-018.52, instead of $268,829. Now, making this temperature correction, we find for the year 1933—and which would be true for any year when the temperatures were normal—that the earnings at the 32-cent rate, and before deduction for Federal Income Tax, would have been $2,817,927.77; and in almost identical amount for the year ending March 31, 1934, being $2,812,411.58.

Q. Now, just to make clear how this degree days of deficiencies are worked out, suppose for a 24-hour period, Mr. Freese, you had a high of 70 degrees, and a low of 60 degrees; but that the mean or the average temperature for the 24-hour period was 68 degrees, that being above 65 degrees there would be no degree day deficiencies for that day, would there?

A. And no gas for space heating or house heating would have been used.

Q. On the other hand, assuming the same extremes for the high and low temperatures, if the average had worked out to be 62, that being 3 degrees below the 65 point, what would be your degree day deficiencies?

A. It would be 3, and the average domestic customer would have used 48, or 3x16 cubic feet of gas for house heating.

[fol. 3144] Q. Now, doing that same sort of thing each day and adding up the total number of degree day deficiencies for the entire year would give you the degree day deficiencies for any one year?

A. Yes. Now, there is one other way of arriving at it, and I have checked these figures by that method for a period of time, 1931 and 1932, when the temperatures were about normal, the domestic load stayed the same; when the weather

got warmer, for the year 1933, the revenues dropped off jus about one million dollars.

Q. Is there any other explanation that needs to be mad to explain temperature correction?

A. I think that explains exactly how we have gon about it.

Q. Now proceed to Federal Income Tax explanation.

A. In arriving at the Federal Income Tax we have take the figure just arrived at, and added back to that the depre ciation which we allowed, that being the depreciation figur on a sinking fund basis; then we have deducted from tha the depreciation which the Federal Government would ac tually allow; then we have deducted from that the credi for interest payments which the Government also actuall allows and is just as much a part of the Law as the 13¾ pe cent charge or percentage is.

Q. The detail on this is shown on page 14?

A. Shown on page 14. And then applying that 13¾ [fol. 3145] per cent, we find for the year ending Decembe 31, 1933, that the Income Tax would have been $96,073.64 and for the year ending March 31, 1934, $97,534.45. The deducting these amounts as allowance for Federal Incom Tax we find the net earnings for return to be $2,721,854.1 for the year ending December 31, 1933; and for the yea ending March 31, 1934, $2,714,877.13. Now, those amount equal a return on the reproduction cost new of $40,256, 862.39 as found by me, of 6.76 per cent for the year ending December 31, 1933, and 6.74 per cent for the year ending March 31, 1934; and if the correction be made to depreci tion in the amount of sixteen thousand dollars, which I testi fied should be made——

Q. Sixteen thousand five hundred dollars.

A. Sixteen thousand five hundred dollars approximately the return to the nearest hundredth of a point would be 6.7 per cent for the year 1933, and 6.70 per cent, or al-os identically the same amount for the year ending March 31 1934.

Recross-examination.

Questions by Mr. Griffith:

Q. Mr. Freese, would you have any objection to having the Court Reporter write across Plaintiffs' Exhibit 8 th words, "Covering Texas Operations Only."?

A. No; I think that would be proper.

[fol. 3146] Q. As a matter of fact, Plaintiffs' Exhibit 8 only purports to cover Texas operations, doesn't it?

A. That is correct.

Q. And in order that the exhibit may be better identified for that which it is, you are agreeable to the Court Reporter so doing?

A. Yes.

* * * * * * *

Q. Mr. Freese, now refer please to page 1, Plaintiffs' Exhibit 8. The revenues shown for the 12 months ended March 31, 1934 and the 12 months ended December 31, 1933 are the actual revenues overall, are they not, or are they the revenues applicable only to Texas Operations?

A. They are the revenues applicable only to Texas Operations.

Q. The next figure, "Amount of 8¢ Domestic Gate Rate Reduction", is that 8 cent reduction applied to the volume of domestic sales which you include in Texas Operations only?

A. Yes; however, the Texas-Oklahoma gas sales adjustment was based upon the actual sales price, and was not corrected for the change to the 32-cent gate rate, and I should—or this figure of the Texas-Oklahoma gas sales [fol. 3147] adjustment if corrected to that 32-cent domestic rate would show slightly more revenues than this does show.

Q. Wouldn't it show slightly less revenues?

A. Well, I should put it this way: If the Texas-Oklahoma gas sales adjustment were made to conform to the 32-cent domestic gate rate, then the expenses would have been decreased.

Q. To the extent of that adjustment?

A. Yes; and the net revenues and earnings would have been increased in the amount of that adjustment.

Q. Now, the Gas Purchased Expenses, Gathering Expenses, Compressing Station Expenses, Transmission System Expenses, General Expenses, Taxes Other than Gross Production and Federal Income Taxes, Auto and Truck Expenses Underdistributed, Bad Debts and Adjustments, and Miscellaneous Non-Operating Expenses, were those all taken from Mr. Phillips' Exhibit Number 4?

A. Yes.

[fol. 3148] Q. You copied those in their entirety from Mr. Phillips' Exhibit 4, in so far as they referred to the twelve months ended March 31, 1934, and the twelve months ended December 31, 1933?

A. That is correct.

Mr. Fitzhugh: Mr. Griffith, pardon me; you said "miscellaneous non-operating revenues"; you meant expenses, didn't you?

Mr. Griffith: Did I say "revenues". I did mean expenses, of course.

Q. You so understood, Mr. Freese?

A. Yes.

Q. Now, the Texas-Oklahoma Gas Sales Adjustment for the twelve months ended March 31, 1934, and for the twelve months ended December 31, 1933, is likewise taken from Mr. Phillips' Exhibit 4—that is, Plaintiffs' Exhibit 4?

A. That is correct.

Q. Now, the depreciation figure which you have corrected, in the amount of $16,500.00, by adding that amount to it, is your own determination as set forth in Plaintiffs' Exhibit 7, is it not?

A. Exhibit 7, yes.

Q. And the value of the Company produced gas is your [fol. 3149] own determination, is it not, and not a determination by Mr. J. A. Phillips?

A. That figure was checked for us by the auditors. However, that figure is identical to the Company's, and the amount shown by the Company in its reports, where it pays its gross production taxes.

Q. Now, Mr. Freese—Mr. Phillips and Mr. Hulcy included in operating expenses management fees paid for services rendered by the Lone Star Gas Corporation to the Lone Star Gas Company, did they not?

A. They set forth what the amount would be, yes, or was actually paid.

Q. And didn't Mr. Phillips include management fees in his comparative statement of earnings, as set forth on page 1 of Plaintiffs' Exhibit 4?

A. Yes, he set forth what the amounts actually paid by the Company were. However, he expressed no opinion as to whether they were properly included or not. He simply said that the books reflected that amount as having been paid.

Q. Did Mr. Phillips include management fees and expenses for each twelve months period beginning with the calendar year of 1929 and running through the twelve months ended March 31, 1934, as reflected by his summary of revenues, expenses, and net earnings appearing on page [fol. 3150] 1 of Plaintiffs' Exhibit 4?

A. Yes, he sets forth the amount actually paid to the Lone Star Gas Corporation by the Lone Star Gas Company as reflected by the books of the Company.

Q. Now, as I understand your testimony, in lieu of allowing the Company a return and depreciation and depletion on production System Property, such as gas wells, gas leaseholds developed and gas leaseholds undeveloped—you have merely applied on page 1 of Exhibit 8 the field price for the volume of gas produced by the Company from its own leaseholds?

A. Yes; and what it could have bought that gas for from other owners.

Q. That figure is shown to be $232,000.00, plus, for the twelve months ended March 31, 1934, and $212,000.00, plus, for the calendar year of 1933?

A. Yes.

Q. Do you have before you a copy of Mr. Phillips' Exhibit 4?

A. Yes.

Q. Now, as I understand your testimony, the allowance which you have made for the value of Company produced gas is adequate to provide for depreciation on equipment, depletion of gas wells, and return on investment in con- [fol. 3151] nection with the Company's production system property?

A. No, I don't know that I made that statement in those exact words. What I did was, and what the exhibit purports to show is that that was the value of the Company produced gas, and is intended to compensate the Company for just exactly those things which you compensate the other owner for when you pay the prevailing field price at the well-head.

Q. As a matter of fact, Mr. Freese, didn't you tell this jury this morning that your allowance in the value of Company produced gas as set forth in the two columns on page 1 of Plaintiffs' Exhibit 8, was sufficient to provide for depreciation, depletion and return on the Company's production system property?

A. Yes, but I didn't say it was sufficient to provide a return on their investment. It may or may not be.

Q. Well, let's see whether it is actually. Will you refer to page 1 of Plaintiffs' Exhibit 4?

A. Yes, I have that before me.

Q. Taking the twelve months period ended March 31, 1934, as shown by Mr. Phillips, what are the producing expenses of the Company?

A. $30,506.28.

[fol. 3152] Q. And what are the gross production taxes of the Company applicable to its own production?

A. $3911.56.

Q. What are the drilling tools expenses underdistributed?

A. $3600.58.

Q. What are the dry-holes—or what was the dry hole expense of the Company?

A. $18,430.03.

Q. And what was the canceled and surrendered leases expense of the Company?

A. $166,304.21.

Q. Now, what is the total of the five items which you have just read? A round figure will suffice, Mr. Freese.

A. Yes; well, I will have it exactly in a minute. (Witness makes calculation.) That is $222,752.60. Now, however, I don't think that that is a fair comparison, because this dry hole expense and the canceled and surrendered lease expense of $174,000.00, has not been in any way correlated to the actual production in this particular year.

Q. As a matter of fact, though, Mr. Freese, these are the production system expenses which are detailed by Mr. Phillips in his column headed 3-31-1934, on page 1 of Plaintiffs' Exhibit 4, are they not?

* * * * * * *

[fol. 3153] A. This $166,304.21—canceled and surrendered lease expense was not money actually paid out in the year ending March 31, 1934; it was money that had been paid out during many previous years and was simply charged up on the books for that year. Now, it is entirely possible that that was expense, and it was the expense largely incurred by the Company in the development of four hundred billion cubic feet of gas; whereas, there was only actually five billion cubic feet of gas used in the year 1934.

Q. Have you finished your answer?

A. Yes, I have finished my answer now.

Q. But there was actually charged off as expenses by the Company for canceled and surrendered leases in the year—for the twelve months ended March 31, 1934, in the amount of $166,000.00?

A. That is correct; and if the policy of the Company had so dictated, they could have made it a thousand or four hundred thousand dollars just as easily.

Q. For the previous year, what was the canceled and surrendered lease expense?

A. $176,139.67.

[fol. 3154] Q. And for the year prior to that—the year 1932?

A. $245,103.65.

Q. So each of the years prior to the twelve months ended March 31, 1934, as far as canceled and surrendered lease expense was concerned, was in excess of that for the twelve months ended March 31, 1934?

A. Yes. However, for the year 1930 it was only $67,000.00, and for the year 1929 only $61,000.00.

Q. Yes, and for the year 1931——

A. $232,271.16.

Q. Or an amount approximately four times the expense for 1930 and 1929——

A. That is correct.

Q. Now, the total of the expenses in connection with the production system property which you have detailed add to approximately $222,000.00, do they not?

A. $222,752.00.

Q. Well, we will use the round figure $222,000.00?

A. That is correct.

Q. — isn't that so?

A. That is correct.

Q. Now, you have allowed for the value of Company's gas produced in the twelve months ended March 31, 1934, in the amount of $232,000.00, plus?

A. That is correct.

[fol. 3155] Q. So that leaves approximately $10,000.00 difference, does it not; in other words, if we deduct——

A. The mathematical difference between those two figures——

Q. Is $10,000.00?

A. —is $10,000.00.

1905

Q. Very well. Now, will you refer please to the last page in Mr. Phillips' exhibit—Plaintiffs' Exhibit 4, the page number being page 11? What is shown by Mr. Phillips on that page to be the adjusted book cost of the Production System Property, including leases?

A. That can not be determined exactly from this sheet, by reason of the fact that the net additions to the public service property—Texas properties, January 1, 1932, to March 31, 1934, are not broken down.

Q. Is there any substantial change?

A. There is a change of $1,500,843.28 for the net additions.

Q. There is a change of a million and a half dollars between December 31, 1931, and March 31, 1934, is there not?

A. That is the correct amount.

Q. Now, what is shown as the value of leases owned by the Company as of December 31, 1931, based on Mr. Phillips' adjusted book cost?

A. Well, I don't know what the value of the leases would be. He shows that.

[fol. 3156] Q. I say, based on his adjusted book cost.

A. He shows that the leaseholds cost originally $1,225,946.14; but after they are practically all gone that figure would still be the same.

Q. What does Mr. Phillips show as the adjusted book cost of mineral rights?

A. He shows the original cost of these rights as $13,768.00.

Q. What does he show as the value of gas rights based on the adjusted book cost?

A. He shows not the value, which may be an entirely different thing, but the original cost to be $21,974.48.

Q. What does Mr. Phillips show for Production System Property—gas farms, adjusted book cost?

A. $3,038,898.84, as the original cost.

Q. Now, is there any other property listed on page 11 of Plaintiffs' Exhibit 4 which would be included in Production System Property?

A. Well, there is the original cost of lands in fee in Clay County of $27,344.70. Those are probably production properties. Lands in fee in Limestone County, $3,003.00; those are probably also production properties. There are drilling tools in the amount of $101,985.03—all of those being the original cost on these items of property.

Q. And all of those items would be included in Produc-
[fol. 3157] tion System Property, would they not?

A. Yes.

Q. Now, what would be the approximate total of the adjusted book cost of the Production System Property of the Company in Texas as determined by Mr. Phillips and set forth on page 11 of Plaintiffs' Exhibit 4?

A. Well, now, there is also included, which I failed to read into the record, the Petrolia Field Account of $758,619.23. Now, as I have stated before, there was nothing left in that but salvage value. Would you like to have that $758,619.00 included in this figure?

Q. Mr. Freese, you exercise your own discretion in the matter, either include it or exclude it. A round figure will suffice, Mr. Freese.

A. The original cost, exclusive of the Petrolia Field Account, is $4,222,000.00, if my rough addition is correct.

Q. In round figures, $4,500,000.00 is the actual cash cost to the Company of this Production System Property?

A. That is correct, the original cost.

Q. Mr. Freese, according to your method of computation as used in connection with your exhibit—Plaintiffs' Exhibit 8, isn't it true that according to that method you have al-
[fol. 3158] lowed $10,000.00 for depreciation and depletion in connection with four and one-half million dollars worth of property and also for return?

Mr. Fitzhugh: Now, Your Honor, this four and one-half million dollars worth that he is talking about, isn't value, but original cost.

The Court: I think the witness can answer the question.

A. For that particular year the difference—the mathematical difference between the figure of $232,000.00 and the figure of $222,000.00 was $10,000.00. However, that $222,000.00 included canceled and surrendered leases in the amount of $166,000.00 which were involved in the total amount of this four hundred billion cubic feet of gas reserves which have been developed by the Company. And the $10,000.00 is in no way representative of the return on this property. Now, the method which I have used there is in no wise different from the method used by the Company, although all of this gas well equipment and everything was evaluated, it was then deducted from the valuation made by Mr. Hulcy of the reserves.

[fol. 3159] Q. Have you finished your answer, Mr. Freese?

A. Yes. It was a difficult question to answer, because I don't think it was framed in a way that it could be answered.

Q. Well, Mr. Freese, possibly you can rephrase my question, but what I in my innocence wanted to know is this: By your method of calculation, as set out in Plaintiff's Exhibit 8, what would there be available to Lone Star Gas Company for return, depreciation, and depletion on the adjusted book cost of its Production System Property, following the method of compu-ation which you have used in the first figure column appearing at page one of Plaintiff's Exhibit 8?

A. Well, all I can say is exactly what we have done, and that is to allow at the well head the prevailing field price for that gas, just exactly the same price you pay for the 80 per cent of the gas which you bought from other owners and which compensates the other owners for exactly the same thing which this $232,000.00 is designed to compensate the company for.

Q. Is your answer, then, that you are unable to make the determination which I have requested?

A. Yes.

Q. You are unable to make that determination?

A. That is correct.

Q. But if the mathematical calculation which I have asked you to make is correct—that is, you deduct the total of [fol. 3160] the Production System Operating Expenses in the amount of $222,000.00 from the value of company gas produced in the amount of $232,000.00 plus, wouldn't you have available for depreciation, depletion, and net return upon the adjusted book cost of the Public Service Property the sum of $10,000.00?

A. No. If you deduct the actual operating expenses and production expenses paid out by the company, you would have not only the $10,000.00 but the $166,000.00 which you deducted in arriving at the $10,000.00.

Q. All right. We will go down the lane that you have set out on, Mr. Freese. Let's add the $10,000.00 to the $166,000.00 covering cancelled and surrendered leases. That gives the figure of $178,000.00, does it not?

A. Yes.

Q. Would that be the amount which the company would have available for depreciation, depletion, return and Fed-

eral income tax on the adjusted book cost of the Production System Properties?

A. That is what they would have available on the fair value of this property.

Q. Whatever that fair value may be?

A. Yes, and the fair value is determined by the prevailing well head price.

Q. The fair value of what is determined by the prevailing well head price?

A. Of the Production Property.

[fol. 3161] Q. Well, suppose you had some Production System Properties that disclosed that they had underlying them a vast amount of gas, Mr. Freese, but no gas was marketed during the twelve month period ended March 31, 1934; would that indicate to your mind that thos- Production Properties had no value?

A. No, but if during the history of the company every thousand cubic feet of gas taken out of that property was paid for at the prevailing well head price they would certainly be compensated for the value of that property.

Q. If we assume that the adjusted book cost of approximately $4,500,000.00 for the Production System Properties represents the fair value—and that is merely an assumption—under your basis of calculation, would you have $178,000.00 available for depreciation, depletion, Federal income tax and return on the Production System Properties in Texas?

A. Yes, but that $4,500,000.00 is not the fair value of that property by any manner of means.

Q. Well, just let's figure on cost. $4,500,000.00 represents the approximate cost, does it not, to the company?

A. Yes, before there was any depletion or before there was any gas taken.

Q. Now, if we took the $178,000.00 which you say would be available for depreciation, depletion, Federal income tax and return on the $4,500,000.00 of book costs, what would be the percentage of relation of $178,000.00 to $4,500,000.00?

A. $178,000.00 divided by $4,500,000.00 gives 4 per cent, [fol. 3162] but if that property were half depleted it would be 8 per cent.

Q. Mr. Freese, in connection with the first report you made to the Railroad Commission of Texas covering the

reproduction cost of the Lone Star Gas Company Public Service Property you also made a report covering depreciation and depletion allowances, did you not?

A. That is correct.

Q. And the volume which I present to you is the volume which sets forth the depreciation and depletion allowances which you informed the Railroad Commission of Texas were correct?

* * * * * * *

Q. This was presented to the Railroad Commission of Texas, was it not, Mr. Freese?

A. Not in any hearing. We submitted it to them in a letter.

Q. Included in the volume which I hand you is a letter addressed to the Railroad Commission of Texas under date of May 17, 1932, stating that "In compliance with our Con- [fol. 3163] tract of December 22, 1931, we submit herewith ten copies (six volumes each) of an appraisal of the gas utility properties (in Texas) including a report on the records (1927 to 1931 inclusive) of the Lone Star Gas Company. The appraisal has been made as of December 31, 1931. Respectfully submitted, Hawley, Freese and Nichols."

A. That is correct.

* * * * * * *

Q. Now, in the report covering both Texas and Oklahoma properties of the company, did you set forth an annual depreciation reserve accrual in connection with leaseholds and mineral fee lands of $97,152.83?

A. That is correct. However, as I explained yesterday, Mr. Griffith, this figure of leaseholds and mineral fee lands we took directly from the data furnished us by the company and we included a great number of gas wells in that figure. They were all along with the leaseholds, and that includes allowances for depreciation on those leaseholds. We found out later that we had a duplication in that respect and that is the main reason for the correction that was later made.

Q. All right. Now, on gas well construction did you report to the Railroad Commission of Texas that the annual depreciation reserve accrual should be $139,651.67?

A. That is correct, and there is a large measure of duplication between those figures, in that we used the actual [fol. 3164] purchase price there, which included a large part of the gas well construction of the company.

Q. Did you report to the Railroad Commission of Texas that the allowance for depreciation in connection with gas well equipment should be $58,804.85?

A. That is what that figure shows there. In the hearing before the Railroad Commission we made the necessary corrections. Those also are on a straight line basis.

Q. Yes, sir—they are on a straight line basis, but you did present those figures to the Railroad Commission of Texas?

A. Yes.

Q. Now, what is the sum total of the allowances for annual depreciation as set forth in the report that you made to the Railroad Commission of Texas covering leaseholds and mineral fee lands, gas well construction, and gas well equipment?

A. If you will read the figures, I will answer.

Q. We will use round figures, Mr. Freese; ninety-seven thousand, one hundred thirty-nine thousand, and fifty-seven thousand.

A. There is $293,000.00.

Q. $293,000.00?

A. Yes, sir.

Q. Now, of course, a small portion of this was applicable to the State of Oklahoma, was it not?

A. Yes, and there is a large measure of duplication.

Q. Well, how much duplication is there?

[fol. 3165] A. I don't know what the exact amount is. It is somewhere in the neighborhood of seventy or eighty thousand.

Q. Well, now, what is the total figure that you have included for those three items—gas well construction and equipment and leaseholds?

A. $293,000.00.

Q. Well, if we deduct seventy thousand dollars for duplications, what is the resulting figure?

A. $223,000.00.

Q. Now, how much of that would be applicable to the State of Oklahoma?

A. About 20 per cent.

Q. About 20 per cent.—what does that leave?

A. That leaves $180,000.00.

Q. It leaves $180,000. Now, that would be the depreciation and depletion requirements in connection with the Texas producing properties, would it not?

A. No, unless that were corrected that would not be the correct amount.

Q. All right. How would you correct it to get at the proper amount for annual reserve accruals covering depreciation and depletion on the Texas Production System Properties?

A. Well, in the hearing before the Railroad Commission——

Q. Now, I want to know what you would do about it.

A. Well, it is what I did do about it in the hearing before the Railroad Commission.

[fol. 3166] Q. You had changed your ideas materially about that by that time, hadn't you, Mr. Freese?

A. No; I had found that we were using actual costs of the wells; that they were not leaseholds only, but that the company had included in the figure or there was included in that figure a great part of gas well construction. We found an annual amount after it was corrected on the 6 per cent. basis used by the Railroad Commission of $97,064.00 and on other Production System Structures, $1,044.35.

Q. By some coincidence the Railroad Commission happened to adopt your exact figure, did it not?

A. No.

Q. After making the adjustment from the 7 per cent. to the 6 per cent. factor?

A. They used substantially the same figure after making that adjustment.

Q. That is, they used substantially your estimates?

A. The depletion allowance for the year 1931 was $15,631.45.

Q. All right. What would it be for the twelve months ended March 31, 1934?

A. $18,500.00.

Q. All right. Now, what would be the depreciation and depletion which would be applicable to Production System Property according to your estimate and the estimate of the Railroad Commission?

A. $116,000.00.

[fol. 3167] Q. For the Texas and Oklahoma property?

A. For the Texas and Oklahoma property.

Q. Well, now, how much of that would be attributable to Texas?

A. Approximately $94,000.00.

Q. Now, you have allowed on the gas production by the company for the twelve months ending March 31, 1934, $232,000.00 plus?

A. Yes.

Q. And your depletion and depreciation requirements would be approximately $94,000.00, you say?

A. Yes.

Q. Now, will you deduct $94,000.00 from your allowance for the value of the company's gas properties for the twelve months ended March 31, 1934?

A. That would amount to $138,000.00.

Q. That would amount to $138,000.00?

A. Yes.

Q. Now, that would be the net amount available to the company before Federal income tax for return on whatever value inheres in the Production System Property?

A. Yes.

Q. What would be the per cent. relation of $134,000.00 to the adjusted book cost of the Production System Property as set forth by Mr. Phillips in Plaintiffs' Exhibit 4?

A. One hundred thirty-eight thousand divided by four and a half million gives 3 per cent.

Q. It would be approximately 3 per cent?

[fol. 3168] A. Yes.

Q. And that would be available for net return to the company upon the adjusted book cost of the Texas Production System Properties?

A. With the little amount of gas used, yes. Now, a fair return on the actual value would not be that figure.

Q. Well, you have not testified as to actual values of the Production System Property?

A. No, I have not.

Q. Do you care to do so?

A. I will try to answer your questions as best I can.

Q. Now, refer to page one of Plaintiffs' Exhibit 8 so the jury will not misunderstand this exhibit, Mr. Freese, and so I will not misunderstand it, these figures of $268,829.64 and $441,240.12, covering temperature correction for the

two twelve month periods stated, are theoretical rather than actual, aren't they?

A. Yes, if by "theoretical" you mean that they did not actually receive that money by reason of the fact that it was a very warm year. However, the computations are based upon the actual experience of the company in the use of degree days of deficiency based on the experience of the company in that year or in those two periods.

Q. It was not, however, based upon the actual temperature figures which prevail?

A. Yes, the computations were based on those.

Q. Well, the funds of the company have to conform to [fol. 3169] what you thought ought to be normal weather conditions?

A. Not what I thought they are, but what the normal weather conditions are.

Q. Well, what you determined the actual weather conditions to be?

A. Yes.

Q. Well, now, Mr. Freese, you are pretty good at figures. You have already corrected your depreciation allowance of eight hundred thirty-one thousand plus by adding some one hundred sixteen thousand dollars to it. What would have been the effect on your determined percentage of 6.74 if you had eliminated from your column of calculations for the twelve months ended March 31, 1934, the temperature correction which you made amounting to $232,644.75?

A. You mean $268,829.00?

Q. That is correct, Mr. Freese.

A. 6.16 per cent.

[fol. 3170] Q. Does that take into consideration the addition of $16,500 additional for depreciation?

A. No; it does not.

Q. Well, make that correction.

A. 6.13 per cent—six and thirteen-hundredths per cent.

Q. Now, what would be true in connection with your calculations for the 12 months ended December 31, 1933, if you eliminated your temperature correction and adjusted your depreciation allowance to take care of your correction by the addition of $16,500?

A. 5.77 per cent.

Q. 5.77 per cent?

A. Yes.

Q. Something less than 6 per cent, which the Railroad Commission of Texas, in its opinion and order established as the minimum net return which the Company was entitled to receive?

A. That is correct; but as the temperatures went back to normal, it very quickly went above the six per cent again.

Q. Now, Mr. Freese, in order that there may be no possible confusion about what you have done, and what you have not done, I will ask you if the figure of $40,256,862.39, appearing in the lower left-hand corner of page 1 of Plaintiffs' Exhibit 8, is taken from page 2 of Plaintiffs' Exhibit 6?

A. That is correct.

Q. The same figure is set forth on page 2 of Plaintiffs' [fol. 3171] Exhibit 6?

A. That is correct.

Q. And it does not include any production system property?

A. That is correct.

Q. And which production system property in Defendant's Exhibit 28 was determined to have a reproduction cost new value, including undistributed general costs in the amount of $9,141,858.05?

A. That is the figure which shows on page 1 of Exhibit 28, for production system property.

Q. Of course, that figure includes production system property in both Texas and Oklahoma?

A. Yes.

Q. And by far the major portion of the Company's production system property is located in the State of Texas, is it not, Mr. Freese?

A. Yes.

Q. What per cent would you say, approximately?

A. I don't know that I could give that figure very accurately. The reserves are less than one per cent in Oklahoma.

Q. Of the gas reserves?

A. Yes.

Q. The gas well equipment in Oklahoma would be substantially in excess of one per cent?

A. Oh, yes; it would probably be 15 per cent or more—perhaps 20 per cent.

[fol. 3172] Q. But a ready segregation could be made by going through Defendant's Exhibit 28, could it not?

A. I don't know whether it could or not, because what actually takes place is that you go through Exhibit 28 and add up seven million dollars worth of that property, and when you get to Hulcy's exhibit you take the entire amount away.

Q. The item of gas well equipment could be identified by the list of the wells located in the several fields, could it not?

A. Yes; but the company's method of evaluating the gas reserves was simply to apply to the well-head price the predicted future price of that gas and the predicted withdrawals, and to deduct from that capitalization the value of the gas well equipment as found in Exhibit 28; so it is purely a washout as far as Exhibit 28 is concerned.

Q. As far as gas well equipment and construction are concerned, isn't it true that the equipment is readily identified by a reference to Defendant's Exhibit 28 as between the Texas and Oklahoma gas fields? I would like to refresh your memory.

A. I know exactly what is in there. There is listed by fields the gas equipment and it is all added up to a certain sum, and the whole thing is deducted from Mr. Hulcy's gas leaseholds, so there is not one penny that could be identified in the net result as being for any particular well or gas well equipment.

[fol. 3173] Q. Mr. Freese, I will ask you again, if you refer to Defendant's Exhibit 28 is gas well equipment identified by fields?

A. That is true, as I testified. However, I said it was all put in and all taken out again.

Q. Where is the Chickasha gas field?

A. In Oklahoma.

Q. Where is the Fox Gas Field?

A. In Oklahoma.

Q. Where is the Duncan gas field?

A. In Oklahoma.

Q. Where is the Loco Gas Field?

A. West Texas.

Q. The Loco Gas Field is in West Texas?

A. No; I beg your pardon; in Oklahoma, on Line G.

Q. Where is the Panhandle Gas Field?

A. In Texas.

Q. And where is the West Texas field, as described in Defendant's Exhibit 28?

A. West Texas.

Q. And where is the Petrolia Field located?

A. In Texas.

Q. Now, all of the gas well construction and equipment of the company is identified by separate fields in Defendant's Exhibit 28, is it not?

A. There is listed under separate fields the gas well equipment in Defendant's Exhibit 28.

* * * * * * *

[fol. 3174] OLIN CULBERTSON, recalled by the State, testified as follows:

Direct examination.

Questions by Mr. Stout:

* * * * * * *

Q. You are the Chief of the Gas Utilities Division of the Railroad Commission?

A. Yes, sir.

[fol. 3175] Q. Have you prepared any kind of list or chart showing the inter-corporate affiliation and relationship of the Directors and officers of the Lone Star Gas Company and the corporations affiliated with it in the production and transmission of natural gas?

A. Yes, sir.

Q. Do you have that chart with you?

A. I have.

Q. Let's see the original of it, please?

* * * * * * *

[fol. 3176] The Court: What is it you are doing, now?

Mr. Stout: I am offering this same chart in evidence, but with the elimination of the Galveston Gas Service Com-

[fol. 3177] pany, Northwest Texas Gas Company, and Stamford & Western Gas Company, and sundry directors and officers in those who are also officers and directors of the Lone Star Gas Corporation and Lone Star Gas Company. We offer the chart with those three eliminated.

[fol. 3178] The Court: The chart as amended, with these three companies stricken, will be admitted.

(Thereupon, the document above referred to was marked as Plaintiffs' Exhibit No. 9.)

Mr. Griffith: Where did you get this, Judge Culberson? Out of the newspaper?

A. No, out of probably some worthless records in the Railroad Commission.

Mr. Stout: Made by the company we are dealing with?

A. Well, I will take that "worthless" statement back, in as much as the companies themselves made them.

Mr. Stout: Your Honor, I have got a red line drawn thru those three companies.

The Court: The jury understands that this chart as submitted in evidence is not to be considered, in so far as it deals with the three companies mentioned—that is, Galveston Gas Shares Company, the Northwest Gas Service Company or the Stamford & Western Gas Company, but that they are excluded from the chart as now amended.

Mr. Griffith: Your Honor understood that our objection as to those three companies was by reason of the fact that those three companies neither buy gas from nor sell gas to the Lone Star Gas Company?

The Court: Yes, and I sustained the objection as to [fol. 3179] those three companies and they have now amended the chart and I have admitted the chart as amended.

Mr. Griffith: Is this Plaintiffs' Exhibit No. 9, Mr. Reporter. (Told that it is.)

The Witness: If the Court and counsel want it, I can make up an exhibit eliminating those three entirely, but I was told at noon to put all of them in.

Mr. Stout:

Q. I will ask you, Judge Culberson, if George B. Crawford, T. B. Gregory, David E. Mitchell, and G. M. Simpson, all residing at Pittsburgh, Pennsylvania; and R. A. Crawford, L. B. Denning and Karl F. Griffith, all residing at Dallas, Texas, with offices at 1915 Wood Street, or offices at that address, are not the directors of the Lone Star Gas Corporation?

A. Yes; that was the testimony, as I recall it, of Mr. Griffith and the information that we have here on the report

of the relation of holding companies to operating companies in power and gas, affecting control, by the Interstate Commerce investigating committee, submitted by Mr. Rayburn under authority of Joint Resolution 572 of the 72nd Congress.

Q. Are the officers in the main of the Lone Star Gas Corporation, Mr. George W. Crawford, president—or rather, chairman of the board of directors; Mr. L. B. Denning, President, and the vice-presidents being T. B. Gregory, R. A. Crawford, J. M. Simpson and Karl F. Griffith; D. L. Cobb is secretary and treasurer and David E. Mitchell is assistant secretary?

[fol. 3180] A. Yes.

Q. Are you familiar with and have you read over this? (Indicating bound volume.)

A. Yes, that testimony given heretofore.

Q. Is Mr. Karl F. Griffith the general counsel for Lone Star Gas Company?

A. Yes, and the report so shows it and I think he admits it.

Q. And for the distributing companies within the State of Texas?

A. Yes.

Q. And the Lone Star Gas Corporation?

A. Yes.

Q. Explain to the jury, Mr. Culberson, please sir, just what this chart is and the general nature of it.

A. It is a compilation of those gentlemen who are directors and officers in the respective companies shown there at the head of the chart—the Lone Star Gas Corporation and the underlying companies. For instance, Mr. Frank L. Chase, in the second column it shows Community Natural Gas Company; D is Director; P is President, and GM is General Manager. There is a legend at the bottom which indicates the respective offices held by these respective gentlemen.

Q. D, of course, means Director?

A. Yes. P is president, VP means vice president, S means secretary, T means treasurer, GM means it is General Manager, and GC is general Counsel, and Ch. Engr. is Chief Engineer. Where there are one or more such designations, as in the case of D. L. Cobb under the heading of Municipal Gas Company, it shows D, which means he is [fol. 3181] a director, and VP which means he is also vice

president, and T, that he is also treasurer of that same company; and Mr. Cobb is secretary and treasurer of the Texas Cities Gas Company.

Q. You of course held hearings, where distributing companies were present and gave testimony, have you not?

A. Yes.

Q. In those hearings the same sort of service and the same sort of charges, or the same sort of purported service and the same kind of charges, were made by the parent company in those cases, as were made in this case by the Lone Star Gas Company, were they not?

A. Yes.

* * * * * * *

[fol. 3182] Q. I believe Mr. Griffith was present at those hearings, was he not, and acted as leading counsel for the company?

A. Yes.

Q. Do you have any other explanation, Judge Culberson, that you desire to make in connection with this chart?

A. No sir, none further than that at the bottom there are indicated the number of directors and company totals that indicates the membership, or directorate—that is, the participation in the directorate, such as number 7, under the Lone Star Gas Corporation—that is seven of those individuals were members of the directorate. For Community Natural Gas Company, there were five.

[fol. 3183] Q. How many times does the name of L. B. Denning, president of Lone Star Gas Corporation, and residing at 1915 Wood Street, Dallas, show across long-ways in this chart?

A. Five times.

Q. Five? Isn't it about seven? L. B. Denning is about fifth or sixth from the top.

A. I have it. Not if you have stricken those three companies; it would be five times.

Q. That's right. That is my mistake. How many times does the name of R. A. Crawford, who is a director and vice president, or at least an office- in the Lone Star Gas Corporation, appear across this page?

A. Three times.

Q. R. A. Crawford?

A. Yes.

The Court: I think you had better count them again.

Q. He is the fifth from the top.

A. He shows to be a director and vice president of the Lone Star Gas Corporation; is a director of the County Gas Company, and that's one; Dallas Gas Company, is two; and he is director, vice president and general manager of the Lone Star Gas Company, and that is three, and the other three are stricken.

* * * * * * *

Q. The third member and director of the Lone Star Gas Corporation, Mr. Karl F. Griffith, general counsel for all companies. How many times does his name appear as an [fol. 3184] officer of one of these companies, or a director?

A. Four times.

Q. And that is not counting the stricken times?

A. That is right.

* * * * * * *

[fol. 3185] Mr. Stout: We now offer in evidence the charter of the Lone Star Gas Company—the original charter, in 1909.

* * * * * * *

[fol. 3186] (Thereupon the document above referred to was marked as Plaintiffs' Exhibit No. 10.)

* * * * * * *

[fols. 3187-3194] The Court: I sustain the motion to strike from this exhibit all reference to how the capital was paid.

* * * * * * *

[fol. 3195] Plaintiffs rest.

[fol. 3196] The Court: What says the defendant?

Mr. Griffith: We will call in rebuttal Mr. E. A. Steinberger.

E. A. STEINBERGER, recalled by defendant, testified further as follows:

Direct examination.

Questions by Mr. Griffith:

Q. You are the same E. A. Steinberger who has heretofore appeared and testified in this case?

A. I am.

Q. Mr. Steinberger, in connection with the Defendant's Exhibit 28, what was the weighted cost of machine excavation which was used.

A. The weighted cost of machine excavation that was used in the preparation of Exhibit 28 was 48.31 cents per cubic yard.

Q. That was for machine excavation alone, was it?

A. That is correct.

Q. Did that include any hand excavation along with the machine?

A. It did not.

Q. Mr. Steinberger, have you made analysis of the actual performance of trenching machines in connection with the excavation of trenches for the construction of a great number of miles of the Lone Star Gas Company's pipe line [fol. 3197] system?

A. I made such an analysis—in other words, I made an analysis of the actual cost per cubic yard for machine excavation on approximately 2,380,262 lineal feet of trench.

Q. How much would that be in miles, Mr. Steinberger?

A. Approximately 452 miles.

Q. In other words, you had actual performance records available covering the company's construction of 452 miles of pipe line system?

A. I have, Mr. Griffith. By "performance record" I mean that the study that I have made is based upon the actual experience and based upon the so-called daily progress reports and which reports I have testified to rather at length in connection with my qualifications. Those reports contained the detailed personnel that was required each day to perform a certain amount of work—that is, to excavate certain lineal feet of trench. Those reports also show in detail the exact trench width as well as depth for every five hundred feet. Those are necessary in order to compute the cubic yardage of excavation, not only for each day but for the job as a whole.

Q. Mr. Steinberger, will you refer to pages 21 to 23,

inclusive, of Plaintiff's Exhibit 6. What cost per cubic yard of excavation did Mr. Freese adopt covering trench [fol. 3198] excavation in connection with Transmission Line Equipment?

A. Mr. Freese adopted a unit cost of 37½ cents per cubic yard for machine excavation. This cost, however, includes hand excavation in connection with the machine excavation; in other words, on short stretches, which are inaccessible for a ditching machine, such as embankments, creek beds, and other rough places which a ditching machine could not dig and which trench it was necessary to dig by hand.

* * * * * * *

Q. In other words, that is the hand excavation which is done by hand excavation gang which accompanies the ditching machine?

A. That is correct. Sometimes they are with the ditching machine and sometimes two or three miles ahead of it.

[fol. 3199] Q. Now, Mr. Steinberger, what was the company's actual experience in the matter of machine excavation covering 452 miles of pipe line system as far as the cost per cubic yard is concerned?

A. The actual cost to the company on the excavation of 452 miles of ditch was 46.46 cents.

Q. Per cubic yard?

A. Per cubic yard, yes, sir.

Q. Now, what labor rate was that based upon, Mr. Steinberger?

A. It was based upon common labor rate of 35 cents per hour for laborers, 60 cents per hour for foremen, 45 cents for truck drivers, 35 cents for night watchmen.

Q. Now, based upon the company's actual experience in connection with the hand excavation along with the machine—what was the cost to the company of the hand excavation and covering how many yeards?

A. The actual cost to the company for hand excavation in connection with ditching machine work was $2.08 per cubic yard and covered a total of 10,692.7 cubic yards.

Q. Now, that was the cost for hand excavation along with the progress of the machine excavation?

A. That is correct.

Q. And not the cost for hand excavation on long stretches where the ditch would be excavated by hand excavation?

[fol. 3200] A. That is correct. It does not include the cost of hand excavation where there was no ditching machine used.

Q. Mr. Steinberger, has the company had a good deal of experience in connection with rock excavation and covering which experience you have made an analysis of the company's costs?

A. In connection with, or, rather, in conjunction with the excavation of 452 miles of trenches which I made a study of, the company had considerable experience with rock excavation to the extent of 28,748.1 cubic yards.

[fol. 3201] Q. Now, what was the actual cost to the Company of that rock excavation?

A. The actual cost to the Company of the rock excavation was $3.23 for labor and equipment; $.6047 for blasting material; or a total of $3.8363 per cubic yard.

Q. How does that compare with the cost of rock excavation used in Defendant's Exhibit 28?

A. The cost per cubic yard for rock excavation used in the preparation of Defendant's Exhibit 28 is $3.897 per cubic yard for Texas, and $3.826 per cubic yard for Oklahoma.

Q. In other words, the cost used for Oklahoma was slightly below the Company's actual experience, and the cost used for Texas was slightly above the Company's actual experience?

A. That is correct; it is due to difference in workmens' compensation insurance and public liability rates.

Q. Refer please to pages 21 to 23, inclusive, of Plaintiff's Exhibit 6. What cost for rock excavation did Mr. Freese use and adopt in connection with Transmission Line Equipment?

A. Referring to pages 21, 22, and 23 of Plaintiffs' Exhibit 6, it will be noted that Mr. Freese used a cost of $3.50 per cubic yard for rock excavation.

Q. And that is approximately 33 cents per cubic yard below the Company's actual experience on approximately 28,000 cubic yards of rock excavation?

A. That is correct; 33.6 cents per cubic yards.

[fol. 3202] Q. And a quantity of approximately 28,000 cubic yards, is that correct?

A. Based on the actual study of 28,000 cubic yards, yes, sir.

Q. Mr. Steinberger, have you prepared a compilation showing a comparison of Mr. Freese's adopted excavation costs with the book or actual costs on the several pipe line systems evaluated by Mr. Freese and set forth at pages 21 to 23 of Plaintiff's Exhibit 6?

A. I have prepared such an exhibit, yes, sir.

Q. Will you produce it, please?

A. Yes, sir.

Q. Does the compilation also show a comparison between Mr. Freese's adopted costs for the several pipe line systems, as set forth in Plaintiffs' Exhibit 6, and the actual costs to the Company of this Transmission System property?

A. It does.

Mr. Griffith: We offer the compilation so identified by the witness in evidence.

(Thereupon the compilation above referred to was marked for identification as Defendant's Exhibit No. 47.)

* * * * * * *

[fol. 3203] Examination by Mr. Fitzhugh:

Q. On the first page of your exhibit, Mr. Steinberger, you have a column "Book Cost"?

A. Yes, sir.

Q. And in the last column you have a per cent of Plaintiffs' Exhibit 6 Less than Book Cost?

A. Yes, sir.

Q. And amounts in that same column?

A. Yes, sir.

Q. Now, if I get the idea of this page, you are trying to compare the amounts for excavation on these lines as used in Plaintiffs' Exhibit 6 and the Actual Cost of Excavation on these lines; is that it?

A. That is correct.

Q. Now, when was 2nd B built?

A. 2nd B was built—I will give you the exact date—(Refers to data) According to the daily progress reports which I have before me, Line 2nd B was constructed between July 23 and October 8, 1929.

Q. When was K-B 16-inch built?

A. K-B 16-inch was built approximately a month prior to the construction of Line 2nd B, because they moved on down from Line KB 16-inch to Line 2nd B.

Q. To sum up, every line you have listed here was built prior to 1929, was it not?

[fol. 3204] A. No, sir; they were not built prior to 1929. They were built either in the latter part of 1929 or the early part of 1930, at the prevailing common labor rate of thirty-five cents per hour.

Q. Now, on the second page of your Exhibit you show a Book Cost by different systems?

A. By different systems, yes.

Q. These systems, were some of them the original lines?

A. That is correct.

Q. And these book costs are from 1929 down to the present time?

A. That is correct.

* * * * * * *

Direct examination resumed.

Questions by Mr. Griffith:

Q. Mr. Steinberger, refer to the first page in Defendant's Exhibit 47.

A. All right.

Q. What do you show on that page?

A. The first page of Defendant's Exhibit 47 shows a comparison of excavation cost between the cost used in [fol. 3205] Defendant's Exhibit 28, Plaintiffs' Exhibit 6, and the Actual or Historical Book Costs.

Q. And that is true in connection with six specific lines of the Company, is it not?

A. That is correct.

Q. And why did you use these six specific lines rather than some other lines?

A. Those lines were built in 1929 and '30, during which time I had daily progress reports of construction. In other words, I was able to determine from the overall costs of the line, the exact cost of ditch machine excavation, as segregated from backfill costs, or laying or stringing costs. In the case of lines built prior to 1929, the records of the Company do not give a complete segregation of the classification of the work.

Q. That is as between excavation, and back filling, and laying and stringing, and testing, and so forth?

A. That is correct. I have used these lines because they were major lines constructed during that period. While I made a study of approximately four hundred miles of trench excavation, some of those lines were in Oklahoma, which I eliminated in this exhibit; other lines were extensions of lines previously laid, and I was not able to get the exact yardage as used in Plaintiffs' Exhibit 6. The yardage so shown in the third column, in Cubic Yards, was [fol. 3206] ascertained from both Plaintiffs' Exhibit 6, as well as Defendant's Exhibit 28, and from the original progress reports.

Q. Now, the lines which you have set out on the first page in Plaintiffs' Exhibit 47 account for 290.6 miles of pipe line excavation, do they not?

A. They do, yes, sir.

Q. And account for a cubic yardage of excavation of 310,897.7 cubic yards?

A. Yes, sir.

Q. Now, what is the excavation cost as used in Defendant's Exhibit 28 covering these six lines?

A. The excavation cost as reflected in Defendant's Exhibit 28 for the six lines as set forth in Defendant's Exhibit 47, first page of that exhibit, the total is $226,569.66.

Q. Now, that covers all classes of excavation, does it not?

A. It does; it covers all sizes of trenches—trenches for 3-inch outside diameter pipe, up to 20 inches outside diameter pipe.

Q. Now, what are the corresponding costs of excavation for these six lines, as shown by Plaintiffs' Exhibit 6, and as adopted by Mr. Freese in his evaluation?

A. $184,289.43.

Q. Now, what was the actual cost to the Company of the excavation work on these six lines?

A. The actual book cost or historical cost, or out-of-pocket expense to the Company for the excavation of these six lines is $289,849.15.

[fol. 3207] Q. Now, what do you show in the next two columns on that page?

A. The next two columns on that page show the difference between the book cost and the cost as set forth in Plaintiffs' Exhibit 6. In other words, on Line Second B

the book cost as $156,650.41; Plaintiffs' Exhibit 6 makes an allowance for the same class of work for the same line of $110,423.08, and which figure is $46,227.33 below the book cost, and which figure is 29½ per cent.

Q. Below the book cost?

A. Below the book cost.

Q. And correspondingly, for Line KB 16-inch, Line K-5, Line K-5-1, Line O-29, and Line L-26, do you show the amount by which Mr. Freese in his Exhibit 6 was below the actual cash cost to the Company on this excavation work?

A. I do. By referring to the first page of Defendant's Exhibit 47 it will be noted, as previously testified, that the total book cost of excavation for the six lines was $289,-849.15; whereas, in Plaintiffs' Exhibit 6 the same cost was evaluated at $184,289.43, or $105,559.92 less than the actual book cost, and which difference is 36.4 per cent less than [fol. 3208] the book cost; in other words, Plaintiffs' Exhibit 6 is 36.4 per cent below the book cost.

Q. Now, during 1929 and 1930 what labor rates was the Company paying on this excavation work?

A. By referring to my progress reports, which reports were prepared during actual construction,—the Company paid from 35 to 40 cents per hour for common laborers,—skilled laborers 40 cents per hour, unskilled laborers 35 cents per hour.

Q. What rate for common labor is the Company paying today, Mr. Steinberger?

A. 40 cents per hour.

Q. And is it paying that throughout its pipe line work?

A. It is. I have before me a signed statement, sworn to before a Notary Public, and signed by our Paymaster, that the Company is now paying 40 cents for common labor throughout the entire System.

Q. And do you know that of your own knowledge, aside from that statement you have referred to?

A. I do.

Q. Refer, please, to the second page of Defendant's Exhibit 47.

A. Yes, sir.

Q. Do you show on that page a comparison between Mr. Freese's adopted evaluation cost for the several pipe line [fol. 3209] systems as set forth in Plaintiffs' Exhibit 6, and the actual cash cost to the Company of that Transmission System Property?

A. I do.

Q. What does Mr. Freese show as the total evaluated cost of the several pipe line system which he evaluated in connection with his Exhibit 6?

A. Mr. Freese shows a total cost of $28,659,795.67. That covers identically the same properties that were evaluated by Mr. Freese in connection with his Exhibit 6, namely, Texas properties, excluding, of course, such lines as Line G and both Lines H and Second H.

Q. Those lines running from——

A. Line G running from Gainesville to Red River, a distance of a little in excess of 20 miles, and Line H and Second H running from Petrolia to the Red River, a distance of approximately eleven miles.

Q. Now, Mr. Steinberger, several witnesses have stated several distance- as covering the pipe line mileage between Line G and Gainesville. Are you satisfied that twenty miles is approximately correct?

A. Yes, sir. The exact mileage, Mr. Griffith, is—from the Junction—that is, from the G. & E. Junction to the Gainesville gasoline plant—3.74; from the gasoline plant [fol. 3210] to the Red River, 16.31 miles; or a total of—rather, 16.3 miles; or a total of 19.6 miles.

Q. And Mr. Freese, in compiling Plaintiffs' Exhibit 6, therefore eliminated from the Texas property a total of 19 miles of 16-inch pipe on Line G?

A. That is correct. Similarly, of course, on Lines H and Second H.

Q. Now, what do the books of the Company actually reflect, Mr. Steinberger, as far as the actual cash cost to the Company of the several pipe line systems which Mr. Freese evaluated in Plaintiffs' Exhibit 6?

A. As shown on the second sheet of Defendant's Exhibit 47, the actual book cost of the Transmission System Property in the State of Texas; that is, as adopted by Mr. Freese as being in the State of Texas, as set forth in his Exhibit 6 for a total of $31,353,035.54.

Q. Now, was Mr. Freese above or below the book cost over-all?

A. Mr. Freese was below the book cost to the amount of $2,693,239.87.

Q. On Line K, for example, was Mr. Freese below the actual—in his evaluated figure for the K System, below the book cost in the amount of $1,033,451.62?

A. That is correct.

[fol. 3211] Q. Expressed as a percentage, Mr. Steinberger, what was Mr. Freese below the actual cash cost to the Company, as reflected by its books, and as set forth in his Exhibit 6?

A. That is practically 20 per cent.

Q. Mr. Steinberger, aren't you mistaken? Isn't it less than 10 per cent?

A. It is 16.5 per cent on the K System.

Q. Oh, on the K System, you are referring to?

A. K, yes, sir.

Q. I was referring to the over-all figure, Mr. Steinberger.

A. Pardon me.

Q. Where there was a difference of $2,693,239.87.

A. Mr. Freese has 8.7 per cent below the actual book cost.

Q. Now, where you use the term, Mr. Steinberger, "actual book cost" in connection with Defendant's Exhibit 47, do you refer to the actual cash cost to the Company of the work done, or the property, as the case may be?

A. That is correct. That figure of $31,353,035.54 is the actual cash cost to the Company. It does not include any revaluation.

Q. Mr. Steinberger, Lone Star Gas Company was built up gradually, was it not, from 1909 up to the present time?

A. That is correct.

Q. Was the business of the Company attached overnight?

[fol. 3212] A. No, it was not.

Q. Have you made a study of the historical rate of attachment of business in a number of the smaller towns and cities which are served at wholesale by the pipe line system of the Company?

A. Yes, Mr. Griffith, I have made such a study of distribution systems attached to the pipe line system of the Lone Star Gas Company since 1927.

[fol. 3213] Q. Do you have that data here, and can you give us the historical rate of attachment of business in some 118 smaller towns and cities?

A. I have this data here, and I would be glad to read it into the record. The study which I made covers 118 distribution plants ranging in size from as small as fifty meters per plant to as high as five hundred meters per plant.

Q. When you refer to meters, you refer to the number of domestic customers, do you not?

A. That is correct. That study disclosed that for the 118 natural gas distribution plants which I studied, during the first year there was a total of 69.21 per cent of the ultimate consumers attached; that during the second year for the same 118 plants, they had 89.29 per cent of the total ultimate consumers attached. Or, I can give the same figure on a consumer basis, probably. The total ultimate consumers on the 118 distribution plants amounted to 389,810 monthly billings. Of that the first year there were attached to the plant 269,789 which is 69.21 per cent of the ultimate. During the second year the total monthly billings made by the distribution plants were 348,047, which figure is 89.29 per cent of the ultimate. During the third year, there were made 377,462 monthly billings, which figure is 96.83 per cent of the ultimate. During the fourth year there were made 385,177 monthly billings, which figure is 98.81 per cent of the total. Now, with reference to the consumption. [fol. 3214] All the consumers did not avail themselves of the use of gas 100 per cent.

Q. You mean at the inception of natural gas service?

A. That is correct. The ultimate consumption in M. C. F., or rather in thousand cubic feet on the 118 natural gas distribution plants studied, was 2,245,659 M. C. F. Of that, the first year there was a consumption of 1,370,837 MCF and which figure is 61.04 per cent of the ultimate consumption. The second year, the consumption was 1,983,398 M. C. F., and which figure is 88.32 per cent of the ultimate consumption. The third year, the consumption was 2,190,209 M. C. F., which figure is 97.53 per cent of the ultimate consumption, and the fourth year being considered as the saturated period.

Q. In other words, the fourth year was considered as 100 per cent?

A. That is correct.

* * * * * * *

[fol. 3215] Q. Now, you said you weighted the percentages as between customer attachment and customer use?

A. That is correct. During the first year there were attached 69.21 per cent of the ultimate consumers and the consumption was 61.04 per cent of the ultimate, which gave me a weighted percentage of saturation of 42.25 per cent for the first year. For the second year there were a total of 89.29 per cent of the ultimate consumers attached, using 88.32 per cent of the ultimate consumption and giving a per cent of saturation of 78.86 per cent. During the third year there were attached 96.83 per cent of the ultimate consumers using 97.53 per cent of the ultimate consumption, giving a weighted per cent of saturation of 94.44 per cent. During the fourth year we had 98.81 per cent of the ultimate consumers using 100 per cent of total consumption giving 98.81 per cent weighted saturation, resulting in weighted per cent of idle plant, or unused portion of the [fol. 3216] plant for the first year, of 57.75 per cent; for the second year, of 21.14 per cent and for the third year 5.56 per cent, and the fourth year 1.2 per cent.

[fols. 3217-3218] Q. As a result of your study, Mr. Steinberger, is it shown that it does take time to develop the business of the Lone Star Gas Company in regard to the wholesale sales of natural gas at the city gates of the several towns and cities?

A. I believe the study I made and testified to fully sets fourth that conclusion.

* * * * * * *

[fol. 3219] Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Steinberger, about what year was it when you came to the United States?

A. 1913.

Q. How long was it after you arrived in this country that you went to school in Arkansas?

A. About six months after I came here.

[fol. 3220] Q. What was the name of that institution?

A. Subiaco College, S-u-b-i-a-c-o; it's a school about fifty miles west—east of Fort Smith. I took an academic course there, and washed dishes and helped in the kitchen to get by.

Q. How long did you stay there?

A. Three years.

Q. Did you get a degree?

A. I did not.

Q. And you took an academic course, you say?

A. A three years course, but I didn't have any more clothes to wear and I couldn't finish the fourth year, and I was down to where I had to go to work.

Q. Did you have any engineering work while you were there?

A. I did not. After I left school—in fact, after I entered the railroad service in Galveston and while I was employed in the office of the Chief Statistician for the Southwest Regional District I took an Accounting Course at LaSalle University, which is a two-year course, and I completed it in eleven months, and a deploma was awarded to me; and after that I took a Business Administration Course in LaSalle University; that is a four-year course, which I completed in 8 months, and I was also awarded a deploma.

[fol. 3221] Q. Those are correspondence school courses, are they not?

A. That is correct. I happened to be too poor a boy to go to a university——

Q. I am not trying to inquire into your financial status, Mr. Steinberger; I just want to know what education you have had. Have you ever had any engineering at all?

A. No, sir, except I took about one-third of a civil engineering course at the I.C.S.—that is the National Correspondence School; but the work was getting so voluminous with the Lone Star Gas Company that I couldn't pursue that course further.

Q. Now, after you left the school in Arkansas you came down to Texas and went to work for the railroad, did you not?

A. For about six or eight months after I left school I worked on the wheat fields in Kansas and worked on the section as a section laborer in the western part of Oklahoma and the northern part of Texas, and then I secured a job as station helper and night telegraph operator in North Texas.

Q. And from those jobs you gradually worked up to a bookkeeping position, did you not?

A. That is correct.

[fol. 3222] Q. Now, about what date was it when you were working for the Union Terminal up in Dallas?

A. I worked for the Union Terminal from April 6, 1921, until April 1, 1926.

Q. And I believe you stated that while you were working there, Sanderson & Porter, engineers of New York, started making the appraisal for the Lone Star Gas Company?

A. No, sir, when I worked with the Union Terminal Company at Dallas I worked with engineers who were employed by the Union Terminal Company to effect a settlement between the corporate owners of the Union Terminal Company and the United States Railroad Administration, with reference to payment to the corporate owners for deferred maintenance that was incurred to the Union Terminal Company during the period of Federal control.

Q. All right, sir. Then how did you get employed by Sanderson & Porter?

A. I never worked for Sanderson & Porter.

Q. Did you work for the Lone Star at the time Sanderson & Porter were making their appraisal?

A. That is correct. I was representative for the Lone Star Gas Company's representatives when Sanderson & Porter did the work for the Lone Star.

[fol. 3223] Q. I see. Now, up to that time you had never done any engineering work of any sort, had you?

A. No, sir, except with the engineers of the Union Terminal Company in the compilation of the depreciation and life expectancy of the facilities of the Terminal.

Q. What is the date you come to the Lone Star?

A. I entered the employment of the Lone Star Gas Company on June 15, 1926.

Q. Now, isn't it a fact, Mr. Steinberger, as has been testified to previously by you in the hearing before the Railroad Commission, that you have never built so much as one foot of gas pipe line?

A. That is correct; I haven't built a foot of gas pipe line.

Q. And you have never supervised any excavation work, have you?

A. That is correct.

Q. And you have never designed any sort of gas transmission equipment, compressing station equipment, or anything else of that nature, have you?

A. That is correct; but may I make a statement, Mr. Fitzhugh?

Q. Yes, sir.

A. While I have never designed, constructed, or super-
[fol. 3224] vised the construction of a single foot of natural gas pipe line, I have gathered data as to unit costs of construction that are probably more voluminous and more thorough than any data compiled by any one. Those data were compiled by myself or under my supervision on the ground, while the work was in progress.

Q. Granting for the moment that all of that is true, Mr. Steinberger,—all of that work is properly the work of a cost accountant, is it not?

A. No, all of that work is not properly the work of a cost accountant sitting in an office compiling the figures. He has to be on the ground to do that work.

Q. You haven't the temerity, have you, to assert that that is engineering work?

A. In a sense it is.

Q. In a sense it is?

A. That is correct.

Q. In what sense?

A. As a cost accountant you have to have a knowledge of what enters into a pipe line construction job. If you have never been on the ground and seen the construction of a pipe line, you couldn't compile the cost data as I have done here.

Q. Mr. Steinberger, if you have sheets coming in from
[fol. 3225] day to day, that tell the number of men working on a particular job, the performance that they are able to get in doing that work, and the cost of doing the work, isn't the analysis of that sort of date purely the work of a cost accountant and not of an engineer?

A. Data of that kind would be merely the data of a cost accountant, that is correct, if you have no knowledge of the system; but I do have a thorough knowledge of the Lone Star Gas Company, in addition to the cost data that I have prepared.

Q. Now, in testifying originally, you told the jury you were a Valuation Engineer for the Lone Star Gas Company, did you not?

A. That is correct; and I so consider myself.

Q. You don't mean to say that the word Engineer is synonymous with Civil Engineer, do you?

A. Indeed, I consider myself an engineer in the natural gas industry. There is no School of Engineering at which

such training can be had; such knowledge can only be gained by actual experience on the ground.

Q. Now, in this exhibit which you have introduced, you say you have studied several lines. As shown on the first sheet, the lines included in the study are: Second B, KB 16-inch, K-5, K-5-1, 0-29, and L-26.

[fol. 3226] A. That is correct.

Q. Now, all the data on those lines that you had for the purpose of your study, you say were gained from actual construction records?

A. That is correct—from the Daily Progress Reports which were filed each day by the men in charge on the ground; for instance, by the time-keeper, who was responsible for the time; by the engineer, who was responsible for the performance.

Q. Now, explain to the jury, Mr. Steinberger, just how you got these actual cost records?

* * * * * * *

A. Well, we can take any job—the first one, here we have Line K-5, 6-inch, which is a line running from north of Granbury—to be exact, the line running due north of Granbury, connecting with Line K coming from West Texas, going south as far as Valley Mills; Line K-5-1 branches off south of Walnut Springs, going southwest to Hamlin. On the construction of that particular line we had—we used [fol. 3227] these Daily Progress Reports. Those reports are segregated into two sections; one is called the first section, or the firing line section, and the second is called the second or laying section. On the firing line or first section is shown the time—so-called the general time by the general foreman who has supervision of the entire job, and the assistant foreman, and the time-keeper, who takes care of the time for the front line gang, which is the firing line. And the trucks and cars assigned to general operation and general supervision of that particular job. The next is for cutting—for cutting and removing brush and timber, cutting the right of way, and building the fences and building temporary gates for this particular job. That work was done several weeks prior to the beginning of the laying of the line. The same is true with stringing of pipe. Those reports in that case were furnished me separately from the Stores Department, which Department is in charge of

stringing the pipe—that is, unloading the pipe from the railroad cars and hauling it along the right of way. And then comes the lining up. Lining up is welding the pipe end to end and tack welding. That time goes, for instance, to a foreman or a number of foreman. On that particular [fol. 3228] job we had two foreman, at 40 cents per hour, or $8.00 per day; 17 laborers at 35 cents per hour, 170 hours, or $59.50 per day; a truck driver at 40 cents per hour, 11 hours, $4.40; one truck, 11 hours, $8.40; and a blacksmith at 50 cents per hour for ten hours, would be $5.00. Then comes the welding; for the welding we had a foreman—that is one foreman, $210.00 per month, or $6.77 per day; line welders, $1.00 per hour, worked 125 hours, total cost $125.00; generator men, three, at 40 cents per hour, working 25 hours, at $10.00—a total per day of $10.00; four laborers at 35 cents per hour, working 43 hours, or a total of $15.05; one truck driver, $125.00 per month, or $4.03 per day. One truck, 10 hours, at a dollar per hour, or $10.00 per day; five teams with drivers, at 70 cents per hours, 50 hours a day, or a total of $35.00; and a night watchman at 35 cents per hour, 13 hours, or a total of $4.55. Now, that crew used 15 drums of oxygen, 1,000 pounds of carbide, and 225 pounds of welding rods. During that day, on this particular day it is noted on the sheet that they lost two hours—the entire crew lost two hours, on account of detouring; but the Company had to pay the time regardless of whether the men were doing any welding or not; they [fol. 3229] made 160 six-inch welds that day; previous to that they had made—or, rather, that makes a total of 2658 welds. For that day next comes the testing of the line—that is, testing the various sections laid on top of the ground, and as you will recall Mr. Biddison's testimony, there are generally six or seven sections welded together on the side of the ditch, and then they are bull-plugged—or one end is bull-plugged and the other end is put on the compressor and pumped up to the required test of 250 to 300 pounds. For that we had: 1 foreman at $4.00 per day; one laborer, $3.50; one air compressor mounted on a truck, working five hours at a dollar per hour, or $5.00 for that day. That crew tested 182 joints which were welded for that particular day. Next came the painting of the pipe on the side of the ditch. We had one paint foreman, at $125.00 per month, or $4.03 per day; five laborers at 35

cents per hour, or $17.50 per day; one team, with driver, at 70 cents per hour, or $7.00 per day.

Q. Now, wait just a minute before you leave that.

A. All right.

Q. Now, just to sum this up, Mr. Steinberger,—at the top of your sheet you have: "Daily Progress Report on Construction of Line ....". In this particular case it is [fol. 3230] filled in with "K-5, six-inch, near Granbury".

A. That is correct.

Q. The date on this particular date line is 8/8/29?

A. That is correct.

Q. Then ER, that stands for expenditure requisition.

A. That is correct. Each job is assigned a separate number.

Q. In this case it is 6945. And then you have a place for the weather.

A. That is correct.

Q. Showing whether it is fair or stormy or rainy?

A. That is right.

Q. Then, going down the sheet, you have all the time and expenses divided up in the divisions you have just explained to the jury?

A. That is correct.

Q. And you have, in the case of welding, places where the materials are used, the amounts of material, and any notations as to loss of time, and that sort of thing?

A. That is correct.

Q. Now, you have got that same sort of sheet on all those lines, haven't you?

A. That is correct.

Q. Who filled out this sheet?

[fol. 3231] A. Those sheets were filled out by the timekeeper for the engineer on the job, and signed by the foreman.

Q. And then those sheets were sent in by the foreman to you at your Dallas office, and you compiled the information that you have given in these Progress Reports, is that it?

A. That is correct; but you understand, Mr. Fitzhugh, that those Progress Reports were designed by myself.

Q. Don't put that book up for just a minute. I want you to show the jury some more information.

A. Pardon me.

Q. Now, on the building of lines, the actual construction you usually have a rear end gang and a front end gang, do you not?

A. That is right.

Q. What do you mean by those designations?

A. The front end gang, as I testified before, constitutes the lining up, the welding, the testing, and the painting gangs; they are sometimes two or three miles ahead of the rear end gang, which consists of the gang clearing the right of way for the ditching machine, the hand ditching and machine gang—the ditching and machine gang, the laying gang, the backfilling gang, and finally the clean-up gang, [fol. 3232] which rebuilds the fences and takes down the temporary gates, and refixes the fences permanently.

Q. Now, the line you were just talking about was K-5, was it not?

A. K-5, six-inch, yes.

Q. Is that one of the lines in your study in this exhibit?

A. Yes, sir.

Q. Now, will you take your equipment requisition sheets or your Daily Progress Reports on Line K-5 back up to the jury rail here—will you do that, Mr. Steinberger?

A. Yes, sir.

Q. Now, before the Railroad Commission, in making the same sort of examination, we asked you to pick out at random any of the sheets on Line K-5, and I believe you referred to August 27th, because we have got the record on that same sheet. I will ask you to look at that one—that is sheet one, from stake 332-plus-00—is that right?

A. Pardon me, Mr. Fitzhugh, what performance are you speaking about?

Q. Well, what do you show for August 27th on Line K-5 in your Daily Progress Report?

A. I have here the front end gang. Will you give me those stake numbers again? I may be able to identify that. Is this the ditching gang?

[fol. 3233] Q. Yes, this is the ditching gang?

A. August 27th.

Q. Correct.

A. What is the stake number?

(Counsel hands data to witness.)

A. That is October 24th, 532——

Q. Well, I don't suppose it makes any difference; just

take any of your sheets there. This line has considerable rock on it, does it not?

A. Yes, there is considerable rock between Granbury and Walnut Springs.

[fol. 3234] Q. Well, take out some of the sheets that apply to that section of the line; will you do that?

A. I have before me October 1, 1929. That section is between Walnut Springs and Valley Mills. I have here: Hand Ditching gang, 2 foremen, 50 cents an hour, $10.00 per day; 24 laborers, 243 hours, $85.05 a day; powder men, one at 45 cents an hour, 12 hours, $5.40; truck-driver, one, at 40 cents an hour, 11 hours, $4.40; one truck, 11 hours, $8.25. That covers crumming the ditch and clearing the rock for 5,000 yards, using 150 pounds dynamite, and 250 caps, and no fuses, as those caps were electric caps.

Q. How much rock excavation did you have?

A. There was no rock excavation.

Q. So that all of the rock excavation that was actually encountered in this portion of the line was charged to crumming?

A. For the reason that it was machine excavation.

Q. What is crumming?

A. Clearing the dirt out of the ditch and making a smooth ditch.

Q. That was October 1st?

A. Yes.

Q. Can you tell how deep the rock was found in looking at the sheet?

[fol. 3235] A. No, sir.

Q. Turn back to August 27th—do you find that sheet?

A. No, sir; I don't find that sheet.

Q. Can you find this stake number?

A. That is the one I referred to—October 1st.

Q. You didn't show the hand excavation, did you?

A. No, sir; it was all crumming. October 7th, the same location, we had 100 feet of hand-ditching for Highway 67 at Stake 2410 plus 47, and at 30-foot bore, 40 foot casing.

Q. Now, Mr. Steinberger, the record before the Railroad Commission reads as follows: "August 27th, from Stake 332 plus 0-0, to Stake 566 plus 0-0, a total distance of 3400 feet, the hand excavation shows 1700 feet of rock; machine excavation from Stake 412- plus 0-0 to Stake 454 plus 0-0, a distance 1200 feet, less 200 feet skip, or a net perform-

ance of 4,000 feet same day. Trench area 16x30, soil fair, some rock." Can you find from that description the sheet I am talking about?

A. There is apparently an error in the date. I beg your pardon, I was on Line K-5.

Q. Do you have the sheet now?

A. Yes.

Q. I want this sheet because I know what you testified on that before. Do you have that now?

[fol. 3236] A. Yes.

Q. You show hand excavation of 1700 feet of rock; is that right?

A. 1700 feet of rock, yes, sir.

Q. What cubic yardage of rock was there in that amount of rock excavation?

A. I did not compute it for each individual day, but for the job overall. The individual sheet does not show it, but the detail work sheets show.

Q. How did you get the detail work sheets? Didn't you compute it from those?

A. The trench area is 16 by 30, as shown on the daily progress reports. The trench area of 16 by 30 times 1700 feet gives the yardage of excavation.

Q. What did you charge all of the labor on this 1700 feet of rock hand excavation to?

A. I charged it to rock excavation.

Q. Now, Mr. Steinberger, I wish you would look to refresh your memory and see if you did not testify before the Railroad Commission, and this question was asked: "How deep was the rock that was being excavated here?" and the answer was: "He didn't state how deep the rock was."

A. Yes.

Q. "He didn't state how deep the rock was. Where there is no cubical quantities of rock shown it is always charged to crumming. Apparently some rock along the line is shown under ditching machine." That is what you testified?

[fol. 3237] A. That may be an error, because I have before me the report and when there is no area shown of rock excavation, we took the standard trench area as shown by the ditching machine, which was 16 by 30. We probably were in error and did not charge enough to rock, for the reason that the trench in rock excavation is sometimes

slightly deeper than the standard trench, in order to give four or five inches for bedding on top of the rock.

Q. You had a whole gang working on the job, didn't you? This gang was doing all sorts of work. How did you divide up the labor hours shown for that particular gang for the different sorts of work done?

A. Mr. Fitzhugh, that had to be checked between the stake numbers. If the ditching machine showed a skip it was considered all hand excavation. We had to arbitrarily assume in some cases that some men were doing additional crumming, as all those men were not required to do all of the work with the ditching machine proper.

Q. On this day you had 200 feet of skip?

A. A 200 foot skip on ditching machine; but the ditching machine was at 412 plus 0-0 to 454 plus 0-0, or approximately two miles behind the ditching gang, which I believe it was testified did rock excavation on that date.

Q. What was the next that you had for this particular day on excavation?

[fol. 3238] A. Hand ditching: one foreman, 10 hours, $5.81; two sub-foremen, 40 cents per hour, $8.00; 530 labor hours, at 35 cents, $185.50; powder men, one, 12 hours, at $4.20; one truck driver, 13 hours, $3.85; one truck, Company No. 1103, $13.50; that gang worked from Stake 332 plus 0-0 to Stake 266 plus 0-0. They were working backwards on the line. A total of 3400 feet. Of that, 1700 feet was solid rock. They used 555 pounds of dynamite, 575 caps, and 1307 feet of fuses. Clearing for the ditching machine, one foreman, 10 hours, $4.00; 13 laborers, 130 hours, $45.50; one powder man, 11 hours, $3.85; one truck, 10 hours, Company 1094, $12.50; 3 teams with driver, 30 hours, $21.00; one Company car, Ford pick-up, No. 1210, $7.50. That crew worked from Stake 456 plus 0-0 to Stake 500 plus 0-0, or a distance of 3400 feet, using 100 pounds of dynamite, 100 caps, and 200 feet of fuses, and two air compressors, 33 hours; 3 ditching machines, 3 operators, $17.90; 3 oilers, $15.00; 2 stake-setters, $8.00; one night watchman, 13 hours, $4.55. Excavated from Stake 412 plus 0-0 to Stake 454 plus 0-0, a distance of 4200 feet, with 200 feet skip. The ditching machines used 65 gallons of gas, 2½ gallons of oil, and 5 pounds of grease. The ditch was 16 by 30, the soil was fair, some rock. Next, came the laying gang, 2 foreman at $180 per month,——

Q. That has nothing to do with excavation?

A. No.

[fol. 3239] Q. Now, show where on this sheet you show a separation of the laborers' time for machine excavation, hand excavation, and rock excavation?

A. That was testified to.

Q. You don't show it, do you?

A. I said it was all rock excavation, that particular day.

Q. Don't you have some machine excavation here?

A. Yes; but there was no hand ditching connected with it, because the next day the crumming gang came along.

Q. You don't have a bit of hand excavation?

A. No, sir.

Q. You have nothing but machine and rock excavation on this sheet?

A. That is correct.

Q. Now, then, how did you divide the laborers' time as between machine excavation and rock excavation?

A. Machine excavation?

Q. Yes, sir.

A. The machine excavation was shown under the crumming. Ordinarily, under ditching machine there is no labor; the crumming takes care of that.

Q. Where is your division of laborers' time for machine excavation, rock excavation, and hand excavation?

A. There is no division on this sheet.

Q. Take the next sheet. What is that, August 28th?

A. August 28, yes, sir.

[fol. 3240] Q. What are the kinds of excavation shown on that sheet?

A. Crumming—we will assume that crumming, as it was along there, was shown for either hand excavation or rock excavation. Under ditching machine work, from Stake 454 plus 00 to Stake 494 plus 00, a total of 4,000 feet, with a 500 feet skip, or days performance of 3500 feet, the trench was 16 by 30, except from stake 454 plus 00 to Stake 464 plus 00 it was 16 to 30 inches dirt; from Station 464 plus 00 to Station 465 plus 00, there was six inches of rock; from Station 465 plus 00 to Station 474 plus 00, there was 30 inches of dirt; from Station 474 plus 00 to Station 478 plus 00, six inches of rock; and from Station 478 plus 00 to Station 482 plus 00, thirty inches of dirt. In other words we took the overall trench, and took the distance between

the earth and the rock, and computed that, and threw it into the hand rock excavation, and considered it as rock excavation costs.

Q. On this sheet you have all three kinds of excavation —hand earth, rock, and machine?

A. No, sir. I have testified only to rock and dirt under machine. The ditching machine excavated all of the earth, whereas the rock was excavated by the hand gang.

Q. How did you split the laborers' time for machine excavation and for rock excavation on this page?

A. There were no laborers assigned to the ditching machine.

Q. Can you tell what the laborers' time is for machine excavation?

[fol. 3241] A. There was no laborers' time, other than the operators, oilers, and stake-setters.

Q. Can you tell the time for the machine excavation?

A. Three operators, 30 hours, two at $6.45, and one at $5.00 per day; 3 oilers, at 30 cents an hour, $15.00; two stake-setters, at 20 cents an hour, $8.00; one night watchman, $4.55; and two machinists, 23 hours, $40.25.

Q. Now, there was 3500 feet of performance for the machine that day?

A. Yes, sir.

Q. It shows right here (indicating)?

A. Yes, sir.

Q. Wasn't there any crumming behind the machine?

A. Apparently not. Whatever crumming there was, was included with rock excavation.

Q. There was some crumming, though?

A. Yes, sir.

Q. But whatever crumming there was you put in rock excavation?

A. That is correct; whereas on other days it may have been offset by slight rock excavation, which was charged to crumming. It is impossible to get it down to the minutest detail.

[fol. 3242] Q. Isn't crumming ordinarily a cost to be included in machine excavation?

A. That is correct.

Q. So that to the extent you have left crumming out in the rock excavation you have understated the performance actually done by the rock excavation gang?

A. That is correct. One day it may be understood on performance and other days overstated, but I have taken the final result——

* * * * * * *

Q. To that extent you have overstated the number of hours time to excavate on rock?

A. It may be true for a particular day.

Q. That is what I am talking about, and to the extent that you have failed to include crumming in your machine excavation you have overstated the performance for that particular kind of excavation?

A. That may be so, and on the following day it would be offset.

Q. Now you are trying to say that averaging it day after day it works out even?

A. Yes; so long as you account for the total money and shows your unit cost all the way through, you are correct.

[fol. 3243] Q. Well, isn't it a fact, Mr. Steinberger, that as long as you leave out crumming from machine excavation and put it into either hand earth or rock excavation that you could not possibly work out the hours for machine excavation accurately or the performance over all?

A. I may not be able to work it out accurately for a particular day, but for the job over all I think it is as accurate as it could possibly be worked out.

Q. Well, if you do that day after day won't it come out inaccurately on the job over all?

A. No, it is offset. Maybe one day it is charged to crumming and other days it is charged to rock, just short stretches, and it will offset itself.

Q. But you did leave out crumming day after day on those performance sheets?

A. No, sir, I didn't. I will be glad to read to you in the record a great many on the job.

Q. Well, pick out where you have got any crumming—show on this sheet where you have got any crumming in your machine excavation.

A. Those are the recap. sheets on the daily progress reports.

Q. You mean you worked this out from the daily progress reports?

A. Yes, sir.

Q. Those are all computations?

A. Yes, sir.

[fol. 3244] Q. Go ahead.

A. I have a day here, October 29th, we have 671 Labor hours, working from Stake 386-00 to 476-00, a distance of 9,000 feet, charged to crumming, crumming ditch and removing rock.

Q. Well, that is part of your hand excavation cost?

A. No, it is not.

Q. Well, what have you figured that in?

A. It is charged to crumming.

Q. Well, what did you charge your crumming in—as part of the machine excavation?

A. Yes, crumming is a part of machine excavation, just like clearing off a ditch is a part of it.

Q. Well, show on the sheet where that ever became a part of the machine excavation hours.

A. Our construction of Line K-5, E. R. 6943, the total cost for clearing the ditch, machine was $6,033.47; machine operation, including oiler, stake setter and operator, $5,249.92; crumming, $1,564.80, or a total cost of $12,848.19. The total excavation was 34,867.4 cubic yards, resulting in a direct cost for the ditching machine operation, exclusive of machine depreciation and amortization cost, of 36.85 cents per cubic yard.

Q. Now, that is for August 29th, rather than October 29th?—you said October.

A. Pardon me.

[fol. 3245] Q. It should be August 29th?

A. That is correct.

Q. Now, before the Railroad Commission, in testifying on this same sheet, you said: "August 29th: hand excavation from stake 386 plus 00 to stake 476 plus 00, a total distance of 9,000 feet"?

A. That is correct.

Q. "Ditching machine excavation from stake 494 to stake 542, a total distance of 4800 feet"?

A. That is correct.

Q. "And a 100 foot pick-up and a 900 foot skip"?

A. That is reversed. It is a 100 foot skip and 800 foot pick-up.

Q. "Or a net performance for that day of 3900 feet"—your total performance; that is right?

A. That is correct.

Q. "Now, the trench was rock from stake 494 to stake 459. Apparently there was some loose rock along that line and it did not give any dimension or depth of the rock." Where you said "it" you meant the requisition sheet to show the dimension of the rock?

A. Yes.

Q. "The rest of the trench was all dirt. The explanation under hand ditching is 'crumming ditch and removing rock.' Question: Now, how many hours on that day were [fol. 3246] charged to crumming? Answer: 671 hours charged to crumming"?

A. That is correct.

Q. Now, on this day these 671 hours are actually charged to crumming in the ditching—in the machine excavation; is that your testimony?

A. Yes, charged to crumming. There was some rock in connection with that, and that would offset the previous day, when it was rock and nothing charged to crumming.

Q. Now, how many men would that be?

A. Sixty-one laborers.

Q. Now, then, this crumming is simply scraping a ditch?

A. Clearing out any surplus which the machine did not take out of the ditch.

Q. Now, on this day there were sixty-one laborers engaged in cleaning up the ditch?

A. Yes, 9,000 feet—approximately two miles.

Q. On all the other days on this line you don't show any crumming hours as part of the machine excavation, do you?

A. The following day I show 588 hours, which is October 30th—I mean August 30th.

Q. How many machines did you have?

A. The same three machines.

Q. How many men on each machine crumming?

A. They are not charged to the machine; they are not charged to each machine. It is a gang to itself.

[fol. 3247] Q. Well, you have a gang behind each machine, don't you?

A. It may not be in that case. I don't remember, Mr. Fitzhugh, whether it was or not. There may be a crumming gang behind on each ditch. There were 58 men on that day and they may have been split up in three gangs working behind the machines.

Q. Wasn't the laborers' time charged in as part of the machine cost?

A. Yes, that is part of the machine cost.

Q. Find on your sheets some day where you had both hand earth and rock excavation.

A. There is no hand excavation on Line K-5. It was either all rock or the remainder was all dug by the ditching machine, except the few cases I read into the record where there were ditches for highway crossings.

Q. Mr. Steinberger, I don't understand exactly what is taking place. Here are your daily performance sheets sent to you by the foremen in the field. I asked you for data shown in the sheets. Why do you have to look into some other sheets?

A. Mr. Fitzhugh, I look in the recapitulation sheets to save time going through the daily progress reports; I wanted to see whether there was any hand earth excavation on that particular job; that is the reason I refer to my work sheets for the compilation of hand earth.

Q. Where is this line?

[fol. 3248] A. It branches from Line K 18-inch approximately 3.4 miles north of Granbury, Texas, goes to Walnut Springs, with a branch that goes to Meridian, Morgan and Clifton and ends at Valley Mills.

Q. Isn't that notoriously rough country?

A. It is rocky country between Granbury and almost to Meridian.

Q. Can you explain to the jury how you could build through such rough country as that without any hand earth excavation?

A. Yes. From the connection at Line K 18-inch to a few miles north of Glenrose it is mostly bottom land and very ideal for machine work, and from there immediately it gets into rough country, and that accounts for a considerable amount of rock excavation and crumming.

Q. Isn't it a fact that there was a good deal of hand excavation, but you have not so classified it?

A. It was not so shown on the daily progress reports.

Q. Well, I am asking you isn't it a fact that you have not classified it as such and that you show no hand excavation on these lines?

A. There was no hand excavation, other than approaches to highway crossings.

Q. Now, Mr. Steinberger, besides studying the six lines that you have shown on the first sheet in your exhibit, you studied a whole lot more lines?

A. I testified yesterday, Mr. Fitzhugh, I studied approximately 452 miles of machine excavation.

[fol. 3249] Q. That is all sizes of pipe?

A. Yes, sir, ranging from three inch outside diameter to 20 inch outside diameter.

Q. Now, you have shown in your exhibit here K-5 and K-5-1. Why didn't you show also K-5-2, which you likewise studied?—Do you have to look up your reasons for that, Mr. Steinberger?

A. K-5-2 is a very short branch line. As I testified yesterday, Mr. Fitzhugh, I took the six major lines constructed; I did not take any lines which were merely extensions of existing lines.

Q. You left this out because it was so short?

A. Yes. I didn't bother with it. There were six major lines studied, and in addition I left out several lines in Oklahoma because they were not listed in Plaintiffs' Exhibit 6.

Q. If you left this out because it was short, why didn't you put in Line "E", which contains about 190 miles?

A. I didn't make any study of Line "E", Mr. Fitzhugh. I never testified that I made such a study.

Q. Didn't you testify before the Railroad Commission, Mr. Steinberger, that you studied a portion of Line "E" that was built in about 1929?

A. That is correct; a portion of Line "E", Mr. Fitzhugh, and which portion is merely an extension of the existing line.

Q. Well, what has that to do with it?—it was a sizable [fol. 3250] piece of construction work, was it not?—what difference does it make whether it is a new line or an extension?—it still costs money to excavate.

A. Yes. The actual cost of excavation on that line was $39,032.00; it was less than $100,000.00. Let me correct that statement. It was $7,888.65.

Q. Now, what about Line K-C—why did you leave it out?

A. Line K-C?—it was merely an extension.

Q. It was a sizable extension, was it not?

A. Twenty-six thousand feet.

Q. You left out Line E-10-5, did you not?

A. Yes, sir. That is 29,000 feet.

Q. And you left out A-1-4, did you not?

A. Yes, sir. I testified on yesterday that that line is in Oklahoma, running from Frederick to Mountain Park.

Q. Well, you wouldn't object to using a line in Oklahoma for the purpose of finding unit costs?

A. That was not evaluated in Plaintiffs' Exhibit 6.

Q. Well, that has nothing to do with finding construction costs, whether in Oklahoma or Illinois or anywhere else?

A. Well, it was not evaluated in Plaintiffs' Exhibit 6. I had no basis as to the estimate used.

[fol. 3251] Q. Why did you leave out Line O-16? That is in Texas, isn't it?

A. Yes. It is a very short line.

Q. How short?

A. It's the line from Commerce to Cooper—possibly four miles.

* * * * * * *

Q. Where is Line 110 located?

A. Line 110 is a line in the West Texas area.

Q. Why did you leave it out?

A. The work that was done on Line 110 was simply an extention to the existing 110.

Q. Why did you leave out Line 18-A?

A. Line 18-A is just another extension going from the Alvord compressing station to the Alvord field.

Q. Why did you leave out Line H-3-2?

A. Because it is a line in Oklahoma.

Q. Why did you leave out Line KCE?

A. That is merely a gathering line.

Q. Where is it?

A. In the West Texas field.

Q. Well, that was evaluated in Plaintiff's Exhibit 6, wasn't it?

A. It was, but it was a very short line.

Q. And there was excavation work on it?

A. Yes.

Q. Why did you leave out Line OLB?

A. That is a gathering line in the Brad field, from the [fol. 3252] Brad compressing station into the Brad field. It is in the West Texas area.

Q. That is in Texas, isn't it?

A. Yes.

Q. Why did you leave out Line Second KC?

A. That is a gathering line, going from the compressing station at Pueblo and is merely an extension and was built after the acquisition of the Pueblo plant by Lone Star Gas Company.

Q. The amount of excavation done on this portion of Line Second KC that you studied was greater than any of the lines included in your exhibit, wasn't it, with the possible exception of Second B and probably K-5?

A. The total yardage of evacuation on Line Second KC was 17,455.5 yards, as against Second B of 151,515.8 yards.

Q. At least there's more cubic yards on Second KC than on Line L-26, which you included in your exhibit?

A. That is correct.

Q. Why did you leave out Line AK?

A. It is a gathering line and not a main transmission line.

Q. It is in Texas, is it not?

A. Yes; it is in the Panhandle field.

Q. And it is evaluated in Plaintiffs' Exhibit 6, is it not?

A. Yes.

Q. Why did you leave out E-22?

A. That is a short tap line. I do not recall why it was eliminated but it was 39,000 feet in length.

[fol. 3253] Q. Why did you leave out Line OL?

A. Line OL is a gathering line in the Brad field.

Q. It is in Texas, is it not?

A. Yes, it is.

Q. And it is evaluated in Plaintiffs' Exhibit 6?

A. Yes, and if you are desirous of having me do so, Mr. Fitzhugh, I will be glad to prepare an exhibit and include all those lines that you mentioned.

Q. Now, Mr. Steinberger, where you show on this first sheet, a column entitled book cost, you don't mean to say that those figures are to be found as a part of the accounting records of the company, do you?

A. What sheet do you refer to?

Q. Page 1 of your exhibit. The same page that we have been talking about all the time.

A. That amount is included in the figure recorded on the company books, yes.

Q. Now, answer my question.

A. Read the question, please.

(Thereupon the following question was read to the witness: "Now, Mr. Steinberger, where you show on this first sheet a column entitled Book cost, you don't mean to say that those figures are to be found as a part of the accounting records of the company, do you?")

A. I answered the question.

Q. You don't mean to say that on Line Second B, for example, you would find a book cost as appearing on the [fol. 3254] books of the company, in the amount of $156,650.41?

A. The books of the company show the amount of $449,288.15 for construction cost. Analyzing that cost, based upon the daily progress reports, this amount of $156,650.41 for excavation is found.

Q. Well, this figure of $156,650.41 that you have put in this exhibit as being book cost is not shown on the books of the company, but is a computed figure, as computed by yourself, is it not?

A. Based upon the daily progress reports, yes, in order to get an exact segregation of the various classifications of work.

Q. Are you familiar with the way the book costs for Line Second B appear on the books of the company?

A. Very familiar, yes.

Q. Do you have a copy of the sheet or a copy of the figures as they appear on the actual books of the company for this Line Second B?

A. I have a copy here of the total amount recorded on the company's books, as classified by myself, taken from the daily time sheets, as well as the daily progress reports of construction, and which any auditor or accountant can compile if he takes the time to do so.

Q. Now I will ask you, Mr. Steinberger, if the actual books of the company do not show a segregation for the construction of Line Second B?

A. If they do, they show such a segregation from the time [fol. 3255] sheets only, but not as included in the daily progress reports.

Q. I am talking about the books of your company—the capital accounts, by lines, as shown by the accounting records of the company for Line Second B, the cost is segregated into various heads, and one of the heads is construction; isn't that right?

A. That is correct.

Q. Now, the sub-heads under this construction head read as follows: Liability insurance, $5,800.22——

A. Just a second, Mr. Fitzhugh, please—all right, thank you.

Q. The next item is labor, $178,268.93. The next is welding labor, $49,528.13. The next is welding material, $47,635.38, and the welding material is separated into divisions as follows: Acetylene, oxygen, carbon, welding rod, welding equipment and miscellaneous supplies, the totals of which are carried into the welding material amount. Following that there shows teaming contract, $30,807.40. Sundry teaming, of $25,675.39. Truck earnings, $17,280.93. Tractor earnings, $17,956.88. Ditcher earnings, $23,695.50. Compressor earnings, $1,449.91. Traveling expense, $4,569.08. Tools and supplies, $29,025.81. Are those amounts correct?

A. I do not have the same division as you have just read. Apparently what you just read is a transcript of the journal entry recording it on the books.

Q. Exactly.

A. As compiled in the accounting department of the company, and so far as labor is concerned, is merely a sum-
[fol. 3256] marization of the daily time sheets, whereas I have before me a complete breakdown of the total cost of that line, in the amount of $1,975,336.64, segregating between the various labor classifications as well as accounting for every item of material.

Q. So that the division and the amounts that I have just read are the way the construction costs appear on the primary books and records of the company? Is that correct?

A. That is correct. But Mr. Fitzhugh, it would be impossible to record on the books of the company every individual item entering into the construction of a pipe line.

Q. All right. Now, in order for you to divide up this labor of $178,268.93, you had to make an analysis of the daily performance sheets that you got, and from your analysis divide up all this labor, didn't you?

A. That is correct. What I did, I summarized all the time and expense shown on the daily progress report, and tied it into the total payrolls as recorded by the daily time sheets.

Q. So that the amounts appearing in this book cost

column are really not book costs at all, but are computed figures, are they not?

A. They are book costs, and actual out of pocket expenses of the company.

Q. What do you mean by book costs? Don't you mean by book costs, the costs as shown by the books?

A. Just because an item does not appear by itself on the books, yet the over-all cost is on the books, it is still a book cost.

[fol. 3257] Q. Wouldn't it have been better if you had headed this column, Actual Cost, as computed by Mr. Steinberger?

A. And total out of pocket expense of the company, yes.

Q. Wouldn't it have been better if you had designated it as the actual cost, as computed by yourself, rather than as book cost?

A. Well, I don't know whether that is a misnomer or not, Mr. Fitzhugh, but it is the book cost and it is the out of pocket expense of the company.

Q. Well, you don't want to mislead the jury by making them think this amount shows in the exact figure as you have it here in this column, on the company's books, do you?

A. Mr. Fitzhugh, that item of $156,650.41 is just as much a book cost as One Foxborough Meter, No. A-40509, at a cost of $112.30, which is located on that particular line, and was an out of pocket cost to the company, but it does not appear on the primary records of the company, but is included in the material cost, under transmission system measuring station equipment.

Q. What was that amount?

A. $112.30.

Q. Well now, that exact figure would show on the books, would it not?

A. No, that figure does not show on the final investment records of the company; we merely have the total for transmission system measuring station equipment.

[fol. 3258] Q. But to clarify the thing for the jury's benefit, Mr. Steinberger, the books and records for Line Second B do not in any place show the amount of $156,650.41, that you have here, for the cost of excavation on that line?

A. That is correct. That amount of $156,650.41 does not appear by itself, but it is included in the over-all cost of construction.

Q. Now, turning to your second page. On this page you purport to show a comparison between Plaintiffs' Exhibit 6, and the actual book cost of transmission system property. The total for the various systems shown of $28,659,795.67 is the total that you took from Plaintiffs' Exhibit 6, is it not?

A. Yes.

Q. That is Mr. Freese's evaluation?

A. That is correct, and that is the same figure as appears on page 1, of Plaintiffs' Exhibit 6, under transmission system property.

Q. What is the comparable figure, to compare with this total, as taken from your evaluation, Exhibit 28?

A. $29,217,804.25. That figure was arrived at by taking the total shown on page 1 of Plaintiffs' Exhibit 6, under transmission system property, and on the second page, at the bottom of Defendant's Exhibit 47, of $28,659,795.67, and adding to that figure the difference in the excavation costs as used by Mr. Freese in his preparation of Plaintiffs' Exhibit 6, and the excavation cost as used in Defendant's [fol. 3259] Exhibit 28, which amount is $558,008.58. In other words, the evaluation as made by Mr. Freese is $558,008.58 less for excavation than is shown in Defendant's Exhibit 28, and adding that figure to the amount previously stated gives a total of $29,217,804.25.

Q. Now, how much lower is your evaluation, as shown by Exhibit 28, than the book cost figures you have shown on this page of $31,353,035.54?

A. $2,135,231.29.

Q. You are making that comparison with the direct structural costs as set forth in Defendants' Exhibit 28?

A. That is correct. That is based, however, by taking the reproduction cost new, as set forth in Defendant's Exhibit 28, as against some hypothetical cost as set forth in Plaintiffs' Exhibit 6.

Q. What was that last remark—read that back, will you please?

* * * * * * *

A. I mean, instead of cost, as set forth in the reproduction cost new report of Defendant's Exhibit 28, as against some hypothetical reproduction cost report, as set forth in Plaintiffs' Exhibit 6.

Q. Now, the difference between these costs as shown by your Exhibit, and as shown by Mr. Freese's exhibit, is $558,000.00 you say?

A. Approximately, yes. I believe that figure includes [fol. 3260] some of the Oklahoma lines. I do not have a complete segregation.

Q. In other words, there is a difference of about two per cent, as between the two appraisals?

A. So far as the physical property of the transmission system——

Q. Well, that is all we are talking about here on this page, is it not?

A. There is a difference of half a million dollars, which of course is included in the excavation cost.

Q. This column shown on this page is Mr. Freese's direct structural cost, isn't it, and you are comparing that with the direct structural costs as taken from Exhibit 28?

A. Well, it is the direct structural costs as set forth in Defendant's Exhibit 28, with Mr. Freese's adjusted excavation costs.

Q. They are comparable figures, aren't they, in every respect?

A. They are the same figures, except for the excavation costs.

Q. And the only difference between the two is only about two per cent, isn't it?

A. Two per cent of the total book cost, or two per cent of the difference?

Q. Two per cent of the book cost?

A. That is correct.

Q. Now, you say Mr. Freese's figure is about eight per cent less than the book cost; is that correct?

A. Yes.

Q. And yours would be about six per cent less, wouldn't it?

A. That is correct.

[fol. 3261] Q. In other words, this whole thing shows that there is not much relation between the book cost and the figuring out of a reproduction value for the same thing?

A. Well, the figures show that Mr. Fitzhugh, but the appraisal, or rather the figures as set forth in Defendant's Exhibit 28 are based 100 per cent on the reproduction cost new basis, whereas the figures used and arrived at in

Plaintiffs' Exhibit 6 in the report itself, is not a reproduction cost new report.

Q. Well, that is your opinion about it, isn't it?

A. Yes.

Q. And that is exactly contrary to what Mr. Freese testified to?

A. That may be true, but I have never seen a report of that kind, and I have seen plenty of reproduction cost new reports in my day.

Q. All right; now the two per cent difference between the costs found in your exhibit, or the company's Exhibit 28, and Mr. Freese's Exhibit 6, is more than made up by the allowance in Exhibit 28 for omissions and contingencies. Isn't that correct?

A. The difference of half a million dollars?

Q. Yes.

A. Total omissions and contingencies as used in Defendant's Exhibit 28, covering both Texas and Oklahoma properties——

Q. Well, wait now, just a minute, Mr. Steinberger. I am talking about the omissions and contingencies that would be included in the lines included in this book cost figure of a total of $31,000,000.00 plus.

* * * * * * *

[fol. 3262] A. The total amount of omissions and contingencies as included in Defendant's Exhibit 28, for the transmission system property, including all the property in Texas and Oklahoma, is $681,416.72.

Q. So that the difference would be explained simply in the item of omissions and contingencies, wouldn't it?

A. I don't see what the item of omissions and contingencies has got to do with that figure. That is another item of expense. You can not substitute one expense for another, Mr. Fitzhugh.

Q. Well, I will ask you the question in this way: If Mr. Freese had made the same allowance for omissions and contingencies that you made, he would have gotten a little higher figure than you did, wouldn't it?

A. Yes, but that hasn't anything to do with it.

Q. As a matter of fact, on some of these lines, he did get a little higher figure than you did, anyway?

A. That is correct. Those lines were built away back i 1909 and 1910, and prices were considerably lower, and s were the labor costs.

Q. That's all.

* * * * * * *

[fol. 3263] Redirect examination.

Questions by Mr. Griffith:

Q. Mr. Steinberger, sheet 1 of Defendant's Exhibit 47 i a reflection of a comparison of excavation costs with th actual costs, is it not?

A. That is correct.

Q. Now, if you put too much rock into a certain line, o estimated too much rock in any one of the six lines, or to much hand-earth excavation or too much machine excava tion, would that make any difference as to the over-all cost of excavation on that particular line?

A. It certain- would not, Mr. Griffith.

Q. Now, Mr. Steinberger, did I request you to prepar this exhibit?

A. You did not, Mr. Griffith.

Q. Didn't you suggest that a proper method of compar son would be to take some one-half dozen of the majo construction projects?

A. That is correct.

Q. And for which you had the actual performance re ords?

A. That was my suggestion.

Q. And covering the actual costs incurred by the Com pany?

A. Yes.

Q. And is that what you have set forth on page 1 Defendant's Exhibit 47?

A. That is just what I have set forth on Defendant Exhibit 47, and if I had used different lines, the differen [fol. 3264] would be about the same on the over-all excav tion.

Q. That's all.

Recross examination.

Questions by Mr. Fitzhugh:

Q. In other words, to sum it all up, Mr. Steinberger, y took a little study of about 250 miles of pipe, of all t

sizes of pipe and all trench sizes, where you were not actually able to segregate the laborers hours, for the various classes of excavation, and applied that to the whole system, consisting of 4,000 miles of pipe lines?

A. There is to be exact, 290.6 miles that I have included in this study, and I made an over-all study of 450 miles, which is slightly in excess of about twelve per cent of the total mileage in the system, and I do not know of a better cost basis than the actual experience of the company.

Q. But the figures that you have used were figured out from your study of the 290 miles; isn't that right—on all sizes of pipe?

A. In connection with Defendant's Exhibit 47. The reason that I used the six lines is because they covered all sizes of lines from three inch outside diameter of pipe to twenty inch outside diameter of pipe, and would be typical of the system as a whole system, and if I had used various lines, the difference would have been about the same. You will recall that Mr. Freese's costs that he gave on Line E-5 before the Railroad Commission hearing, were seventy per cent [fol. 3265] below the book costs, and I did not include that line in this study. On Line A-1-4, his costs were about 36 per cent below the book costs.

Q. And on the same line, Mr. Steinberger, how far were you below the book costs?

A. On E-5 I was 37 per cent below the book costs.

Q. Yes, and whatever you might have been below the book costs has got nothing in the world to do with your performance study, has it? You still only studied 290 miles of construction for the purposes of your first page in this exhibit?

A. I took six representative lines——

Q. Yes.

A. Amounting to 290.6 miles in length.

Q. Yes, sir.

A. And I used them for comparative purposes, because those lines are fairly representative of the lines in the system, covering from three inch outside diameter to twenty inch outside diameter.

* * * * * * *

[fol. 3266] R. L. THORNTON, a witness for the defendant, having been duly sworn, testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. What is your name?
A. R. L. Thornton.
Q. Where do you live?
A. Dallas, Texas.
Q. Are you connected with any banking institution in the City of Dallas?
A. Yes, sir.
Q. What banking institution?
A. Mercantile National Bank.
Q. Is that a rather sizable banking institution?
A. Medium sized bank.
Q. Having total assets of what amount, Mr. Thornton?
A. About twenty million.
Q. Mr. Thornton, how long have you been engaged in the banking business?
A. About seventeen years.
[fol. 3267] Q. Do you have a general familiarity with the yields commonly and currently expected, demanded and received by investors in securities?
A. I think I do, generally, yes, sir.
Q. In connection with your banking business, have you had occasion to buy and sell and be familiar with the yields on securities of several types?
A. Generally, yes, sir, many varied types.
Q. Do you have a general familiarity with the business of Lone Star Gas Company, the defendant in this case—that is, do you know that it is engaged in the production, transportation, and sale at wholesale of natural gas to some three hundred towns, cities, and communities in southern Oklahoma and in central, northern, and western Texas?
A. Yes, generally, I know those things.
Q. Mr. Thornton, have you had some experience in connection with the financing of natural gas enterprises?
A. We have had some in the smaller companies in that section of the country.
Q. In the general section—in the general southwestern territory?
A. Yes, sir, and some in Arkansas.

Q. And as the result of the financing of those enterprises, have you become familiar with the security markets, [fol. 3268] in a general way, relating to natural gas securities?

A. I would say, in a general way, yes.

Q. Based upon your knowledge and experience, Mr. Thornton, what net annual rate of return do you think would be necessary for Lone Star Gas Company, in order to attract a free flow of capital for investment in the enterprise, to enable it to raise the money necessary for the discharge of its public service obligations, to support and maintain its credit, and generally to insure the financial soundness of the enterprise?

Mr. Fitzhugh: Just a second. I would like to ask some questions before making an objection.

Mr. Griffith: Yes, sir.

Examination by Mr. Fitzhugh:

Q. Mr. Thornton, how many gas companies have you ever had anything to do with, so far as financing is concerned?

A. Three.

Q. All small companies?

A. They are smaller as compared to the Lone Star Gas Company, yes, sir.

Q. Yes, sir. What was the amount involved in the loan obtained by the largest one?

[fol. 3269] A. Well, we participated with Lamport & Company, of New York, in the underwriting of the Arkansas & Western Gas, and I believe that was about a million dollar underwriting; I can't remember exactly.

Q. Yes, sir.

A. The Pecos Valley Gas—we underwrote that ourselves and took all of the issue; that was, I believe, $450,000.00; and then we have bought into syndicates, but had nothing to do with the underwriting; and Northwest Texas Gas was a small company—we took all of that and underwrote it; and I forget what that amount was, but a smaller underwriting than the others—in bonds, I have reference to.

Q. You are familiar enough with banking projects throughout the State of Texas, and with the financing done

by gas companies—enough to know that no sizable financing for a gas property has even been given to the bankers of Texas—isn't that correct?

A. Well, I would say it was correct in so far as giving it to the bankers of Texas.

Q. Yes, sir.

A. I think the bankers of Texas interests have participated in other underwriting syndicates.

Q. Exactly; but the Lone Star Gas Company has never floated any of the loans for, say, as much as five or ten mil-
[fol. 3270] lion dollars, in a Texas bank, has it?

A. So far as I know, not.

Q They take all of that business to Pittsburgh and New York, do they not?

A. I don't know where they take it.

Q. Would you have any idea about the details and could you give any sort of an idea as to interest rates that would be required and the conditions of the market generally in the absorption of an issue of first mortgage bonds big enough to build and finance the building of a property claimed to be worth seventy-four millions of dollars—a gas property comparable to the Lone Star Gas Company?

A. I think I have a general idea of what the market would absorb on an issue of a sizable type, because, obviously, if it were a seventy-four million dollar property it wouldn't be a seventy-four million dollar bond issue.

Q. But you have never participated in any actual financing of a gas pipe line in an amount like that?

A. Not initially, but we bought a large issue of Associated Gas.

Q. Yes, sir. Well, the Associated Gas Company is in no way comparable, either in its operations or its location or its business, to the Lone Star Gas Company, is it?

[fol. 3271] A. I don't know whether it is or isn't.

Q. Don't you know what the Associated Gas Company is?

A. I know generally, but not specifically, because it is a good ways away from us.

Q. Is it an artificial gas company or a natural gas company?

A. I don't know.

Q. That would mean a world of difference, wouldn't it?

A. What would mean a world of difference?

Q. In the salability of bonds, whether a company is an artificial gas company or a natural gas company.

A. I think it would make a difference.

Q. You know, as a banker, don't you, that the artificial gas company bonds are considered among the very best of securities?

A. Well, they may be considered that. I wouldn't say that they were.

Q. That is a very conservative business.

A. I happened to know of some of them that had to go out of business, and the bonds were not very good at all. Artificial, I have reference to.

Q. Well, you know that the natural gas companies' bonds are not considered as good investment——

A. I wouldn't say they were not. As compared to artificial gas?

[fol. 3272] Q. Yes, sir.

A. No, sir, I wouldn't consider them so.

Q. All right.

* * * * * * *

Direct examination resumed.

By Mr. Griffith:

Q. Mr. Thornton, based upon your knowledge and ex-
[fol. 3273] perience, what minimum net annual rate of return do you think Lone Star Gas Company should receive?

A. On its property value?

Q. Yes, sir.

A. Well, I would say not less than eight per cent.

Q. Would that be an absolute minimum?

A. That would be a minimum after depreciation and depletion.

Q. A minimum after all proper depreciation and depletion charges?

A. Yes, sir.

Cross-examination.

Questions by Mr. Fitzhugh:

* * * * * * *

[fol. 3274] Q. Well, without going into detail, then, Mr. Thornton—isn't it a fact that your bank, just like all the

other banks in our country at the present time have a much stronger cash position than they have had in the last twenty years?

A. I think that is generally true.

Q. And there is more money available for loans now than there has been for years and years?

A. For certain types of loans.

Q. Yes, sir. Does the Lone Star Gas Company have any loan outstanding with your bank at the present time?

[fol. 3275] A. Yes, sir.

Q. Is that a short-time loan?

A. A current 90-day loan.

Q. Is it secured in any way?

A. No, sir, open.

Q. Just an open account?

A. An open loan—an unsecured note.

Q. Yes, sir; it is just evidenced by a promissory note, is it?

A. That is right.

Q. A demand note?

A. No, a ninety day note.

Q. Yes, sir. What rate of interest does this note bear?

A. I can't recall; four or four and one-half, but I wouldn't be positive either way, because I don't recall.

Q. Four or four and one-half?

A. Four or four and one-half, something like that.

Q. Yes, sir. What is the size of the loan?

A. $25,000.00.

Q. If I understand you correctly, you have loaned the Company $25,000.00 for ninety days, at either four or four and one-half per cent?

A. Correct.

[fol. 3276] Redirect examination.

Questions by Mr. Griffith:

Q. Mr. Thornton, would the current rate or the rate on a current loan, such as this 90-day loan that you speak of, be indicative to any extent of what the Company would have to pay in connection with permanent financing?

A. Not the slightest bearing.

Q. Not the slightest connection?

A. No, sir.

Recross examination.

Questions by Mr. Fitzhugh:

Q. Mr. Thornton, does the Company also have deposits in your bank?

A. I don't think the Lone Star Gas has a deposit with us. I think probably the Lone Star Gasoline Company does.

Q. Well, that is a branch of the Lone Star Gas Company, isn't it?

A. Yes, sir, some subsidiary of the corporation.

[fol. 3277] Q. There is no separation of companies, is there? It is just the Lone Star Gasoline Department of the Lone Star Gas Company.

A. Well, my understanding is it is the Lone Star Gasoline Company, some subsidiary of the corporation.

Q. Well, perhaps that is right.

A. Yes, sir.

* * * * * * *

Fred F. Florence, a witness for the defendant, having been duly sworn, testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. State your name, please?

A. Fred F. Florence.

Q. Where do you live, Mr. Florence?

A. Dallas, Texas.

[fol. 3278] Q. In what business are you engaged?

A. Banking business.

Q. Do you have a business connection with any banking institution in the City of Dallas?

A. Yes, sir.

Q. Do you have any official connection with that bank?

A. Yes, sir.

Q. What is the official connection, and what is the name of the banking institution with which you are identified?

A. I am President of the Republic National Bank and Trust Company of Dallas.

Q. Is that a sizable banking institution, Mr. Florence?

A. Well, it is the second largest financial institution in the Eleventh Federal Reserve District.

Q. And what is embraced and included in the Eleventh Federal Reserve District?

A. All of the State of Texas, part of Louisiana, and the southern part of Oklahoma, and part of Arkansas.

Q. Mr. Florence, how long have you been engaged in the banking business?

A. Approximately twenty-eight years.

Q. Are you generally familiar with the yields commonly and currently expected, demanded, and received by investors in the several classes or types of securities?

[fol. 3279] A. I think so.

Q. In connection with your banking activities, have you had occasion on behalf of the banking institutions with which you have been identified, to buy and sell securities in large amounts?

A. Yes, sir.

Q. Have you ever participlated in any natural gas financing?

A. Yes, sir.

Q. Are you able to recall the financing in which you did participate?

A. I have in mind now the Houston Gulf Gas Company.

Q. Will you speak out just a little louder, Mr. Florence?

A. The Houston Gulf.

Q. The Houston Gulf Gas Company?

A. At Houston, a natural gas company there.

Q. That is a natural gas pipe line company transporting gas from the Refugio County Field to the City of Houston, is it not?

A. Yes, sir.

Q. Do you have a general familiarity with the business of the Lone Star Gas Company, Mr. Florence—that is, do you know generally that the Company is engaged in the production, purchase, transportation, and sale at wholesale of natural gas to some 300 towns and cities in the southern [fol. 3280] part of Oklahoma and in northern, central and western Texas?

A. Yes, sir.

Q. I believe, Mr. Fitzhugh, in addition to being President of the Republic National Bank & Trust Company, you are also connected with the Dallas Clearing House, are you not?

A. Yes, sir.

Q. Do you occupy any official position with the Dallas Clearing House?

A. I am President of the Dallas Clearing House Association.

Q. What is the Dallas Clearing House Association?

A. It is the association of all of the banks of the City of Dallas.

Q. Mr. Florence, based upon your knowledge and experience, what net annual rate of return would be necessary for Lone Star Gas Company in connection with its public service business?

A. Will you state that question again, please, sir?

Q. Based upon your knowledge and experience in connec- [fol. 3281] tion with the yields on securities commonly accepted, demanded, and received by investors in securities, what net annual rate or return do you think Lone Star Gas Company should be entitled to receive?

A. You mean upon its property values?

Q. Yes, sir.

A. I should say a minimum of eight per cent upon its investment.

Q. And that would be a minimum net annual return?

A. Yes, sir.

Q. And would that be after all depreciation and depletion charges had been taken care of in connection with operating expenses?

A. Yes, sir.

Q. And do you believe that a minimum rate of eight per cent for net return would be necessary to insure the financial soundness of the Company and to support and maintain its credit?

A. And to protect its securities in the hands of its investors, I do, at least that, yes, sir.

Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Florence, your bank has in connection with it an [fol. 3282] investment department, does it not?

A. It had until recently; we have just recently discontinued the active operation of the investment department.

Q. But you are thoroughly familiar with the marketing of investment securities as it is done in Dallas?

A. Yes, sir.

Q. Did you bank, at the time the Lone Star Gas Corporation floated its issue of Debenture Fives, participate in the marketing of those securities?

A. Yes, sir.

Q. Did you have any trouble selling those bonds to the public?

A. At that particular time we did not.

[fol. 3283] Q. Now, those bonds were absolutely unsecured, were they not?

A. Well, they—except by the credit of the Lone Star Gas Corporation and certain indentures restricting their operations and activities upon a certain basis. There were a good many conditions to it. They were not secured as to any specific security, but the conditions and covenants in connection with the flotation were quite definitely worked out.

Q. You mean there were certain sinking fund provisions for the retirement of the loan, but there was not behind it a single dollar's worth of property for the bondholders to go back to in the case of default on the issue, was there?

A. It was predicated—I think that is correct; that is my recollection.

Q. Now, those bonds only had a five per cent coupon, didn't they?

A. That is correct.

Q. Don't you know, as a matter of fact, as a banker, Mr. Florence, that an investor, or rather a borrower of money, who is able to give good security for his borrowing, can always get a lower rate of interest?

A. That would not always follow.

Q. If I were to come to your bank and seek to make a loan, giving you only a promissory note, wouldn't I have [fol. 3284] more trouble getting that loan, and wouldn't I be likely to have to pay a higher rate of interest, than if I came with tangible security, say, a house and lot, or a bond, or some other sort of collateral to put up to cover my loan dollar for dollar?

A. That is not correct, for this reason: You can take the International Cement Company—their bonds are selling down to about 85 right now, but that corporation can go in to any bank in the country and borrow short-term money today at less than one per cent, although their bonds are selling at a discount.

Q. I am not talking about that. I am talking about the

relative difficulty that any borrower of money would experience at the same time as between in one instance having security for the loan he attempts to make, and in the other instance having no security.

A. You have reference to the same borrower in both cases?

Q. Yes, sir.

A. It would altogether depend upon many factors. There are times when they could borrow as cheap on a straight debenture, and yet varying conditions might make a change.

Q. As a general thing, as a banker, you know that you do not pass up an opportunity to get a little security for your loans?

[fol. 3285] A. We don't presume to make anything but good loans.

Q. I am talking about good practice, and the usual practice, and the ordinary practice—any banker tries to get a loan secured?

A. No, sir; we loan to many concerns on their open note. Of course, if we didn't think they would be good, we would ask for security.

Q. You don't mean that you would rather have an unsecured loan than a secured one?

A. I could name you dozens of firms that we would just as soon have their open notes—General Motors, for instance, and I could name you dozens of similarly situated concerns, where we would take their open note any time.

Q. What is the most your Company ever loaned to the Lone Star Gas Company?

A. I think as high as five hundred thousand dollars.

Q. I will ask you this question: In the making of that loan would you have rather have had an open promissory note unsecured for $500,000.00, or one wherein the Lone Star Gas Company pledged in a deed of trust a first mortgage upon some, say, two million dollars worth of its property?

A. Well, I will tell you what we did have; and that is probably the best answer.

Q. All right.

A. We would not have loaned the Lone Star Gas Com-

[fol. 3286] pany five hundred thousand dollars on a mortgage, but we loaned it that money as a temporary loan for current operative purposes, with the definite understand-

ing that it would be paid in January or February, when their receipts came in. We would not have made that loan under any other conditions.

Q. Your bank was simply dealing in short-time paper, and not trying to do any financing for the Company?

A. That is correct.

Q. But suppose you had been undertaking a loan of some size, say in the amount of five hundred thousand dollars, that was to run for sometime, would you have just as soon as accepted the Lone Star Gas Company's promissory note unsecured, or would you have insisted upon some sort of tangible security?

A. As a general thing, in banking, a secured obligation is more desirable than an open obligation; but there are many exceptions to that rule.

Q. Exactly. Now, if you were able to sell the Lone Star Gas Corporation's debenture five's, unsecured as they were, wouldn't you have had an easier time in selling a first mortgage bond of the Lone Star Gas Corporation, assuming that there was seventy-four million dollars worth of property behind the issue, and that the issue of first mortgage bonds only amounted to thirty million dollars, or less than half the total assets, if those bonds had borne five per cent coupons, or the same as the debenture issue? [fol. 3287] A. Well, at that particular time there was a market situation involved in it, and that was a frenzied speculative market on the part of the public, where they were buying any sort of security, and not going into the full details and operation records of the Company as carefully as today; and, as a result, there was lots of financing went on at that time that should not be considered a criterion of what financing—sound financing is today. At the time that financing was done, it was considered to be sound; but frankly, today, that would be considered very unsound from a financial investment point of view.

Q. Have you sold any of the bonds of gas companies that have been lately sold?

A. None that I have sold recently, no.

Q. There has not been any financing in gas companies, has there?

A. Not of any consequence.

Q. So there is not any way to judge what would have been done in the case of gas companies at the present time?

A. Well, I think those experienced would have a pretty good idea as to about what would have been done.

Q. Have you participated directly in any financing of gas companies in this section of the country?

A. As I stated we had been interested in some of the syndicates and took some of the bonds of those I mentioned.

[fol. 3288] Q. Have you taken any bonds other than those?

A. From time to time we have taken what we call banking syndicate participations in reasonable amounts, but not large amounts. We have never been very strong on gas securities.

Q. How big is the Houston Gas Pipe Line Company?

A. I have not been in touch with it recently, and I could not tell you.

Q. What kind of security was behind the bonds in that issue?

A. They issued about every kind of conceivable security at one time or another, straight bonds, closed first mortgage bonds, and others. I think we were interested in the closed first mortgage bonds.

Q. The closed first mortgage bonds?

A. Yes, sir.

Q. It was a junior issue to several others, was it not?

A. No; it was a six per cent closed first mortgage issue that we were interested in.

Q. Of what maturity?

A. I don't recall.

Q. You are not able to say whether there had been prior issues?

A. This particular issue, my recollection is that it was a first mortgage bond issue. Probably they were allowed to issue more later.

[fol. 3289] Q. So this issue was not a closed issue?

A. Well, as I said, I would not want at this time to testify as to the exact facts concerning that issue, as it has been a number of years ago, and I would not want to say now just what it was; that is just my recollection. I would not say positively as to any of the details pertaining to that or any other issue.

Q. You know that it makes a world of difference whether a mortgage is a closed mortgage on specific property, or an

open mortgage that can be extended by additional issues that can be marketed from time to time?

A. There is a difference, but whether it affects it favorably or unfavorably would depend upon the particular situation.

Q. All of the sales ever made in Dallas, whether by your company, or any other company, are simply trades made over the counter in the various investment banking departments, are they not?

Q. How do you mean?

Q. There is no exchange in Dallas, is there?

A. No, sir.

Q. When you buy bonds you simply buy from some issuer of securities or perhaps some investment banking house, and then sell them off your shelves, just like a grocer sells off sacks of flour?

A. That is the general way we used to do, but not any more.

[fol. 3290] Q. There are no sales made over an exchange in Texas anywhere, is there?

A. I think that is correct.

Q. Are you familiar with Fitch's Manual?

A. Yes, sir.

Q. That is a manual that records the actual sales made on the New York Stock Exchange or on the New York Curb, is it not?

A. I think that is correct.

Q. It does not record any of the sales made as over the counter sales in New York, Chicago, Boston, Pittsburg, of other cities of the United States?

A. I doubt if I would be qualified to state what Fitch's Manual contains.

Q. It does record the actual sales on the Exchange, though?

A. That is my general understanding.

Q. Since it is based on that, it could not include over the counter sales?

A. I am not sufficiently familiar with Fitch's Manual to testify intelligently on it.

Q. Maybe you can tell me this: Aren't at least ninety-five per cent of the actual sales of bonds and securities,

which would include all of the unlisted securities, made by over the counter sales, rather than sales actually made on the exchange?

[fol. 3291] A. Well, as to sales made on bonds listed on the Exchange, they are largely based upon prices prevailing on the Exchange; and those not listed on the New York Exchange are more or less sales over the counter. That applies as a general rule, subject to exceptions, of course.

Q. And the unlisted, are none of them sold through the Exchange?

A. No. sir.

Q. But are all sold over the counter; isn't that correct?

A. Generally speaking.

Q. And the unlisted bonds very greatly out-number the listed bonds both in the amount of issues and the number of issues; isn't that correct?

A. Well, if you are talking about the bonds, whether they are listed on the New York or other bond exchanges, as compared with all other bonds not listed on any exchanges, or course, there are more not listed than listed, taking the country as a whole; that is, in numbers; but not necessarily in amounts.

Q. That being true, Mr. Florence, a study of simply the sales of listed securities—that small class of bonds actually listed on the exchanges—would not serve to show the general market condition, would it?

A. Well, it would be, in my opinion, the truest index as to market condition. It is not the smallest group; upon [fol. 3292] the New York Exchange are listed the largest bond issues in this country.

Q. Well, anybody can list bonds?

A. But they cannot control the price of them.

Q. All you have to do to list a bond is to furnish the Exchange officials the data that will satisfy their requirements?

A. There is a good deal more to it under this Federal Securities Act right now.

Q. And pay your fees?

A. Yes, sir.

Q. And what else?

A. All sorts of reports are required by the Federal Government as to the listing of any securities on the Exchange.

Q. That is the only difference between the listed and unlisted—fulfilling of requirements of the exchange, and payment of the fees?

A. I don't think that would be a fair statement to make as to exchanges, because I think exchanges perform a necessary function in industry, and they impose a great many conditions upon corporations as to supplying information concerning their affairs, that unlisted securities do not have to give at all.

Q. Does the Company have any loans with your bank at the present time?

[fol. 3293] A. I think they have a small loan at this time.

Q. What is the rate of interest charged?

A. I think they have a loan of fifty thousand dollars—current loan; and according to my recollection of the rate, it was five per cent, and we later reduced it to four or four and a half per cent—I am not sure about the rate. Of course, that is purely a current and temporary loan.

Q. You agree, do you not, that the banks of the country, generally, are maintaining a much stronger cash position then they formerly had?

A. Yes, sir.

Q. And that would reach as far back as a twenty-year period, would it not—that is the liquidity of the banks as compared with the twenty-year period previous would show a greater amount of cash and liquid securities on hand than ever before?

A. I should think so, yes, sir.

Q. About what are the assets of your bank?

A. Something in excess of seventy million dollars.

Q. You are about the biggest bank in this part of the country, are you not?

A. As I said, the second largest, according to the figures of the Eleventh Federal Reserve District.

Q. Notwithstanding the fact that you are one of the [fol. 3294] largest banks in Texas, you have never been allowed to participate in the financing of any of the gas companies connected with the Lone Star Gas Corporation, have you?

A. Our participation in those securities has been to take care of the demands we had from our customers for the securities. We have never been very favorably inclined

to those types of securities, because we consider them quite speculative.

Mr. Fitzhugh: That is all.

Redirect examination.

Questions by Mr. Griffith:

Q. Would the rate on current loans be indicative at all of the coupon rate or yield in connection with securities issued for permanent financing?

A. It would not. As I just mentioned, in the case of the International Cement Company, whose 5 per cent bonds are selling at 80 cents on the dollar, yet they can borrow money at three-quarters of one per cent.

Q. That would be on a short loan?

A. Three or six months loan.

Q. You stated that natural gas securities were considered speculative?

A. Yes, sir.

[fol. 3295] Q. I will ask you if bankers and investors generally regard the natural gas business as a hazardous business, Mr. Florence?

A. I so regard it; and I think it is so regarded by conservative bankers as being fairly speculative and hazardous. It has proven that way over a period of time.

[fol. 3296] Cross-examination.

Questions by Mr. Fitzhugh:

Q. In making your answer as to the rate of return you think this company would have to have, have you been informed as to the gas reserves the company has?

* * * * * * *

A. Well, I have taken that in the light of my experience over a long number of years as a practical thing. As a matter of fact, I do not believe this company, even if they had an authorized return fixed by the State of Texas, that it could float any sizable bunch of securities at this time at any rate of interest up to that amount.

Q. Well, now, answer my question, if you don't mind. Do you know what the gas reserves of the company are at the present time?

A. Of the Lone Star Gas Company?

Q. Yes.

A. I could not answer that question.

Q. Do you know what the estimated life of the gas reserves is?

A. I could not answer that.

Q. Do you know what the earnings of the company were last year?

A. Well, I have seen, of course, the figures, and I see them almost daily in our bank, as to the reserves and the estimated life of their gas and the exact dollars of their earnings and everything like that, but, doing business with so many companies, I don't remember them exactly. We [fol. 3297] have in our bank a complete report, but I don't remember the figures, nor those technical questions. For the purpose we had at the time they were satisfactory to the Credit Department.

Q. Do you know what the value of this company's properties are—or is?

A. Well, it is reputed to be considerably up in the millions of dollars.

Q. Yes, sir. Do you know the exact amount?

A. Well, I have heard all sorts of figures talked about.

Q. Well, when you say what rate of interest this company would require for the floating of any loan you have to take into consideration its financial condition?

A. Oh, indeed so.

Q. Well, now, what do you consider the assets of this concern to be?

A. Well, on paper they are one thing and what I would make loans on would be another, but they are supposed—I have heard the figure mentioned since I have been here, somebody sitting out there a while ago, seventy million dollars.

Q. Did you make your calculations assuming that to be the true value of the property?

A. Well, I don't have the figures in my mind, but it happens our bank has a number of loans on stock of the Lone Star Gas Corporation, and we have from time to time been concerned about it and we have made a study of it and of [fol. 3298] the net result of it, but I don't attempt to carry those figures in my mind; but, based on the information I have available, the statements I have made would govern.

Q. You mean that stock of the Lone Star Gas Company has been deposited in your bank for loans?

A. In reasonable amounts from time to time. It is worth about five dollars a share—that is, of the Lone Star Gas Corporation, not the Lone Star Gas Company.

Q. I see.

A. No, we have never had any Lone Star Gas Company stock.

Q. Do you know what the operating expenses of the company were for the year 1933?

A. I would not want to attempt to testify as to any specific figure.

Q. Do you know what the amount available for return after allowance for operating expenses and depreciation was before payment of Federal income tax?

A. Well, I dare say that I could not give you that information concerning a specific company unless I had it currently and had just gone over it. We have not had under consideration recently any question involving that particular information—having that particular information available; in other words, I have not been devoting any time to the Lone Star Gas Company whatever in our bank.

* * * * * * *

[fol. 3299] R. L. THORNTON, recalled by defendant, testified further as follows:

Direct examination.

Questions by Mr. Griffith:

Q. You are the same R. L. Thornton who just previously testified in this case?

A. Yes, sir.

Q. I forgot to ask you, Mr. Thornton, your official connection with the Mercantile Bank of Dallas.

A. President.

Q. How long have you been President of the bank—ever since its organization?

* * * * * * *

Mr. Griffith: Now we want to call Mr. A. P. Holloway.

A. P. Holloway, a witness for defendant, having been duly sworn, testified as follows:

[fol. 3300] Direct examination.

Questions by Mr. Griffith:

Q. Your name is A. P. Holloway?
A. Right.
Q. Where do you live, Mr. Holloway?
A. Dallas, Texas.
Q. In what business are you engaged?
A. Steel business.
Q. With what steel concern are you identified?
A. Jones & Laughlin Steel Corporation, headquarters Pittsburgh, Pennsylvania.
Q. Is that one of the major steel corporations of the United States?
A. It is.
Q. It is one of the larger manufacturers of plain end steel pipe and threaded and coupled steel pipe?
A. It is.
Q. How long have you been in the steel business?
A. Since the fall of 1907.
Q. In other words, over a period of twenty-seven years?
A. Correct.
Q. What is your official connection with the Jones & Laughlin Steel Corporation?
A. District Sales Manager.
Q. As District Sales Manager of Jones & Laughlin Steel Corporation, what is the scope of your activities and the gen-
[fol. 3301] eral scope of your duties?
A. Sales work, sales promotion work, field work, in Texas, Oklahoma and New Mexico.
Q. In other words, then, as District Sales Manager of Jones & Laughlin Steel Corporation your territorial jurisdiction extends over the State of Texas, the State of Oklahoma, and the State of New Mexico?
A. Right.
Q. Are you familiar with the current prices of steel pipe, of both plain and and threaded and coupled pipe?
A. I am.
Q. Prior to the time that you came on the stand were you handed by some representative of the Lone Star Gas Com-

pany a copy of an exhibit which has been introduced in evidence here and styled Defendant's Exhibit 33 and showing on the title cover "Lone Star Gas Company—Pipe Prices—Large Lots"?

A. I was.

Q. Do you have a copy of that exhibit with you?

A. I do not.

Q. Well, will you take this copy, Mr. Holloway, and examine it?

A. This is the copy that I examined.

Q. This is the copy that you examined. Have you checked the large lot prices on steel pipe as set forth in Defendant's Exhibit 33 to determine whether those were the large lot prices which were current as of June 11, 1934, and current as of this date, to-wit: July 11, 1934?

[fol. 3302] A. I have.

Q. Are the prices as set forth in Defendant's Exhibit 33 the correct prices for large lot deliveries and sales of plain end steel pipe and threaded and coupled pipe as of June 11, 1934, and continuously down to the date that you are now testifying?

A. They are.

* * * * * * *

[fol. 3303] Q. Mr. Holloway, I will ask you this question: Are the prices for the purchase of large lots of pipe as set forth in Defendant's Exhibit 33 the absolute, rock-bottom prices and to which no price discounts are applicable?

A. They are.

Q. If the Lone Star Gas Company were today in the market for extremely large quantities of pipe could any discount be obtained below the quoted prices for steel pipe in large lots as set forth in Defendant's Exhibit 33?

A. They would not, and unless the tonnage which you speak of were for a specific project this price basis would [fol. 3304] not apply and higher prices would apply.

* * * * * * *

Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Holloway, what is the price today of plain end 18-inch 53.223 pounds per foot pipe? Wait a minute. Can't you answer without checking up?

A. No, sir, absolutely, I could not. I have checked those figures.

Q. How?

A. Checked them by my schedules and various other methods of computation.

Q. Have you your schedule with you?

A. No, sir.

Q. When did you check those?

A. Last night until three o'clock this morning.

[fol. 3305] Q. Do you mean to say that you went through every pipe price in that exhibit in that time?

A. I checked it and found the basis for figuring correct.

Q. But you didn't check the prices, did you?

A. Absolutely checked prices.

Q. Each price?

A. I went over it and used the basis, and from there on it is mechanical.

Q. Mr. Holloway, don't you know it would take about three weeks to check each price in that book?

A. It would not.

Q. Has the Lone Star Gas Company ever bought any steel pipe from you?

A. Yes, sir.

Q. In very small quantities?

A. In very small and very large quantities.

Q. What is the largest amount they bought from you?

A. I could not say.

Q. Do you mean that they bought from you through your department or from the Jones & Laughlin Steel Corporation at Pittsburgh, which?—did they buy from you or from Pittsburgh?

A. Through the general office in Pittsburgh.

Q. So you didn't handle the transaction at all?

A. Not through my office.

Q. You don't know what discount they got on the purchase?

A. If they were purchased during the period expressed in [fol. 3306] this report here, they got those prices and no other.

* * * * * * *

Q. Well, can you refer to an actual purchase of pipe made by the company for a major pipe line job during the year 1932 or the year 1933?

A. No, sir.

Q. Can you back of that time?

A. No.

Q. You can't give any actual purchase?

A. No.

Q. Now without knowing the actual purchases, how would you know what discounts have been?

A. Discounts would be in line with the discounts at that time.

Q. Well, you mean if discounts were applied in connection with the quoted discounts?

A. They would be applied.

* * * * * * *

A. They would be applied.

[fol. 3307] Q. Mr. Holloway, don't you know that your company, whenever it sells pipe to any of the Lone Star Gas Companies, the Lone Star Gas Company or the affiliated companies which are the underlying companies of the Lone Star Gas Corporation, as well as when your company sells pipe that goes into the Columbia Gas & Electric system, that you deal directly with Mr. Simpson?

A. That is my understanding; I am in the district office.

Q. Now, you don't have anything to do with those transactions, do you?

A. No.

Q. Do you know Mr. Simpson?

A. Not personally.

Q. Have you ever seen him?

A. If I have seen him it was many years ago.

Q. Can you give an instance of an actual purchase of pipe at any time from your company, where the Lone Star Gas Company actually paid your company the quoted price?

A. I can not.

Q. Where is the main office of your company?

A. Pittsburgh, Pennsylvania.

Q. Where is your main plant?

A. We have two plants, one at Pittsburgh and one at Aliquippa, about twenty-five miles down the Ohio River from Pittsburgh.

Q. Now, Mr. Holloway, a letter has been written by engineers for the Commission, to try to find out the discounts that apply on pipe. Assuming that the information ob-

tained reads as follows, I wish you would answer if this [fol. 3308] information is substantially correct; the letter reads as follows:

"Referring to your telegram received in Bethlehem in regard to discounts on pipe, I called at your office several times since returning to tell you but found out that you would not be back for several weeks and that you may need this information now. I found out that the discount is the same to all carload buyers on pipe. However, any pipe mill can lower their prices in a specific quotation for an identified project and then file the new price and maintain that price for the balance of the current quarter in which the price was quoted. Thus, if Mr. Simpson wishes to buy 6,000 tons of pipe, the chances are very likely that any one of the mills would give him a special price and then apply that price for the balance of the quarter. This information is secured from two pipe mills. The information received at Washington was that the prices would all be the same, regardless."

And there are then some parts of the letter referring to the Code, and which have been ruled out in this case. Now, I will ask you if the part that is read substantially states the facts?

A. You are referring to operations under the Code, are you?

Q. I am talking about the present prices that would apply, and the discounts.

A. Which is under Code regulations. Any member of the Code may file a new price, and the price to become ef- [fol. 3309] fective ten days after the date of filing.

Q. Then that price would be maintained for the rest of the quarter as to that company, wouldn't it?

A. Up to June 11th that is not true, because the price might have been advanced on June 11th, or June 30th, rather; the Code was amended effective on May 30th——

The Court: Let's stay out of the Code, gentlemen, and talk about prices as they exist.

A. It was amended effective June 11th, and in that particular amendment the prices were filed for the quarter.

Q. So that if a purchase of pipe were made as of today for an identified project, in an amount, or in a considerable

amount, as detailed in this letter, the chances would be likely that one of the mills would give a special price to the purchaser or would change their quoted price and allow the prices to remain in that way for the balance of the quarter?

A. No, I would not answer your question Yes in that way——

Q. Well, do you know?

A. The chances are not likely that would occur. There is a possibility but it is not likely; it is not a probability.

Q. Within the last few days, and to be specific: within the last week, haven't the prices on steel gone down?

A. In certain instances.

Q. Well, steel prices in general have gone down within the last week, have they not?

A. No, sir.

Q. In what instances have they gone down?

[fol. 3310] A. On bars, plates and shapes.

Q. That is reinforcing bars?

A. Well, merchant bars or reinforcing bars, and structural steel.

Q. How about the prices on steel pipe?

A. No change.

Q. Now about all you are able to say, just to sum up this exhibit here—what's the number of that?

A. No. 33.

Q. Just to sum that up, all you are able to say about Exhibit 33 is that there have been copied off of the price sheets the quoted prices, correctly, and incorporated into that exhibit?

A. I have analyzed this report and found the basis of calculation is correct.

Q. All right; that's all.

Mr. Griffith: Mr. Holloway, I will ask you if the pipe prices shown in Defendant's Exhibit 33 for large lot purchases apply to every other purchaser as well as Lone Star Gas Co?

A. That is correct.

Mr. Griffith: In other words, that is the rock bottom price for large lot purchases for every buyer?

A. That's right.

* * * * * * *

[fol. 3311] Mr. Griffith: Mr. Ed. C. Connor is recalled as a witness on rebuttal.

Ed. C. Connor, having been recalled as a witness for Defendant, testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. Mr. Connor, there has been some testimony here presented by witnesses for the State, or a witness for the State and the Railroad Commission to the effect that the business of the Lone Star Gas Company was quickly developed. Have you prepared any compilation showing the rate of development of the business of the company on major transportation lines?

A. I have.

Q. Will you produce it, please? (Witness produces copies of exhibit). Is this the compilation to which you refer?

A. It is.

Q. Being styled on the title cover, "Lone Star Gas Company. Historical Rate of Business Development, Major Transportation Lines"?

A. That is correct.

[fol. 3312] Mr. Griffith: We offer in evidence the compilation so identified by the witness. Are there any objections by counsel for the State?

(Thereupon the document above referred to was marked as Defendant's Exhibit 48.)

Q. Mr. Connor, in Defendant's Exhibit 48 have you shown a history of Line K, Line O to Lisbon, Texas, and Line L and L System, and Line E from Gainesville to Paris?

A. That is correct. The designation of the Line O to Lisbon refers to the section of Line O lying east of Lisbon.

. . . . . .

Q. Refer, please to the first page of Defendant's Exhibit 48. What have you shown in connection with the history of Line K?

A. I show the total deliveries by years in M. C. F. of gas transported through Line K.

Q. Commencing in the year 1920 and coming through the year 1931?

A. That is right.

[fol. 3313] Q. Why did you not carry it through the year 1933, Mr. Connor?

A. There would have been no substantial difference in the deliveries through Line K subsequent to the year 1931.

Q. In other words, by reference to the years 1927, 1928, 1929, 1930, and '31, as shown on this page, were the deliveries nearly the same for each of those years?

A. That is correct. Line O and Line K carry what is usually termed the base load of Lone Star Gas Company's system and their deliveries are more or less uniform from year to year.

Q. Now, it is noted that the deliveries through Line K were at their peak in the year 1925, and that the deliveries through the Line fell off in the next year. To what was that attributable?

A. The completion and placing in operation of Line O, which is an eighteen inch line parallel to Line K, which relieved Line O of the responsibility of carrying the entire deliveries of gas of the major transportation line.

Q. Don't you mean that Line O relieved Line K?

A. Line K, yes, that is what I intended to say.

Q. Now, commencing with the actual historical deliveries of gas through that Line, what does this first page indicate?

A. It indicates that Line K went through a period of very slow development with reference to the gas transported through it, beginning in the year 1920 and ending——

Q. Was that the year the Line was constructed?

[fol. 3314] A. That is correct; and ending during the year 1924.

Q. In other words, the business or the gas deliveries through that Line were not built up until a period of four years had elapsed from the date of the original construction?

A. Five years.

Q. Five years?

A. Yes, sir.

Q. Now, what is meant by KA delivery as shown in the second column of page 1 of Defendant's Exhibit 48?

A. Line K is the line which runs from the central West Texas area through Joshua Junction. In 1920 the Line extended only through Lipan. Deliveries at that time were wholly from production in the Mineral Wells district

through Line KA, and deliveries have been made into Line K from KA from that date. The line was subsequently extended, and deliveries were then made at Gordon, as well as at KA, and the division between the deliveries at KA and at Gordon merely indicates the points at which the gas was delivered into the Line K.

Q. Refer to the second page in Defendant's Exhibit 48, and also to the third page, Mr. Connor. What do you show on those pages?

A. I have shown the dates at which various towns on Line O east of Lisbon were attached,—in the first column indicating the town, in the second column the date at which [fol. 3315] the particular town was attached. The subsequent columns indicate the domestic and unaccounted for gas recorded in each town attached, by years. The consummation of those totals of sales is shown on page 3, and is expressed as a per cent of the maximum year, which was the year 1932.

Q. I did not get your answer, Mr. Connor.

A. I said that on page 3 there is shown a consummation of the domestic and unaccounted for sales in the individual towns, by years, together with the percentage indication of the ratio of the sales for each year to the sales of the maximum year, which occurred in the year 1932.

Q. Now, when was Line O constructed, or rather this portion of Line O?

A. It was put into operation in 1926.

Q. And for the first year what was the per cent of the total developed business which the line acquired?

A. 5.81.

Q. That was for the year 1926?

A. That is correct.

Q. In 1927 what percentage of the total business had the Line acquired?

A. 42.66 per cent.

Q. In 1928, what per cent?

A. 72.57 per cent.

Q. And giving the percentages for the several consecutive years following.

[fol. 3316] A. 1929, 86.91; 1930, 93.03; 1931, 94.42; 1932, 100 per cent.

Q. Now, what does that historical study indicate, Mr. Connor?

A. That historical study indicates the cumulative effect

of the rate of attachment of towns, the rate of attachment of customers, and the normal increase in consumer use, as reflected by the deliveries of a major transportation line.

Q. And your study extended over a six year period, did it not?

A. That is correct.

Q. Or rather, to be more exact, it includes seven years?

A. That is right,—including part of the year 1926.

Q. Refer next to the page styled, "Historical Idle Plant, L System, Annual Domestic Sales, Thousands of Cubic Feet", and to the page immediately following on which the L System is continued. What do you indicate on those pages?

A. I indicate the summation of that portion of the deliveries on the portion of the L System extending from Joshua Junction to the City of Waco, from the time that that portion of the Line L was constructed in 1920 through the year 1932. Now, in the preparation of this tabulation a slightly different method was pursued than that which was used in the preceding tabulation. The maximum year was determined by the maximum sales in each individual town on the System, without respect to the particular year in which the maximum sales of the individual towns occurred; and the *con*summation of the maximum sales in each individual town is shown to be 2,048,691,000 cubic feet. Of course, it would not be probable that there would be a coincidence of [fol. 3317] the maximum sales in any group of towns in any one year; therefore there would never have been a 100 per cent saturation on Line L, using that method as a basis; however, the percentage of the use of the Line, assuming 100 per cent to be when each town during the same year used its maximum amount of gas, is shown on the fifth page of the Exhibit.

[fol. 3318] Q. Mr. Connor, on the fifth page of the exhibit, where you show a total for the L System, do you show the rate of growth and attachment of the business as far as domestic sales were concerned for the entire L System by calendar years?

A. No; I dont. That portion of the line which is included in this study is the line from Joshua Junction to Waco, Texas.

Q. It is not the entire L System?

A. No; that would require a disintegration of the system into the individual branches, and a study of the individual

branches. This portion of the L System that I have included is common to all of the deliveries taken into the L System.

Q. What per cents do you show for the respective years for the total of maximum sales to each town served?

A. 3.7, 23.7, 27.7, 31.6, 35.2, 40.1, 43.5, 45.5, 65.02, 87.85, 95.08, 91.08, and 91.13.

Q. Now, that covers the years 1920 to 1932 in order, does it not?

A. That is correct.

Q. As you have stated the percentages?

A. That is correct; and the exhibit should be further explained by the fact that prior to the year 1927 the actual domestic sales of the City of Waco were not available.

Q. And you made an estimate of the volume of sales for [fol. 3319] the City of Waco for the calendar years 1920 to 1926, inclusive?

A. That is correct; and the method by which the estimate was made was extremely conservative, for the reason that we took the rate of growth in Waco for 1926 forward and projected it backward upon the same rate of growth. The rate of growth of such a city as Waco will slow up after gas has been introduced for a number of years.

Q. Will you refer, please, to the last page in the exhibit showing Line E from Gainesville to Paris, Texas. Now, in the first column have you set forth the towns that are served off Line E from Gainesville, Texas, to Paris, Texas?

A. I have.

Q. What does the second column headed "Date" indicate?

A. That indicates the year in which the particular sales —domestic sales, as indicated, were made.

Q. Does it indicate the date on which the sales of domestic gas were started in these various towns?

A. That is correct. In so far as the year 1925 is concerned, that is the first gas that was passed through the line. Each succeeding year indicates the attachment of certain towns, and the amount of gas which was sold for domestic purposes or unaccounted for in the individual distribution systems.

[fol. 3320] Q. You show a tabulation of the rate of growth and attachment of business, commencing with the year 1925, and ending with the year 1932?

A. That is correct. The study shows, however, that the maximum consumption was reached in the year 1930.

Q. That was a period——

A. That was a period of six years after deliveries were begun.

Q. In other words, it was not until the end of the sixth year that you had a complete saturation?

A. Five and a small portion of a year.

* * * * * * *

Q. Mr. Connor, have you examined Plaintiff's Exhibit 6, same purporting to be a reproduction cost new appraisal as of June 15, 1934, covering the Texas Gathering, Transmission, Compressing, and General Property of Lone Star Gas Company?

A. I have, yes, sir.

[fol. 3321] Q. In that exhibit, in connection with the determination of Taxes and Interest during Construction, do you understand that Mr. Freese adopted and applied any wholesale construction period?

* * * * * * *

[fol. 3322] Q. In his computation of Taxes During Construction, did Mr. Freese adopt a wholesale construction period, as reflected by his exhibit 6?

A. He did not.

Q. Mr. Connor, in connection with Defendant's Exhibit 28 did you adopt a definite wholesale construction period of time within which the property of the Company would be reconstructed or reproduced?

A. I did.

Q. Now, I am asking you, Mr. Connor, as an engineer, if a reproduction cost new appraisal necessarily presupposes the adoption of a fixed and definite wholesale construction period.

A. It is my opinion that that would be necessary in connection with making a reproduction cost estimate.

Q. And other than in the appraisal prepared by Mr. Freese or his firm, have you ever seen any reproduction cost appraisal which does not assume a fixed and definite wholesale construction period or time within which the property would be built?

[fol. 3323] A. I have not.

Q. What is the effect upon the computation of Taxes and Interest During Construction by failing to adopt a fixed

and definite period of time within which the property would be built?

A. It materially reduces the item of Interest During Construction, and practically eliminates the item of Taxes During Construction.

Q. Can you give an example—a simple example which will illustrate that point?

A. Yes. Take a property such as the distribution system of the Austin Gas Company.

The Court: What?

A. The Austin Gas Company. Property of that kind is built up historically by small increments, the amounts of which depend upon the current demand of customers for main extension and services. Those small increments can be built and completed within a very short period of time from the construction standpoint, and the amount of time involved in each increment which goes to make up the whole property would be such as to reduce the amount of interest on the property during construction to practically nothing, and to eliminate taxes during construction altogether. For instance, let us assume there are ten thousand services in the City of Austin—and by service I mean that portion of [fol. 3324] the main distribution system which takes the gas from the main pipe in the street to the customer's meter. Now, those services can be constructed in about half a day, or an hour each, and that is the way they are built historically; and so for the ten thousand services which would be required to deliver gas to the consumers in Austin, the construction period by the piecemeal method would be three or four hours. Now, on the wholesale reproduction program contemplating the reproduction of the property as a whole such a situation could not properly apply.

Q. Now, the illustration that you used for historical building up of the gas distribution system here at Austin might it be compared in a small way with a ten-story brick building, building it a brick at a time?

A. The analogy is somewhat comparable, yes.

Q. If Mr. Freese had adopted a wholesale construction period of two or three years for the reproduction of the property, what would have been the effect upon his allowance or estimate for Taxes or Interest During Construction?

A. They would have been materially increased, I believe, following his own method of computation.

Q. You have examined Plaintiffs' Exhibit 6, have you not, being Mr. Freese's appraisal?

A. Yes; I have.

[fol. 3325] Q. Have you noticed that the General Overhead and Undistributed Costs estimated by Mr. Freese, and determined and set forth in that exhibit, amount to approximately ten per cent of the Direct Structural Costs of the physical property?

A. That is correct; they do.

Q. In your judgment as an engineer, Mr. Connor, on wholesale construction would an allowance of approximately ten per cent for general overhead and undistributed costs be ample?

A. It would not; it would be utterly inadequate.

Q. Mr. Connor, is there any difference between historical Overhead socalled on costs built up by piecemeal construction, and Overhead Costs on wholesale construction, particularly where the piecemeal construction has been carried on by an organization which devotes part of its time to construction and the remainder to operation?

A. There is a substantial difference.

Q. What is that difference?

A. The difference is that the Overheads, if properly allocated, in the case of a property which has been built up over a long period of time, in connection with an operation of the property by a trained personnel, would result in Overhead charges substantially less than those which would be necessarily incurred in the reproduction of the property on a wholesale basis. The illustration which I gave in con-

[fol. 3326] nection with Interest and Taxes During Construction, relative to the piecemeal construction of the Austin Gas Company's property, would be equally applicable to the Legal, Administrative, and Other General Expenses, because the Austin Gas Company could extend a main one hundred feet today, and another main a hundred feet tomorrow, with no modification of its operating personnel, and the operating personnel could carry on that work along with their responsibilities; and such could not be the case if the property would be reproduced as of a given date.

* * * * * * *

[fol. 3327] Q. If a witness for the State has testified in this case, Mr. Connor, that his allowances for general and undistributed costs were determined in some measure by the actual general and undistributed costs capitalized on the books of the Lone Star Gas Company during certain years, would that, in your opinion as an engineer, be a criterion of the general and undistributed costs which would be incurred in a wholesale construction on a new project?

A. They would not.

Q. For what reason?

A. For the reason—and I feel that I have answered that question very largely in a previous answer; and that is, that the trained operating organization can absorb a substantial amount of construction responsibilities along with their other work, and to measure what would actually take place in a reproduction of a property, when the property was not operated, by that method, is an improper basis upon which to proceed.

Q. During recent years has the Lone Star Gas Company [fol. 3328] had a trained personnel which could efficiently construct large natural gas projects?

A. It has.

Q. And has utilization been made of that personnel?

A. And utilization has been made of that personnel.

Q. And was a great part of that personnel mainly engaged in operation of the Company, as well as construction of pipe line extensions and other projects?

A. That is correct.

Q. Mr. Connor, have you examined Plaintiffs' Exhibit 7, which is an estimate of annual depreciation allowances as of June 15, 1934, covering the Texas Gathering, Transmission, Compressing, and General Property of the Lone Star Gas Company?

A. I have, yes, sir.

Q. Now, the calculation of depreciation reserve accruals, as set forth in Plaintiffs' Exhibit 7, is upon the sinking fund method, is it not?

A. Very largely, yes; but not altogether so.

[fol. 3329] Q. What is the effect, Mr. Connor, of the use of the sinking fund method as applied to a natural gas property?

A. It is in a large measure to deprive the owners of the

property of the use and benefit of such accruals as are made in the reserve account.

Q. Is that due to the fact that the accruals in such accounts are not free capital?

A. That is correct.

Q. Is there any other reason?

A. No, that is sufficient, because that deprives the owners of the use of the accrual.

Q. Will you refer, please, Mr. Connor, to page two of Plaintiffs' Exhibit 7. In connection with certain property appearing on that page, does it appear that an amortization has been provided for over a thirteen year period?

A. That is correct.

Q. Is that true in relation to the Gathering System Rights-of-Way, Field Measuring Station Structures, Field Measuring Station Equipment, and Field Line Equipment?

A. That is correct. The amortization set out is not complete, however, but provides for what the witness determined to be the total loss or ultimate loss on abandonment.

Q. Does the adoption of that thirteen year period for amortization purposes presuppose a life of gas wells of thirteen years?

[fol. 3330] A. An average life of gas wells according to the testimony of the witness, because he predicated the life of well lines upon what he considered the average life of the gas wells.

* * * * * * *

[fol. 3331] Q. Mr. Connor, is there any factual basis for the assumption of the average life of gas wells and gas lines as thirteen years?

A. No, I don't think that there is, Mr. Griffith, and if the average life of gathering lines and the wells was thirteen years it would not have any particular bearing upon the rate of replacement.

Q. Why do you make that statement?

A. For the reason that in properties such as gas wells or pipe laid in the ground it is my opinion that the average [fol. 3332] life of those units of property is not a necessary factor which controls the rate of replacement of those units of property.

Q. In other words, are the replacements, abandonments, and removals of such pipe brought about in large measure by factors other than the average life of steel pipe?

A. That is correct—in a great measure caused by factors other than the average life of gas wells, as clearly indicated by the proportionate amounts of mortalities which have taken place in fields in which the average life of gas wells exceeds that of other wells.

Q. In what fields is that true—what has the history of the company or the experience of the company been in that connection?

A. By far the greatest number of replacements and abandonments has taken place in the Petrolia Field.

Q. And have those lines been replaced at a rate greatly in excess of the rates at which the wells have been abandoned?

A. Oh, yes. Well lines are removed for a great many other reasons.

Q. What are some of the reasons for which well lines are removed other than depreciation of the pipe?

A. Well, failure of a line; that is one of the causes, of course. Another cause is the necessary rearrangement which takes place in a system of well lines in any given field. Well lines become too small by reason of the decline in [fol. 3333] the pressure in an open field of the wells to which they are attached. It quite frequently becomes necessary to change from a high pressure connection to a low pressure connection. All those things affect the replacements and removals; they are not controlled by the life of the line.

Q. Will you refer to page eleven of Plaintiffs' Exhibit 7? Does the curve on that page indicate an average service life or service life for steel pipe of thirty-three and one-half years?

A. Thirty-three and a half years, I think is correct; yes.

Q. From any data or information which you have been able to assemble from any source, Mr. Connor, is there any factual basis for the assumption of thirty-three and one-half years as the service life of steel pipe?

A. No. As I said before about gas wells, if the average life of steel pipe were thirty-three years or fifty-three years or seventy-three years, it would not be a factor which would

necessarily control the natural rate of replacement of steel pipe.

Q. Because so many other factors bring about those changes and abandonments; is that correct?

A. No, because of the fundamental fact, and that is the failure of steel pipe due to a physical condition, is functional with the passage of time and the location in which the pipe is situated. When a replacement of pipe is made the replacement does not follow the average of the system, but follows the experience of the pipe that it replaces, be- [fol. 3334] cause it goes back into the same soil conditions that the pipe which has corroded was in.

Q. In other words, will the mortalities be greater in connection with the replacements than in connection with the original construction?

A. Yes, because the pipe replaced, as I said before, will not follow the average but will be controlled largely by the local conditions.

Q. Will you refer, please, to page twelve of Plaintiffs' Exhibit 7? For the calendar year 1931, or in the column right above the calendar year 1931, certain replacements are shown in connection with Lines J and C; is that correct?

A. That is correct.

Q. Are you familiar with thos- replacements of Lines J and C which were made in the year 1931?

A. I am, yes, sir.

Q. Were those replacements of a kind and character which will be experienced in the future by the company?

A. Oh, yes. However, in Exhibit 42 all the replacements for Line C were not included in the segregation of replacements due to the condition of the pipe, except such portion as was actually junked at the time of removal. Of course, all of Line J that was removed at that date was junked.

Q. Now, Mr. Connor, were there any removals in 1932 brought about for the same reasons that the removals were [fol. 3335] brought about in connection with Line J for the year 1931?

A. I think those removals, Mr. Griffith, were in 1933, and I think you refer to the replacements on Line L made necessary by internal corrosion of the pipe. There were practically no replacements of pipe in 1932.

Q. In 1933 did the company have replacements on Line J-2 similar or for causes or for reasons which were essen-

tially similar to the causes which brought about the removal of part of Line C in 1931?

A. That is correct.

Q. What brought about the removal and replacement of the pipe on Line J-2 in the year 1933?

A. The reconstruction of the highway between Dallas and Fort Worth.

Q. Well, can you indicate to the jury on Defendant's Exhibit 29, back of you, which is the pipe line map, and tell us where those replacements were made?

A. Here is the county line of Dallas County—from the City limits to the County line on J-2.

Q. Mr. Connor, have you attempted to make some analysis of the reserve accrual rates as set forth in Plaintiffs' Exhibit 7?

A. I have.

Q. In connection with those accrual rates is there any consideration given to excess cost of replacements over wholesale construction?

A. No, there is not.

[fol. 3336] Q. As a result of your experience and study, Mr. Connor, have you determined that the costs of replacements of steel pipe are in excess of the cost of wholesale construction in connection with the initial installation of pipe?

A. That is correct.

Q. To what extent, Mr. Connor?

A. Approximately 50 per cent.

Q. And have you made an analysis of the costs of such replacements covering a considerable volume of work?

A. I have, and I have testified concerning those costs.

Q. I believe you testified in that connection with your direct examination previously?

A. That is correct.

Q. Mr. Connor, if the public service plant and property of the company are to be depreciated by deducting the observed depreciation from the cost new of the property in this or in any other proceeding, would it be proper to apply the *the* sinking fund method as determined by Mr. Freese in connection with the depreciation reserve accruals as set forth in Plaintiffs' Exhibit 7?

A. It would not.

Q. For what reason?

A. Because you would be depriving the owners of the

property of the use of the money set aside for the purpose of offsetting the decline in per cent of new condition and [fol. 3337] would be deducting the loss due to decline in per cent in new condition.

Q. Mr. Connor, have you prepared an exhibit showing a comparison of the calculated mortalities of steel pipe as set forth in Plaintiffs' Exhibit 7 with the actual experience of the company—that is, the Lone Star Gas Company, in connection with such mortalities?

A. I have.

Q. Mr. Connor, is this the exhibit to which you refer, it being styled on the title cover "Lone Star Gas Company—Comparison of Historical Replacements, Removals and Abandonments, Main, Tap and Field Lines with Calculated Replacements, Removals and Abandonments"?

A. That is correct.

Mr. Griffith: We offer in evidence the exhibit so identified by the witness.

(Thereupon the document above referred to was marked as Defendant's Exhibit No. 49.)

Q. Mr. Connor, what have you set forth in the first page of Defendant's Exhibit 49?

A. All the results of certain calculations set out in detail on the subsequent pages, up to and including Table 4.

Q. Will you please explain the basis and method for the comparisons which you have made in Defendant's Exhibit 49—that is the comparison between the historical mortalities which the company has actually experienced in connection [fol. 3338] with steel pipe and the mortalities as calculated by Mr. Freese in Plaintiffs' Exhibit 7?

A. Perhaps it would be better to take the individual tables and make an explanation of them, and then refer to their application to the summary. In Table 1 there is an application of the replacement rates shown on page four of Plaintiffs' Exhibit 7 to the pipe in the system of Lone Star Gas Company which had reached the age indicated—in other words, pipe which had been in twenty-two years, which is the oldest complete service year—there has been applied a percentage determined by accumulating the replacement rates from one to and including twenty-two years shown on page four of Defendant's Exhibit 7.

[fol. 3339] Q. In what column on page 4 of Plaintiffs' Exhibit 7?

A. Column 2 of Plaintiffs' Exhibit 7. Now, Column A in Table One indicates the miles of equivalent three inch diameter pipe which were in service in the Lone Star Gas Company's system for various service years. There has been an adjustment made in the actual service life of Lines B and Line C, by reducing their service life two years an account of the fact that in 1917 the pipe in these two lines was taken out of the ground, thoroughly cleaned, rehabilitated and repainted from end to end and put back into the ground, and I have only allowed a reduction of two years to the service life of that pipe on account of that rehabilitation, and I think any calculation which did not take that into account would be misleading. I have also deducted from the footage of pipe in the system of Lone Star Gas Company that pipe which was acquired from The Texas Company in the year 1927. I make a separate and particular application of the necessary replacement rates to that pipe. I have also deducted the pipe which had been in service in prior years and which had been replaced, or at least it is not included in this particular table but it is given in another table. The cumulative replacement rates from Column 2, page 4 of Plaintiffs' Exhibit 7, when applied to the miles of pipe in service for the corresponding service year, gives the calculated replacements in miles of equivalent three inch pipe. Now, that is equivalent to this assumption: that at the beginning of the operations of Lone Star Gas Company [fol. 3340] the rates set out by Mr. Freese were put into effect, from the very beginning of the company's operation.

Q. In other words, you assumed the actual rates, or you applied the actual rates which Mr. Freese set forth in Plaintiffs' Exhibit 7?

A. That is correct. Assuming that the company started out and had decided that those rates were the correct rates to set up to provide for the replacement, removal and abandonment of steel pipe in the mains, the main lines and the tap lines, the calculated replacements which would be due primarily to the condition of the pipe would be 337.75 miles for twenty-two service years, taken from table 1. Now, table 2——

Q. That is on the third page in Defendant's Exhibit 49?

A. That is correct. Table 2 deals with a different mat-

ter, and that is the allowance made for the major removals in the fourth column of page 4 of Plaintiffs' Exhibit 7, which is set out to be .289 per cent per annum. Now, I have made an adjustment in that rate, because as I interpreted the adjustment of Mr. Freese, that he gave effect to a salvage, resulting in a loss of only about 74½ per cent—in other words, the entire property would not be lost. Therefore, the actual rate would be higher than the indicated rate in column 4 on page 4 of Exhibit 7, and that rate which I have used is not the rate shown in that column, of .289 per cent, but is .3882 per cent per annum. Now, I have applied this rate to all of the pipe which is in the system, including the pipe purchased from the Texas Company in 1927, as well as other pipe which had been removed prior to January 1, 1931, and [fol. 3341] have put back in the earliest year that pipe which I moved up two years on account of its rehabilitation.

Q. That is the pipe in Lines B and C?

A. Yes, for the reason that the removal of pipe might not be so materially affected by the fact that it had been repainted. So, applying then— Or, I have assumed now that each year of the company's history from the beginning, they set up this .3882 per cent to take care of removals—major removals and removals due to public requirements and changed operating conditions, and that results in a calculation of 320.83 miles of pipe removed, and that would be the number of feet of miles of pipe which would have been provided by the application of that annual accrual to the feet of pipe in service each year from the beginning of the company's operations.

On Table Three, I give effect to the pipe which was purchased from The Texas Company in 1927, to which I have just referred and which was excluded from the pipe in service on Table 1. Now, the reason that I made a separate study of this pipe was this: The pipe was older than pipe which might have been installed in 1927, but it was only in the plant of Lone Star Gas Company from 1927 forward. In other words, I gave effect to the age of the pipe as well as to the number of years that it was in the service of Lone Star Gas Company. Now, I went to the records of The Texas Company and ascertained when that pipe was actually installed—each line—and have given effect to that fact. [fol. 3342] For instance, some of the pipe was installed in 1912, and so I have assumed that the pipe, so far as Lone

Star Gas Company was concerned, was in service from the fifteenth to the 20th year of its life, inclusive, even though it was purchased by Lone Star Gas Company in 1927. Then, the cumulative replacement rates for those service years inclusive, taken from Column 2, page 4, Exhibit 7, are shown in Column B, table 3. Applying those rates to the miles of pipe, expressed in terms of three inch equivalent diameter, give the calculated replacements which would have taken place in that pipe, and the results are shown in Column C of table 3, Defendant's Exhibit 49.

* * * * * * *

A. Table 4 sets out the calculated mortalities or replacements which would have taken place in pipe which had been in service for a number of years but which was not in service as of January 1, 1933. In other words, I have given effect to pipe which was in service, and in which replacements might have been made while it was in service, but which is no longer in service, or has been removed from the main transmission system or the tap lines of the company. I have applied to that pipe, after ascertaining the date at which that pipe was originally installed, the proper annual replacement rates cumulative taken from Column 2, page 4, Plaintiffs' Exhibit 7. The calculated replacements, removals and abandonments as developed from Tables 1, 2, 3 and 4 are carried forward to page 1 of the Exhibit, and [fol. 3343] show that for the twenty-two year period following the first complete year of operation of Lone Star Gas Company, that the calculated replacements, removals and abandonments, or the accrual which would have resulted from the application of those accrual rates would have been equivalent to 685.47 miles of three inch equivalent diameter pipe, or expressed in feet of three inch equivalent diameter pipe, it would be 3,619,287 feet. Now, the actual replacements, removals and abandonments of steel pipe in the main lines and the tap lines of the Lone Star Gas Company for that twenty-two year period, was 5,854,744 feet, or in other words, had we proceeded from the very beginning and applied those rates for the specific purposes as set out on page 4 of Plaintiffs' Exhibit 7, we would have provided for only 61.8 per cent of the actual replacements, removals and abandonments which have taken place in the main lines and tap lines of the Lone Star Gas Company.

Q. And the calculations which are set out in Tables 1 to 5, inclusive, in Defendant's Exhibit 49, are carried forward to the summary on the first page of the Exhibit?

A. That is correct. Table 5 deals with the subject matter shown on page 6 of Plaintiffs' Exhibit 7, wherein it is set out that an annual rate of 2.77 per cent, when applied to the gathering lines of Lone Star Gas Company, would provide for all replacements, abandonments and removals, and would in addition create at the end of twenty years a credit balance of 76.98 per cent of the footage of pipe in service at that time.

* * * * * * *

[fol. 3344] A. In the case of the field lines, I have taken the footage of field lines which Lone Star Gas Company had from the first year that they have had a field line in service, and I have accumulated the additional footage by years, through the year 1932, and it so happens that the period of time from the time that the Lone Star Gas Company had its first installation of field lines, through the year 1932, is exactly twenty years; and which period corresponds to the period during which it is estimated in Plaintiffs' Exhibit 7 that the property would be amortized by means of the 2.77 per cent accrual rate.

I have applied the 2.77 per cent each year to the footage of pipe in service each year, as shown by table 5, but it so happens that beginning in 1920 the replacements, removals and abandonments of field lines became greater, substantially, than the 2.77 per cent accrual, and by the year 1922, instead of having a credit balance in the amortization fund, there would have been a substantial deficit, and at the year 1932, at the end of the twenty year period, instead of accruing an amortization fund representing some 76 per cent [fol. 3345] of the company's property in that particular property classification, there would have been an actual deficit in the reserve account.

Q. Now, the deficits concerning which you have testified are found in the column headed E, on table 5 of Defendant's Exhibit 49?

A. That is correct. If the company had started out in 1913 and set up this reserve accrual according to that plan, the company would have been without any credit balance in the reserve for the amortization of that property at the end

of the twenty years, but instead would have had more replacements than the accrual had provided for, and there would be an actual deficit in the reserve accrual.

* * * * * * *

Mr. Griffith:

Q. Mr. Connor, do you subscribe to the allocation of property as made by Mr. Hulcy in connection with Defendant's Exhibit 46?

A. I certainly do. I collaborated with Mr. Elmer Schmidt in the preparation of the report upon which that property allocation was based.

Q. And in your opinion is the allocation made upon the proper basis?

A. It is. It is the only method by which an accurate allocation could be made of the joint and/or concurrent use [fol. 3346] of property in the transportation of gas, transported wholly within the State of Texas, and gas transported from Oklahoma into the State of Texas.

Q. That's all.

* * * * * * *

[fol. 3347] P. M. Biddison, a witness for Defendant, recalled, resumed the stand and testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. Mr. Biddison, you testified in connection with your qualifications that you were familiar with the rate of development and attachment of the business of natural gas properties?

[fol. 3348] A. I did.

Q. And you do have such a familiarity?

A. I do.

Q. In your opinion, is there any such a thing as going value, going concern value, or cost of reproducing the business of a natural gas property?

A. Certainly there is.

Q. In your opinion, does Lone Star Gas Company have

going value or going concern value, and would it cost money to reproduce the business which the company actually has?

A. In my opinion, it has going concern value to a high degree, and I know that it costs money and takes time to develop business on a system such as the Lone Star Gas Company's system.

Q. Are you generally familiar with the cost of reproducing the business or determining going value or going concern value, as set out in Defendant's Exhibit 28, and as determined by Mr. Ed C. Connor?

A. I am.

Q. Do you subscribe to and approve the method used by Mr. Connor in estimating the cost of reproduction of the business?

A. I do, and I think an estimate of cost of reproduction of the business is a true measure of the amount of going concern value.

The Court: Just a moment—state that answer again; I did not hear it, Mr. Biddison.

A. I think the cost of developing the business is a true measure of going concern value.

The Court: Thank you sir; I didn't understand what you [fol. 3349] said the first time.

Q. In connection with your own experience, in connection with natural gas properties, have you had occasion to observe the historical growth of the business of those natural gas properties, Mr. Biddison?

A. I have, and I had occasion to do so in connection with the properties of the Lone Star Gas Company.

Q. When was that, Mr. Biddison?

A. During the period from 1914 to 1919, during which period I acted as consulting engineer to the Lone Star Gas Company.

Q. And was the rate of attachment of the business of Lone Star Gas Company gradual over those years?

A. It was.

Q. The Lone Star Gas Company started out in business in the years 1909 and 1910, did it not?

A. That is correct.

Q. The principal markets of the company at the inception of the construction of the company's pipe lines were Fort Worth and Dallas, were they not?

A. That is correct.

Q. Was all of the business in Fort Worth and Dallas immediately acquired upon the construction of the company's pipe line facilities and the delivery of gas at the city gates of Fort Worth and Dallas?

A. It certainly was not.

Q. Did it take time and money in which to acquire that business?

[fol. 3350] A. It took time and money, and during the period during which this business was being acquired in Fort Worth and Dallas, there were facilities of the company not used to capacity, which had to be constructed in advance of full capacity use on which fixed charges ran.

Q. And is that the reason why you believe that the fixed charges on idle plant may in some measure constitute a yardstick for the determination of the cost of reproduction of the business of the company.

A. Yes.

Q. In connection with your experience with other natural gas properties, have you observed, Mr. Biddison, that invariably the business of the company, even when all direct structural costs have been incurred, and the plant is completed and operable, that the business is not immediately attached?

A. I have so observed it, and that rate at which business can be attached is somewhat dependent upon the size of the community and also somewhat dependent upon whether or not the community has previously had manufactured gas service.

Q. Would you say that it is the invariable rule, Mr. Biddison, that it takes a number of years for any natural gas property to acquire full development of its business, both with respect to customer use of gas and customer saturation?

A. Yes.

Q. Mr. Biddison, have you examined Plaintiffs' Exhibit 6?

* * * * * * *

[fol. 3351] A. I have.

Q. What is the effect of the deductions by Mr. Freese in Plaintiffs' Exhibit 6, on the excavation costs as determined by you for the same properties, and as evaluated in Defendant's Exhibit No. 28?

A. In Exhibit 28 we evaluated the total public service properties. Plaintiffs' Exhibit No. 6 evaluated only a portion of them. The net result in making the correction which Mr. Freese has attempted, is to produce figures for the construction of the lines shown in his exhibit, far below what I think it is possible to construct those lines for.

Q. Is that true in connection with his excavation costs?

A. It is.

Q. I believe that Mr. Steinberger testified, this morning, that the total amount of Mr. Freese's deductions covering excavation costs, approximated $550,000.00; is that correct?

A. I have not checked it myself as to his Exhibit 6, but I have checked the application of his costs against the Lone Star Gas Company's system in its entirety.

[fol. 3352] Q. And what is the result of that check?

A. The result of that check is to decrease the construction costs on excavation in the amount of over $588,000.00.

Q. That would be covering only the property which Mr. Freese evaluated in connection with Plaintiffs' Exhibit 7, or 6?

A. No; that is comparing the prices used by Mr. Freese in his Exhibit 6, to the excavation required on the Transmission System shown in Exhibit 28.

Q. You are referring to Defendant's Exhibit 28?

A. Yes, sir.

Q. Now, Mr. Biddison, if Mr. Freese—you understand that Mr. Freese adopted all of your construction costs except excavation costs?

A. Yes, sir.

Q. And that Plaintiffs' Exhibit 6 so shows?

A. Yes, sir, with this exception, that there was a slight modification of hauling costs. That was a comparatively small modification.

Q. That would not amount to many thousands of dollars?

A. No, it would not.

Q. Now, if it connection with the preparation of Plaintiffs' Exhibit 6 Mr. Freese actually used large lot prices for pipe, current as of June 15, 1934, what would be the [fol. 3353] effect upon the painting, laying and testing costs, and other costs included in pipe line construction?

A. I have not analyzed that for all lines.

Q. Have you analyzed it for a portion of the pipe lines or the transmission line equipment evaluated by Mr. Freese in Plaintiffs' Exhibit 6?

A. I have; I have picked some lines that I consider to be representative lines, to show the effect of that assumption. Consider, for example, 18-inch dresser pipe in Line A, pipe weighing 59.032 pounds per lineal foot, which is estimated in our Exhibit 28 to cost $303.9440 per foot (per 100 lineal feet)* installed. This is based on a pipe price, f.o.b. Texas common points, including mill inspection as of January 1, 1934, of $237.8443 per 100 lineal feet.

* * * * * * *

[fol. 3354] A. This is further based upon a total cost for installation, including all contingencies, of $66.0997 per 100 lineal feet. Now, this figure may be arrived at by deducting the pipe price which I have quoted, f.o.b. Texas common points, from the cost per 100 lineal feet, installed, which I quoted. Now, if the pipe price be assumed to be that of June 11, 1934——

Q. That is the same price which existed on June 15, 1934, did it not, the date as of which Mr. Freese prepared Exhibit 6?

A. It is; and we deduct that figure from the $303.9440, this pipe price being $248.4086, we have left for installation, including all contingencies, $55.4634 per 100 lineal feet. Now, this is the amount of money which would be available for that construction work in our Exhibit 28, if we attempt to include in that pipe prices as of to-day. Now, of that $55.4634 per 100 lineal feet, our estimate for [fol. 3355] the trench cost in Exhibit 28, is $26.3838, which allows, when deducted from the $55.4634 only $29.0796 per 100 lineal feet. If we add to this last figure the cost of trenching based upon the units costs assumed by Mr. Freese we have a cost for trenching of $23.4026 per 100 lineal feet, which produces a total installation cost, based upon Mr. Freese's cost for trenching work and upon the prices of pipe as of to-day, of $52.4822, or 52½ cents per lineal foot for the installation charge on 18-inch dresser couplered line; and 18-inch dresser couplered line cannot be laid for any such price. I understood Mr. Freese's testimony to be that he believed the allowances for omissions and contingencies used in our Exhibit 28 would offset the differences in pipe prices. In this particular instance the difference in pipe prices is $10.6363 per 100 lineal feet, while the allowance for contingencies as used in Exhibit 28 is

$7.4133 per 100 lineal feet. If we consider, further, 18-inch 53.223 pound dresser couplered pipe in this same Line A, we arrive at an installation cost of $45.3181 per 100 lineal feet for that dresser couplered pipe, based upon Mr. Freese's unit costs for trenching, and based upon the assumption that the over-all cost as used in our Exhibit 28 would allow for present day pipe prices, and in that case [fol. 3356] the increase in pipe prices between January 1, 1933 and as of to-day amounts to $16.2790 per 100 lineal feet, while the allowance for omissions and contingencies is $6.8057 per 100 lineal feet. Now, in Mr. Freese's testimony the other day in regard to this 59 pound pipe, I am under the impression that he quoted an improper figure as to the present-day price of this pipe.

Q. You mean that he inadvertently quoted an improper figure?

A. Yes, my recollection was that he quoted a figure of $2.66, substantially, as the present-day price of this pipe. I don't know what the discrepancy was due to. So this figure which I have used, and which I have checked, will not agree with the citation which Mr. Freese gave in his own testimony. Now, analyzing a number of lines in that manner, I find on Line B 16-inch that the difference in pipe prices is a trifle over $9.30 per 100 lineal feet, while the allowance for omissions and contingencies is a trifle over $5.55 per 100 lineal feet.

* * * * * * *

[fol. 3357] A. If I had used the figure quoted by Mr. Freese I would have had a much greater divergence than I have shown here, because the figure quoted by him is, I believe, some 17-½ or 18 cents per foot in excess of the pipe which I have here. Taking a 12-inch line, 33.37 pounds——

Q. Per foot.

A. Per foot, Line GA, on which in Exhibit 28 our total installation costs, including contingencies, are estimated to be $43.55 per 100 lineal feet; if we assume that our over-all cost per 100 lineal feet of $170.8419 would include pipe prices as of to-day, and if we corrected our trenching costs to the unit figures adopted by Mr. Freese, we would have available for the construction of that line only $32.6455 per 100 lineal feet, or a trifle over 32 cents per foot.

Q. Can 12-inch pipe be laid for that figure, Mr. Biddison?

A. It can not. On this particular pipe the difference [fol. 3358] — prices between January 1, 1934, and as of to-day, is——

Q. January 1, 1933?

A. 1933, and as of to-day, is per 100 lineal feet $7.3759; whereas, the contingencies allowed for in Exhibit 28 on this line amount to $4.1669 per 100 lineal feet. I have a number of other lines set up in the same manner. On Line O, 18-inch 53.223 pound pipe, the difference in pipe prices——

Q. As between January 1, 1933, and June 15, 1934?

A. Yes, is $16.2790 per 100 lineal feet, while the allowance for omissions and contingencies on that line, as estimated in our Exhibit 28, is $7.6589 per 100 lineal feet. In general, this per cent shows that the assumption that the unit prices per foot of pipe in place in Exhibit 28 would include prices as of to-day, wipes out our allowance for omissions and contingencies in general in a ratio of nearly two to one, and when you further consider the unit costs for trenching work proposed by Mr. Freese and apply them to the estimates in Exhibit 28, the resultant figures for installation cost are far below those for which pipe lines of this nature can be or have been installed in the last ten or twelve years.

Q. Mr. Biddison, what weighted cost per cubic yard was used in Defendant's Exhibit 28 for machine excavation?

[fol. 3359] A. The weighted cost per cubic yard from Exhibit 28 for machine trenching is $.4843 per cubic yard, or a little less than 49½ cents per cubic yard for machine trenching.

Q. Now, does all machine trenching cost the same, regardless of the size of the trench, Mr. Biddison?

A. It does not.

Q. Is there a wide variance in cost as between the excavation on a trench for 4-inch pipe and the excavation on a trench for 18-inch pipe or 20-inch pipe?

A. Yes, there is.

Q. I mean per cubic yard.

A. Yes, there is.

Q. Now, what is that variation, and what is the reason for it?

A. The reason for it is that in machine trenching work you are limited to a top speed on the machine, in any event,

beyond which you can not go. If you have a trench of large area your machine will not travel at the top speed, but you will dig with it more cubic yards per day than you will when digging a small sized trench, and on the larger sized trenches your output per machine per day is greater than it is when you are digging smaller trenches.

Q. For what reason did you apply a varying cost per [fol. 3360] cubic yard of excavation, depending upon the size of the trench?

A. Yes, that is correct.

Q. In connection with your estimates as set forth in Defendant's Exhibit 28.

A. That is correct. I might cite some of those variations. On the A System for 18-inch pipe machine trenching is at as low as $.407.

Q. Per cubic yard?

A. Per cubic yard.

* * * * * * *

[fols. 3361-3366] Q. Go ahead, Mr. Biddison.

A. While on Line A-1-4, three-inch line, it is $.521 per cubic yard; on Line A, 18-inch, in Oklahoma, it is $.40 per cubic yard; on Line A-D, 6-inch, it is $.612 per cubic yard.

Q. So you have endeavored to make an individual application of costs to the specific size of trench to be excavated?

A. That is correct.

Q. Depending upon the width and depth of the trench?

A. That is correct; and that results in a different figure per cubic yard for trench excavation, for not quite every line, but nearly every line, and certainly a different figure for the average for trench excavation by machine on every system of lines.

* * * * * * *

[fol. 3367] Q. In your own experience as a construction engineer on natural gas pipe lines have you ever heard of natural gas pipe line construction or trench excavation being carried on in accordance with any such specifications as were outlined by Mr. Nichols?

A. I have not.

Q. Mr. Biddison, have you examined Plaintiffs' Exhibit 6?

A. I have.

Q. Have you noted that in Plaintiffs' Exhibit 6 Mr. Freese has allowed for general and undistributed costs a sum which approximates ten per cent of his direct structural costs of physical property?

A. Yes; I noted that.

Q. Mr. Biddison, in any reproduction cost appraisal, other than that appraisal made by Mr. Freese or his firm, have you ever observed a failure to compute Taxes and Interest During Construction based upon a fixed or definite wholesale construction period or time within which the property would be reproduced or constructed?

A. No; and I don't see how an estimate of cost of reproduction, or an original estimate for construction of a property of any size, can be made and proper consideration given to those items without the predetermination of a fixed period for the construction of the property.

[fol. 3368] Q. What is the effect of the failure, as reflected by Plaintiffs' Exhibit 6, to assume a fixed period of time in which the property would be reproduced, in so far as the computation of taxes and interest during construction are concerned?

A. The effect of that failure is to practically eliminate taxes during construction which would be incurred during reproduction, and to reduce the estimate of interest during construction which would actually be incurred during the wholesale construction period to a figure far below what I think would actually be incurred.

Q. Mr. Biddison, have you participated as a consulting engineer in the construction of many hundreds or thousands of miles of transmission line equipment?

A. I have.

Q. And other natural gas properties of practically every kind and description?

A. Yes.

Q. In connection with the major construction projects which have been constructed under your supervision, as a part of a wholesale construction program, what have been the actual overhead and general undistributed costs?

A. Well, in the case of Southern Natural Gas Corporation, they were in excess of 18 per cent.

Q. As contrasted with Mr. Freese's estimate of ap-
[fol. 3369] proximately ten per cent as shown in Plaintiffs' Exhibit 6.

A. That is correct. On the Southern Gas & Fuel Company, which was a small job, those costs ran in excess of 20 per cent.

Q. What was the Southern Natural Gas projects, and the Southern Gas & Fuel project?

A. The Southern Natural Gas project involved a transmission system from the Northern Louisiana fields across Mississippi and Alabama into Georgia. The Southern Gas & Fuel job embraced an 18-inch line from Baton Rouge to New Orleans, Louisiana.

Q. Were both of those major construction projects?

A. They were.

Q. And the actual historical general and undistributed overhead costs were in the per cent relation which you have mentioned?

A. That is correct.

Q. And the percentages which you mentioned are expressed in connection with the direct structural costs of the physical property?

A. Yes; the percentages which I have stated are the percentages of direct structural costs, which were incurred as general and undistributed costs.

Q. Mr. Biddison, have you examined Plaintiffs' Exhibit 7, being an estimate of annual depreciation reserve ac-
[fol. 3370] cruals, as determined by Mr. S. W. Freese?

A. I have.

Q. Have you noted that Mr. Freese has used a 13-year figure for amortization of gathering lines?

A. Yes.

Q. Is there any factual basis, in your judgment, for the adoption of a thirteen-year figure for the amortization of gathering lines?

A. I don't know of any facts that would justify it, and I don't know where any such facts might possibly be obtained.

Q. Why do you make that statement, Mr. Biddison?

A. Well, I just never heard in all my experience of any relationship of gathering lines, or well lines, or gas wells, or any other such equipment to any such figure of life.

Q. Are there many factors which make for the removal, replacement and abandonment of gathering lines which

have nothing whatever to do with the deterioration of pipe?

A. That is correct; and further than that, even if the average life of pipe were known in any locality, that average life figure does not govern the rate of replacements.

[fol. 3371] Q. Why is that true, Mr. Biddison?

A. Because the thing that governs the rate of replacements due to physical deterioration is not so much the average life as it is the variations of the specific items from the average, and that can be demonstrated mathematically, and has been so done.

Q. And can you do it?

A. I can and have done so.

[fol. 3372] Q. Mr. Biddison, will you examine, please, page 11 of Plaintiff's Exhibit 7? Does that page purport to be a mortality table covering the life of steel pipe?

A. It does.

Q. Does it purport to show that the service life of steel pipe is thirty-three and a half years?

A. It so states.

Q. Now, Mr. Biddison, you have been in the natural gas business a great many years. From any information which you have been able to obtain or any data that you ever heard of, have you ever been able to determine that the average life of steel pipe is as long as thirty-three and a half years?

A. No, and nobody will be able to ascertain what the average life of steel pipe is in any locality for a great many years yet to come, because steel pipe has not been manufactured long enough for anybody to know in any specific location what its average life is.

Q. Based upon all presently known data, do you believe that the average life of steel pipe is more or less than thirty-three and a half years?

* * * * * * *

[fol. 3373] A. Well, I don't believe it is more, and I don't believe it is less. I just don't believe there is any such relationship existing.

Q. Why do you make that statement, Mr. Biddison?

A. Because steel pipe has not been manufactured long enough so that in any particular locality its average life can have been determined.

Q. You mean that steel pipe has not gone through a life cycle in any particular locality?

A. That is correct. The first piece of steel pipe that has been made is not as old as I am.

Q. Mr. Biddison, in connection with Plaintiffs' Exhibit 7, Mr. Freese made no provision in connection with his reserve accrual rates, as I interpret the exhibit, for any excess cost of replacements over original construction?

A. I can't find any such allowance in this exhibit.

Q. If such is correct, and no allowance was made for excess cost of replacements over original construction, would the reserve accrual rate as determined by Mr. Freese and set forth in Plaintiffs' Exhibit 7 be inadequate or otherwise?

A. If the reserve set forth by Mr. Freese was otherwise adequate, still, by virtue of the fact that there is no allow-
[fol. 3374] ance to take care of the excess cost of replacements over original construction, it is still inadequate for that reason.

Q. Is there an excess cost for the replacement of steel pipe joint by joint over the wholesale cost incurred on original construction?

A. Yes, a very substantial excess.

Q. And what is the reason for that excess cost of replacements over the cost of original construction?

A. Well, the amount of time of a crew required to make a small installation, their moving in and out, is one contributing factor to the excess cost. The excess time required in disconnecting and reconnecting the joints is another reason for it; the excess cost of ditching work over installed pipe is compared to ditching work before the pipe has been laid is another reason for it. Almost every operation in the making of a replacement takes more time and costs more money than it does in wholesale construction work.

Q. As an example, Mr. Biddison, would it cost more to replace a joist or a sill in a house than it would to put that joist or sill in at the time of original construction?

A. Certainly it would, and it would cost more money also to send a crew out to put in six joists than it would to have a crew working there long enough to put in several hundred.

Q. Mr. Biddison, are you generally familiar with the allocation of property as made by Mr. D. A. Hulcy in Defendant's Exhibit 46?

[fol. 3375] A. Generally so, yes, sir.

Q. Do you have such familiarity as would enable you to testify as to whether the allocation he made is reasonable or otherwise?

A. Yes.

Q. Do you believe it to be reasonable?

A. I believe it to be reasonable, and I do not believe that any other basis of allocation would approach it in equity.

Q. In connection with your work, Mr. Biddison, have you had occasion to assist in negotiations for the financing of construction of natural gas projects, including natural gas pipe line enterprises similar in all essential respects to the business of Lone Star Gas Company?

A. I have, several times.

Q. Are you familiar with the rates of return and current yields of securities such as mortgage bonds of gas pipe line companies doing business in the United States?

A. Generally so. I have made no specific recent studies on it; I am generally familiar with what has been going on with reference to natural gas securities.

Q. Is the natural gas business considered speculative and hazardous or not?

A. It is, as compared to other utility enterprises.

* * * * * * *

[fol. 3376] Q. Mr. Biddison, based upon your experience, what minimum net annual rate of return do you believe the Lone Star Gas Company is entitled to receive on the fair value of its public service property?

A. Ten per cent net after depreciation accruals.

Q. And as you use the term "depreciation", is that inclusive of depletion as well as amortization?

A. It is. I refer to the general accrual fund commonly styled depreciation accrual fund.

Q. And is that ten per cent net after all other operating expenses have been properly provided for?

A. It is.

Cross-examination.

Questions by Mr. Fitzhugh:

Q. And before payment of Federal income taxes, or after payment?

[fol. 3377] A. After payment of Federal income taxes, ten per cent net.

Q. That is the very minimum, isn't it?

A. Yes, I think so.

Q. What is your maximum?

A. Well, my maximum, I would say, would be twelve and a half to fifteen per cent.

Q. Twelve and a half to fifteen per cent?

A. Yes, sir.

Q. Didn't you testify in the Laredo rate case here a while back that it ought to be twenty per cent for any public utility as a maximum?

A. No.

Q. You set a minimum of ten and a maximum of twenty, did you not, in that case?

A. I think no. I did state a minimum of ten net.

Q. Now you say a maximum of twelve and a half to fifteen?

A. Yes, sir.

Q. Did you make up your mind on it?

A. I made up my mind twelve and a half to fifteen.

Q. Fifteen would be your maximum, then?

A. That was the highest.

Q. I thought it was one of those "and/or" propositions.

A. No.

Q. Now, Mr. Biddison, when you first started out you were talking about pipe prices, and you read, if I under-[fol. 3378] stood you correctly, what the net figures would be, taking into consideration the rises in pipe prices on certain lines; is that what you did?

A. No.

Q. For certain sizes?

A. Not if I understood your question correctly. I read into the record what would be left available for construction costs if we assume that the installed price per hundred lineal feet which has been used in Exhibit 28 were assumed to include present day prices of pipe—to allow present day prices of pipe.

Q. And you singled out certain sizes, did you not?

A. Yes, sir.

Q. Now, have you calculated what would be the difference as applied to all the property included—I am talking about pipe now—in the Plaintiffs' Exhibit No. 6?

A. No; I have had no opportunity to do it. That is too long a job for the time that has been available.

Q. Well, what is the omissions and contingencies applied to all the property included in and covered by Plaintiffs' Exhibit No. 6?

A. I don't know.

Q. As allowed by yourself?

A. I don't know. I made no determination of it.

Q. For the same property. You could not tell that?

A. I have made no determination of it.

[fol. 3379] Q. So you don't know whether the omissions and contingencies would cover the rise in pipe prices or not, do you, as applied to Plaintiffs' Exhibit No. 6?

A. Well, I have a whole page of lines which I picked out, and it does not approach doing it on any of the lines I picked out.

Q. Well, you didn't take the whole exhibit?

A. No, but I have taken pipe from four and a half inch up to 18 inch.

Q. Now, what was the rise in pipe prices, the total amount, covered by that item and applied to your Exhibit 28, which includes the whole property?

A. Well, I don't know offhand. I believe Mr. Steinberger testified to that point.

Q. Do you know what the approximate figure was?

A. No; I have forgotten it now. His exhibit would show.

Q. Do you have Mr. Steinberger's exhibit before you now?

A. Yes.

Q. Can you tell from that what the amount for the rise in pipe prices would be?

A. This is not the exhibit that shows that difference.

Q. Well, in round figures, I think he testified that the difference in pipe prices would be about a million two hundred thousand dollars at one time, and deducting a decrease in pipe prices of about three hundred thousand dollars would leave net around nine hundred thousand. Did you actually check it in any way?

[fol. 3380] A. I could if I could get his testimony or his exhibit. I don't remember which exhibit it was that he had nor what page it was. I don't have it now.

Q. Well, can you tell what the contingencies would be in your whole appraisal?

A. I have made no computation of that in the whole appraisal.

Q. Well, now, without knowing any of those things, Mr. Biddison, how in the world could you say that the item of

omissions and contingencies applied over all to Mr. Freese's Exhibit 6 would not equal any change in pipe prices?

A. Just by the method I have exemplified in citing these lines.

Q. Picking out a few lines?

A. Yes, precisely—not a few, but a large number.

Q. Now, there has been some testimony from various witnesses about bell holes in connection with the excavation and laying of pipe lines. Are the bell holes ever dug on twelve inch or smaller pipe?

A. Yes, certainly.

Q. Can't pipe of this size be tied in on the top of the ditch before the pipe is dropped into the ditch just as well as it could if the pipe were already settled in the ditch and the tie-in made?

A. When you are laying dresser coupled pipe that is the way you always do it, and when you are laying welded pipe [fol. 3381] that is the way you apply it, but you have some that have to be made down in the hole. I think probably you have a misunderstanding of the bell holes here in connection with dresser coupled pipe. I will read the specifications from a contract for laying dresser coupled pipe, which will exemplify it.

[fol. 3382] Q. Well, I don't care about any contract. I want to know how it is done.

A. Well, it is done after the pipe is over the ditch, by a man getting down in the ditch and shoveling out sufficient dirt so that the dresser coupler may set down in the hole and the pipe rest on the bottom of the ditch and so that the pipe will be supported by itself, instead of being supported by the dresser coupler.

Q. Now, you are talking about dresser coupled pipe, aren't you?

A. Yes.

Q. Now, the original question was as to welded lines.

A. You didn't so state.

Q. Then I intended to do so. How often do you have a bell hole for welds, on a twelve inch welded pipe line, for tying in?

A. On an average of about every 100 feet.

Q. Is it your testimony that those tying in welds can not be made on the top of the ditch before the pipe is dropped into the ditch?

A. No, you could block that pipe up high enough so that you could make the welds at the tie-ins without digging the bell holes, but that is not the actual practice, and would not be economical. In actual practice, you actually cut out bell holes where the tie-ins come.

Q. On small pipe, such as three inch, four inch and six inch pipe, don't you always have the pipe up on skids, and aren't the welds made on the pipe right up on the skids?

[fol. 3383] A. Yes, and also on larger size pipe, right on up the line, but there is a necessity for the bell holes at the tie-ins, so that a man can work around that pipe in making the welds.

Q. If the tie-in is made up on the skid before the pipe is dropped into the ditch, how could there ever be any necessity for a bell hole?

A. So that a man could have clearance around that pipe to work, and they do dig them in practice.

Q. You mean while he is making the weld on the pipe, up on the skids?

A. Yes.

Q. And that is your testimony?

A. Absolutely, and that testimony is based on having supervised a lot of that very kind of work.

Q. Well now, if you are correct in that, Mr. Biddison—or, how high is this pipe on the skids?

A. Well, those skids are ordinarily four by fours, and on big pipe they may be four by sixes.

Q. How high up from the ditch are the skids?

A. The skids lay right on the ground.

Q. Right along the top of the ditch, is that correct?

A. Yes.

Q. Now, if you are correct about that, all that would have to be done to allow a man to work around that pipe which is laying up along even with the top of the ditch would be to knock off about a foot of the ditch to give him all the [fol. 3384] room he would need to work around the pipe; isn't that right?

A. About a foot of the ditch is about right, yes.

Q. Well now, that is not really a bell hole, is it?

A. It is called a bell hole, yes.

Q. That is not a bell hole in the sense that you use one where you have dresser coupled pipe?

A. No, sir.

Q. Where the bell hole goes clear down the whole depth of the ditch?

A. No, in the case of the dresser coupled pipe, it is a hole dug in the bottom of the ditch only, and you don't shave off the sides of the ditch.

Q. What gang is used for the digging of those bell holes?

A. A crew for the digging of the bell holes.

Q. You have a separate gang for that work?

A. Yes, generally.

Q. And if they are working in connection with dresser coupled pipe, they work in connection with the laying gang?

A. Yes.

Q. And right along with them?

A. Yes, when they are working in connection with the welding gang in a welded line, they work with the welding gang, or the laying gang, and if it is in connection with dresser coupled pipe it is in connection with the laying gang.

Q. Is pipe ordinarily strung along ahead of the ditcher or behind the ditcher?

[fol. 3385] A. It depends upon the class of pipe you are laying.

Q. In the case of a welded line?

A. In the case of welded lines, it is usually strung ahead of the ditcher.

Q. How about in the case of the dresser coupled line?

A. In the case of a dresser coupled line, it may be done either way, so far as the stringing is concerned.

Q. Now, why the difference?

A. In the case of welded lines, it is advantageous to have your welding done ahead of the ditching. There is more room to work in and your right of way is not obstructed by open trench.

Q. And in the case of the dresser coupled lines, it doesn't make any difference?

A. It does not make so much difference; in the case of dresser coupled lines, it is of course advantageous to have your pipe on hand, and know it will be there when you get your ditch dug, and therefore it may be strung ahead of the ditching machine. It is not, however, ordinarily laid ahead of the ditching machine.

Q. Now, when you say you never heard of any excavation specifications of the sort given by Mr. Nichols to these

excavation contractors, do you mean to say that there is no such a thing as contracting with contractors for work of this sort?

A. No, I don't mean that at all.

Q. Then you do sometimes contract that work, do you not?

A. Well, I assume some of it has been contracted as a [fol. 3386] separate contract, but I never knew of it being done.

Q. Now, what sort of specifications do you give when you contract work of that sort? You have a contract there, don't you, Mr. Biddison?

A. Yes, right here.

Q. And it has some specifications for excavation in it, does it not?

A. Yes.

Q. Will you read those?

A. Yes. "Ditches shall be machine dug whenever possible and economical so to dig. The trench shall be excavated to a width not less than seven (7) inches wider than the outside diameter of the pipe.

"Except where special conditions as described below are encountered, the depth of ditch shall be thirty (30) inches greater than the diameter of the pipe. This shall be the normal depth and shall be the minimum for all parts of the work except that where the entire ditch is in rock or the material is unusually heavy and not subject to softening by water, the engineers may permit and approve a depth not less than 24 inches greater than the diameter of the pipe but in such cases, the engineers' approval must be obtained before completing the ditch. Where the soil is soft, the engineers may require a depth of ditch of 66 inches and in special cases, such as through the shoulders of the banks in the approaches to streams, when single line is laid, the engineers may require the depth of the ditch to [fol. 3387] be 96 inches. No adjustment of compensation will be made on account of the changes in the depth described herein. When the depth of the ditch is more than 96 inches, additional compensation will be paid the contractor for the extra work as herein provided, but contractor shall, before beginning the extra work, obtain a written order from the engineers covering each case where extra depth is authorized.

"Ditch shall be carefully graded by hand wherever considered necessary by the engineers. All pipe shall rest on the bottom of the ditch. Bell holes shall be dug for all couplings so that the pipe weight will not be carried on the couplings except that in locations to be determined by the engineers, sufficient crumbs of dirt may be left in the bottom of the ditch to form a bed for the pipe in which case the depth of the ditch will be measured to loose earth in bottom of ditch and not to actual ditch bottom and in which case, bell holes will not be required."

• • • "In all rock excavation, couplings shall be bell holed or sufficient crumbs of earth be left in the bottom of the ditch to provide a uniform bed for the pipe.

"All curves or bends in ditching shall be made easy so as not to require firebending of pipe except where special conditions make sharp bends necessary and unavoidable." [fol. 3388] Now, that is a ditching clause from a contract embracing the complete operation of unloading, hauling, stringing, ditching, laying, painting, backfilling and cleaning up right of way.

Q. All right, then.

A. And that is the usual form in which ditching contracts will be found in connection with the other operations for laying of pipe.

Q. Now those specifications in general show the depth of trench, the condition that the ditch is to be delivered in and the width of the trench and provisions as to what the contractor's obligation is in different kinds of soil conditions; is that right?

A. They do.

Q. Now, isn't that just about what Mr. Nichols did in his specifications? He specifies the trench size, the kind of ditches to be delivered, and the obligations of the contractor in digging it, didn't he?

A. He did those things, but there are certain other essential elements that are mentioned in here which he did not include, and there is an essential difference in the requisite form of contract for submission as a separate ditching contract from that required for the ditching specifications in an over-all contract, and those differences were not allowed for in the specifications delivered or submitted in this

2021

hearing as having been given to the ditching contractors by Mr. Freese.

* * * * * * *

[fol. 3389] Mr. Fitzhugh:

Q. Of course you don't mean to say, Mr. Biddison, that specifications are not different, and are not differently handled in each contract?

[fol. 3390] A. Do you mean as between these two contracts here to which I referred?

Q. No, but as between any contracts for excavation work?

A. No, that may be true. I don't suppose any two engineers would draw them entirely alike, but there are certain fundamental things to be provided for in the specifications, which if not provided for, will affect the bid price.

Q. Now, you testified it was your understanding that Mr. Freese had allowed, as his general overheads, ten per cent of the direct structural cost?

A. No, but that what he allowed had amounted to about that much.

Q. How did you make that calculation?

A. If, on page 2, you deduct from the total amount of $40,256,862.39, the $5,407,711.99 which he calls non-physical properties, you will have left something less than Thirty-five Million Dollars. Then, if you take the sum of his administrative and legal expenses during construction, engineering and supervision during construction, taxes during construction and interest during construction, constituting the general undistributed overheads, you have, if I have added them up correctly here this time, about $3,900,000.00, which is a little over ten percent.

Mr. Griffith: Of the direct structural costs?

A. Yes, of the direct structural costs.

Q. Well, you forgot to put in the preliminary and organization expense, did you not?

A. No sir, I did not forget to put it in. I left it out [fol. 3391] deliberately.

Q. Did you add them in?

A. No, I did not.

Q. Well, that is one of the overheads, isn't it?

A. It may be classed as an undistributed overhead. It can be, yes, which would add some $194,000.00 to what I set

up here, and change the percentage a trifle. The amount allowed is trivial.

Q. Now, what percentage is that—it is not ten percent, is it? It's approximately 12 per cent, is it not?

* * * * * * *

A. It would be about 11.8 percent, as close as I can read it.

Q. All right. Now then, turn to page 38 of the Exhibit introduced by Mr. Freese, which is Plaintiffs' Exhibit No. 6. On that page, the interest during construction is shown in the total amount of $1,522,468.89, is it not?

A. What page did you say?

[fol. 3392] Q. Page 38 of Exhibit 6.

A. It is $1,522,468.89.

Q. Now, what was the construction period that Mr. Freese assumed for the building of the compressor stations, and for the properties thereunder for the purpose of calculating his interest during construction?

A. I don't know whether he assumed any or not; there is nothing on here to show.

Q. What is your answer—you don't know the period?

A. I don't know.

Q. What did Mr. Freese assume for the transmission system line equipment—the transmission line equipment?

A. So far as I have been able to ascertain, he didn't assume any.

[fol. 3393] Q. So you don't know how he got this $1,522,468.89, the total he shows for interest during construction, do you?

A. Only as shown on page 38, by the application of the percentages there listed.

Q. And you didn't read his testimony as it appears in the record, in connection with this page, did you?

A. No; I heard a great deal of it.

Mr. Griffith: And you still don't understand it?

A. I still don't understand any definite construction period for any of these items or for all of them.

Q. Now, then, you testified, Mr. Biddison, that on the Southern Natural Gas line that the overheads amounted to 18 per cent. How long a line was that?

A. That involved the construction of about—over 1600 miles of transmission system lines.

Q. What was the total cost?

A. Something in excess of thirty-six million dollars.

Q. How much were the overheads?

A. I don't know; they were in excess of 18 per cent of the direct structural costs.

Q. Do you know what the overheads included?

A. Yes.

[fol. 3394] Q. What? Name the items that were included in the overheads, and the amounts for each.

A. I can not name the amounts; I do not have a breakdown of it. I have seen an analysis of those accounts, and know what that ratio was. Those percentages include engineering and supervision during construction, administration and legal expenses during construction, taxes during construction, interest during construction, and preliminary and organization expense.

Q. You don't know how much taxes during construction, do you?

A. No, but I know they paid taxes during construction.

Q. Well, how do you know they did?

A. Well, because I saw the vouchers drawn for which—by which payment was made, and because I helped compute the taxes that would have to be paid.

Q. All right What was the amount shown on the vouchers?

A. I don't know; I have no breakdown on that, as I have stated.

Q. How much of the 18 per cent was for the cost of financing?

A. I don't know; I don't have a breakdown on that. I don't know what that ratio was.

Q. Was the money raised by the sale of bonds?

[fol. 3395] A. Partially so.

Q. You don't know the discount on the bonds at the time they were sold?

A. No, I don't; and that is not a part of that cost of financing.

Q. Well, the sale of the bonds would be a part of the financing, wouldn't it?

A. It would be expense. The out-of-pocket expense in connection with the sale of bonds would be; the discount on the bonds would not be.

Q. And you don't know that amount?

A. I do not.

Q. Now, another one you mentioned was the Southern Gas & Fuel?

A. Yes, sir.

Q. How much line was constructed in this piece of work?

A. About 90 miles of 18-inch.

Q. The cost of financing on this construction work was considerable, was it not?

A. No, the cost of financing on that was not very large; that was a comparatively small item on that one, because that particular concern was owned by a large holding company, which was in position to handle the financing of such matters right promptly on the decision to do the work.

Q. Now, you say the general overheads on this were 20 [fol. 3396] per cent.

Q. Can you tell the items that make that up and the amounts for each?

A. No, not the amounts for each. All I can tell you is that ratio; that is all I try to remember on a lot of those things.

Q. How much did the total job cost?

A. The total job was something in excess of three million dollars.

Q. Do you know what all was included in the general overheads?

A. Engineering and supervision during construction, administration and legal expenses during construction——

Q. Oh, I don't mean just those general classifications, Mr. Biddison; I mean specifically what was included in the engineering during construction and the administration during construction, and all that. You don't know the detail of that, do you?

A. Not now; but I supervised the construction of the job, and passed on all the details while it was being built, and approved the vouchers for payment for it.

Q. You can't break down this 20 per cent by amounts, so we can check up on it, in any way, can you?

A. No; no, I have stated that.

Q. Now, then, what is the expected life of the present [fol. 3397] field lines of the Company?

A. I don't know.

Q. Do you have any idea at all?

A. No, I made no investigation along that line at all, and couldn't hazard a guess on it.

Q. Now, the only thing that you can say about the assumption of the thirteen-year life as used in Mr. Freese's Exhibit No. 7 is that it is wrong—isn't that right?

A. No, I can't say much more than that, and I don't think I said that. I did say that I knew of nothing on which to predicate an assumption of any such figure.

Q. Well, you don't know even how Mr. Freese got his thirteen years, do you?

A. No.

Q. How are you able to say it is wrong, without even knowing how he got the figure?

A. Even if the figure were right, the use of it in that manner does not determine the amount necessary to be set aside for replacements on such an average life.

Q. You say the figure which Mr. Freese used would amortize the total amount of the field lines in 13 years, would it not?

A. At the interest rate he set up, I think it would do that; and that is all it would do.

Q. All right; and if the average life is correct, it would [fol. 3398] provide for the total refunding of the whole investment to the owners of the business in that time, wouldn't it?

A. No, sir, the amortization of the value of a piece of property of thirteen years' life in thirteen years will not return to them the value of the property, unless every individual item of property in that group lives to the full age and full term.

Q. Turn to page 2 of Exhibit No. 7—Plaintiffs' Exhibit No. 7—that is where this 13-year life appears as applied to gathering system rights of way, field measuring station structures, and field measuring station equipment. Don't you see on that page, Mr. Biddison, that in addition to the amortization fund on the field line equipment that per cents from .02 to 1.14 in the 13 years were provided for replacements? Do you see that?

A. Why, I see that it is estimated that the replacements would be at those rates, but I don't see that that is making a provision for replacements. That is merely stating what those replacements amount to, and that is a deduction from the accrual rate.

Q. You didn't know, then, Mr. Biddison, and it is news to you right now for the first time that those are an addition to the amortization rates?

[fol. 3399] A. Well, on the first year there that .02 is deducted from the 5.085, giving the 5.065 in the right-hand column.

Q. Can't you see by looking on this page that the amortization fund is plus the replacement rate of .02, because the annual rate of 5.085, which was used by Mr. Freese— —

A. Maybe I have taken it backwards there.

Q. All right. Now, you have made the statement, have you not, Mr. Biddison, that the cost of replacement is in excess of the cost of—of the original cost?

A. Yes.

Q. Suppose you have rock excavation at the original installation, Mr. Biddison,—would it be necessary to excavate rock again to make a replacement in the line at that point?

A. I expect it would. Maybe not in the same amount.

Q. The rock just sort of grows back by years, doesn't it?

A. I have never noticed it doing that.

Q. Well, why would you have any rock excavation for a replacement, then?

A. Because you are going to have to have a large area to work in for the replacement, and you have to dig out more than you originally dug, in making the replacement.

[fol. 3400] Q. All right; in making a replacement of a piece of pipe, where the line as originally laid was through rock excavation, how large a trench would you have to have excavated to make the replacement?

A. Well, you are going to have two bell holes—two bell holes are going to be dug out, and those bell holes will probably have to be eighteen inches below the bottom of the coupler, in order to provide room to connect up. There is that much rock to be taken out, anyway.

Q. Now, some of these replacements you are talking about and classifying as replacements, are as much as ten and fifteen mile stretches, are they not?

A. Some of them might well be that, yes.

Q. Now, in the case of a sizable replacement of that sort, how have you figured in the salvage value of the pipe taken out?

A. I haven't made any figures on the salvage value of the pipe.

Q. Do you know what the salvage value of the pipe as taken out is?

A. Why, it might be anything from nothing on up to twenty-five, maybe thirty, per cent.

* * * * * * *

[fol. 3401] Q. In Mr. Connor's Exhibit, page 153, this statement occurs: "It has been impossible from an analysis of records to determine the net value of salvable material involved in the replacement, removal, or abandonment of the Main Lines and Tap Lines of Lone Star Gas Company." Do you subscribe to that?

A. I don't know anything about it. I did not make any such analysis. I don't know whether it is possible to determine it or not.

Q. You would have to know what the worth of the pipe taken out is—what the salvage value is—before you can find out what the cost of replacement is, wouldn't you?

A. To get the net difference you would have to know that.

Q. That is what you are trying to find?

A. I am not trying to find it.

Q. The difference in cost of the pipe that is being used for replacement as compared with the original construction; isn't that what we are talking about?

A. No; the statement I made was that the cost of replacements of such work ordinarily done piecemeal was greatly in excess of the cost of original installation.

Q. And if you are making that statement as you now make it, you are not considering in any way the salvage [fol. 3402] value of the pipe taken out?

A. No; because that is not a part of the replacement. That has necessarily to be considered in the adjustment of the property account when the adjustment is made, but it is not a part of the cost of replacement.

Q. Would it be considered in any way in the determination of the annual depreciation rate?

A. Yes.

* * * * * * *

[fol. 3403] Ed C. Connor, a witness for Defendant, resumed his testimony, and testified as follows:

Cross-examination.

Questions by Mr. Fitzhugh:

Q. Refer to your Exhibit No. 49, Mr. Connor, table 2. The heading on this page is Main and Tap Lines, calculation of major removals, based upon plaintiffs' Exhibit 7, page 4. Do you have with you Plaintiffs' Exhibit 7?

A. I have.

Q. Turn to page 4 of that exhibit. By comparing page 4 of Plaintiffs' Exhibit 7 with your table 2, Defendant's Exhibit No. 49, will you show how you reasoned from page 4 of Plaintiffs' Exhibit 7 to get any of the figures shown on your exhibit?

A. Why certainly. Mr. Freese, in his Exhibit 7, page 4, column 4, sets out the annual accrual to provide for major removal of pipe in service, which is .289 per annum.

Q. What was that percentage to be applied to?

A. It was to be applied to the pipe in service, by years, and it is the only way it could be applied. You could not apply it to pipe which had never been put into service in the system of the company.

[fol. 3404] Q. Pipe in service when, Mr. Connor?

A. I applied it to the pipe in service as it went into service, from the beginning of the company's operations.

Q. Why did you do that?

A. Because that is the way it would have to be accrued, and that is the way it shows on page 4, from the year 1, forward.

Q. Do you mean to say that is Mr. Freese's testimony on that exhibit?

A. I don't know what his testimony is, but that is what the exhibit shows.

Q. That is just your interpretation of what you think Mr. Freese's testimony was, isn't it?

A. This exhibit shows that he sets up annually .289 per cent to provide for major removals.

Q. Don't you know, Mr. Connor, that that percentage of .289 was to be applied to the present pipe in the system?

A. Yes, as of this date, but not in the year 1912, because the pipe that is in the system today was not in the system

in 1910, 1911 and 1912. You could not start out in 1910 and apply .289 per cent to 4,000 miles of transmission system, when there wasn't but 250 miles of it in service.

Q. Do you know how Mr. Freese found this .289?

A. Yes; I know exactly.

Q. How did he find it?

A. He found it by dividing the total number of feet in service as of this date by the number of feet of pipe that [fol. 3405] had been replaced, removed or abandoned and classified as major removals. That is correct.

Q. Is that all he did?

A. That is the way he determined it.

Q. Didn't he divide that amount by the number of years?

A. Yes, and he assumed, when he did that, that every foot of pipe in service as of this date had been in service all along, and that is not correct.

Q. Notwithstanding that, this figure of .289 per cent represents an average, does it not?

A. Yes and if, according to Mr. Freese's tabulation on page 4, that percentage would be applied to the footage of pipe in service for each year from the beginning of the company's operations, and that is exactly what I have shown on table 2 of Exhibit 49.

Q. Didn't Mr. Freese's method, the way he worked it out, show that there should be allowed, from the very year that the company started in business, replacements amounting to on the average of 30 miles per year?

A. I don't think so. I don't think Exhibit 7 makes or sets out any such thing. It shows that in the first year of the company's operations, you would set up a reserve accrual of .289 per cent. Now, what could that be applied to in the first year of the company's operations, except the pipe which was in service during the first year of the company's operations?

Q. You understand that the computations on page 4 of [fol. 3406] Plaintiffs' Exhibit 7 do not apply to the first year of the company's operations?

A. Why, it so states right on the exhibit.

Q. Where does it?

A. It says, Year One.

Q. That doesn't mean 1909, or the first year of the company's operations, does it?

A. Mr. Freese testified, if I recall his testimony cor-

rectly, that these percentages, if applied to the operations of the company from the beginning of operations, would have provided all the necessary replacements, removals and abandonments from the very beginning of the company's operations, and in that connection, assuming that every calculation on page 4 of Mr. Freese's Exhibit 7 is correct, and this exhibit of mine more or less indicates that they might not be correct, but assuming that every calculation on that page is correct, still these calculations of mine, in my opinion, do not meet the chief error which lies in this method of reserve accrual calculation.

Q. Just to sum up the whole thing, Mr. Connor, you don't have any idea what Mr. Freese did, do you?

A. I know exactly what Mr. Freese did.

* * * * * * *

[fol. 3407] Q. On page 4, Mr. Freese shows the annual rate for replacements and amortization, in per cent, as used by him, to be 1.70, does he not, Mr. Connor?

A. That is correct. 1.70 per cent, which included .47 for amortization and 1.23 for replacements.

Q. Now, that 1.70 per cent was not to take care of any major removals, was it?

A. No sir, it was designed to provide, assuming that this property was brand new as of this date—it was designed to provide a fund to amortize the property and make replacements in the property upon the assumption that the property as of the date of this inquiry was brand new.

Q. Mr. Freese's testimony on this point was as follows, reading from the record, page 3023:

"To this annual amount of 1.70 percentage sufficient to both make replacements and amortize 100 per cent the cost of the property during its life time, we have added a percentage of .289 per cent to make major removals, and .150 [fol. 3408] per cent to make major rehabilitations, giving a total of 2.139 per cent per annum. There is very little regularity about the way these major removals take place. The heavy removals were in the earlier history of the company when there was a comparatively small amount of pipe in the system. However, the total of major removals during the history of the company, up through 1931, was 659 miles of three inch equivalent pipe."

A. That was in the main lines only.

Q. Mr. Freese further says: "Now, the percentage relation of those major removals to the total amount of pipe in the system as of December 31, 1931, was 8.54 per cent, and the ratio would be substantially the same today."

Now, where Mr. Freese says the total amount of pipe in the system as of December 31, 1931, what does that apply to?

A. It applies to the total amount of pipe in the system today; there is no question about that. I knew just exactly what Mr. Freese did, and there was no need for you to read that testimony back to me. What Mr. Freese has done, is to set out, on page 4, a series cumulative of annual replacement rates which he applies to the property of the Lone Star Gas Company in the Year One. Now, for those rates to have any practical application from the standpoint of Mr. Freese's own exhibit, they would have to apply to the pipe successively put into this system from the year one. Otherwise, he would be assuming that at the very beginning of the operations of this company, every foot of [fol. 3409] pipe in the system today was then in existence which was not true. He also pre-supposes however, clearly on column 2 of page 4, that you will start at the very beginning of this property when it is one year old, because his replacement rate which he shows in column 2 is taken from the replacement rate which he calculates would be made on pipe one year old.

Q. Well, just to show that you did not understand what Mr. Freese was doing and that you did not apply what Mr. Freese has done in his Exhibit 7, page 4, you ended up with 320.83 miles in your calculations as against his 659 miles of removals?

A. Yes, and that is exactly the number of miles which would have been provided for during the history of this company, had you applied the percentage that Mr. Freese shows in column 4, page 4, to the property which was in service each successive year from 1910 and the twenty-two years succeeding.

Q. You mean if they had applied your percentage, instead of Mr. Freese's percentage?

A. No, sir; I mean if they had applied Mr. Freese's percentage.

Q. Now, you carried your computations from table 2 over into your table 5, didn't you?

A. No, sir; table 5 has nothing to do with table 2.

Q. You mean you didn't intend for it to; is that it?

A. Why, no; I didn't. Table 5—you are referring to my table 2, aren't you?

Q. Yes.

A. Table 5 refers specifically to the table set up on page [fol. 3410] 6 of Plaintiffs' Exhibit 7, which has to do with gathering lines, and my Table 2 has to do with replacements and removals of main lines and tap lines.

Q. Well, in your column E on table 5, didn't you make the same interpretation of major removals as you did on table 2?

A. No, sir. I made the same application of it, yes, because Mr. Freese shows on page 6 of Exhibit 7, in Column 3, that 2.77 per cent, accrued annually against the gathering lines of Lone Star Gas Company, would provide for all of the replacements which would be required in the gathering lines of Lone Star Gas Company, together with the major removals of the gathering lines, and in addition thereto would accrue a credit balance of 77 per cent at the end of twenty years. I applied that per cent that he said would do that, to the gathering lines of the Lone Star Gas Company as they were actually laid, by years, from the year 1913, through 1932, and instead of accruing a credit balance of 77 per cent, we have a negative figure in that credit balance.

Q. All right, now on page 1 you take the figure of 320.83 from table 2, and use that in your computations on page 1, did you not?

A. Yes, and very properly so.

Q. Instead of the 659 miles that Mr. Freese actually used?

A. Yes, but you never would have accrued 659 miles, or whatever that figure is, if you had applied that rate from the beginning of Lone Star Gas Company's operations.

[fol. 3411] Q. That is your interpretation of it.

A. That is the only interpretation that can be placed on it, as shown by the exhibit itself.

* * * * * * *

Q. Now, on table 1, the total pipe mortalities from physical causes as shown on this page, in your Column C, are 337.75 miles of three inch equivalent.

A. That is correct.

Q. Is that right?

A. Yes.

Q. Now, from the beginning of the company's operations and covering the lines shown in the A column, what were the total mortalities of pipe, actually?

A. I can not tell you that, Mr. Fitzhugh, the exact from Column A, because Column A is adjusted, as is set out in the exhibit, and other items of property or other lines are included in subsequent calculations. Including the lines which are provided for in table 3 and table 4, the total mor- [fol. 3412] talities to date, that is, of July 1, 1933, were 6,066,627 feet of equivalent three inch diameter pipe.

Q. Is that a figure of the actual total mortalities on account of physical causes only?

A. No, it is not.

Q. What is it for physical causes only?

A. 2,003,486 feet of equivalent three inch diameter pipe.

Q. Now, from the curve which you used for mortalities in your own exhibit, what were the corresponding mortalities, that would compare with this 337.75 miles of three inch equivalent?

A. I have expressed it in three inch equivalent diameter pipe, in feet, Mr. Fitzhugh, and if it will be perfectly satisfactory to you, I will confine my answers to feet, because all my calculations are made on that basis. The actual replacements and abandonments due to physical causes, of main lines and tap lines, according to the records of the company, were 2,003,846 feet. My calculated replacements and abandonments covering the same period of time were 2,044,522 feet. That is assuming that the replacements were made in accordance with the renewal rates which I have set out in Exhibit 42.

Q. That covers the same period as shown on table 1, doesn't it?

A. No, it does not. I confined the tables in this Exhibit 49 to the period of time shown in Plaintiffs' Exhibit 7, page 12.

Q. Well, at any rate, for this same period of years, these twenty-two years, your mortality curve would show a less number of replacements than Mr. Freese's curve, would it not?

A. I don't know. I wouldn't be surprised but what it [fol. 3413] would, because the characteristics of the curves

are different during the early years of the pipe life, and the chief difference between the curve which I have used, and that which Mr. Freese has used, is its behavior in the future. There was no reason in the world why Mr. Freese could not have made that calculation to make it come out exactly.

Q. Well, the way you have computed Table Number 1, Mr. Connor, wouldn't it be more nearly applicable to your curve than to Mr. Freese's mortality curve?

A. No. I think Mr. Freese made exactly the same sort of calculation when he tested the results of his own curve. That is just a practical way of doing it.

Q. Well, if you show on table 1 a less number of mortalities than Mr. Freese shows, wouldn't that show that it would come closer to applying to your mortality curve than to his?

A. Well, it might show a lesser number there because I am quite sure Mr. Freese in making these applications did not break this footage of pipe down into the three groups which I have done. To the 337.75 miles of three inch equivalent diameter pipe there must be added 19.48 miles of three inch equivalent shown in table 3 and 7.41 miles of three inch equivalent shown on table 4. In other words, the calculations on table 1 are not the entire amount which I ascribe to Mr. Freese's calculations.

[fol. 3414] Q. Well, I will ask you this, Mr. Connor,—for this same period of time covering the same property, isn't Mr. Freese's mortality curve more liberal to the Company than yours?

A. I don't know. I wouldn't be surprised but what they are very much alike up to that point; now, that is net results.

Q. You couldn't answer one way or the other on that?

A. No. I imagine they are very close together. In that connection, however, I think the critical test in this instance is what may happen in the future.

Q. Do you have Plaintiffs' Exhibit No. 6 there, Mr. Connor?

A. Exhibit 6?

Q. Yes, sir.

A. No, sir, I haven't, Mr. Fitzhugh.

Q. Well, you know the total amount that Mr. Freese allowed for interest during construction, do you not?

A. No, sir, not offhand. (Copy of exhibit is here handed to witness by counsel for Defendant.) I have the figure before me now, Mr. Fitzhugh.

Q. The figure is $1,522,468.89, is it not?

A. That is correct, yes, sir.

Q. Now, you testified at length to what Mr. Freese did in computing his interest during construction. Can you tell me, Mr. Connor, what the period used by Mr. Freese for the construction of the general office building was?

A. I don't think that I testified at length to the construction period used by Mr. Freese, because I don't think he used any construction period.

[fol. 3415] Q. Well, do you know — the period of time used by Mr. Freese for the construction of the Dallas office building was?

A. No, I don't know the individual times, Mr. Fitzhugh. I think I understand the method that he used.

Q. Do you know what period of time he used for transmission line equipment?

A. No, sir, I don't on the individual lines.

Q. Do you know what period of time he used for the construction of compressor stations?

A. No, but I imagine he sets it out somewhere in the exhibit.

Q. Well, do you know for any of the items of property the period of time that Mr. Freese used?

A. No, I don't.

Q. Now, Mr. Freese, when he testified, testified at length. Did you read the record on that or hear his testimony?

A. Oh, yes, I heard his testimony.

Q. Now, without knowing what periods of time he used on any of the classifications of property, you are still willing to say that his figure is wrong?

A. Yes, sir.

Q. And that is about all you know about it, isn't it Mr. Connor——

A. No.

Q. —that you don't agree with him?

A. No, I know a great deal about it, I think, Mr. Fitzhugh.

Q. Did Mr. Freese in finding his general overheads use [fol. 3416] the book cost?

A. No, I don't think he did.

Q. What did he use?

A. He used a method of computing which I think, perhaps, was based somewhat on his analysis of the charges which had been made to the account of general and undis-

tributed overheads, but he modified that, as was disclosed by his testimony.

Q. He considered, did he not, all the operating expenses for the period?

A. Yes, I think he did; that is correct.

Q. And when he got through he had about four times what the actual general overheads on the property constructed were, did he not?

A. As reflected by the Company's books?

Q. Yes, sir.

A. That is correct. I don't think that the figure you—the multiplier that you cite is correct; but I know that he did increase the actual charges by some factor which he applied.

Q. And in spite of the fact that he ended up with four times as much as the books actually show, you still say he is wrong about it?

A. Absolutely. I agree with you, Mr. Fitzhugh, in your statement that you made yesterday that historical costs have no particular application to the reproduction costs of a property.

[fol. 3417] Q. Well, I made that statement in connection with a particular type of property, did I not?

A. Yes; and I think it applies equally to all property when you make a reproduction cost estimate. I don't think you can——

Q. I was talking about the computed high powered guesswork that Mr. Steinberger brought in here at the time, wasn't I?

A. I don't know how you feel about Mr. Steinberger's records, but I don't think they are high powered guesswork. I think they are excellent construction records. Furthermore, I don't believe it would be proper in making a reproduction cost estimate to assign or ascribe great emphasis to the historical costs in one part of the estimate and then throw historical costs out of the window in checking up on the other part of the estimate.

Q. You didn't understand, then, yesterday that my objection to Mr. Steinberger's historical cost was the fact that it was a computed cost rather than an actual cost?

A. No; I just understood you to say that historical costs were not particularly applicable in a reproduction cost estimate; and I agree with you, Mr. Fitzhugh.

Q. Yes. Well, you understood me, Mr. Connor, just about as well as I understand Mr. Freese?

A. I think so.

Q. Now, you have already testified that you estimated yourself in testifying before the Railroad Commission that the total life expectancy of Texas wells—being those wells [fol. 3418] connected on December 31, 1931—was 13.86 years?

A. I don't know that I did that, Mr. Fitzhugh. I can't recall just exactly what I said. I might have testified that the decline in rock pressure between two periods would indicate that fact.

Q. Just to refresh your memory, Mr. Connor, I will show you an exhibit. On page 83 of the exhibit that you introduced as Exhibit No. 18 before the Railroad Commission, didn't you testify that the total life expectancy of Texas wells, there being 347 connected as of December 31, 1931, was 13.86 years?

A. That is correct. Based on the rock pressure decline within a given period of time.

Q. And notwithstanding that testimony of yours, you now object to the use of a 13-year life for the equipment, lines, and so on attached to wells?

A. That is correct; I do.

Q. Was there anything wrong with your computations?

A. No, not with those computations, but in the application of the computations.

Mr. Griffith: You mean Mr. Freese's application?

A. Yes. The decline of the life expectancy indicated by the decline in rock pressure in a group of wells in any given period might mean a great deal and might mean nothing at all. The life of a gas well is dependent upon the rate at which gas is taken from the well, and not the passage of [fol. 3419] time at all; and you could make a decline in rock pressure on wells in one year which would be ten times the amount of the decline indicated by that period; and the life of your wells would not be controlled at all by anything except the rate of withdrawals from those wells.

Q. Well, what was the use of making this computation if you didn't want to use it on anything?

A. Well, I have come to the conclusion after a year's study that there wasn't any use in making it.

Q. Yes, sir. Now, then you testified yesterday that the

general overheads allowed by Mr. Freese constituted ten per cent. of the physical property costs?

A. No, sir, I did not. I answered a question propounded by counsel relative to that percentage. I did not figure any percentage.

Q. Well, what was the actual amount he used?

A. I think Mr. Biddison made a calculation subsequently that indicated that the percentage was approximately 11.8 per cent.

Q. All right, sir. You and Mr. Biddison fell into the same error on that, didn't you?

A. No, sir, I didn't fall into any error at all. I made no computation.

Q. Well, that was the first time, then, when Mr. Biddison made the correct calculation, when you knew what the per cent. was?

A. I was not interested in the per cent; I was interested in the amounts ascribed to the individual accounts.

[fol. 3420] Q. All you knew, as a general proposition, was that Mr. Freese was wrong, is that it?

A. That is correct.

Q. Now, you introduced an exhibit showing the attachment of business on various lines. I believe your exhibit covered Lines L, O, and a couple of others—K and another?

A. I show in the exhibit, Mr. Fitzhugh, the rate of attachment of business on Lines L, E, and O, and the history of the use of Line K.

Q. Do you know what the earnings for the business upon Line K have been?

A. No, because earnings on Line K would mean nothing at all, because there are very few sales made off of Line K, and K is what might be called a major transportation unit which delivers gas into a group of other lines.

Q. Do you know what the earnings on Line O have been?

A. No, I don't know what they have been, Mr. Fitzhugh; but they would have been considerably more than they have been if that business had been instantaneously attached.

Q. As a matter of fact, you are not able to segregate earnings by Lines, are you?

A. No; I wasn't interested in it.

Q. Now, what difference would it make whether your business came fast or whether it came slow if all of the time you were allowed to earn a sufficient return on your property being used in public service?

A. Are you speaking now historically?

[fol. 3421] Q. Yes, sir, at any time. I am asking you this question,—does it make any difference right now—to-day—whether your Company is using a hundred per cent. of its line capacity or only ten per cent., or whether it only has ten per cent. of its customers attached or whether individual customers are only using ten per cent. of their potential consumption of gas, so long as your Company is being allowed to get a fair rate of return on its property used in public service?

A. Why, it makes all the difference in the world.

Q. Why does it?

A. Why, because if you had ten per cent. of your business attached to the system of the Lone Star Gas Company there is no rate that could be fixed in the world which would allow you to earn anything on that property.

Q. Well, I am asking you for the purposes of my question if you are getting enough in your rates to earn yourself a fair rate of return on your property investment, now assuming that,—could it possibly make any difference whether you had three customers on the line of three billion customers on the line?

A. No, sir, if you want me to assume that three customers would pay the rate of return on seventy millions of property through their gas rates, I am willing to agree to your hypothetical question.

Q. It would not make any difference whether they used ten per cent. of your line capacity or a hunderd per cent?

[fol. 3422] Q. All right. Now, it would take a history of the company to find out whether you have been deprived of a fair rate of return since the very day you started business?

A. No, sir, I don't think that has anything to do with it.

Q. You don't want to make that?

A. I wouldn't be interested—I wouldn't be interested in whether the Company made or lost money in making a reproduction cost estimate.

Q. You know, don't you, Mr. Connor, that your Company has always gotten a fair rate of return on its value through rates?

A. I do not know.

* * * * * * *

Q. Now, this matter or consumer attachment is something that you say is ordinarily significant in finding going value?

A. Absolutely, or in measuring going value, yes.

Q. In measuring going value, which you found in excess of seven million dollars?

A. That is correct.

Redirect examination.

Questions by Mr. Griffith:

Q. Mr. Connor, in answer to a question propounded on [fol. 3423] cross examination by Mr. Fitzhugh, I understood you to say that your exhibit,—that is, Defendant's Exhibit 49, did not reveal the chief error, in your opinion, in the calculations on page four of Plaintiffs' Exhibit 7?

A. That is correct.

Q. To what error do you refer?

A. If reference is made to page four of Plaintiffs' Exhibit 7, it will be found that in the third column under the heading "Annual Rate for Replacements and Amortization Per Cent", that the figure 1.70 is found, and continues from the year one to the year forty-five. That figure, as indicated by the heading, is the annual percentage which Mr. Freese suggests should be applied to property in service to provide for replacements and to amortize the property. Being a dual function, it is necessary to segregate that figure into its two component parts. A six per cent. sinking fund accrual over a forty-five year period to amortize a hundred per cent of the property would require an annual accrual of .47 per cent. If a .47 per cent is deducted from the 1.70 per cent. shown in column three, there is left an average—a uniform annual accrual for the costs of replacements and abandonments of 1.23 per cent.

Q. And will that be adequate?

A. No, but that is not the particular point which I have in mind. Mr. Freese testified yesterday that the property was approximately twelve years old—that is, the main [fol. 3424] transmission system of Lone Star Gas Company at the date of this figure was approximately twelve years old. If reference is made to page 4——

Q. Of Plaintiffs' Exhibit 7?

A. Of Exhibit 7, it will be found that in the last column there is an amortization fund for the twelfth year of 22.68 per cent. That 22.68 per cent. represents, when applied to the transmission system property only, a sum of money equal to $6,130,000.00, approximately. In order for the calculations which Mr. Freese makes subsequent to the year twelve in the first column to come out, it will be necessary to use that $6,130,000.00, approximately, by the application of six per cent. interest to it. In other words, there will be necessary a supplementary fund created by the use of that money, to provide for an inadequacy of the replacement rates which Mr. Freese's calculations show will be incurred after the thirteenth year. For instance, in the fourteenth year of the proposed life, the replacement rates calculated by Mr. Freese are 1.27.

Q. As shown in the second column of page 4 of Plaintiffs' Exhibit 7?

A. That is correct. That is in actual excess of his accrual for that same year. That excess gradually increases from year to year, as indicated by Table 2, page 4, of Plaintiffs' Exhibit 7. In other words, it is necessary to use a credit balance, assumed or otherwise, in the depreciation reserve, [fol. 3425] according to the computations made by Mr. Freese himself, in order to provide for the inadequacy of his accrual rates for the current and future replacements in the main transmission system of Lone Star Gas Company.

Q. That is assuming an average life of the property of twelve years?

A. As of this date?

Q. Yes.

A. That is correct.

[fol. 3426] Recross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Connor, all of your testimony that you have given on this matter, and the calculations you have made are based on the same assumption you made in the original exhibit introduced by you that there are no funds now on hand in a theoretical amount, or actual amount either, available for use in making repairs and replacements?

A. I think you have stated my position substantially

correct. However, in view of the importance of my answer, I would like to give it to you myself. It is my position that in so far as the necessary replacements required for Lone Star Gas Company from the date of this inquiry forward are concerned that those rates must be adequate for that purpose and cannot be supplemented to make up for any inadequacy by withdrawals from a credit balance in a reserve accrual theoretical or actual.

Q. And where the records of the Company show that they now have a reserve of fifteen million dollars, your calculations show it would not be necessary for you to call on that for so much as a penny?

A. That is correct; and my answer would be the same if, instead of having a credit of fifteen million dollars, they had had a debit balance of fifteen million dollars.

[fol. 3427] E. F. SCHMIDT, a witness for the defendant, recalled, testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. Mr. Schmidt, there has been introduced in evidence here by the plaintiffs what has been styled Plaintiffs Exhibit 4, and I refer you to page 9-A of that exhibit. Does page 9-A of Plaintiffs' Exhibit 4, in the column headed "12-31-33" disclose the net Oklahoma gas sold in Texas neglecting line loss in thousands of cubic fee- to be 132,381?

A. It does.

Q. Now, that figure of 132,381 would represent 132 billion 381 million, would it not?

A. No; 132 million 381 thousand.

Q. Correct. Mr. Schmidt, in connection with the public service operations of the Lone Star Gas Company, has the service which has been rendered been good or otherwise?

A. The service has been extremely good.

Q. In connection with the public service operations of the Lone Star Gas Company, and at times of maximum or peak demand, has it been necessary for the Company to utilize for the supply of customers in the State of Texas the gas produced and/or purchased in the State of Okla-
[fol. 3428] homa, and also the Oklahoma facilities of the Company?

A. It certainly has been.

Q. If Lines H and 2nd H and Line G were only utilized for a period of one day during an entire calendar year, would it be necessary that the Company utilize Lines H and 2nd H and Line G and the Oklahoma gas produced and/or purchased to meet the demands in connection with its public service business in the State of Texas?

A. It certainly would, or else we would have a shortage of gas in many of those cities.

Q. In North Texas?

A. Yes.

Q. Mr. Schmidt, what was the primary source of gas supply for the Company for the calendar years 1918 to 1924?

A. Petrolia was one of the principal sources; then, following that, in Southern Oklahoma, in what was known as the Keys Field.

Q. Was that in Cotton County, Oklahoma?

A. Cotton County, Oklahoma, yes.

Q. All right.

A. Then a little later the Duncan Field.

Q. Is that in Stephens County, Oklahoma?

A. In Stephens County, Oklahoma, southwest of the city of Duncan. Then in the Fox Field, Oklahoma, which is located northwest of Ardmore in Love County, I believe.

Q. In Cart*ne* County?

[fol. 3429] A. Carter County is correct.

Q. Mr. Schmidt, during the years 1918 to 1924 was the gas produced and/or purchased by the Company in the State of Oklahoma by far the principal amount of the gas which the Company transported and sold at wholesale at the city gates of the towns and cities served in northern and central Texas?

A. It was.

Q. Mr. Schmidt, in connection with the public service operations of the Company within the State of Texas, is the Company able to meet at times the maximum demand or maximum requirements for gas put upon its public service properties or facilities, without the use of the Company's own gas wells, gas well equipment, and other production system property?

A. No, sir.

Q. Is that true both in the West Texas gas fields, as well

as in the Panhandle gas field, or what we know in this case as the Shamrock territory, of Wheeler County, Texas?

A. That is correct.

Q. Mr. Schmidt, some reference has been made in this case to the fact that in the year 1933 the Company was able to buy some 24-inch pipe at a price of approximately two dollars per foot, whereas the quoted price was approximately three dollars per foot. Are you familiar with the [fol. 3430] facts and circumstances attendant upon the purchase of that pipe?

A. I am.

Q. For what purpose was the pipe purchased?

A. The pipe was purchased to replace some pipe in Line O east of Joshua.

Q. East of the Joshua Compressing Station?

A. That is correct. This pipe was National Tube seamless pipe. The manufacturers of this pipe, in order to keep the surfaces smooth, use a certain salt. This pipe, evidently, was left over on an order which the National Tube Company had and it was in storage for some considerable time. The original pipe was 5/16——

Q. Five-sixteenth what?

A. Five-sixteenth of an inch thick.

Q. That is, that was the wall thickness?

A. Five-sixteenth of an inch thick, yes, sir. Theoretically, that pipe would have a weight of about something around 85 pounds a foot. On account of this salt and being in storage for sometime, the salt reacted on the walls, reducing the wall thickness. It was sold to us as 9/32 pipe, which has an average weight of 71 pounds. This pipe actually weighed a little better than 80 pounds, so that the wall thickness was somewhere between 9/32 and 5/16. When we received the pipe,—or rather before the pipe was shipped to us, it was tested at 900 pounds hydrostatic pressure. Every joint [fol. 3431] was inspected and had hydrostatic tests. It was thoroughly cleaned, wire brushed inside and outside, and coated on the outside when shipped. When we received the pipe we were afraid that that salt might continue to react——

Q. On the interior of the pipe?

A. —on the interior of the pipe, and we coated the interior of the pipe with a chemical known as nooxid, manufactured by the Dearborn Chemical Company. This, we

felt, would make the pipe just as good as the standard pipe. The pipe replaced was about 6300 feet——

Q. In Line O?

A. In Line O. And we felt since we could get this pipe at around two dollars a foot, with its added capacity and suitability for our purposes, that we should substitute that for the 18-inch.

Q. Now, Mr. Schmidt, would you have been able to get a price of two dollars a foot upon that pipe if it had not been for the fact that the pipe had had this reaction from the salt application?

A. No, sir; we would not.

Q. Mr. Schmidt, it was not a discount price?

A. No, sir; it was not a discount price.

Q. It was merely a sale of some goods by the National Tube Company which was not considered as suitable for sale according to standard specifications?

[fol. 3432] A. That is correct.

Q. Now, Mr. Schmidt, referring again to Plaintiffs' Exhibit 4, where for the year 1933 the net Oklahoma gas sold in Texas is shown to be 132,381 thousand cubic feet, I will ask you if you have again checked your figures as set forth in Defendant's Exhibit 44, reflecting the net amount of Oklahoma gas produced and/or purchased and transported into the State of Texas?

A. I have.

Q. How did you make that check, and how does that check compare not only with the net amounts of Oklahoma gas produced and/or purchased in the state of Oklahoma and transported into the state of Texas, but also compare it with the figure of 132,381 thousand, shown on page 9-A of Plaintiffs' Exhibit 4?

A. I would like to show on the map how I worked it out on the H System, which brings gas from the Duncan and Chickasha fields. We have at Petrolia two main line meters. I took the measurement on those two meters from our records, and added to that the deliveries off the H System between the Red River, which is the state line between Texas and Oklahoma, and the meters at Petrolia. On the G System, which brings gas from the Fox, Loco, Palacine, and Robberson fields, we have a meter located at Gainesville.

Q. South of the Red River and in the State of Texas?

[fol. 3433] A. Yes, sir. We also have meters at Dixie Junction on the three lines, one coming from the Loco and

Palacine fields, and the other two lines coming from the Robberson-Fox District. So I have two checks. So subtracting from those meters the deliveries in Oklahoma, which was at Marietta, north of the Red River, gave me a check on the Gainesville meter, and I have those figures. On the G System, at Dixie Junction, the three meters showed a total of 567,314 thousand. Subtracting the sales to Marietta, which is south of Dixie Junction, and between these meters and the State Line, Marietta sales were 29,277,000, giving a total delivered into Texas from the G System of 538,037,000. As a check on that meter, the Gainesville meter showed 539,984,000—a difference of 1,900,000 cubic feet.

Q. Well within the range of accuracy of orifice meters?

A. Well, within the accuracy, yes, sir. On the H System the meters at Petrolia showed a total of 465,694 thousand. Adding to that the sales at Petrolia and Byers, and main line sales amounting to 108,421 thousand, gives a net amount delivered into Texas from the H System of 574,115 thousand. Adding that to the G System——

Q. That is the net deliveries of the G System into Texas?

A. Adding the net deliveries of the G System into Texas of 538,037 gives 1,112,152,000 cubic feet of gas delivered from the Oklahoma fields into Texas.

[fol. 3434] Q. And how does that figure check with the figures shown in Defendant's Exhibit 44 which you sponsored?

A. I showed 1,210,791,000, or a difference of about 98,000,000, which is very close for main line measurement of large volumes of gas under high pressure.

Q. Now, Mr. Schmidt, do I understand that the net total amounts shown by your check upon Exhibit 34—that is the net total amounts of Oklahoma gas produced and/or purchased and transported into Texas amounted to 1,112,000,000?

A. That is correct.

Q. Our exhibit 44 I should have said.

A. Exhibit 44 shows 1,210,000,000, and the main line meter shows 1,112,000,000.

Q. Now, Mr. Schmidt, what is the excess of that amount over the amount of 132,381,000 cubic feet shown in the column headed "12-31-33" set forth on page 9-A of Plaintiff's Exhibit 4?

A. A difference of 979,771,000.

Q. Or almost one billion cubic feet of gas?
A. Almost a billion cubic feet, yes, sir.

[fol. 3435] Cross-examination.

Questions by Mr. Fitzhugh:

Q. For the year 1933 how much gas was produced and purchased in Oklahoma?
A. In the Chickasha and Nellie fields, 734,629,000; in the Duncan field, 54,312,000; in the Loco field, 22,580,000; in the Fox field, 653,527,000; Robberson field, 207,007,000; Palacine field, 17,487,000; or a total of 1,690,342,000 from those fields.
Q. How much was used in Oklahoma during 1933?
A. On those two statements, 479,551,000.
Q. Now, you are just talking about certain lines, aren't you?
A. Deliveries from those fields.
Q. Well, what was the total used in Oklahoma during 1933?
A. From all sources, something over a billion feet.
Q. About how much over a billion feet?
A. I do not have the exact figure, but, as I recall, it is one billion two hundred million, something like that.
Q. If your figures are correct, then the excess for Oklahoma would be 490,342,000; is that correct?
A. No, sir.
Q. What is the correct figure?
A. The correct figure is 1,210,791,000.
Q. What was the excess of Oklahoma gas produced and purchased over the actual consumption of Oklahoma?
[fol. 3436] A. The actual consumption of Oklahoma in all towns, regardless of where they are located?
Q. Yes.
A. As against the——
Q. As against the gas purchased and produced in Oklahoma.
A. As against the gas purchased and produced in Oklahoma on the "G" and "H" Systems?
Q. No, on all systems. Now, you understand my question, don't you, Mr. Schmidt? I want to know how much gas was left after you deduct all the gas consumed in Oklahoma from all gas produced and purchased.

A. Well, the gas sold in Oklahoma did not come from these sources.

Q. I didn't ask that. I asked you to make the simple deduction of the gas consumed in Oklahoma from the gas produced and purchased in Oklahoma.

* * * * * * *

[fol. 3437] A. The total production in Oklahoma from the fields as indicated, 1,690,342,000; sales in Oklahoma from all sources, 1,200,000,000, approximately.

Q. Well, now, what is the deduction?

A. That would make 490,000,000, but it doesn't mean anything, because those sales were not made from these sources.

Q. Well, what is the figure?

A. 490,000,000.

Q. Now, how much gas from Oklahoma went into storage in 1933?

A. A small amount of gas went into storage.

Q. How much?

A. I do not have the figures.

Q. How much gas was stored on the Miller lease from Lines "H" and Second "H"?

A. I haven't the figures on it.

Q. You would not be able to say, would you, Mr. Schmidt, whether it was over five hundred million or less than that?

A. No; I would not say it was less than five hundred million.

[fol. 3438] Q. But you don't know how much?

A. No, sir.

Q. Now, then, there has been some testimony in this case, if I remember correctly, that the gas stored on the Miller lease approximates five hundred million cubic feet per year, or for the year 1933. If I am correct in that, there would be a wash-out as to this 490,000,000 feet of gas, would there not?

A. I don't know, because gas from the Fox field goes into storage at Petrolia; from the Fox field five hundred million comes into Texas.

Q. I am talking about gas stored on the Miller lease from Lines "H" and Second "H".

A. I don't know how much was stored on the Miller lease from Lines "H" and Second "H".

Q. Well, when you gave the figure of 132,000,000 cubic feet as taken from Plaintiffs' Exhibit 4 you did not intend for it to be a net figure, did you?

A. That is what it said.

Q. Well, is the figure a net figure?

A. I read the heading into the record that said——

Q. Well, can't you answer "yes" or "no"?

Mr. Griffith: He said that is what it said, Mr. Fitzhugh.

Q. Well, your answer is "yes"?

[fol. 3439] A. Yes, sir, that figure as shown by that exhibit.

Q. Well, isn't that figure exactly correct for the net amount?

A. No, sir.

Q. Why isn't it?

A. Well, I know that five hundred million feet came into Texas through the "G" System—something better than five hundred million. How could 132,000,000 be correct, then?

Q. Well, what do you mean by "net figure"—don't you mean the excess of the total over the amount deducted?

A. Well, you are deducting figures that have nothing to do with production in Oklahoma.

Q. For the current year, Mr. Schmidt, 1934, and judging by the reports that have already come into your department, or for as much of the year as has passed, will the amount of gas produced and purchased in Oklahoma be as much as the gas consumed in Oklahoma?

A. It will be very much in excess, even more than it was in 1933.

Q. What is your basis for it?

A. The figures you just referred to—the statement of it.

Q. You haven't brought in any more gas fields up there, have you?

A. No; we are taking more gas from Oklahoma.

Q. They have dropped off about a million up there yearly up to this time?

A. The total in Oklahoma, I expect, is about the same [fol. 3440] as it has been—the sales.

Q. Don't your own exhibits show it?

A. They do for the years I show, but I have not shown 1934.

Q. Now, then, you have explained, to your own satisfaction at least, Mr. Schmidt, these purchases of pipe?

A. I have explained the actual conditions under which we purchased it.

Q. Now, I will ask you if all the painting on the inside of the pipe was not to prevent interior corrosion of the pipe being placed in the system at or near Joshua, Texas?

A. No, sir. We replaced other pipe in the same system.

Q. Well, Mr. Schmidt, if you have got salt on the inside of the pipe and it is going to cause corrosion, what difference would it make if you paint it over?

A. It counteracted the action of the soil. It was not paint we used; we used a chemical.

Q. What is NO-OX-ID?

A. It is a grease, a chemical.

Q. What is it?

A. It has an inhibitor in it; it is composed of various hydrocarbons and greases.

Q. Well, there isn't anything in it to chemically react on salt?

A. It has other constituents that react with the salt.

Q. What was the chemical that you say reacted?

[fol. 3441] A. I am not a chemist, but I know we had the thing investigated.

Q. Well, you are the General Superintendent—don't you know what the reaction would be?

A. There may be twenty-five different chemicals.

Q. One of them neutralizes salt?

A. Several of them tend to.

Q. Now, then, can you state, Mr. Schmidt, a single actual purchase of pipe made by your company for pipe line purposes where you did not obtain as much as a ten per cent discount below the quoted price?

A. I can't name any purchase, Mr. Fitzhugh, as to price; no, sir.

Q. Now, when your company appeared before the Railroad Commission and testimony was taken there on pipe purchases and we referred you to vouchers for 1931 and 1932 you explained those as being distress purchases?

A. They were.

Q. I will ask you if we ever pulled a voucher on your company yet that you didn't have an alibi for the purchase?

A. I have not made any alibi, Mr. Fitzhugh, that I know of.

Redirect examination.

Questions by Mr. Griffith:

Q. Mr. Schmidt, will you turn around to where you can see the map which has been introduced in evidence and styled Defendant's Exhibit 29; that is the map of the pipe line system of the company, is it not?

[fol. 3442] A. Yes, sir.

Q. Will you refer to Defendant's Exhibit 44, which was prepared by yourself and which covers gas transported by the Lone Star Gas Company for the year 1933. Now, Mr. Schmidt, the Chickasha field is situated in Grady County, is it not?

A. It is.

Q. And you have testified that the Duncan field is situated in Stephens County?

A. That is correct.

Q. Lines from there are Line "H" and Second "H"?

A. That is correct.

Q. Those lines are twelve-inch lines running from Southern Oklahoma to Petrolia, in Clay County, Texas.

A. That is right.

Q. Now, again referring to 1933 prices as set forth in your Exhibit 44, Line "G" is a 16-inch line which extends in a southeasterly direction from Stephens and Carter Counties, Oklahoma, through Love County, Texas, across the Red River into Texas and down to Gainesville, in Cooke County, Texas?

A. That is correct.

Q. Now, off of Line "H" and Second "H" and through various tap lines, and also off of Line "G" in the State of Oklahoma and the lines running into Line "G", the company makes sales of gas, does it not, to the city gates of numerous towns and cities?

[fol. 3443] A. That is correct.

Q. Now, what are those towns and cities which are supplied with gas which is exclusively purchased and/or produced in the State of Oklahoma?

A. Davis, Elmore, Marietta, Maysville, Paoli, Pauls Valley, Sulphur, Wayne, Wynnewood, Loco, Hastings, Ryan,

Temple, Walters, Waurika. Of course, there is a certain amount of small sales——

Q. Just to a few right of way customers?

A. That is right.

Q. Now, in addition to the sales by the company of gas produced and/or purchased exclusively in the State of Oklahoma to the several towns and cities which you have just mentioned, the company also delivers gas to the Loco, Fox and Gas City Compressor Stations?

A. Yes, sir.

Q. Those are compressors stations now operated by the company in Oklahoma?

A. That is correct.

Q. Now, what were the total deliveries of gas or sales of gas by the company in the State of Oklahoma of gas which was exclusively purchased and/or produced in the State of Oklahoma for the calendar year of 1933 as shown by your Exhibit 44?

[fol. 3444] A. With the compressor fuel and main line sales, it amounts to 479,551,000.

Q. Now, that figure appears in the 1933 operations as set forth in Defendant's Exhibit 44?

A. That is correct.

Q. Now, in addition to those sales which you have enumerated, does the company sell at wholesale at the city gates any other gas within the State of Oklahoma and did it so sell any other gas in the year 1933?

A. It did.

Q. What was the source of that gas supply?

A. From the Shamrock field in Wheeler County.

Q. In other words, all other gas which was sold by the company in the State of Oklahoma originated in the State of Texas in the Shamrock field of Wheeler County, Texas?

A. With the exception of the sales at Durant and Hugo.

Q. Those sales being made by Line "E" from the State of Texas?

A. That is right,

Q. Now, what were the sales of Texas-produced and/or purchased gas which were made by Line "A" in the State of Oklahoma during the calendar year 1933?

A. Included with the sales to the Hollis Gasoline Plant, it amounts to 334,938,000.

Q. What were the towns and cities which were supplied wholesale with gas in the State of Oklahoma and which [fol. 3445] gas was purchased and/or produced in the State of Texas and sold by the company?

* * * * * * *

A. The cities of Hollis, Davidson, Frederick, Tipton, Manitou, Snyder, Mountain Park, those are the cities supplied off of Line "A".

Q. Now, what were the sales of gas off of Line "A" in Oklahoma of gas which was produced and/or purchased in the State of Texas?

A. 334,938,000.

Q. Now, you were interrogated concerning the net amount of gas transported from the State of Oklahoma into the State of Texas—and I refer solely to the gas which was purchased and/or produced in the State of Oklahoma. You [fol. 3446] have previously testified that through Line "G" more than five hundred million cubic feet of gas was delivered from Oklahoma into Texas in the calendar year 1933?

A. That is correct.

Q. Did any of that gas coming through Line "G" into the State of Texas go into storage at Petrolia, Texas?

A. Not any, no, sir.

* * * * * * *

[fol. 3447] D. A. HULCY, a witness for Defendant, having been recalled, testified as follows:

Direct examination.

Questions by Mr. Griffith:

Q. Mr. Hulcy, have you examined Plaintiffs' Exhibit 6, that purporting to be a reproduction cost new appraisal of the Texas gathering, transmission, compressing, and general property of the Lone Star Gas Company, as of June 15, 1934?

A. Yes, sir, I have.

Q. As made by Mr. S. W. Freese?

A. Yes, sir I have examined that exhibit.

Q. Have you noted the administration and legal expenses and other overhead and general undistributed costs as set forth in said exhibit?

A. Yes, sir, I have.

Q. Mr. Hulcy, based upon your own experience, what has been true of the relation between historical general and undistributed costs as capitalized by operating companies on construction projects, and as between historical—as between actual general and undistributed costs incurred in connection with wholesale construction of a new project?

[fol. 3448] A. Well, based upon my experience, Mr. Griffith, no comparison can be made of the general or so-called undistributed costs during wholesale construction as with a company—that is, an operating company, which does construction during that operating period. Now, that statement is based upon this,—as stated before, I am Secretary and Comptroller of the Northern Natural Gas Company and its underlying companies. These companies were organized in April of 1930. They constructed a major gathering and transportation system extending from the Panhandle fields in Texas through the State of Oklahoma, the State of Kansas, into the State of Nebraska, and also into South Dakota.

Q. Also into the State of Iowa?

A. Yes, sir, that was a branch off of the main line in the State of Nebraska. These lines were all constructed in the year 1930. Therefore the total administration, legal, and all other overhead expenses incurred by the company for that year were 100 per cent applicable to construction. There were no operating expenses, and in fact that property was turned over for operation as at January 1, 1931. In the year 1931 this transportation system was extended from a point in Iowa on into the State of Minnesota, and for a portion of the year 1931 there was a sizable amount of construction going on. In the latter part of the year 1931 and during the first part of the year 1932 there was very little construction going on. In fact, it might be likened, we might say, to almost 100 per cent operation. Therefore, when the ex-[fol. 3449] penses had been charged directly to construction during the 100 per cent construction period, in this latter period all expenses were made—all charges were made to operating expenses. The personnel was there—the general auditor, the purchasing agent, the supervisor of stores, the chief clerk of the accounting section, the chief distribution

clerk, the chief construction accountant; it was necessary to have each of these individuals during the operating period. Now, beginning in the latter part of 1932 and continuing through the first part of 1933, other sizable extensions were made, including additions to the property account of approximately five millions of dollars. The added personnel due to this construction was very, very small; it consisted of a few minor clerks scattered out in some of the departments; for instance, it was not necessary to employ another purchasing agent, it was not necessary to have another general auditor, neither was it necessary to have another chief distribution clerk, or another chief construction accountant, because those individuals were there. It was necessary during the operating period that all of those employees be had and included in the organization. So for that reason I say that there is absolutely no comparison between the costs incurred during a wholesale construction period and the costs incurred in connection with construction handled by an operating company. Now that has been my experience in connection with matters of that kind.

[fol. 3450] Q. In connection with the construction of a very sizable gas project?

A. Yes, sir, the actual cash costs of this natural gas project—that is, the Northern Natural Gas Company, and its associated companies, are in excess of forty millions of dollars.

Q. And that work has all be- done within the last four years?

A. Yes, sir, begun in April of 1930.

Q. Mr. Hulcy, do you know what the legal expense of the Northern Natural Gas Company was as incurred in connection with the construction of its property?

A. Yes, Mr. Griffith, I have that information in my files, and for the year 1931, for the year 1932, and part of 1933 the amount of legal expense charged to construction was in excess of $400,000.00.

Q. And that was on a property which had a capital account of approximately $40,000,000.00?

A. That is correct. Now, there have been some additional legal expenses charged since that time. However, they would be small when compared with $400,000.00.

Q. Mr. Hulcy, in connection with the Northern Natural Gas Company have you had some experience in connection with the cost of financing and the obtaining of money?

A. Yes, sir, I have.

Q. For construction projects?

A. Yes, sir.

[fol. 3451] Q. Is the Northern Natural Gas Company, in so far as its operations are concerned, substantially similar to the business and operations of the Lone Star Gas Company?

A. Yes, sir, that is correct; the Northern Natural Gas Company and its underlying companies are made up principally of production, gathering, transportation and sale at city gates.

Q. Has the Northern Natural Gas Company within the last two years had occasion to borrow large sums of money for the purpose of constructing natural gas transmission lines and other natural gas properties?

A. Yes, sir, and I would say particularly within a period of three years, and even on down within a period of a year, and later it has been necessary for the Northern Natural Gas Company to make arrangements about finances.

Q. Does the Northern Natural Gas Company at this time have borrowed a very substantial sum of money and which sum of money has gone into the construction of its properties?

A. Yes, sir, they do have.

Q. What total amount does the Northern Natural Gas Company have borrowed as of this time?

A. At the present time approximately sixteen and one-half millions of dollars.

Q. At what rate—what rate of interest is being paid upon that loan, and what is the current cost of that money to the company?

A. The current cost of that money to the company is 7 per [fol. 3452] cent; that is made up of an annual interest rate of 6 per cent plus a bonus of 1 per cent for the option to renew those notes at the end of the six months period; or, in other words, the notes are made for six months, dated as at March first of this year. According to the agreement—and this same agreement has actually been carried out for the past two years—on September first, that is the due date on these notes, the company has the option to renew those notes for another six months period, provided they pay a bonus of one per cent on the total amount of money borrowed. So

that makes the current cost of the money 7 per cent per annum.

Q. Is that money owed upon the straight note obligation of the Northern Natural Gas Company?

A. No, sir, it is not. In addition to the note being signed by the Northern Natural Gas Company it is also endorsed and guaranteed by each of the companies owning the common capital stock of the Northern Natural Gas Company, which are the North American Light and Power Company, the United Light and Power Company, and the Lone Star Gas Corporation, and those are individually and severally.

Q. Does that make, in your opinion, for a well secured obligation?

A. Well, I feel that it does, Mr. Griffith. These three companies which I have just mentioned——

[fol. 3453] Q. That is the North American Light and Power, the United Light and Power, and the Lone Star Gas Corporation?

A. That is correct. The total property account of these three companies is approximately one billion dollars. Now, all of the assets owned by these three companies are behind that note, and that is in addition to the total value of the properties of the Northern Natural Gas Company which is in excess of forty millions of dollars.

Q. Is there any bonded indebtedness outstanding against the property of the Northern Natural Gas Company?

A. No, sir, there is not. This note would have first call; in fact, the remainder is common stock equities.

Q. Which was put into the Northern Natural Gas Company by the three major stockholders?

A. Yes, sir, in cash.

Q. Mr. Hulcy, on yesterday there was some testimony relative to Lone Star Gas Corporation 5 per cent debentures outstanding?

A. Yes, sir.

Q. The Lone Star Gas Corporation does have some 5 per cent debentures outstanding?

A. Yes, sir, they do—an issue in 1927 amounting to some fifteen millions of dollars.

Q. And maturing in what year?

A. In 1942; or, in other words, they are known as fifteen year debentures.

[fol. 3454] Q. Are those debentures the same as a current note?

A. Not the Lone Star Corporation debentures.

Q. Is there any security back of those debentures?

A. Yes, sir, there certainly is.

Q. What is that security?

A. The security back of these debentures is the total of the securities held and owned by the Lone Star Gas Corporation. These securities consist not only of the common capital stocks of the underlying companies owned by the Lone Star Gas Corporation, but also consist of all of the bonds that have been acquired by the corporation in the open market of any underlying company or other company, or, in other words, any security that was at that time in or that has since then come into the possession of the Lone Star Gas Corporation is placed under the indenture for the protection of those debenture bonds.

Q. Now, does the fact that 5 per cent was the coupon rate on those debenture bonds indicate that that was the cost of the money to the company?

A. No; no, it does not for this reason——

Q. Was the cost of the money procured from these debentures more or less than 5 per cent per annum?

A. Well, it was more than 5 per cent per annum.

Q. Why was it more?

A. Well, the debentures were sold at a price of about ninety-five, as I recall. Now, in addition to that there were legal expenses and other expenses involved in connection [fol. 3455] with the issue of the debentures; there was the cost of the preparation of the debenture bonds themselves, and then in addition to that the company does make refunds of certain taxes that are paid on the interest received—that is, both Federal and, I believe, the State of Pennsylvania; so, to whatever extent those refunds are made, plus the amortization of expenses in connection with the issue of the bonds, also the discount in connection with the issue of the bonds, all of those items tend to increase the rate over and above 5 per cent per annum.

Q. And as you say, Mr. Hulcy, that issue was put on the market in the calendar year 1927?

A. That is correct; I believe the issue is dated May 1, 1927.

Q. Was the security market then more favorable for the issuance of natural gas securities than it is now?

A. Well, a great deal more favorable.

Q. Mr. Hulcy, have you examined Plaintiffs' Exhibit 8?

A. Yes, sir, I have. I believe I saw a copy of it on yesterday.

Q. Will you please refer to page one of Plaintiffs' Exhibit 8, which was sponsored in this case by Mr. S. W. Freese?

A. Yes, sir.

Q. Mr. Hulcy, included in the figure of $40,256,862.39, as set forth in the lower left-hand corner of page one of this exhibit, is there included any production system property of the company in the State of Texas, and which production [fol. 3456] system property would embrace and include, among other things, gas wells, gas well equipment, gas well construction, gas reserves—both developed and undeveloped?

A. No, sir, it does not include anything for those items which you have mentioned.

Q. Are all of those properties which the company actually owns within the geographical confines of the State of Texas, used and useful in the public service?

A. Yes, sir, they certainly are.

Q. What would have been the effect upon the calculation made by Mr. Freese in Plaintiffs' Exhibit 8 if he had allowed for depreciation, depletion, and return in respect of the production system properties of the company?

A. Well, in addition to that, Mr. Griffith, if the production system property had been included in his property values there would have been some other adjustments. For instance, Mr. Freese makes an allowance in the year 1933 of $212,031.46 as being the value of the company produced gas. Of course, had he included the property in the production system property in his total property account, then he would not have made that allowance. Also, he has deducted the total production system property expenses, which, had he included the production system property, he would not have eliminated. Now, the calculation that I have made on Exhibit 8 eliminates the following item as [fol. 3457] shown on page 1 of Exhibit 4—that is, the accounting exhibit sponsored by the witness Phillips covering Texas operations—he has eliminated $232,758.70 of production system expense for the year 1933, and that is the amount shown on page 1 of said Exhibit 4. Exhibit 4, on page 11, sets out the property account—that is, of the Texas properties at December 31, 1931, plus the net addi-

tions to the public service property on Texas properties from January 1, 1932, through March 31, 1934. Well, now, just forgetting about the net additions, and assuming that we had no production system property included in that amount at all, there is shown on this page of production system property an amount of $4,432,920.19. Now, if Exhibit 8 had included that property and an allowance of 8 per cent—that is, six per cent for return plus two per cent for depreciation—that amount of depreciation and return would have been $354,623.61, or an exclusion by Mr. Freese in the preparation of his exhibit of an amount of $587,392.31.

Q. Now, that would include not only the 8 per cent upon the Texas production system property, but, as well, the operation expenses which Mr. Phillips determined were applicable to the production system property in Texas?

A. That is correct. Now, as I stated a while ago, Mr. Freese did add, to cover the value of company produced gas, an amount of $212,031.46, and that, deducted from the total elimination, leaves $475,360.85, which is due altogether to the elimination of the production system property from his [fol. 3458] property account and the exclusion of direct operating expenses which were actually incurred in Texas, and set out on page 1 of Phillips Exhibit No. 4.

Q. That is Plaintiffs' Exhibit 4?

A. That is correct—I mean sponsored by the witness Phillips. Now, in addition to that, I have made a calculation showing what the difference would have been in the Federal income taxes. Mr. Freese in calculating his Federal income tax makes an allowance for depreciation and depletion of $831,946.08. However, in arriving at the deduction to be used in the calculation of the Federal income tax he takes depreciation at 5 per cent of his total property account, which is $2,012,843.12, or a net excess depreciation for calculating income tax of $1,180,897.04. Now, the income tax at 13¾ per cent on that amount would be $162,373.35, or a total, including the net deductions on account of production system property being eliminated, of $537,734.20, and that amount when expressed as a percentage of the property values shown by Mr. Freese and set out on page 1 of Exhibit 8 is 1.33 per cent. Now, Mr. Freese further shows on page 1 of Exhibit 8 that the return on the total property account shown by him would be 6.76. Now, if we assume that everything else is exactly right,

that amount deducted from the amount shown by him would be 5.43 per cent for 1933 as available for return.

[fol. 3459] Q. In other words, if you take every calculation of Mr. Freese as correct as set forth in the column on page 1 of Plaintiffs' Exhibit 8 headed "1-31-33" and include the production system property and the production system operating expenses and eliminate the value of company produced gas, you get, instead of the figure 6.76 per cent, as available for net return, the figure of 5.43 per cent.

A. That is correct. However, that adjustment does include the correction on Federal income tax—that is, that the same amount allowed would be used for the calculation of the tax.

Q. And what would be similarly true in respect of the twelve months period ended March 31, 1934, as set forth on page 1 of Plaintiffs' Exhibit 8?

A. Well, I am sure the same thing would be approximately true. I did not make any calculations on that period, Mr. Griffith. However, the amount available for return as shown on page 1 of Exhibit 8 is 6.74 per cent, which is 2/100 of 1 per cent less than the amount available in the year 1933. So, for that reason I say that the final answer would be about the same.

[fol. 3460] Q. Would it be less than five and a half per cent?

A. That would be my judgment in the matter, yes.

Q. Mr. Hulcy, have you prepared an exhibit showing the disposition of gas purchased and/or produced by the Company and transported through the "A" System and the "H" Systems for the year 1933?

A. Yes, sir; I have.

Q. Is this the exhibit to which you refer, being styled on the title cover: "Lone Star Gas Company. Receipt and Disposition of Gas Transmission Systems "A" and "H" Year 1933"?

A. It is.

Mr. Griffith: We offer the exhibit so identified by the witness in evidence.

(Thereupon the exhibit above referred to was marked for identification as Defendant's Exhibit No. 50.)

• • • • • • •

Q. Mr. Hulcy, what does Defendant's Exhibit 50 purport to show?

A. Exhibit 50 is a map showing the receipt and disposi-
[fol. 3461] tion of gas in the Transmission Systems "A" and "H". That is, we start out with the amount purchased and/or produced in the fields, and it shows at each point on the transmission system down to Petrolia, Texas, where the gas is disposed of; and it finally shows the net amount delivered at Petrolia for both the Shamrock Field and the Chickasha-Duncan fields.

Q. For each of the towns and cities north and south of the Red River does it show the total of the city gate deliveries for the particular town or city?

A. That is correct; it does.

Q. After deducting the line sales on the "A" System from the total of the Shamrock Field gas purchased and/or produced, does the map indicate the net delivery of Shamrock gas at Petrolia, Texas to be 3,381,496,000 cubic feet?

A. That is correct; it does.

Q. After deducting all sales made in Oklahoma of Chickasha and Duncan Field gas, either purchased and/or produced, does the map disclose that the net delivery of such Chickasha and Duncan Field gas at Petrolia was 588,673,000 cubic feet.

A. It does. However, included in the sales is the amount of gas sold at Petrolia, Texas and Byers, Texas, which is south of the Red River and north of Petrolia.

Q. And those are two towns, which in the ordinary course
[fol. 3462] of business, receive gas which is solely produced and/or purchased in the state of Oklahoma?

A. That is correct. Now, this map was prepared to set out in detail just the source of supply, particularly of the gas sold in the A-1 System. Now, I mean by "A-1", the gas sold at Frederick, Manitou, Mountain Park, and Snyder; and that was prepared in connection with Exhibit No. 4.

Q. You mean Plaintiffs' Exhibit No. 4?

A. Yes; that is correct, Plaintiffs' Exhibit 4; and I have particular reference to page 9-A, wherein the net gas sold in Texas neglecting line loss is shown, and from that amount of gas a calculation is made for the year 1933, showing the Texas-Oklahoma gas sales adjustment in the amount of $29,617.92; and that amount is then transferred to page

1, or the Summary of Plaintiffs' Exhibit 4, and is shown as a deduction; or, in other words, allowed as an operating expense for the 12 months ended December 31, 1933. Of course, as has been previously said, the gas sold in the State of Oklahoma which has been purchased and/or produced in the State of Texas has nothing whatever to do with the net amount of gas delivered from the State of Oklahoma into the State of Texas; and upon that basis, and upon that assumption, I believe it would be well to offer an example showing that the method used in the preparation of the statement set out on page 9-A of Exhibit 4——

[fol. 3463] Q. Plaintiffs' Exhibit 4?

A. —of Plaintiffs' Exhibit 4 is not correct.

Q. What would have been the effect, Mr. Hulcy, upon the calculations set forth on page 9-A of Plaintiffs' Exhibit 4 if the Lone Star Gas Company had sold off of Line "A" a substantial volume of industrial gas in the State of Oklahoma?

A. Well, there is only shown 132,381,000 cubic feet, being styled as "Net Gas Sold in Texas." Now, if there had been an industrial sale made off Line "A"—a substantial industrial sale—then the net gas sold in Texas would have been negative, and using the same method of calculation it would have added to the Texas revenues, whereas he has allowed it as an operating expense. It would have been necessary to have changed all of his previous years; or, in other words, he would have gotten away altogether from the method he did use. Now, I have assumed, in order that we might illustrate this and show just what the effect would be, that during the year 1933 the Lone Star Gas Company secured an industrial customer located at Hollis, Oklahoma, and this customer would use in round figures five billion cubic feet of gas, and we will assume at a sales price of 10 cents a thousand—however, that does not enter into the calculations. Then referring again to page 9-A of Plaintiffs' Exhibit 4, the gas sold in Oklahoma would be increased [fol. 3464] from 1,135,394,000 cubic feet to 6,135,394,000 cubic feet; or there would be a negative net gas sold in Texas of 4,867,619,000 cubic feet. Now, the average sales price in Texas used by Mr. Phillips was $.24870, or, in other words, approximately 25 cents per thousand cubic feet.

Q. That is shown in the second figure column on page 9 of Plaintiffs' Exhibit 4?

A. On page 9-A.

Q. Yes.

A. Now, this sale in the state of Oklahoma would not have affected in the least his average sales price in Texas, and that negative volume of gas at the average price would amount to $1,210,576.84. Now, the Texas operations would have included as an expense the cost of the gas which was purchased and/or produced in the Shamrock Field of approximately $100,000.00; and we will just assume that there was a small amount of operating expense in connection with that Shamrock Field to the Hollis plant, or to the Oklahoma state line, I should say. Say that is $25,000.00; it would appear as a deduction in the Texas operations, so that amount when deducted from the net Oklahoma gas sold in Texas—the gas sales adjustment would be $1,085,576.84, that would have been handled as a net operating expense; or, in other words, an addition of that amount to net in- [fol. 3465] come for the Texas operations; and all they did was to take the gas out of the field and sell it in the State of Oklahoma; and so when you apply a yardstick of that kind, you get an answer that is wrong; and therefore, I think that all of the calculations where you deduct gas sold in the State of Oklahoma from the gas purchased in the state of Oklahoma, where it has no connection with it whatever, the answer is bound to be wrong. We could as well assume that Oklahoma City was furnished off the Frederick tap off Line "A", and then the volume would be materially larger. There is no connection between them at all, as I see it.

* * * * * * *

Q. The Railroad Commission of Texas evaluated the pub- [fol. 3466] lic service property of the Lone Star Gas Company as of December 31, 1931, did they not?

A. Yes, sir; they did.

Q. Did the Lone Star Gas Company and its affiliated companies purchase any pipe during the year 1931 and early in the year 1932?

A. Yes, sir; they did purchase pipe during that period.

Q. Have you prepared a compilation of those pipe pu chased, and a comparison with the prices actually used b Mr. Freese as of December 31, 1931?

A. Yes, sir; I have.

Q. Is this the compilation to which you refer, bein styled, "Lone Star Group Companies. Statement of Pip Purchases Through Pittsburg Office 1931-1932."?

A. That is correct.

Mr. Griffith: We offer in evidence the compilation s identified by the witness.

(Thereupon the compilation above referred to wa marked for identification as Defendant's Exhibit No. 51

. . . . . .

[fol. 3467] Examination by Mr. Fitzhugh:

Q. Mr. Hulcy, this exhibit shows a bunch of purchase made by the Lone Star Gas Company, Municipal Gas Com pany, Community Natural Gas Company——

A. That is correct; the Lone Star Group Companie statement of purchases that were made through the Pitt burg Office.

Q. What is the largest purchase for the Lone Star Ga Company that you show?

A. Of any particular size pipe?

Q. The largest purchase in dollars?

A. Well, sir; I don't have the dollar value.

Q. Well, do you have it in tonnage?

A. No, sir; I don't. I have it on a one hundred lines feet basis. I might add, Mr. Fitzhugh, that I have her available at this time the original paid vouchers on ever purchase covered by this exhibit of the respective compa nies.

[fol. 3468] Q. By looking down your Quantity Ordere column would it not seem that the largest purchase is i the purchase of 16-inch 47.215 pound per foot?

A. Yes.

Q. Plain end electric weld?

A. Yes, I am sure that is correct. There are two pur chases of 18,200 feet, and I am sure that is the larges single purchase included in the exhibit.

Q. Now, there are no other purchases outside of this on in your exhibit that are more than a carload lot?

A. A single carload? I will say, Mr. Fitzhugh, my judgment is that there would not be anything here in excess of a carload.

Q. So that this purchase of the 16-inch 47.215 pounds per foot pipe plain end electric weld seamless is the only purchase in your exhibit for more than a carload lot?

A. You mean for more than a single carload lot?

Q. Yes.

A. Well, I really am not prepared to say, Mr. Fitzhugh. Very likely the grouping of certain purchases might have exceeded a single carload. I have just shown here the footage involved.

Mr. Griffith: In other words, you have shown the actual purchases?

A. That is correct.

Q. The testimony in this case has been, has it not, Mr. [fol. 3469] Hulcy, that for large purchases of more than a carload lot a different price would prevail?

A. Well, I understood, Mr. Fitzhugh, that it had to be pretty good size lots. Now, whether that dividing point comes in in a carload or not, I am not prepared to say, but it is my understanding that for large lots you do receive a concession and there is a difference in price—that is, small lot purchases at distinguished from large lot purchases. However, this exhibit was not prepared at a period when that division was made.

Mr. Fitzhugh: Now, Your Honor, we make this objection: that all of the purchases shown, except in the case of the 18-inch, or, rather, the 16-inch 47.215 pound per foot plain end electric weld seamless pipe, are not large lot purchases and take a different price from those that are large lot purchases, and therefore they can not be compared with Mr. Freese's price, which contemplates large lot purchases; hence the exhibit will be misleading for all sizes of pipe except the 16-inch. We are perfectly willing for it to go in on any large lot purchases, but we ask that all that are not large lot purchases be stricken.

* * * * * * *

[fol. 3470] The Court: I overrule the objection.

* * * * * * *

[fol. 3471] Direct examination.

Questions by Mr. Griffith:

Q. Now, Mr. Hulcy, please refer to Defendant's Exhibit 51. The Lone Star Gas Company, Community Natural Gas Company, and Municipal Gas Company all have pipe purchases reflected in this exhibit?

A. That is correct.

Q. Were the same pipe prices available to each of the companies at the date of the purchase of each individual purchase of pipe as reflected by the exhibit?

A. That is quite true. All of this pipe was purchased through Mr. J. M. Simpson's office in Pittsburgh, and he receives the same price for one company—that is, the Community Natural Gas Company or the Municipal Gas Company—as he would for the Lone Star Gas Company. There is no difference at all.

Q. Mr. Hulcy, taking up your pipe purchases in order, will you please explain how the exhibit is prepared?

A. It might be well to make this statement, Mr. Griffith, before we start. When I show Mr. Freese's price f. o. b. the mill, and Mr. Fitzhugh said it would not be a fair comparison, I mean by that the prices Mr. Freese used in his 1931 appraisal, and he got his prices from these very vouchers that I have got here. They are one and the same thing. So I thought it well to make that explanation. It [fol. 3472] is not what we have used in this present proceeding.

Mr. Fitzhugh: Do you mean the prices Mr. Freese shows f.o.b. the mill were taken from some other appraisal?

A. They are taken from the prices used by Mr. Freese before the Railroad Commission.

Q. And were the prices adopted by the Railroad Commission?

A. Yes, sir; they were.

Q. In its opinion and order in evidence?

A. Yes, sir; they were. This statement or exhibit has been prepared, showing the name of the company that purchased the pipe, shows the delivery point, the size of the pipe, weight per foot, whether it was single length or double length, shows the order number, shows invoice date, quantity ordered, voucher number, voucher date, and shows purchase price f.o.b. mill, gross and net.

Q. What do you mean by "gross and net"?

A. When I say "gross and net", the gross is the list price or the selling price; the net is less two per cent for cash discount if you pay within a specified time. In the quotation f.o.b. the mill it shows both gross and net and the price used by Mr. Freese at the mill, both gross and net. I have lined up opposite to the purchases upon which Mr. Freese has made his determination all the costs of the pipe. That is not true, though, on the two-inch, for the reason that there wasn't any purchase during the year [fol. 3473] 1931 where the price corresponded with the price used by Mr. Freese.

The Court: That applies to the two-inch pipe?

A. Yes, sir.

Q. Are these prices per 100 lineal feet f. o. b. mill Mr. Freese's prices f. o. b. mill?

A. That is correct; that is the price per hundred lineal feet. During 1931 the Lone Star Gas Company purchased —it is a matter of record—37,000 feet of two-inch 3.652 pound lapweld pipe. Mr. Steinberger in the preparation of his appraisal made an error and used a quoted price covering two-inch buttweld pipe instead of lapweld pipe, and to that extent he was wrong. He used a net price of $11.12 per hundred lineal feet. The quoted price for two-inch was $13.41 per hundred lineal feet. The smallest pipe—the smallest price paid by the company during 1931 for two-inch lapweld pipe was $12.01 per hundred lineal feet. On all other sizes of pipe—that is, where there was a specific purchase—Mr. Freese used the actual purchase price as his price. However, he did not do that on the two-inch. In making his calculation on the four-inch pipe he arrived at a discount to be used—and when I say "discount" I mean the discount applied to the net price used—of $12.78 per hundred lineal feet; so he applied that same discount to the two-inch buttweld price and thereby ar- [fol. 3474] rived at a net price of $9.70 per hundred lineal feet. There is not a great deal of the two-inch buttweld pipe in the Lone Star Gas Company System. Whereas the actual quoted price December 31, 1931, was $13.41 per hundred lineal feet, and the smallest amount paid by the company for the actual pipe purchased in 1931 was $12.01 per hundred lineal feet.

[fols. 3475-3486] Q. Now, Mr. Hulcy, you have made reference to certain vouchers in connection with these pipe

purchases—these various pipe purchases. Do you have those vouchers here?

A. Yes, sir, I do, right here—every one of them.

* * * * * * *

[fol. 3487] Q. In order that there may be no confusion about Defendant's Exhibit 51, would you be agreeable to having written above the words, "Quotation F. O. B. Mill", the words, "As of December 31, 1931."?

A. Yes, sir; that is what I intended.

Q. And would you also be agreeable to having written above the heading "Freese's Price F. O. B. Mill", the words, "As of December 31, 1931."?

A. That is correct.

Mr. Griffith: Mr. Reporter, will you make that change [fol. 3488] on the original copy of the exhibit?

(Thereupon the Reporter made the changes requested in Defendant's Exhibit No. 51.)

A. That is what those two columns were intended to cover.

Q. Now, Mr. Hulcy, during the calendar year of 1934 has the Lone Star Gas Company purchased any pipe?

A. I think there have been a few purchases,—no, I don't believe the Lone Star Gas Company has purchased any pipe; I can refer to the records here and tell you. (Refers to data.)

Q. Have any of the affiliated companies purchased any pipe during the calendar year of 1934?

A. The Lone Star Gas Company has not purchased any pipe in 1934. However, the Municipal Gas Company, the Community Natural Gas Company, and the Lone Star Gasoline Company have purchased pipe and/or casing through the Pittsburgh Office during the year 1934.

Q. Were those purchases in large or small lots?

A. Purchases of small lots.

Q. At what prices were those purchases made?

A. They were made at the quoted prices.

Q. Current as of the time the purchase was made?

A. Yes, sir; that is correct; current with posted or quoted prices as of January 2, 1934.

Q. Are those purchases rather extensive?

A. No, sir; they are not.

[fol. 3489] Q. Will you state what they are, and the prices which were actually paid by the Company for these small lot purchases—or by the companies which you mentioned, for these small lot purchases in the year 1934?

A. There has been introduced as an exhibit in this case, I believe Defendant's Exhibit 34, which sets out the quoted prices on pipe, effective January 1, 1934, on large lots. Now, I have a tabulation here which shows the quoted prices for both large lots and small lot purchases. The first purchase was for the Municipal Gas Company, purchased from the Frick Reed Supply Corporation, of 2⅜ inch O.D., 3.652 pounds per foot, plain end lap weld pipe. The quoted price for that particular pipe net is $13.97 per hundred lineal feet for large lots.

Q. Is that shown on page 1 of Defendant's Exhibit 34?

A. Yes; it is. The corresponding price for small lot purchases is $15.17. Under date of March 2nd, the Municipal Gas Company purchased 2000 feet of this particular pipe at a price of $15.23 per hundred lineal feet delivered. That was subject to one-half of one per cent cash discount on the mill value, and the one-half of one per cent cash discount applied to the $15.23 price, brings it back to exactly the same as the quoted price delivered for that size and weight pipe. The Municipal Gas Company also purchased under date of April 20, 1934, 8,000 feet of 4½ inch O.D., [fol. 3490] 10.790 pounds, plain end lap weld line pipe. By referring to page 1 of Exhibit 34, the large lot quoted price is $35.58 per hundred lineal feet; the corresponding price for small lots is $38.51. The price paid by the Municipal Gas Company for that particular pipe delivered is $38.66, and one-half of one per cent cash discount applicable to the mill value, is the same as the quoted price. 6⅝ inch, O.D., 18.974 pounds, plain end lap weld line pipe, under date of March 7, 1934, the Municipal Gas Company purchased 2000 feet of this particular pipe to be delivered at Denton, Texas at a price of $68.11; shown on page 1 of Defendant's Exhibit 34, the cash price is $62.68 per hundred lineal feet. The corresponding price for small lot purchases is $67.85. The $68.11, the actual price paid by Municipal Gas Company for that particular pipe, when discounted by one-half of one per cent for cash discount, is the same as the quoted price as of that date. Now, I believe that those are typical, Mr. Griffith. There are some purchases of 2⅜ inch pipe, and then there is some casing.

Q. Is it true, without exception, Mr. Hulcy, that in the calendar year of 1934, all pipe purchased, of which you have knowledge, has been purchased at the prices quoted by the mill manufacturers?

[fol. 3491] A. That is correct; and that is so indicated by all of the vouchers I have on these particular purchases of pipe made in 1934.

Q. Is it your testimony that the prices current and quoted as of 1934 for either large or small lot purchases by the mill manufacturers are not subject to a discount of from ten to fifteen per cent?

A. That is correct.

Cross-examination.

Questions by Mr. Fitzhugh:

Q. Mr. Hulcy, on page 20 of the Railroad Commission of Texas' order this language is found: "Mr. Freese in making his appraisal of the Transmission Line Equipment applied to the basic quotations (as of July to December, 1931) the discounts actually obtained by the Lone Star Gas Company as indicated by the last 1931 purchases of carload lots or more of various weights of pipe." Is that correct?

A. That is correct. However, it was not on carloads of pipe—I just read into the record where those prices were based on purchases of 400 feet and up, and it was not on carloads.

Q. Now, show a purchase of less than carload lot where Mr. Freese based his price?

A. All right, sir. On the 10-inch, 31.445 pounds, lapweld [fol. 3492] pipe, the price used by Mr. Freese was $76.93 per hundred lineal feet, and that was based on a purchase of 400 feet under date of November 20, 1931, which was paid for in December, and covered by Lone Star Gas Company Voucher M-164, at a price of $76.93, or exactly the same price used by Mr. Freese.

Q. Was that less than a carload shipment?

A. Yes, sir; I would say it is.

Q. Did that come by local freight?

A. No, sir; I don't think it did.

Q. Can't you look at your voucher and find out?

A. That voucher would only cover 10-inch pipe.

Q. It might have been part of a carload, might it not?

A. Might have been; but it was not a part of a carload of ten-inch pipe.

Q. You can't say that that was not part of a carload lot, can you?

A. No, sir; but it is not a part of a carload of 10-inch pipe. These are the prices, F. O. B. Mill, and it would not make any difference whether they came by express, fast freight, slow freight, or how.

Q. The language in the Commission's order goes on as follows: "In other words, Mr. Freese used the actual price paid by the Company for its last 1931 purchases of the various weights bought during 1931." Is that correct?

[fol. 3493] A. I think that is generally correct. As to purchases made by Lone Star Gas Company, that would be right.

Q. "Where purchases of particular weights were not made during 1931, Mr. Freese applied the discount actually obtained on the last 1931 purchase of the nearest weight." Is that correct?

A. That is correct. I tried to make that clear in my testimony.

Q. "The effect of Mr. Freese's computation was to use the actual cost of the pipe to the company based upon the last 1931 purchases." Is that true?

A. Well, of course, while giving effect to applying the same percents that he found on the same particular purchases of pipe, however, that is not true of the 2-inch pipe. There was plenty of 2-inch pipe bought in 1931, and which Mr. Freese did not use at all.

[fol. 3494] Q. How much two inch pipe did you have in your inventory?

A. I don't know, but I do know that there are several hundred miles of two inch pipe.

Q. All right, the order proceeds: "The Lone Star Gas Company bought large amounts of pipe in 1929, having purchased a total of several million feet of all sizes of pipe up to and including twenty inch during that year. Basic quotations on pipe were maintained at a constant figure by the manufacturers throughout the year 1929." Is that correct?

A. I am not prepared to say, Mr. Fitzhugh. I was not interested in 1929. I was only interested in the prices used by Mr. Freese, as compared with the cost prices.

Q. You don't know anything about the 1929 prices?

A. No, sir.

Q. Or the discounts?

A. I do not recall anything about the details of it.

Q. All right, skipping over the part that applies to 1929, this statement occurs: "The discounts from the 1929 basic quotations were substantially the same on the large amounts of pipe bought during 1929 as were obtained on the relatively small purchases made during 1931." You don't know whether that is true or not, do you?

A. No, sir; I do not.

Q. The order continues: "Mr. Freese used the same method of arriving at the discounts for threaded and coupled pipe as he used for the larger quantities of plain [fol. 3495] end pipe, i. e., discounts off of the December 31, 1931, quotations were based on the last purchases of each weight made during 1931." Is that correct?

A. Perhaps that is true, Mr. Fitzhugh. I did not tabulate any cases; the only thing I was interested in was the lap weld, plain end pipe.

Q. Then the order says: "In arriving at the discounts to be applied to the December 31, 1931, quotations on electric welded pipe, Mr. Freese based his discounts on a sizeable purchase of electric welded pipe bought in August, 1931. If the pipe actually purchased were seamless pipe, as one witness testified, then the discount off of the higher quoted seamless pipe price would have been even greater." Now you have discussed that purchase, have you not?

A. Yes. That is the sixteen inch plain end electric weld pipe which was actually seamless pipe.

Q. That's the pipe you discussed. Now, is that last statement I quoted to you a correct one?

A. No, I don't think that is correct at all, Mr. Fitzhugh, for this reason. I think it is very evident on that particular purchase of pipe that the purchase price was not anything like the quoted price or the fair price of the pipe and what they would charge for that particular pipe at all, but it does show that they had a more expensive production hand and which was included in their inventory and they were willing to make concessions in order to move the pipe. That would [fol. 3496] not be the quoted price or the fair value of that pipe at that date at all.

Q. The order continues with this language: "The Company defended its use of quoted prices by citing instances

where gas distributing companies had paid the quoted prices. The tonnage of relatively small pipe required by the distributing companies cited is not to be compared with the very large tonnage of transmission line pipe, field line pipe, well casing, etc., currently required by Lone Star Gas Company." Do you subscribe to that statement?

A. Are you talking about the application of prices now—do you mean that these purchases made for the distribution companies do not compare with the purchases made by the Lone Star Gas Company?

Q. As of December 31, 1931.

A. So far as the purchases are concerned, Mr. Fitzhugh, there is just as much and more pipe which was bought at prices in excess of the pipe bought by Lone Star Gas Company, as was the volume of pipe upon which the Lone Star Gas Company prices were based in this particular inventory.

Q. Now this statement occurs: "On the other hand, Mr. Freese cited the actual purchase of 2,221,272 feet of large and small pipe by the Lone Star Gas Company at prices less than the quoted prices by the approximate amount of the discounts which he used." Isn't that true?

A. I did not hear that testimony. However, that did not [fol. 3497] enter into the calculation of Mr. Freese's prices, because his prices were based on specific purchases in 1931, and we did not have purchases of any such amount of pipe bought in 1931.

Q. Don't you think that a check of 2,221,272 feet of pipe purchases, of all sizes of pipe, would be a pretty good check on your pipe prices.

A. That is a very sizable amount of pipe.

Q. Now, look at your Exhibit 51; you don't mean to say, do you that any of the prices contained in Exhibit 51 have been applied to the present appraisal by Mr. Freese?

A. No, sir, I do not.

Q. But he has used, just as you have, in the present appraisal, the quoted prices?

A. My understanding is that Mr. Freese in his appraisal used the quoted prices as at December 31, 1931, and that is—or rather, excuse me—I mean at December 31, 1932, I believe, and his appraisal is dated June 15, 1934. Is that correct?

Q. But Mr. Freese testified that any increase in pipe prices which he adopted as of the date of your appraisal in

bringing it up to June 15, 1934, was offset by the allowance for omissions and contingencies which he was inclined to disallow?

A. I believe I heard part of Mr. Freese's testimony in that connection, and if I remember correctly he said one of the main reasons he was not giving effect to the increase in pipe prices was because the company always had and did now receive substantial discounts from the quoted prices, [fol. 3498] and as of this date I do not subscribe to that at all.

Q. So you don't know whether Mr. Freese actually used, as of the date of his appraisal, the current quoted price of pipe or not, do you?

A. I know he did not use the current quoted prices as of June 15, 1934.

Q. You don't know whether the effect of his appraisal was to do that, or not, do you?

A. Well, that is my understanding—that he did not make any corrections in the prices of pipe used in the company appraisal which was dated January 1, 1933, and so I would assume that he did not use the current quoted prices.

Q. Didn't Mr. Freese testify to this, Mr. Hulcy—that the difference in pipe prices, as between January 1, 1933, and as of June 15, 1934, was approximately $900,000.00 for the whole system, the part that he appraised?

A. I do not recall that amount, but I do remember there was a sizable difference in it.

Q. But that the amount for omissions and contingencies would also be in the amount of $900,000.00, which would exactly offset, so that he made no change?

A. Now, perhaps that was the testimony. I will admit I was not following his testimony closely all along.

Q. All right now, if that was his testimony, the effect of his appraisal would be to apply just exactly the quoted prices of pipe, just exactly as you did, or as the company did in their appraisal?

[fol. 3499] A. As the Company did?

Q. Yes.

A. Of course, I don't know that the company made an appraisal giving effect to June 15, 1934 prices, but it is my understanding that Mr. Freese used the quoted prices for pipe as of December 31, 1932, or rather, January 1, 1933, and as you state, if he offset or eliminated omissions and

contingencies, and desired to place that on pipe, and he had calculated that $900,000.00 was the difference in pipe, then Mr. Fitzhugh, I think it would be the equivalent of giving effect to the present quoted prices of pipe, assuming those calculations are as you stated them.

Q. Yes, exactly. Now, can you point out in this Exhibit 51 that you have introduced here, where the Lone Star Gas Company in a single instance paid the quoted prices for pipe purchased?

A. Most all of the purchases made by the Lone Star Gas Company were in the early part or by the middle of the year. The purchases that I have here shown at the end of the year are the ones made for the distribution companies, and they are—or in a number of instances, they are made at the quoted prices.

Q. There are some purchases that the Lone Star Gas Company made itself that were not more than a month prior to the date of Mr. Freese's appraisal, aren't there?

A. I think there may be possibly one or two scattered through from September on to December, Mr. Fitzhugh.

Q. Well now, just answer my question. Can you show in here, or cite a single instance of any price for pipe appearing in this whole exhibit where your company, the Lone Star [fol. 3500] Gas Company, actually paid the quoted price?

A. Now, this is limited to the Lone Star Gas Company, that you have reference to?

Q. Yes sir.

A. All right, sir; I will take a look through here and see if I can find you one. No, sir; not at exactly that price. However, on the sixteen inch 47.215 pound lap weld pipe, two purchases were made at a price in excess of the purchase price.

Q. But in no instance was the exact quoted price paid, was it?

A. No sir, it was not. This was in excess of the quoted price. However, those purchases were made in the month of February, 1931, and there is no reason why they should exactly check with the quoted prices as at December 31, 1931.

Q. Now, on that sixteen inch pipe, what was the last price paid by the Lone Star Gas Company?

A. The last price actually paid was $124.91.

Q. What did Mr. Freese use in his appraisal?

A. $124.91.

Q. The same price, wasn't it?

A. The same as the purchase in April, 1931, or eight months prior to his appraisal.

Q. It was the one made in May, you mean?

A. It was paid in May. The invoice date was April 24, 1931.

Q. That was the last purchase made before the date of Mr. Freese's appraisal, wasn't it?

A. Yes.

Q. Now, what did the company use in their appraisal?

[fol. 3501] A. The company used the quoted price of $148.72.

Q. Now, how much higher was the price that the company used, over the last actual purchase price of pipe of that same size?

A. The quoted price of $148.72 is $23.81 per 100 lineal feet in excess of the actual amount paid for one thousand feet of that pipe in May, 1931.

Q. That $23.81 difference is a difference of about twenty per cent over the price actually paid, isn't it?

A. Yes, about 19 per cent.

Q. Now, does the company usually get a better price on large purchases of pipe, or on small purchases of pipe?

A. I don't know, Mr. Fitzhugh, just which of them they would get the better price on. Of course, all of that is determined by whether or not the pipe is on hand. I would say if you were going to make purchases of larger sizes of pipe and large lots of pipe, you would come nearer to paying the quoted price than you would on some small scattered prices on small pipe. That means the mill would have to be set up ready to run, for the larger quantities, and the other means that they might have it in their inventory on hand and would like to move it out, just as any other merchant likes to move his merchandise.

Q. This purchase was on 1,000 feet of pipe?

A. On the 16 inch?

Q. Yes, the purchase made in May, 1931?

A. Yes.

Q. To which you applied a price of $124.91 per hundred feet?

A. That is the price paid by the company.

[fol. 3502] Q. Now, if your company had been buying, instead of the one thousand feet of sixteen inch that they

actually purchased, enough of this sixteen inch pipe to reproduce all the sixteen inch of this weight in the company's system, wouldn't you have gotten a lower price than the $124.91 per hundred feet as actually paid?

A. No sir, I certainly don't think so. The pipe people would just go out of business right quite on setting up their mill to run and turning out large volumes of pipe on any such a basis as that.

Q. Aren't you familiar with the fact, Mr. Hulcy, that the current quotations of pipe for large lots are substantially less than the current quotations for the very same pipe, when bought in small lots?

A. That is correct; it is at the present time, yes.

Q. And it has always been that way, hasn't it, Mr. Hulcy?

A. No, I don't know that that is correct at all, because I know these small lots have been purchased in some cases at less than the quoted prices. Larger lots of pipe of the same size and a little bit later, while the quoted price was the same, are purchased at prices equaling the quoted prices.

Q. Nevertheless, in each case where your company has purchased pipe at less than the quoted price, ever since the time this rate investigation first started, you have had some excuse for it haven't you?

A. Yes, I certainly have had some excuse for it. There has been a reason.

[fol. 3503] Q. And in each case you have claimed that those were distress purchases, or purchases of distress pipe?

A. Mr. Fitzhugh, a large part of the pipe that has been purchased since 1931, along in there, has been at distress prices; there is no question about that, and of course that is not limited to the pipe mills alone—that also applies to other lines of business.

Q. And I suppose, following the same reasoning, Mr. Hulcy, where the quoted prices now, for purchases in large lots, are less than the quoted prices on small lot purchases, you would still say that the purchases on large lots would be distress prices, wouldn't you?

A. No, sir; I would not say they would be distress. I think it is clearly set out whether you are purchasing small lots or whether you are purchasing large lots.

Q. All right now, take the first size of pipe that shows

2079

in your exhibit; the price that you have included in Mr. Freese's price column is the price he applies to lap weld pipe?

A. Yes, that is the price which he has applied to the lap weld pipe.

Q. And the purchase prices you have compared with Mr. Freese's price are purchases of butt-weld pipe?

A. No; sir; they are lap weld pipe. We have practically no butt-weld pipe in our system.

Q. What do you mean, then, by including underneath your gross and net in the quotation FOB mill column (1369) and (1341)?

A. Those are the gross prices, both the gross and the net [fol. 3504] for two inch lap weld pipe. The company in the preparation of their appraisal made an error and used the quoted price for butt-weld pipe, which is $11.35 gross and $11.12 net.

Q. As compared to Mr. Freese's price of $9.70.

A. Yes, and I explained this morning, Mr. Freese arrived at his price of $9.70, not basing it upon any purchase made by the company, but that they did purchase over 37,000 feet of two inch lap weld pipe in 1931; but that his price was based upon one single purchase of four inch pipe in 1931, and that he had arrived at a discount of 12.78 per cent, and he applied that discount to the price which was used by the company in error as applying to two inch lap weld pipe, and he therefore arrived at a price of $9.70, whereas the lowest price paid in 1931 by the company was $12.01.

Q. So you say that both the company and Mr. Freese were in error on those prices?

A. Yes, the company used a butt-weld price, which is cheaper than the lap weld.

Q. All right, take the next size of pipe.

A. Yes, sir.

Q. The three inch. What was the last purchase made by the Lone Star Gas Company of three inch in 1931?

A. The last purchase of three inch made in 1931 by the Lone Star Gas Company was six thousand feet, in August, at a price of $16.27.

Q. Now, what price did Mr. Freese use in his appraisal on this same size?

[fol. 3505] A. $16.27.

Q. What did the company use in its appraisal?

A. $24.58.

Q. What is the percentage of difference?

A. You want the percentage of what?

Q. I want to know by what percentage is $24.58 higher than the price actually used by Mr. Freese of $16.27 per hundred feet of three inch pipe?

A. It is approximately fifty per cent.

Q. In other words, the company used a price of fifty per cent over what it paid on the last purchase in 1931?

A. That is correct.

Q. Take the next size of pipe, the four inch. What was the last purchase of pipe of this size made by the Lone Star Gas Company in 1931?

A. The last purchase in 1931, of the four inch, was in November, 1931, at a price of——

Q. Aren't you mistaken? Wasn't it in August, 1931?

A. Well, yes, you are correct. There was only one purchase by the Lone Star Gas Company of that particular size of pipe; you are correct.

Q. In August, 1931?

A. That is correct. I was looking at the Community Natural Gas Company.

Q. That was some four or five months before the date of Mr. Freese's appraisal?

[fol. 3506] A. Yes.

Q. Now, what price did Mr. Freese use—he used the same price, didn't he?

A. Yes.

Q. As against that which the company used, of $26.52 per hundred feet?

A. Yes, that is correct.

Q. And again the company used higher than the actual purchases of such pipe in 1931 by the Lone Star Gas Company?

A. If you restrict this to 1931, yes, for the Lone Star Gas Company, but the purchase was made through the same source as the other.

Q. Now, the next size is six inch?

A. Yes, that is correct.

Q. What was the last purchase by the Lone Star Gas Company of six inch in 1931?

A. The last purchase by Lone Star Gas Company in 1931 was in December, 1931, where they purchased six thousand feet at a price of $44.10.

Q. That was almost at the very date of Mr. Freese's appraisal, wasn't it—the same month?

A. Yes, the invoice date was November 20, 1931, and the pipe was paid for in December account, Voucher M-164.

Q. Now, that voucher that showed that purchase had not been put on the books of the company at the time Mr. Freese made his appraisal, had it?

[fol. 3507] A. Well now, I don't know. Mr. Freese's appraisal was dat- December 31, 1931; I do not know just when it was comple- The auditors were there all along.

Q. Well now, Mr. Freese never did see that voucher, did he, Mr. Hulcy?

A. I don't know whether he did or not.

Q. Don't you know the voucher wasn't in the company records and a part of the company's records when Mr. Freese made his investigation?

A. I don't know when he made his investigation. I understood Mr. Freese to say these prices were furnished to him by his auditors, or the auditors of J. A. Phillips & Company. The auditors or the employees of J. A. Phillips & Company have been in the Lone Star Gas Company's office for a good long time, and whether they saw this actual voucher or not, I don't know, Mr. Fitzhugh.

Q. All right. Anyway, Mr. Freese used the same price in his appraisal as appears on that voucher, didn't he?

A. No, sir. The last purchase was in December, 1931. Mr. Freese used the same price as was paid by the company in July of 1931 which was $40.82 per 100 lineal feet, but the last in December of 1931 was not used by him. The one he used might have been the last one he saw.

Q. Now, the company used in its appraisal a price of $46.84 per hundred feet, as in contrast to the price which Mr. Freese used?

[fol. 3508] A. That is correct.

Q. Now, the next size of pipe is eight inch?

A. Yes.

Q. In July, 1931, the company was buying this size of pipe for $56.84 per hundred feet?

A. Yes. They bought three thousand feet in July and August, at a price of $56.84 per hundred feet.

Q. And the same price prevailed in August as in July?

A. Yes.

Q. And that is the same price Mr. Freese used in his appraisal, isn't it?

A. Yes, that checks with the price that Mr. Freese used in his appraisal.

Q. As contrasting with the price of $56.84 used by Mr. Freese in his apraisal, and as actually being paid by the company, the company put in its appraisal a price of $64.06 per hundred feet, didn't it?

A. Yes, that was the quoted price on that pipe as at December 31, 1931.

Mr. Griffith: And it was also the price actually paid in September, 1931, by the Municipal Gas Company, wasn't it?

A. Yes, it was.

Q. Well, these smaller companies always pay the quoted prices, don't they?

A. No sir, I wouldn't say that, Mr. Fitzhugh. The quantity of this pipe that we are talking about on the Lone Star [fol. 3509] Gas Company purchase was three thousand feet, two thousand feet of it purchased in August, and one thousand feet in July. This other purchase we are talking about is eight thousand feet, and when that mill makes a price on that pipe, they don't know whether it will be for the Municipal Gas Company, the Lone Star Gas Company, or who.

Q. They don't, huh?

A. No. Mr. Simpson just puts in the order.

Q. Well, then, turn back on your first page there.

A. Yes.

Q. Can you point out an instance there on page 1 or page 2, Mr. Hulcy, where purchases were made by the Lone Star Gas Company and any of these distributing companies at about the same date where the same price was paid?

A. Well, I don't know whether I can or not, Mr. Fitzhugh. I will take a look, though, for it if you want me to.

Q. All right.

A. On two inch pipe, in the month of May, 1931, the Lone Star Gas Company purchased eight thousand feet.

Q. Where are you now?

A. On the two inch pipe, on the first page. That was in May, 1931, when the Lone Star Gas Company purchased eight thousand feet of it, at a net price of $12.25. Now in the month of May 1931, the Municipal Gas Company purchased

5,000 feet of the same size and weight of pipe, for delivery at Hillsboro, Texas; at a price of $12.25 per hundred feet, or [fol. 3510] exactly the same price paid by the Lone Star Gas Company.

Q. All right now; June 15, 1931, the Lone Star Gas Company bought it for a net price of $12.01 per hundred feet, didn't they, Mr. Hulcy?

A. That is correct, they did.

Q. Now how do you explain that purchase at $12.01 per hundred feet, where they bought three thousand feet, as compared with the Municipal Gas Company's purchase of five thousand feet of the same size pipe at $12.25?

A. Well, sir, you are talking about different dates, there. This purchase I referred to was in May, and the Lone Star Gas Company purchase I referred to was in May, and now you are talking about June 15th.

Q. Well, there wasn't any difference in the quoted price as of those times, was there?

A. I don't know, Mr. Fitzhugh.

Q. Wasn't the same quoted price prevailing?

A. I don't know.

Q. As of those two dates?

A. I could not tell you, sir. The only quoted price I know anything about was the quoted price at December 31, 1931.

Q. All right now, go on to the twelve inch.

A. That was all of those prices that you wanted me to look for—that is, those that were the same?

Q. Well, you haven't found any others, have you?

A. It takes a little time to go through these. I will be [fol. 3511] glad to look for them, if you want me to.

Q. Take your time—take your time. Look hard.

A. I am only trying to do what you wanted there, Mr. Fitzhugh, that's all. It may be that is the only one.—I think that is about all of that I see. The dates don't very well check up. Most of the purchases of the Lone Star Gas Company seem to be, as I said before, in the first half and along about the middle of the year.

Q. So the only purchase you can find a date to compare the prices with, as to these distributing companies and the Lone Star Gas Company prices, is on these two inch stuff, which is a very insignificant item in the system of the Lone Star Gas Company, is it not?

A. When compared with twenty inch, it is not very much, no sir.

Q. Either in size or in price?

A. Well, it is considerably less than the twenty inch, too.

[fol. 3512] Q. Now, take the 12-inch.

A. Yes, sir.

Q. The last purchase of this pipe was in November, 1931?

A. That is correct.

Q. At a price of $98.00 per 100 feet?

A. Net, yes, sir, that is correct.

Q. And that is the price used by Mr. Freese in his appraisal, is it not?

A. That is correct.

Q. Now, what is the price the Company used in their appraisal?

A. $103.69.

Mr. Griffith: That was the quoted price at the end of the year, was it not?

A. All of these prices are the quoted prices at December 31, 1931.

Q. Well, the quoted price didn't change on any of these sizes of pipe during 1931, did it?

A. I couldn't tell you, Mr. Fitzhugh; it has not been necessary for me to keep up with those things, and, as I have said, the only quoted price I was interested in was the quoted price at the dates these appraisals were made. Now, whether it changed on November 15th, or any other date, I don't know.

Q. Now, on this 16-inch pipe, the last purchase, I believe you say, was at $124.91?

[fol. 3513] A. Yes, sir, that was purchased—the invoice was dated on April 24, 1931.

Q. And the price used by Mr. Freese was that price?

A. Yes, sir, that is correct.

Q. As opposed to the Company prices used in its appraisal of $148.72 per 100 feet?

A. Yes, sir, which was the quoted price at December 31, 1931.

Q. Now, the 18-inch plain end, seamless, the last quoted price was the price used by Mr. Freese, was it not?

A. You mean the last quoted price or the last purchase price?

Q. The last purchase.

A. Yes, that was the only purchase in 1931, Mr. Fitzhugh.

Q. That purchase was made in September, 1931, was it not?

A. That is correct.

Q. The price used by the Company, and contrasted with $143.42 per 100 feet, is $179.91 per 100 feet?

A. Yes, sir, which was the quoted price at December 31, 1931.

Q. In other words, the price used there was about 35 per cent higher than the last purchase?

A. You mean the only purchase.

Q. Yes, sir; or $35.00, I mean. I said 35 per cent, I believe.

A. Yes, sir; $36.00.

Q. Or stated as a per cent, it would be about 25 per cent, would it not?

A. Yes, sir, 25 per cent, plus.

[fol. 3514] Q. Now, the only sizable purchases that you have got in this whole exhibit are the two purchases of 16-inch made in August, 1931, totaling 36,800 feet?

A. Those are the major purchases in 1931—that is of any particular sized pipe.

Q. The actual price paid on this purchase of pipe was $143.39 per 100 feet, was it not?

A. That is correct.

Q. But the price actually used by the Company in its appraisal was $161.53 per 100, was it not?

A. That was the quoted price at December 31, 1931.

Q. Now, that is the last size of pipe you actually had purchases on?

A. That is correct; there were no purchases on the 18 and 20-inch, plain end, electric welded pipe.

Q. When you first started out your testimony, Mr. Hulcy, you testified something about the legal expenses of the Northern Natural Gas Company.

A. Yes, sir, I did.

Q. What was the legal administration actually experienced by the Northern Natural Gas Company?

A. I don't believe I testified about that, Mr. Fitzhugh. I was testifying particularly about the comparison of legal and administrative expenses under wholesale con-

struction and piecemeal construction carried on by an operating company.

[fol. 3515] Q. Well, you wouldn't object to a comparison of the other overheads, would you?

A. No, sir, I wouldn't object to anything that I would be able to tell you about—that is, at this time.

Q. All right; what was the amount of actual taxes during construction?

A. I couldn't tell you, Mr. Fitzhugh; but we did have some taxes during construction on a part of the—I recall very distinctly on a part of the line being constructed in Iowa, that that line was started in the early part of the year 1930; I have particular reference to the line being extended on up from the Missouri River on up to Mason City. Now, there were taxes involved in that, during a construction period.

Q. Well, now, pick out some State that has got a tax system something like we have. Iowa is different, isn't it?

A. Well, sir, I don't know whether it is or not, Mr. Fitzhugh. I do know that we did have some taxes up there during a construction period.

Q. Do you know how much they were?

A. No, sir, I couldn't tell you now.

Q. It was a very insignificant amount, at any rate, wasn't it?

A. Well, our taxes were sizable up there. That was a new line of business for those people up there in that part of the country, and they believed in getting what they could.

[fol. 3516] Q. Yes. What was the interest during construction on that line?

A. Well, I don't know just of any particular line, Mr. Fitzhugh, but the interest during construction was at six per cent.

Q. Six per cent of what?

A. Six per cent per annum from the time that the project started.

Q. You mean you borrowed money at six per cent?

A. Yes, sir, we borrowed money at six per cent, plus this bonus that was paid. Now, that was paid by the top company.

Q. I want to know what is the amount that you capitalized on the books for interest during construction on that construction work.

A. Well, I didn't bring those books of the Northern down here, Mr. Fitzhugh. If I had known that you wanted that, I would have been very happy to have done it, because I do believe that we have accurate records on the books of exactly what the costs are.

Q. Now, you are the Secretary, Comptroller and Treasurer of that line, aren't you?

A. Not the Treasurer, just the Secretary and——

Q. And Comptroller?

A. Yes, sir.

Q. Wouldn't you be apt to carry those figures in your [fol. 3517] head, Hulcy, on such an important construction job?

A. Well, Mr. Fitzhugh, they are only included—in that group there are about twelve companies, and there are seventeen in the Lone Star group. I used to try to carry figures in my head some, but I found it didn't pay. I sometimes found that I was wrong about figures; therefore, I quit trying to remember them.

Q. Incidentally, the Lone Star Gas Company did all of that construction work, did they not?

A. No, sir, they certainly did not.

Q. They loaned their construction gang for it, didn't they?

A. No, sir, they did not.

Q. There are not any entries on the Lone Star Gas Company's books for the construction work of the No-thern Natural Gas Company?

A. They built a few pipe line bridges and two compressor stations, but that is all. They had nothing to do with the construction of the transportation system from Texas to Minnesota and South Dakota.

Q. There are entries appearing on the Lone Star Gas Company's books with which you are well familiar, aren't there, Mr. Hulcy——

A. Yes, sir, I am familiar with them.

Q. —that show payments to the Lone Star Gas Company [fol. 3518] for work done on the Northern Natural?

A. Yes, sir, just as I testified, that was in connection with the construction of two compressor stations and certain pipe line bridges, but had nothing whatever to do with the construction of the transportation system.

Q. And the books of your Company show that for that

work the Lone Star Gas Company got $200,000.00, which it passed on then to the Lone Star Gas Corporation?

A. Yes, sir, about that—something less than two hundred thousand.

Q. And for which $200,000.00 the Lone Star Gas Company never got any credit at all in its operating statements as revenues?

A. No, sir, they didn't; they were not entitled to it.

Q. Now, all you can remember about the whole Northern Natural proposition is that the legal expense was about $400,000.00, or one per cent?

A. Well, the $400,000.00, I believe I stated this morning, Mr. Fitzhugh, that that was for the year 1930, for the year 1931, and part of 1932. Now, at that time the property account was not up to $40,000,000.00. There have been extensions made.

Q. Well, how do you know it was one per cent, then?

A. I don't know that it was one per cent. I am talking [fol. 3519] about the amounts that were capital- —

Q. At the end of the period at which you to- —$400,000,00 off of the books for the legal ex- — what was the amount of the property account?

A. I can't tell you, Mr. Fitzhugh. I just had in my files the legal expenses that had been capitalized up to that time. I have forgotten now what was the reason for getting that information.

Q. So that the legal expense is bound to be based on less than a forty million dollar property account and less than one per cent. I was wrong in my one per cent, wasn't I?

A. Well, it would be in excess of one per cent, then, if you get down less.

Q. Yes, a little more than one per cent.

A. It just goes the other way, you see.

Q. That is right—that is right.

A. Yes, sir.

Q. In making your valuation of leaseholds, you deducted all of the gas well equipment, did you not?

A. Yes, sir, I did.

Q. And all operating expenses by future years?

A. Recovery costs, you have reference to?

Q. Yes, sir.

A. Yes, sir, I do.

[fol. 3520] Q. Those might properly be called operating expenses, might they not?

A. Recovery costs or operating expenses, whichever you prefer to call them; either one.

Q. Now, you objected, if I caught the force of your testimony, to the elimination of those same expenses by Mr. Freese?

A. In this Exhibit 8?

Q. In his Exhibit 8.

A. I certainly would object to it, Mr. Fitzhugh. They were expenses that were actually incurred by the Company, and so found by the auditors for the Commission.

Q. Well, now, if you were willing to eliminate and deduct all of the operating expenses in your calculation, why do you object to Mr. Freese doing the same thing?

A. Well, I will tell you,—you never did find me coming up with a profit and loss statement with these items eliminated, Mr. Fitzhugh. I was arriving at a value of property, and it has no connection whatever with profits and losses.

Q. Well, the way Mr. Freese worked it out, he was doing the same thing.

A. No, sir, he was not. He was talking about revenues and expenses, and I was arriving at a present fair value or [fol. 3521] present worth, if you please, of the gas reserves of the Company, and profit and loss statements had no place in any such exhibit which I sponsored here.

Q. Mr. Hulcy, didn't you allow in your computation the full well-head price for gas at the field, even in increasing amounts through the years?

A. Yes, sir, in arriving at my values, yes; not in any profit and loss statements, Mr. Fitzhugh. It seems that we are talking about two entirely different things.

Q. Well, Mr. Hulcy, do you understand how this whole thing works out, as Mr. Freese has described it in his testimony?

A. In connection with the production system property?

Q. I say in connection with——

A. I didn't hear Mr. Freese's testimony in connection with that.

Q. In connection with taking care of the proper consideration for gas reserves.

A. No, I didn't hear him testify about that, Mr. Fitzhugh.

Q. Well, you don't know, then, do you, that his proposition has nothing to do with a profit and loss statement or with a balance sheet?

A. Mr. Fitzhugh, I do know, though—from this exhibit I [fol. 3522] know that he has eliminated over four millions of dollars of property; I know that he has eliminated $232,000.00 of operating expenses.

Q. Just take that four hundred millions of——

A. Four hundred million or four million?

Q. All right, four millions of property you are talking about.

A. Yes, sir.

Q. Didn't you eliminate the same property in your valuation, as it was worked out, over-all?

A. No, sir, I did not; no, sir.

Q. You took it out of your valuation——

A. Yes, sir; I said——

Q. —of gas reserves.

A. I said that the gas producing properties were the net value of the gas reserves——

Q. And Mr. Biddison——

A. —were worth the net value of the gas reserves, plus the equipment used; and it is just as broad as it is long, whether you don't include them all or whether you deduct them all.

Q. Well, the way your valuation works out, after all you fellows finally get together—you and Mr. Steinberger, and Mr. Biddison, and all the others that got into this thing,—after you come to the net result, don't you have a complete [fol. 3523] and absolute one hundred per cent elimination of the gas production equipment?

A. Well, it wasn't necessary to get together with anybody on that. All I wanted was the figure that was included in their appraisal for gas well equipment and construction, and that is the amount.

Q. Just answer the question.

A. No, sir, I didn't get together with anybody.

Q. Well, disregarding the getting together feature of it,—haven't you ended up with the whole thing eliminated?

A. I deducted from my gross value the gross recovery value.

Q. Every penny?

A. That they had in there for gas well equipment and gas well construction.

Mr. Griffith: Mr. Biddison evaluated gas well construction and gas well equipment, didn't he?

A. Yes, sir, he did.

Mr. Griffith: And it is included in Defendant's Exhibit 28?

A. Yes, sir, it is.

Q. And that is the exact amount you took out, too, isn't [fol. 3524] it?

A. Yes, sir, it is.

Q. So you just washed out?

A. No, sir, I didn't just wash out, Mr. Fitzhugh, at all.

Q. Well, if you put it in—if you take out and Mr. Biddison puts it in, where have you gotten?

A. Mr. Fitzhugh, the gas well equipment, gas well construction and gas reserves have a value. They are all included in the appraisal. I arrived at a figure, which I consider is the present fair value as at January 1, 1933, of the gas reserves owned by Lone Star Gas Company at that date, and, as I stated on my direct testimony, it was a mathematical calculation of the withdrawal value of property owned by the Company at that date.

Q. All right. Now, Mr. Hulcy, I believe you have testified heretofore that your gas is not worth any more than somebody else's gas in the same field?

A. I said that I assumed that, Mr. Fitzhugh. However, I did point out several reasons why it should be worth more, and why I thought I was treating it mighty conservatively.

Q. All right. Now, Mr. Freese, in his computation, allowed the full well-head price at the prevailing field price in every case, did he not?

[fol. 3525] A. Well, that is my understanding that he did.

Q. And for every cubic foot that was actually withdrawn for the period stated?

A. Well, now, my understanding is that that was based upon the deliveries—that is, by quarters. Of course, I didn't have the necessary information to check that all the way through, but I am sure that Mr. Freese was right—that is, in his calculations. I know of no reason for saying that they were not correct.

Q. Now, when you buy gas from another owner at the prevailing price in the field——

A. Yes, sir.

Q. —you don't have to pay that owner for a return on his investment, depreciation, dry hole expense, canceled and

surrendered lease expense, and all these other things, in addition to the price you pay him for his gas?

A. We usually pay him one price, which includes the cost of delivering the gas to us at the well-head.

Q. You don't have to pay any operating expenses to get that gas to the well-head, do you?

A. Not to get the gas to the well-head, no, sir; that is the producer's expense.

Q. And the prevailing price that you pay the owner covers [fol. 3526] all those things?

A. That is correct; and it should cover them.

Q. Now, if Mr. Freese goes on the same assumption that you have already made of considering your gas worth just the same as other owner's gas, why hasn't he been absolutely fair and just to you in every way?

A. Why, he has not been fair and just at all in the preparation of that exhibit, Mr. Fitzhugh, I don't think. I think right on the face of it, Mr. Fitzhugh, as I just stated, that when you eliminate over four million dollars worth of property owned and used and useful to the Company, and that when you deduct operating expenses that were actually incurred, and when these operating expenses alone are in excess of the total credits that you allow,—when you say that is fair and just, I can't follow you, that's all.

* * * * * * * *

[fol. 3527] Q. Mr. Hulcy, of the amount for operating expenses, which you say should not be eliminated in getting the gas to the well head, how much would be for cancelled and surrendered lease expense?

A. Included in the amount of $232,758.70 which I read into the record, of that amount $176,139.67 is set out to cover cancelled and surrendered leases as shown on page 1 of Plaintiffs' Exhibit No. 4.

Q. In other words, about 75 per cent. of that amount is cancelled and surrendered lease expense?

A. Yes, sir, 76 per cent.

Q. When was that money actually paid out, Mr. Hulcy?

A. I couldn't tell you when the cash was actually paid out on that, Mr. Figzhugh. That represents the value of an asset that was written off in the year 1933.

Q. And which expired some fifteen or twenty years ago, no doubt; did it not?

A. No, I don't think so. I don't think there are any leases included in that amount. I would say that all of these amounts, generally speaking, would be under five years. The only way a lease could be held for a period of twenty years usually would be through production, and any lease cancelled and/or surrendered on which we had secured production would not be charged to cancelled and surrendered leases; that would be charged against the reserve for depletion.

[fol. 3528] Q. Now, wasn't this an amount—wasn't this amount of expense an expense that was incurred in the development of about four billion cubic feet of gas reserves?

A. This had absolutely no connection whatever with the development of gas reserves.

Q. Why do you have cancelled and surrendered lease expense?

A. Well, that is caused by the fact, Mr. Fitzhugh, that the company sees fit and does purchase leases, and naturally all of the leases purchased by the company are not found to be good.

Q. Yes, sir.

A. Therefore it is necessary that the investment be relieved of this asset which has been placed upon the books through the cash expenditures of money, and as they are cancelled and/or surrendered that amount is charged as an operating expense; and this is the amount that Mr. Phillips in his Exhibit No. 4 has shown to be applicable to Texas operations or Texas properties.

Q. Can't you say, Mr. Hulcy, that cancelled or surrendered lease expense or cancelled and surrendered leases are just a sort of by-product in the development of gas reserves?

A. No, sir, I wouldn't say that at all. I would say that that is an actual expense incurred by the company. There is only one place to put it, it is gone, you don't have it, there are no reserves, there isn't anything else accrued on it, and the only place you have got to charge it is to expenses and [fol. 3529] the classifications used by the company have provided for that to be charged to operating expenses, and that has been done.

Mr. Griffith: You mean it is a classification of accounts.

A. Yes, sir, I do.

Q. Now, the company buys leases from time to time, don't they?

A. Yes, sir, they do.

Q. They develop those leases?

A. Some they do and some they don't.

Q. Some turn out to be bad ones and some turn out to be good ones?

A. Yes, sir.

Q. Now, don't you think, Mr. Hulcy, it is unfair to charge public service operations with the expense of getting all of those bad leases that are later charged off as cancelled and surrendered leases expense, unless you at the same time credit those public service operations with the increased value or the enhanced property value due to the development of some of the leases into good paying properties and into good gas reserves?

A. Now, if I follow your question, I will answer it to the best of my ability, Mr. Fitzhugh. As I stated a while ago, I don't think that cancelled and surrendered leases have any connection whatever with the value of gas reserves. As I stated, that is an operating expense which necessarily must be charged to expenses. The value placed on the gas [fol. 3530] reserves at any given date does not necessarily mean the enhancement in value. It also takes into consideration the doubled value of any particular lease which is included therein, and, of course, it does not give any consideration whatever to whether the final answer is in excess of the amount carried on the books or is below the amount carried on the books.

Mr. Griffith: By the term "carried on the books", you mean the actual cost of the property is carried on the books?

A. That is correct, yes, sir.

Q. Now, this four million four hundred thirty-two thousand dollars worth of property was the value of the gas producing properties, wasn't it?

A. Yes, sir, as shown on page 11, Plaintiffs' Exhibit No. 4—with the exception of such gas producing property as is included in the Petrolia field.

Mr. Griffith: It is cost rather than value, isn't it, Mr. Hulcy?

A. That is correct, too. This is the cost as reflected by the books and it is included in the statement prepared by Mr. Phillips.

Q. Why did you eliminate the Petrolia field?

A. Well, sir, the only reason I eliminated that, Mr. Fitz-

hugh, was that I wanted to arrive at a minimum value when I made the calculation which I read into the record this [fol. 3531] morning.

Q. In using your own computations for finding the value of gas reserves didn't you get to the negative value for the Petrolia field?

A. For the value of gas reserves, yes, sir.

Q. And isn't that the reason——

A. Understand, though, the negative value was not in excess of the property—the producing property—gas well construction and equipment carried for the Petrolia field.

Q. Well, the only reason you eliminated the Petrolia field is that it is at the present time a worthless field?

A. No, sir, that is not the reason. The main reason I eliminated it was because it was eliminated by Mr. Freese, and, as I said, the figure that I read into the record is a minimum figure; in fact, it does not include any of the net additions made to the gas producing properties for the year 1932 or the year 1933 on down to date in 1934.

Witness excused.

Mr. Griffith: That concludes our rebuttal testimony, if the Court please.

[fols. 3532-3533] Defendant rests.

* * * * * * *

[fol. 3534] S. W. Freese, recalled by plaintiffs, testified further as follows:

[fols. 3535-3536] Direct examination.

Questions by Mr. Fitzhugh:

Q. Mr. Freese, there has been considerable discussion in the rebuttal testimony put on by the company of your Exhibit 6. I will ask you, in order to make the matter clear, didn't you accept the quoted prices of pipe current as of the date of your appraisal?

A. Yes, although as far as I can make out, on any sizable purchases of pipe the Lone Star Gas Company has always obtained a discount from the quoted prices of from ten to fifteen per cent or more, and I have the list here with me

for some two million feet of pipe bought in 1929. We have used the quoted prices as of June 15, 1934 in our appraisal. Except on earth work we have used the same prices as set up by the company in their appraisal. Now, in between January 1, 1933, and June 15, 1934, there was an increase in the quoted prices of some $900,000.00. However, we did not feel that the allowances made in the company's exhibit for omissions and contingencies are in any way justified, and those omissions and contingencies just about offset the increase in pipe prices.

* * * * * * *

[fol. 3537] Q. Now, after all the points that have been raised here in Cross Examination and what has been said about overheads, are you still satisfied with those just exactly as you have them included in your Exhibit No. 6?

A. Yes; I think those are full and sufficient allowances for overheads.

Q. The company has had several witnesses to show the rate of attachment of customers on some four lines, I believe, and in several communities. Now, assuming that their data is true in every respect, Mr. Freese, does that have any bearing of the remotest sort upon going value?

A. No. Unless you know the earnings of those particular lines, whether they fully compensate for whatever idle plant there may be, or, more particularly, whether the earnings as a whole were sufficient to give a fair return on the investment in the property, and the history of the company shows that to be so from the beginning, there would be no logical reason for considering idle plant on any line.

Q. It was your testimony on Direct Examination, if I remember correctly, that you had evaluated the properties of the company as a going concern without the addition of a separate allowance for that item?

* * * * * * *

[fol. 3538] A. Yes.

Q. Well, that does represent the way you have treated going value?

A. It certainly does. We have included all overheads and everything necessary to make it a going concern.

Q. You say you have evaluated the properties as a going concern and included the allowances for going value with-

out making separate allowances, even after hearing all the rebuttal testimony of the company's witnesses?

A. The property has been evaluated by me as a fully going concern.

Q. Now, Mr. Phillips in his exhibit found a net value, or, rather, found a net amount for the Oklahoma gas, did he not?

A. That is correct.

Q. What was the amount that he found?

A. 132,000 cubic feet, approximately.

[fol. 3539] Q. Now, there has been some testimony here seeking to draw some conclusions as to whether that is a net figure or not. I will ask you, Mr. Freese, if you have made an independent investigation of your own with a view to finding the net figure for the Oklahoma gas?

A. Yes; I have made a check of that figure, and that 132,000 cubic feet is the correct figure for the net amount of gas produced in Oklahoma and used in Texas—and by net amount, if you deduct from the amount of gas purchased and produced in Oklahoma all of the gas used in Oklahoma, whether it comes from Texas or Oklahoma, and then deduct from that the amount of Oklahoma gas that went into storage at Petrolia, you will have 132,000 cubic feet left. In other words, if you simply trade gas between the two states and arrive at the net amount that came into Texas from Oklahoma, it is exactly 132,000 cubic feet—rather 132 thousand thousand cubic feet, or 132 million cubic feet.

Q. Now, Mr. Freese, you heard Mr. Hulcy's testimony, in which he interpreted the effect of your elimination of some four million dollars worth of producing properties of the Company. Now, I will ask you, Mr. Freese, if Mr. Hulcy correctly interpreted what you have done in that respect?

A. No. What we did do was to allow at the well head [fol. 3540] for every cubic foot of gas produced the prevailing well-head price for the gas—allow the Company just that same price that they paid everybody else. That was intended to include all of the costs which another producer selling it at the same price would include, and was intended to include a return on whatever value there was in the property being used by the producer of that gas, for the production of that gas, just like the well-head price would compensate the other owner for getting it to the well-head and

provide a return on whatever value was in the property itself.

Q. Did Mr. Hulcy understand what you had done in the handling of the operating expenses?

A. Well, I don't know whether he did or not.

Q. Did you include as a part of the operating expenses some 75 per cent for cancelled and surrendered leases?

A. No; I do not include any of the operating expenses in getting the gas to the well-head, any more than if you purchased gas from another owner you would make a separate allowance for any expense he had incurred in cancelled and surrendered leases and dry hole expense in getting that gas to the well-head.

Q. Now, Mr. Freese, did Mr. Connor, in testifying as to the interpretation he placed upon your testimony with reference to annual depreciation correctly interpret your theory on that?

A. No; he certainly did not. In so far as basic mor- [fol. 3541] talities are concerned, this Table 1 is correct, and I think I get a higher computed figure than Mr. Connor's own mortality curve showed. However, when it comes to major removals, what we did was to take an average of the 659 miles of major removals which had occurred during the history of the Company. A large part of those removals came at the very beginning of the Company's history, when their gas fields were not so certainly established and they were changing lines from one place to another. We have allowed the equivalent of 30 miles per annum, or 160,000 feet per annum. It was intended that that should have been allowed from the very beginning, particularly since in the beginning the major pipe removals were higher than now. We started out with that 659 miles, and if you apply it as we intended it should be applied, you would arrive back with the same 659 miles we started with, instead of 320.83. If that correction be made, then the total feet of 3-inch equivalent diameter pipe which would have been allowed for throughout the history of the Company would be almost exactly the amount of 5,854,774 feet which was actually incurred; and that will also throw off Table 5, which is based upon the same erroneous interpretation of our Exhibit 7.

Q. And of the general method that you used in the preparation of Exhibit 7?

A. That is correct.

[fol. 3542] Q. Now, the implication made by some of the company's witnesses as to your handling of the annual depreciation allowance as found by you is that you actually assumed that the Company would make use of the fifteen million dollar credit balance in its depreciation reserve? Did you actually do that, Mr. Freese?

A. No. We did not refer to this fifteen million dollars, which has been set aside for the purpose of making these replacements, or to take care of the pipe which is actually worn out in service during the history of the Company. What we did assume was that the Company had actually set aside a sufficient amount, whatever that amount might be, to take care of what had been worn out in the past history of the Company, and the annual allowance we did make is sufficient when taken along with the proper amount of reserve having been set aside to take care of the pipe that is worn out in the past, to make all replacements, and to fully amortize the pipe during its life cycle.

Q. Have you made a study of and reduced to a graphic representation a comparison of the computed mortalities as used by you in your mortality curve, and as used by Mr. Connor in his mortality curve, and as compared with the actual mortalities?

A. Yes, sir.

[fol. 3543] Q. Will you produce that, please, sir?

A. Yes, sir.

Q. And this exhibit prepared by you is entitled "Historic Replacements and Abandonments by Years of Lone Star Gas Company and Curve Showing Calculated Replacements and Abandonments"?

A. Yes.

Q. There appears on that sheet a curve labeled, "Hawley, Freese & Nichols Calculated Replacements and Abandonments"?

A. Yes, sir.

Q. And another curve entitled "Connor's Calculated Replacements and Abandonments"?

A. Yes, sir; that is correct.

Mr. Fitzhugh: We offer this sheet in evidence.

(Thereupon the sheet or graph referred to above was marked for identification as Plaintiffs' Exhibit No. 11.)

Q. Refer to your chart, Mr. Freese. Will you please make an explanation of what you show thereon?

A. The heavy line shows the calculated pipe mortalities as calculated by me.

The Court: The heavy curve?

A. The heavy curve, yes. The dotted curve shows the mortalities as taken from Mr. Connor's basic mortality [fol. 3544] curve. Now, up through the year 1931, and including the mortalities on Lines "J" and "C", which are represented by the cross-hatched section and the white section, these vertical lines represent graphically the actual mortalities or replacements experienced by the Company during each one of these years. Up through the year 1931 the actual mortalities—that is, the sum total of all these vertical lines, including the mortalities on "J" and "C", equal substantially the computed mortalities as computed both by Mr. Connor and by myself. During the earlier years I show a somewhat higher rate of calculated mortalities, and Mr. Connor shows a somewhat lower rate of calculated mortalities. But up through the year 1931 both curves and the actual experience were all in substantial agreement. Now, however, since these curves were prepard and were submitted before the Railroad Commission, we have had two further years of experience—1932 and 1933, and those have been plotted on this same curve. For the year 1932 I predicted some 62 miles of pipe replacement; Mr. Connor predicted some 85 miles of pipe replacement; and there was actually incurred some 6 miles of pipe replacement. For the year 1933 I predicted that there would be some 69 miles of pipe replacement; Mr. Connor predicted that the replacements would be 100 miles. Now, as a matter of fact, the actual replacements have been approximately 47½ miles.

Q. Is there any other explanation that needs to be made of this chart?

[fol. 3545] A. No; I think that covers it.

Q. Now, there was some criticism by rebuttal witnesses of you, Mr. Freese, for using piecemeal replacement costs. I will ask you if you actually did that?

A. No. What we did, in applying these percentages, was to use the same price for piecemeal construction as was arrived at in wholesale construction. Now, the reason we did that was because the salvage of the old pipe on the

piecemeal construction offsets the additional cost of installing the pipe over the wholesale construction cost; and the way I know that is true is by reason of the fact that for the several past years I have checked the actual charges to the depreciation reserve where these replacements have been actually charged up on the books of the Company, and have found that the wholesale reproduction cost of that pipe, or of those units of pipe as included in the replacements, and as found in both the Company's appraisal, and our appraisal, are in excess of the costs as actually incurred by the Company when the salvage value of the pipe has been taken into consideration.

Q. There was some comment made, Mr. Freese, as to the fact that you had estimated separately the time that would be required in putting together the Company's property into different sections. I will ask you if there was really any difference overall as to the assumption of a construction period as between yourself and Mr. Connor?

[fol. 3546] A. There was a great deal of difference in the net results. I got $1,500,000.00 plus for interest during construction. I don't know what Mr. Connor got. But if Mr. Connor had assumed that each unit of property would go into service, or rather, construction on any unit of property would not be started until there was some hope or promise of that piece of property, or unit of property, being used when it was finished,—then we would have arrived at exactly the same results, because the time periods I have allowed for the construction of each item of property are sufficient to take care of the actual construction time involved in the construction of the different parts of the property.

Q. And you have already read into the record the times that you have estimated for the various types of property?

A. No; I don't think I read that into the record; but the exhibit clearly shows the percentages I have allowed for each item of property, and the explanation which I made before will show just how it is arrived at for each item of property.

Q. For instance, in the matter of Compressor Stations, was that one of the things mentioned?

A. Yes, sir.

Q. How did you handle the time for the building of Com-

pressor Stations in the finding of Interest During Construction?

A. We allowed for a 10-month period for the building of Compressor Stations.

[fol. 3547] Q. Now, I show you this exhibit of Mr. Hulcy's, on Pipe Purchases, being Defendant's Exhibit No. 51. Do you have a copy of that?

A. Yes.

Q. I will ask you, Mr. Freese, if you use a single price appearing anywhere in this exhibit in your present appraisal?

A. No. This was with reference to the appraisal presented before the Railroad Commission, and the prices herein used are very substantially lower than the prices used in this appraisal. What we attempted to do at that time was to determine the actual price that the Lone Star Gas Company was paying for pipe, and to use that price as heretofore explained; in this appraisal, we have used the quoted prices, although the Company has always obtained a discount off the quoted price for any considerable amount of pipe construction.

Q. And where in the columns entitled "Freese's Price F. O. B. Mill", on both sheets of this exhibit, the prices there stated apply only to the prices used by you in testifying before the Railroad Commission about a year ago?

A. Yes; for an appraisal as of date two and a half years ago.

Q. And where in the columns entitled "Quotation F. O. B. Mill", in each page of this exhibit, I will ask you if those are not about the same as the prices used by the Company [fol. 3548] before The Railroad Commission?

A. They have always used the quoted prices in their appraisals, both before the Railroad Commission and here in this present appraisal.

* * * * * * *

[fol. 3549] Q. You have stated into the record, have you not, Mr. Freese, some examples of purchases actually made by the company of pipe recently?

A. Yes, the only large purchase which the company has made recently; that is correct.

Q. Since that purchase, has there been any other sizable purchase of pipe that you know of?

A. No.

Q. That would be a gauge of the price actually now being paid by the company?

A. No, and I must say that although the discount there was some 33⅓ per cent, in view of the explanation of that matter which Mr. Schmidt made this morning, I think possibly that was distress pipe prices; whether they would have gotten a ten or twelve per cent discount, I don't know, had it not been for the nature of the transaction he described.

Q. Now, in your Exhibit No. 8, Mr. Freese, where you summarize the effect of the application of a thirty-two cent domestic gate rate, after making corrections to normal temperatures for the years ended December 31, 1933, and March 31, 1934, and where you find that with that correction being made, the return on a rate base or a value of $40,256,862.39 would work out, for the year ended March 31, 1934, in an amount of 6.74 per cent, and for the year ended December 31, 1933, in an amount of 6.76 per cent, I will ask you if, after hearing all the points raised in this rebuttal testimony, you have changed your opinion as to [fol. 3550] that testimony?

A. There should be a correction of four-hundredths per cent. In other words, from this 6.74 and 6.76, the 6.74 should be corrected to 6.70 and the 6.76 per cent corrected to 6.72 per cent, by reason of the fact that the allowance we had made for current replacements on compressor stations should have been increased. With that exception, or after having taken that into consideration, we feel that the return set out on page 1 of that exhibit 8 is correct.

Q. And to sum up the whole thing, Mr. Freese, if value is found as you have found it, and if the year is adjusted to make an average year as to temperature, as disclosed on the first page in Exhibit 8, the company, through the year 1933 and 1934 will make substantially in excess of six per cent, will it not?

A. Yes—or rather, through the year ending March 31, 1934, they would have made substantially in excess of six per cent.

Q. That's all.

Cross-examination.

Questions by Mr. Griffith:

Q. That is upon the property as you evaluated it?

A. Yes, and as the company evaluated the physical properties, except for excavation.

Q. And with the exclusion by you of all of the production system property of the company located in the State of Texas?

A. No. We allowed, as to your own production properties, for every cubic foot of gas purchased, or rather, pro- [fol. 3551] duced by you, every cent that gas was worth, and every cent that you would pay anyone else, and it was the current and prevailing price in the respective field where the gas was produced.

Q. Did you exclude from your evaluated figure of property, each and every dollar that the company had invested in its production system property in the State of Texas?

A. It is not included as an item in the $40,256,862.39, but a return on that property is allowed in the $232,644.75 in the first column, and the $212,031.46 in the second column on page 1 of Exhibit 8.

Q. Not only that, but in Plaintiffs' Exhibit 8, you actually excluded out of pocket operating expenses, actually paid by the Lone Star Gas Company in its regular operations, in the amount of $232,000.00, didn't you, covering the production system property for the year 1933?

A. I didn't do any such a thing. Those were not actual out of pocket operating expenses; the actual out of pocket operating expenses were about $70,000.00.

Q. Didn't cancelled and surrendered lease expense represent out of pocket expense to the company?

A. In other years; it was expense which might have been involved in connection with the development of the 200 million thousand feet of gas in other years, whereas there was only five million thousand used in that year.

Q. Your responses to my questions have a familiar ring, Mr. Freese. Were you responsible for the questions which [fol. 3552] were propounded to Mr. Hulcy in that connection?

The Court: I don't think it would be material; they were asked.

Q. Did you make any historical study or actual study as to the historical attachment of business to major transportation lines as shown in Defendant's Exhibit 48, prepared by Mr. Ed C. Connor?

A. No, the only historical study I made of the company's business was to determine for myself whether the company had made a fair return on its property from the very beginning or not.

Q. So far as you know, is the historical rate of business attachment as set forth in Defendant's Exhibit 48 correct?

A. I think it is correct.

* * * * * * *

[fol. 3553] Q. Now, Mr. Freese, in any calculation of mortalities as set forth in a mortality curve, will it be found that actual experience of the units will conform exactly to the mortality curve?

A. No, they will not conform exactly to the mortality curve, and I think that is well illustrated by the curve which I gave to the jury a minute ago.

Q. As a matter of fact, replacements and removals come at irregular intervals, do they not?

A. Yes, they most certainly do.

Q. And all that the curve is intended to show is the general trend of replacements?

A. That is correct.

Q. Now, will you refer, please to page 21 of your Exhibit 6?

A. Yes, sir.

Q. What do you show as the value of the B system, based upon your appraisal?

A. $3,188,121.55 for the transmission line equipment on the B system.

Q. How many dollars out of that $3,188,121.55 represent going value, going concern value or cost of reproducing the business?

A. None of the overheads are included in that figure of [fol. 3554] $3,188,121.55, but that figure, taken together with the overheads, represents the value of that pipe line as a going pipe line.

Q. Mr. Freese, I want you to take your Exhibit 6, and point out to me where, in connection with any item of prop-

erty, you have allowed so much as one dollar for going value, going concern value or cost of reproduction of the company's business.

A. Every dollar in Exhibit 6 represents the value of property in a going concern. If it were not a going concern, and if it was not used and useful, it would not be in there.

Q. Mr. Freese, can you identify or segregate a single dollar in connection with any of the property set forth in Plaintiffs' Exhibit 6, and which dollar represents your evaluation of going value, going concern value, or the cost of reproducing the company's business?

A. As I answered your previous question, every dollar in there represents the value of property as part of a going concern.

Q. Mr. Freese, don't you say in connection with Plaintiffs' Exhibit 6, that this is the cost of the reproduction of the property, the Texas gathering, transmission, compressing and general property?

A. That is correct.

Q. Is that title a misnomer?

A. No.

Q. Well, if the title is to be taken as it reads, where have you included any allowance for going value, going concern value or cost of reproducing the business?

[fol. 3555] A. Mr. Griffith, I have not separately labeled a certain amount of dollars as going value. Every item included in there is property, as part of a going concern. Furthermore, in addition to that, in the operating expenses which we have allowed, we have allowed for the attachment of new business, the securing of new business, advertising expenses, and every expense that would be incurred in the nature of attracting new business and which is one of the things which ordinarily, and which does, go to make up what is known as going value.

Q. Now, we may get to the profit and loss statement, later, Mr. Freese, but please confine yourself to this reproduction cost evaluation at this time. Can you point out to me a single dollar in here or a series of dollars which represents going value, going concern value or the cost of reproduction of the business as distinguished from the cost of reproduction of the property?

A. Not separately labeled as such, no.

Q. If the property of the company were to be reproduced

as of June 15, 1934, and there was no business attached whatsoever, wouldn't your reproduction cost be the same as set forth in Plaintiffs' Exhibit 6?

A. Yes, and that would be true whether it was 100 per cent saturation or whether there was no saturation at all, in view of the history of the company, the way it was actually produced and the way it could be produced from the beginning again. There was no loss of return on idle plant [fol. 3556] during the history of the Lone Star Gas Company.

Redirect examination.

Questions by Mr. Fitzhugh:

* * * * * * *

Q. Mr. Freese, where you spoke there about saturation, are you making the assumption that Mr. Griffith evidently intended, of no customers? I don't believe that you got his question.

A. Apparently my answer is not clear there. What I did mean to say is this: That in view of the history of the [fol. 3557] company and the way the business was attached or developed, and the way the business could be developed again if it were reproduced, that we have not taken into consideration or had to take into consideration the per cent of saturation.

* * * * * * *

Mr. Fitzhugh:

Q. Now suppose, Mr. Freese, in the matter of the B system, where you found a reproduction value of the amount $3,188,121.55, that this line had had no customers attached or had no operating personnel to operate it, but was simply laying there as a static line. What value would you have given it?

A. Well, if it was not used and useful, it would not have any value at all, as a part of the public service property of the company.

Q. No value.

Mr. Griffith: The property's reproduction cost would be the same, wouldn't it, Mr. Freese?

A. No, not the reproduction cost new of the used and useful property of the Lone Star Gas Company. We left out of our appraisal the Petrolia Field, because the company was suffering an out of pocket loss every year in that field, and there was nothing but junk value there. We did, however, allow the salvage value of the field line equipment in [fol. 3558] that Petrolia field, for that reason.

Mr. Fitzhugh: And the same concept applies just as well to the individual lines or the B system of the company or any other part of the system as a whole, as to the Petrolia field, doesn't it, Mr. Freese?

A. Yes, it does.

Mr. Fitzhugh: We rest.

The Court: Plaintiff closes his case.

Mr. Griffith: The defendant rests, if the court please.

The Court: Both sides are through, gentlemen?

Mr. Griffith: Yes.

* * * * * * *

[fol. 3559] (Thereupon at 5:00 o'clock p. m., Thursday, July 12, 1934, evidence was closed.)

[fols. 3560-3563] Reporter's certificate to foregoing transcript omitted in printing.

[fol. 3564] PLAINTIFFS' EXHIBIT No. 2

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE WESTERN DISTRICT OF TEXAS, AUSTIN DIVISION

In Equity. No. 467

LONE STAR GAS COMPANY, Plaintiff,

vs.

RAILROAD COMMISSION OF TEXAS et al., Defendants

On this 11th day of November, A. D. 1933, came on to be heard the application of Lone Star Gas Company, plaintiff for an interlocutory injunction in the above styled and numbered cause, before a court of three judges duly called

and assembled pursuant to the provisions of Section 266 of the Judicial Code of the United States, as amended. Whereupon the defendants Lon A. Smith, C. V. Terrell and E. O. Thompson, the members of and constituting the Railroad Commission of Texas, and James V. Allred Attorney General of the State of Texas, presented a motion for stay of proceedings herein; and

It appearing to the Court from the motion of the said defendants for stay of proceedings herein, that the said defendants together with the State of Texas had as plaintiffs instituted a suit against Lone Star Gas Company, the plaintiff herein, as defendant in Docket No. 53033 in the Fifty-third Judicial District Court of Travis County, Texas, to restrain and enjoin the violation by Lone Star Gas Company of the terms, provisions and requirements of an order, [fol. 3565] Exhibit A in plaintiff's bill of complaint herein, entered by the Railroad Commission of Texas on September 13th, 1933, fixing and prescribing rates to be charged for natural gas and natural gas service by Lone Star Gas Company at the city gates of numerous towns, cities and communities in the State of Texas and that such suit involves the validity of said order of the Railroad Commission of Texas; and

It further appearing to the Court from said motion to stay all proceedings herein, that upon a motion of the State of Texas and the defendants herein, Lon A. Smith, C. V. Terrell and E. O. Thompson, the members of and constituting the Railroad Commission of Texas, and James V. Allred, Attorney General of the State of Texas, filed by them as plaintiffs in said cause No. 53033 on the docket of the Fifty-third Judicial District Court of Travis County, Texas, the said State Court did on the 5th day of October, 1933, enter an order staying all proceedings against the plaintiff herein, Lone Star Gas Company, either under the terms, provisions and requirements of the Railroad Commission's said order of date September 13th, 1933, or under the rules and regulations of the Railroad Commission of Texas or under any law of this State, pending the final determination of said suit in the Fifty-third Judicial District Court of Travis County, Texas, and which said stay order restrains the Railroad Commission of Texas, the individual members thereof, the attorney General of Texas and all other officials and employees of the State of Texas or of the Railroad Commission or of any other State department, and all other

persons, from instituting or prosecuting any proceeding [fol. 3566] against plaintiff herein, Lone Star Gas Company, under said order of said Railroad Commission; or from attempting to enforce the duties, obligations and requirements imposed upon plaintiff herein by said order or by the rules and regulations of the Railroad Commission of Texas, or by any law of this State, whether by suit for mandamus, mandatory injunction, injunction, penalties, damages, quo warranto, forfeiture or receivership, pending a decision by the said Fifty-third Judicial District Court of Travis County, Texas, of the constitutionality of said order; and restraining all said State officials and departments and their employees and all other persons from enforcing or attempting to enforce the provisions of said order against Lone Star Gas Company, plaintiff herein, until the final determination by said Fifty-third Judicial District Court of Travis County, Texas, of cause No. 53033 on the docket of said court; and that said order provides that plaintiff herein, Lone Star Gas Company, shall not be subjected to any penalties, damages or forfeitures on account of the failure of said plaintiff herein to comply with the terms and provisions of the said order of the Railroad Commission of Texas entered on September 13th, 1933, or on account of any provisions of the Statutes of the State of Texas where such failure to comply with the law has taken place or takes place before the final determination of said cause No. 53033 on the docket of said District Court; and

The defendants Lon A. Smith, C. V. Terrell and E. O. Thompson, the members of and constituting the Railroad Commission of Texas, and James V. Allred, Attorney General of the State of Texas, having announced in open court by and through Elbert Hooper, First Assistant Attorney [fol. 3567] General of the State of Texas, counsel of record for said defendants and by whom said defendants appeared in this Court, that the said defendants and the State of Texas, and each and all of them, did not desire to enforce and had no intention of enforcing or attempting to enforce against the plaintiff herein, Lone Star Gas Company, any of the pains, penalties or forfeitures provided for by law by reason of any violation by Lone Star Gas Company of the terms, provisions and requirements of said order, committed or done by said plaintiff herein at any time before the final determination of said cause No. 53033 on the docket of the Fifty-third Judicial District Court of Travis

County, Texas, and that said order entered in the State Court was to be construed as suspending the operation of the said order of the Railroad Commission pending the final determination of said cause; and said Assistant Attorney General of the State of Texas, for said defendants, herein announced in open court that said defendants would consent and agree to an injunction by this Court entered in this cause, restraining said defendants, and each of them, from at any time enforcing or attempting to enforce against the plaintiff herein, Lone Star Gas Company, any of the pains, penalties or forfeitures which may arise or accrue because of or by reason of any violation of the terms, provisions and requirements of said order by plaintiff herein, committed or done herein by the plaintiff, Lone Star Gas Company, at any time prior to final determination of said cause No. 53033 on the docket of the Fifty-third Judicial District Court of Travis County, Texas; and

It appearing to the Court that by reason of said stay order in said cause No. 53033 in the Fifty-third Judicial [fol. 3568] District Court of Travis County, Texas, and by reason of the aforesaid statements of the said defendants herein in open court, by and through Elbert Hooper, First Assistant Attorney General, that the plaintiff herein, Lone Star Gas Company, is fully protected from the imposition of any and all pains, penalties and forfeitures provided by law and arising by reason of the violation by Lone Star Gas Company, plaintiff herein, of any of the terms, provisions and requirements of the said order of the Railroad Commission of Texas of date September 13th, 1933, done at any time prior to the final determination of said cause No. 53033 on the docket of the Fifty-third Judicial District Court of Travis County, Texas, and that upon the entry of an interlocutory injunction in this cause in compliance with the consent statements of said Assistant Attorney General, Elbert Hooper, and of the stay order of this Court, the requirements of Section 266 of the Judicial Code of the United States, as amended, will be complied with:

It is, Therefore, Ordered, Adjudged and Decreed that the defendants Lon A. Smith, C. V. Terrell and E. O. Thompson, being the members of and constituting the Railroad Commission of Texas, and their respective successors in office and all of the assistants, agents, attorneys and representa-

tives of the said defendants be, and each of them is hereby restrained and enjoined from enforcing or attempting to enforce, or from giving any effect to, by any means or methods, the said order of the Railroad Commission of Texas dated September 13th, 1933, directed against the plaintiff, Lone Star Gas Company, or any of the pains, penalties or forfeitures provided by law for any such violation of an order [fols. 3569-3571] of said Commission by reason of the violation of any of the terms, provisions and requirements of said order, committed by plaintiff, Lone Star Gas Company, at any time prior to the final judgment in said cause No. 53033 on the docket of the Fifty-third Judicial District Court of Travis County, Texas.

It is Further Ordered that all proceedings in this cause shall be stayed in this Court pending the final determination of cause styled The State of Texas et al. vs. Lone Star Gas Company, No. 53033 on the docket of the Fifty-third Judicial District Court of Travis County, Texas.

To the foregoing action of the Court in ordering a stay of all proceedings in this cause in this Court pending the final determination of said cause styled The State of Texas et al. vs. Lone Star Gas Company on the docket of the Fifty-third Judicial District Court of Travis County, Texas, the plaintiff took its exception in open court and such exception was allowed.

It is Further Ordered, however, that jurisdiction is hereby retained in this Court to enter such order and further orders upon the motion of either party as may be necessary to protect the jurisdiction of this Court or to protect the rights of any party herein.

Joseph C. Hutcheson, Jr., United States Circuit Judge. William I. Grubb, United States District Judge. T. M. Kennerly, United States District Judge.

[fol. 3572] PLAINTIFFS' EXHIBIT NO. 3

IN THE DISTRICT COURT OF TRAVIS COUNTY, TEXAS, 53RD JUDICIAL DISTRICT

No. 53,033

THE STATE OF TEXAS et al.

v.

LONE STAR GAS COMPANY

STIPULATION

Be it Remembered, that in the above styled and numbered cause, as a part of the evidence introduced by the State of Texas et al., in making out its case, in chief, and directly in the first instance;

It is Agreed by the undersigned counsel of record, representing all parties to this cause, that the defendant, Lone Star Gas Company, is still charging and collecting the forty cent rate, rather than the thirty-two cent rate, provided for in the order of the Railroad Commission, bearing date of September 13th, 1933; that said thirty-two cent rate has never been put in force or effect by said defendant, at any time, and that said forty cent rate has been collected continuously at all times, since the date of the order promulgated and adopted by the Railroad Commission of Texas, on September 13th, 1933.

Witness our signatures on this 11th day of June, A. D. 1934.

For the State of Texas et al., William C. Fitzhugh, Assistant Attorney General; A. R. Stout, Assistant Attorney General. For the Defendant, Lone Star [fols. 3573-3576] Gas Company, Thompson & Barwise, Karl F. Griffith, Ben H. Powell, Roy C. Coffee, Marshall Newcomb, Attorneys for the Defendant, Lone Star Gas Company.

[fol. 3577] PLAINTIFFS' EXHIBIT No. 4

Report on Special Investigation of Records of Lone Star Gas Company

Texas Properties

March 31, 1934

[fol. 3578] Index

	Side folio
Comparative Statement of Earnings—Public Service Operations—Texas Properties	3579
Gas Sales	3580
Gas Purchased	3581
Gathering Expenses	3582
Producing & Gathering Expenses	3583
Compressor Station Expenses	3584
Transmission System Expenses:	
For the twelve months periods ended 3-31-1934, 12-31-1933, 12-31-1932, 12-31-1931	3585
For the calendar years 1929, and 1930	3586
General Expenses:	
For the twelve months periods ended 3-31-1934, 12-31-1933, 12-31-1932, 12-31-1931	3587
For the calendar years 1929, and 1930	3588
Texas-Oklahoma Gas Sales Adjustment	3589
Producing Expenses	3590
Summary of Public Service Property	3591

(Here follow 2 pasters, side folios 3579 and 3580)

BLANK

PAGE

Plaintiff's Exhibit No. 4—Continued

[fol. 3579]

Comparative Statement of Earnings—Public Service Operations

Texas Properties

Lone Star Gas Company, Dallas, Texas

	For the twelve months periods ended					
	3-31-1934	12-31-1933	12-31-1932	12-31-1931	12-31-1930	12-31-1929
Revenues:						
Gas Sales	$7,626,462.92	$7,387,118.42	$8,476,715.80	$8,904,998.03	$10,342,313.26	$10,673,823.14
Miscellaneous Operating Revenues	1,596.78	1,442.91	1,491.98	1,631.35	4,419.90	9,543.56
Miscellaneous Non-Operating Revenues	35,001.80	35,119.54	25,734.43	31,812.39	33,096.11	32,628.00
Total	7,663,061.50	7,423,680.87	8,503,942.21	8,938,441.77	10,379,829.27	10,715,994.70
Expenses:						
Gas Purchased	1,073,493.16	1,071,170.87	1,029,511.13	1,118,328.28	1,324,315.60	1,348,386.94
Gathering Expenses (A)	96,589.70	95,911.08	95,717.03	107,072.95	70,040.56	51,069.99
Compressor Station Expenses	310,679.12	303,454.78	319,016.71	384,991.35	447,941.19	433,918.50
Transmission System Expenses	368,419.03	374,275.77	397,835.06	516,020.18	710,647.87	631,525.01
General Expenses	733,121.58	754,282.79	817,248.81	742,885.25	698,875.56	632,776.76
Taxes—Other than Gross Production and Federal Income Taxes	295,218.11	295,218.11	250,367.38	305,097.29	240,337.03	208,405.97
Auto and Truck Expenses Underdistributed	3,221.27	3,223.15	3,570.99*	1,843.37	14,371.98	2,470.56*
Bad Debts and Adjustments	5,155.29	5,210.33	4,183.66	3,817.73*	3,982.56	6,269.89
Miscellaneous Non-Operating Expenses	192.72	192.72	856.22	447.70	3,872.23	.....
Texas-Oklahoma Gas Sales Adjustment	62,234.07	29,617.92	342,429.94	554,766.20	1,213,262.91	1,655,550.49
	2,948,324.05	2,932,557.52	3,253,594.95	3,727,634.84	4,727,647.49	4,965,432.99
	4,714,737.45	4,491,123.35	5,250,347.26	5,210,806.93	5,652,181.78	5,750,561.71
Producing Expenses (B)	30,506.28	31,183.91	26,483.89	58,034.59	54,490.28	29,372.52
Gross Production Taxes	3,911.56	3,911.56	4,441.32	1,527.55	331.65	461.21
Drilling Tools Expenses Underdistributed	3,600.58	3,610.58	8,222.99	6,460.73	509.84*	59,441.81*
Dry Holes	18,430.03	17,912.98	.....	65,871.56	196,034.17	47,423.77
Cancelled and Surrendered Leases	166,304.21	176,139.67	245,103.65	232,271.16	67,035.04	61,046.03
Management Fees	75,413.05	73,037.17	83,797.85	87,926.88	102,074.67	92,020.05
	298,165.71	305,795.87	368,049.70	452,092.47	419,455.97	170,881.77
Net Earnings—Before Providing for Depreciation, Depletion, and Federal Income Taxes	$4,416,571.74	$4,185,327.48	$4,882,297.56	$4,758,714.46	$5,232,725.81	$5,579,679.94

* Indicates red figures.

(A) Includes producing expenses for the years 1929, and 1930, except, Repairing and Cleaning wells, and cost of abandoning wells.

(B) Includes, for the years 1929, and 1930, only the cost of Repairing and Cleaning wells and cost of abandoning wells.

Plaintiff's Exhibit No. 4—Continued

[fol. 3580]

Gas Sales

Lone Star Gas Company—Dallas, Texas

Texas Properties

For the twelve months periods ended

	3-31-1934			12-31-1933			12-31-1932			12-31-1931			12-31-1930			12 31-1929		
	M.C.F.	Average Price	Amount	M.C.F.	Average Price	Amount	M.C.F.	Average Price	Amount	M.C.F.	Average Price	Amount	M.C.F.	Average Price	Amount	M.C.F.	Average Price	Amount
Affiliated Companies:																		
Domestic	13,634,224	$.4000	$5,454,388.42	13,178,080	$.4005	$5,277,259.79	15,732,453	$.3996	$6,286,429.96	15,703,752	$.3993	$6,271,095.06	16,487,154	$.4047	$6,671,941.26	16,170,448	$.4087	$6,608,712.22
Industrial	11,440,066	.1353	1,547,521.71	11,057,384	.1360	1,504,000.85	11,810,664	.1430	1,688,541.08	12,787,739	.1501	1,919,674.57	14,823,865	.1611	2,387,331.67	16,563,730	.1596	2,643,683.79
Total	25,074,290	.2792	7,001,910.13	24,235,464	.2798	6,781,260.64	27,543,117	.2895	7,974,971.04	28,491,491	.2875	8,190,769.63	31,311,019	.2893	9.059,272.93	32,734,178	.2827	9,252,396.01
Other Companies:																		
Domestic	197,497	.4000	78,998.68	202,647	.4000	81,058.52	238,603	.4000	95,441.28	640,288	.4334	277,491.62	790,627	.4399	347,835.46	841,204	.4327	364,006.54
Industrial	243,126	.1331	32,350.96	230,250	.1328	30,587.64	276,031	.1292	35,658.45	938,517	.1467	137,687.23	1,323,564	.1499	198,376.51	1,540,907	.1458	224,732.51
Total	440,623	.2527	111,349.64	432,897	.2579	111,646.16	514,634	.2547	131,099.73	1,578,805	.2630	415,178.85	2,114,191	.2584	546,211.97	2,382,111	.2472	588,739.05
Other Sales:																		
Field Sales	1,344,049	.0634	85,158.04	1,327,632	.0628	83,401.87	1,532,950	.0632	96,930.98	1,783,008	.0630	112,309.65	2,011,154	.0559	134,845.97	1,900,279	.0709	134,720.48
Miscellaneous Industrial Sales	3,869,290	.1106	428,045.11	3,707,007	.1108	410,809.75	2,327,293	.1176	273,714.05	1,467,729	.1272	186,739.90	4,112,015	.1464	601,982.39	4,329,576	.1612	697,967.60
Total	5,213,339	.0984	513,203.15	5,034,639	.0982	494,211.62	3,860,243	.0960	370,645.03	3,250,737	.0920	299,049.55	6,123,169	.1203	736,828.36	6,229,855	.1337	832,688.08
Total Gas Sales:																		
Domestic	13,831,721	.4000	5,533,387.10	13,380,727	.4005	5,358,318.31	15,971,056	.3996	6,381,871.24	16,344,040	.4007	6,548,586.68	17,277,781	.4063	7,019,776.72	17,011,652	.4099	6,972,718.76
Industrial	16,896,531	.1239	2,093,075.82	16,322,273	.1243	2,028,800.11	15,946,938	.1314	2,094,844.56	16,976,993	.1388	2,356,411.35	22,270,598	.1492	3,322,536.54	24,334,492	.1521	3,701,104.38
Grand Total	30,728,252	$.2482	$7,626,462.92	29,703,000	$.2487	$7,387,118.42	31,917,994	$.2656	$8,476,715.80	33,321,033	$.2672	$8,904,998.03	39,548,379	$.2615	$10,342,313.26	41,346,144	$.2582	$10,673,823.14

BLANK

PAGE

Plaintiff's Exhibit No. 4—Continued

[fol. 3581]

Gas Purchased

Texas Properties

Lone Star Gas Company—Dallas, Texas

For the twelve months periods ended

	Total Gas Purchased			Purchased from Wells Owned by Others			Royalty Gas Purchased		
	M.C.F.	Average Price	Amount	M.C.F.	Average Price	Amount	M.C.F.	Average Price	Amount
March 31, 1934	20,433,167	$.0525	$1,073,493.16	19,542,620	$.0529	$1,033,884.92	890,547	$.0445	$39,608.24
December 31, 1933	19,958,961	.0537	1,071,170.87	19,131,823	.0540	1,033,932.82	827,038	.0450	37,238.05
December 31, 1932	20,005,813	.0515	1,029,511.13	19,302,284	.0518	1,000,424.28	703,529	.0413	29,086.85
December 31, 1931	20,358,919	.0549	1,118,328.28	19,864,003	.0555	1,101,792.65	494,916	.0334	16,535.63
December 31, 1930	23,531,229	.0563	1,324,315.60	22,926,823	.0564	1,292,914.17	604,406	.0520	31,401.43
December 31, 1929	24,312,940	.0555	1,348,386.94	23,925,785	.0555	1,327,132.27	387,155	.0549	21,254.67

Plaintiff's Exhibit No. 4—Continued

[fol. 3582]

Gathering Expenses

Texas Properties

Lone Star Gas Company—Dallas, Texas

	For the twelve months periods ended			
	3-31-1934	12-31-1933	12-31-1932	12-31-1931
Operation:				
Superintendence	$17,749.75	$17,723.82	$11,709.97	$9,332.03
Labor Operating wells	18,345.64	17,021.90	17,791.55	11,262.19
Field lines labor	8,087.08	7,910.22	8,261.78	11,274.90
Field measuring station labor	11,717.88	11,406.23	12,412.29	13,981.95
Superintendence supplies and expenses	2,413.84	2,217.66	2,688.67	1,340.74
Gas wells supplies and expenses	6,489.76	6,557.03	8,212.76	4,431.36
Field lines supplies and expenses	1,971.24	1,953.07	2,743.16	4,260.00
Field measuring station supplies and expenses	4,906.25	5,016.03	6,229.34	6,809.06
Other supplies and expenses	1,008.22	851.28	601.28	8,005.52
Damages	66.42	40.94	- 56.31	49.82
Maintenance:				
Superintendent of Maintenance	853.58	880.83	948.80	1,232.12
Maintenance of field lines	4,885.61	6,266.97	6,429.72	9,434.69
Maintenance of field structures	53.25	103.02	76.27	79.78
Maintenance of measuring stations	17,525.15	17,397.61	16,371.42	17,097.41
Maintenance of gas cleaners	.....	.....	.....	.....
Changing Construction	260.99	309.43	678.89	6,087.64
Other maintenance expenses	255.04	255.04	504.82	2,393.74
	$96,589.70	$95,911.08	$95,717.03	$107,072.95

Plaintiff's Exhibit No. 4—Continued

[fol. 3583]

Producing and Gathering Expenses

Texas Properties

Lone Star Gas Company—Dallas, Texas

For the calendar years 1929, and 1930

	1930	1929
Operation:		
Foremen	$2,428.63	$860.52
Blowing wells and drips	6,026.50	8,206.83
Other labor	4,370.55	3,599.42
Auto and livery	905.77	374.55
Tools and supplies	2,029.81	2,302.20
Miscellaneous expense	34,182.04	23,230.87
Damages	250.00	.....
Maintenance:		
Changing Construction	7,319.27	3,649.27
Repairs to lines	12,527.99	8,846.33
Repairing and cleaning wells	52,785.83	29,372.52
Abandoning wells	1,704.45	.....
	$124,530.84	$80,442.51
Less Expenses Considered Entirely Applicable to Production:		
Repairing and cleaning wells	52,785.83	29,372.52
Abandoning wells	1,704.45	.....
	54,490.28	29,372.52
Gathering Expenses (A)	$70,040.56	$51,069.99

(A) Includes undistributed producing expenses.

Plaintiff's Exhibit No. 4—Continued

[fol. 3584]

Compressor Station Expenses

Texas Properties

Lone Star Gas Company—Dallas, Texas

	For the twelve months periods ended					
	3-31-1934	12-31-1933	12 31-1932	12-31-1931	12-31-1930	12-31-1929
Operations.						
Superintendence	$31,327.72	$32,020.20	$33,205.04	$43,594.29	$33,591.29	$30,391.19
Engineers and Oilers (labor)	75,152.51	77,189.60	89,685.75	117,475.27	136,214.40	137,051.48
Other labor	29,471.17	24,633.05	19,428.34	24,896.19	25,922.62	21,158.56
Fuel	62,727.27	61,728.75	68,443.00	72,464.91	86,580.29	86,122.17
Water	16,427.76	17,208.98	18,349.37	21,217.33	29,601.45	33,122.55
Lubricants	5,396.31	5,034.68	6,137.76	7,466.33	8,532.06	8,825.48
Tool expense	1,588.03	1,634.45	1,304.63	2,003.13	2,849.50	2,332.24
Miscellaneous supplies and expenses	13,839.29	13,635.51	15,302.01	22,630.84	21,760.49	22,831.16
Maintenance:						
Maintenance of Machinery	43,814.84	44,086.64	41,138.10	43,626.86	60,596.17	64,419.24
Maintenance of Water system	5,434.82	5,260.05	5,888.37	6,905.93	7,266.10	4,612.22
Maintenance of pipe and fittings	5,795.97	4,491.99	2,812.05	5,637.71	7,887.30	9,622.65
Maintenance of structures	10,145.36	6,384.79	5,117.23	8,016.33	15,813.57	10,569.74
Changing construction	3,118.28	3,341.71	4,783.59	592.96	321.71	84.88
Maintenance of Other Compressor station equipment	6,448.79	6,804.38	7,421.47	8,463.27	11,004.24	12,774.94
Total	$310,679.12	$303,454.78	$319,016.71	$384,991.35	$447,941.19	$433,918.50

Plaintiff's Exhibit No. 4—Continued

[fol. 3383]

Transmission System Expenses

Texas Properties

Lone Star Gas Company—Dallas, Texas

	For the twelve months periods ended			
	6-31-1934	12-31-1933	12-31-1932	12-31-1931
Operations:				
Superintendence	$43,471.34	$42,298.70	$48,573.07	$52,241.23
Line walkers	47,905.44	49,257.32	54,315.35	77,589.78
Inspection	26,084.41	25,050.63	22,869.88	27,550.87
Measuring station labor	25,707.02	25,933.27	22,844.64	19,971.36
Other Transmission system labor	28,826.03	30,259.54	21,248.09	21,851.51
Superintendence supplies and expenses	9,871.13	9,656.46	10,732.76	15,478.70
Measuring station supplies and expenses	9,940.38	10,184.35	10,495.41	11,489.15
Transmission lines supplies and expenses	16,091.61	16,392.20	13,435.73	19,473.58
Inspection supplies and expenses	4,564.87	4,930.39	6,008.97	6,023.50
Transmission system rents	15,420.32	15,426.38	15,843.27	16,134.91
Transmission and Compressor charges paid to others	246.22	597.42	498.71	.....
Damages	2,763.81	2,679.90	5,506.56	3,849.05
Maintenance:				
Superintendence of Maintenance	4,346.39	4,518.05	2,819.70	6,121.93
Maintenance of:				
Measuring station structures	9,525.44	8,784.14	5,848.93	19,729.32
Transmission lines	65,181.16	71,335.00	92,406.42	120,945.24
Measuring station equipment	43,105.48	41,520.92	44,234.62	59,687.61
Gas cleaners	491.20	457.71	835.95	1,050.76
River crossings	2,078.20	2,068.26	2,379.15	371.46
Other Transmission line equipment	7,980.88	7,907.59	7,631.30	20,205.15
Changing construction	4,817.70	5,017.54	9,306.55	16,255.07
	$368,419.03	$374,275.77	$397,835.06	$516,020.18

Plaintiff's Exhibit No. 4—Continued

[fol. 3586]

Transmission System Expenses

Texas Properties

Lone Star Gas Company—Dallas, Texas

For the calendar years 1929 and 1930

Operations:	1930	1929
Foremen	$48,218.32	$33,288.76
Line walkers	118,494.62	113,636.21
Inspection	39,484.14	50,357.09
Regulating and measuring stations	77,667.77	73,609.28
Auto and livery	14,448.18	13,279.65
Damages	5,703.39	3,689.86
Tools and supplies	11,707.42	11,074.28
Miscellaneous	96,411.82	69,960.87
Maintenance:		
Repairs to lines	135,186.15	103,972.65
Repairs to buildings	9,578.46	4,750.79
Repairs to Regulating and measuring stations	117,083.92	113,372.03
Telephone and Telegraph	26,597.20	25,180.20
Changing construction	9,947.86	14,478.57
Repairs to River Crossings	118.62	874.77
	$710,647.87	$631,525.01

Plaintiff's Exhibit No. 4—Continued

[fol. 3587]

General Expenses

Texas Properties

Lone Star Gas Company—Dallas, Texas

	For the twelve months periods ended			
	3-31-1934	12-31-1933	12-31-1932	12-31-1931
Administrative Salaries	$103,046.20	$100,960.14	$104,134.70	$126,070.01
Other General Office Salaries	273,173.49	266,645.48	256,364.22	266,291.10
General Office Supplies and Expenses	13,601.63	12,943.68	10,179.02	20,668.51
General Office Traveling and incidental expenses	24,397.78	24,144.21	27,791.13	19,815.41
General stationery and printing	10,496.99	10,428.07	14,859.26	13,849.77
Law expense	42,913.98	44,553.33	41,394.57	46,214.30
General Office rent	11,585.07	11,621.73	14,065.41	5,431.57
Maintenance of general structures	23,154.17	23,220.57	25,355.73	21,322.86
Maintenance of general office equipment	1,941.31	1,939.61	2,117.92	1,856.35
Telephone and Telegraph system labor	6,965.33	7,105.01	8,586.54	10,446.77
Telephone and telegraph system supplies and expenses	2,645.45	3,497.21	4,692.47	5,228.31
Maintenance of Telephone and Telegraph system	7,951.81	7,749.67	6,768.79	8,745.13
Regulatory Commission expenses	55,759.20	65,812.69	149,282.38	.....
Charitable donations	10,021.05	10,671.70	10,341.77	9,848.87
Injuries and damages	715.36	40.25	291.14	6.48
Insurance expense	23,848.86	23,671.25	24,719.69	28,240.40
Welfare and pensions	6,967.27	7,075.97	7,645.89	7,355.00
Miscellaneous general administrative expenses	27,489.94	46,998.16	33,610.87	42,395.43
New Business advertising salaries	13,773.11	11,944.97	7,783.79	8,259.69
New Business soliciting and commissions	1.65	1.65	.....	.....
Other New Business labor	16,919.16	17,380.88	17,761.86	24,194.03
Advertising supplies and expenses	47,158.84	46,829.15	38,932.55	70,268.15
New Business supplies and expenses	8,593.93	9,047.41	10,569.11	6,377.11
	$733,121.58	$754,282.79	$817,248.81	$742,885.25

Plaintiff's Exhibit No. 4—Continued

[fol. 3588]

General Expenses

Texas Properties

Lone Star Gas Company—Dallas, Texas

For the calendar years 1929 and 1930

	1930	1929
Salaries and expenses of Officers	$89,431.22	$68,456.82
Office Salaries and expenses	213,024.94	165,041.48
Legal Department—Salaries and expenses	42,639.90	34,161.76
Insurance	36,827.68	51,880.52
Telephone and Telegraph	18,647.92	17,169.51
Subscriptions and donations	26,793.05	30,727.79
Engineering Department—Salaries and expenses	87,882.69	57,059.77
Office Building expenses	20,401.51	18,562.70
Geological Department expenses	7,582.30	5,263.60
Valuation Suspense	21,487.38	37,237.45
Advertising	61,193.09	83,133.99
Industrial gas expense	30,700.62	28,100.00
Miscellaneous	42,263.26	35,981.37
	$698,875.56	$632,776.76

(Here follows one paster, side folio 3589)

BLANK

PAGE

Plaintiff's Exhibit No. 4—Continued

[fol. 3589]

Texas—Oklahoma Gas Sales Adjustment—8 Oz. Base

Lone Star Gas Company—Dallas, Texas

	For the twelve months periods ended					
	3-31-34	12-31-33	12-31-32	12-31-31	12-31-30	12-31-29
Gas Purchased and Produced—Oklahoma:						
Gas Purchased—M.C.F.	1,085,264	1,076,562	2,105,472	3,493,214	6,401,203	8,519,393
Gas Produced Including Royalty Purchased—M.C.F.	681,236	613,780	428,901	260,561	272,760	311,902
Net Storage—M.C.F.	342,249*	422,567*	159,835	110,586*	5,602*	168,535*
Total	1,424,251	1,267,775	2,694,208	3,643,189	6,668,361	8,662,760
Gas Sold—Oklahoma:						
Gas Sales—Domestic—M.C.F.	557,684	564,106	680,630	679,647	696,486	670,270
Gas Sales—Industrial—M.C.F.	588,683	571,288	593,293	627,340	671,909	761,433
Total	1,146,367	1,135,394	1,273,923	1,306,987	1,368,395	1,431,703
Net Gas Sold in Texas Neglecting Line Loss—M.C.F.	277,884	132,381	1,420,285	2,336,202	5,299,966	7,231,057
Average Sales Price—Texas	$.24819	$.24870	$.26558	$.26725	$.26151	$.25816
Amount	68,968.03	32,923.08	377,196.39	624,349.98	1,385,994.10	1,866,769.66
Less: Compression and Transmission Expense on Net Gas Sold in Texas Neglecting Line Loss	6,733.96	3,305.16	34,766.45	69,583.78	172,731.19	211,219.17
Total	$62,234.07	$29,617.92	$342,429.94	$554,766.20	$1,213,262.91	$1,655,550.49

* Net Gas Stored in Excess of Withdrawals.

BLANK

PAGE

Plaintiff's Exhibit No. 4—Continued

[fol. 3590]

Producing Expenses

Texas Properties

Lone Star Gas Company—Dallas, Texas

	For the twelve months periods ended			
	3-31-1934	12-31-1933	12-31-1932	12-31-1931
Abandoning wells	$1,195.90	$1,170.90	$6.91*	$17,075.79
Superintendence of lifting	4,753.27	4,636.36	3,270.13	1,368.16
Labor	25.36	25.36	18.62	131.84
Lifting supplies and expenses	4.37	14.65	5.73	1.43
Maintenance	121.10	166.07	48.26	132.92
Repairing and cleaning out wells	22,745.43	23,645.66	21,932.84	31,732.14
Miscellaneous lifting expense	1,660.85	1,524.91	1,215.22	7,592.31
	$30,506.28	$31,183.91	$26,483.89	$58,034.59

* Indicates red figures.

[fol. 3591-3592]

Summary of Public Service Property

Texas Properties

Lone Star Gas Company—Dallas, Texas

At March 31, 1934, and December 31, 1931

Adjusted Book Cost:	Balance 12-31-1931
Leases	$1,225,946.14
Mineral Rights	13,768.00
Gas Rights	21,974.48
Lands in Fee—Clay County, Texas	27,344.70
Lands in Fee—Limestone County, Texas	3,003.00
Drilling Tools	101,985.03
Production System Property—Gas Farms	3,038,898.84
Gathering System Property	809,888.66
Petrolia Field Account	758,619.23
Compressor Station Property	4,157,583.14
Transmission System Property—Pipe Lines and Equipment	30,945,793.52
Gas Connections	13,699.22
Telephone and Telegraph System (15% allocated to Oklahoma)	306,715.05
Automotive Equipment	360,541.31
Dallas Machine Shop (15% allocated to Oklahoma)	112,083.30
Real Estate (15% allocated to Oklahoma)	75,344.71
General Office Building (15% allocated to Oklahoma)	398,456.87
General Office Furniture and Fixtures (15% allocated to Oklahoma)	168,646.81
Tools and Construction Equipment	12,477.01
Total as at December 31, 1931	$42,552,769.02
Net Addition to Public Service Property: Texas Properties, from January 1, 1932, through March 31, 1934	1,500,843.28
Total as at March 31, 1934	$44,053,612.30

(Here follows four pasters, side folios 3593–3595 and 3597–3598, 3599, and 3600)

6212

BLANK

PAGE

[fols. 3593-3595] PLAINTIFFS' EXHIBIT No. 5

Report on Special Investigation of Records of Lone Star Gas Company

March 31, 1934

[fol. 3596]

Comparative Statement of Earnings—Public Service Operations

Lone Star Gas Company—Dallas, Texas

	For the twelve months periods ended							
	3-31-1934	12-31-1933	12-31-1932	12-31-1931	12-31-1930	12-31-1929	12-31-1928	12-31-1927
Revenues:								
Gas Sales	$7,926,274.88	$7,688,724.10	$8,829,713.37	$9,265,639.45	$10,711,735.39	$11,045,925.90	$9,502,268.06	$8,999,650.55
Miscellaneous Operating Revenues	1,596.78	1,442.91	1,491.98	1,631.35	4,419.90	9,543.56	4,539.16	.....
Miscellaneous Non-Operating Revenues	38,107.23	38,142.04	27,982.85	34,591.85	35,987.72	32,869.03	35,169.10	20,624.41
Total	$7,965,978.89	$7,728,309.05	$8,859,188.20	$9,301,862.65	$10,752,143.01	$11,088,338.49	$9,541,976.32	$9,020,274.96
Expenses:								
Gas Purchased	1,144,620.17	1,132,028.98	1,214,964.33	1,487,431.81	2,000,705.73	2,205,527.40	1,833,783.69	2,002,932.49
Gathering Expenses (A)	131,713.95	131,326.29	135,110.30	140,961.09	98,540.64	74,758.43	67,128.19	58,383.25
Compressor Station Expenses	346,306.81	338,433.01	358,402.61	447,292.41	532,314.96	532,689.96	515,487.76	557,288.04
Transmission System Expenses	426,114.97	431,520.56	454,086.37	584,115.01	801,221.80	716,685.93	663,441.45	604,333.65
General Expenses	848,296.40	871,324.95	941,079.43	874,985.43	828,497.25	776,408.61	566,346.79	491,748.32
Taxes—Other than Gross Production and Federal Income Taxes	353,390.45	355,463.27	337,942.16	396,961.89	303,545.79	275,281.31	259,996.66	181,246.56
Auto and Truck Expenses Underdistributed	3,775.07	3,775.07	4,164.90*	2,131.06	16,721.33	2,926.51*	114.73*	22,328.19*
Bad Debts and Adjustments	6,475.73	6,530.77	6,773.32	7,727.33*	3,982.56	8,392.69	6,258.04	1,215.98
Miscellaneous Non-Operating Expenses	192.72	192.72	856.22	477.74	4,505.21	.....	.....	.....
	3,260,886.27	3,270,595.62	3,445,049.84	3,926,629.11	4,590,035.27	4,586,817.82	3,912,327.85	3,874,820.10
	4,705,092.62	4,457,713.43	5,414,138.36	5,375,233.54	6,162,107.74	6,501,520.67	5,629,648.47	5,145,454.86
Producing Expenses (B)	40,613.89	41,408.80	31,004.67	60,068.40	60,872.41	33,210.51	43,769.84	32,078.41
Gross Production Taxes	7,086.46	5,013.64	5,751.14	2,047.06	1,125.65	901.72	1,151.48	1,716.05
Drilling Tool Expenses Underdistributed	4,219.59	4,219.59	9,590.61	7,469.05	593.18*	70,412.00*	7,869.63	37,769.36*
Dry Holes	19,221.57	18,704.52	14,288.55	65,871.56	196,034.17	47,423.77	29,561.61	58,374.48
Cancelled and Surrendered Leases	169,362.09	188,629.92	255,829.03	239,230.96	104,168.87	75,523.70	12,480.59	64,299.54
Management Fees	78,294.78	75,940.60	87,197.87	91,375.38	105,625.72	95,062.03	.....	.....
	318,798.38	333,917.07	403,661.87	466,062.41	467,233.64	181,709.73	79,093.89	118,699.12
Net Earnings—Before Providing for Depreciation, Depletion, and Federal Income Taxes	$4,386,294.24	$4,123,796.36	$5,010,476.49	$4,909,171.13	$5,694,874.10	$6,319,810.94	$5,550,554.58	$5,026,755.74

* Indicates red figures.

(A) Includes producing expenses for the years 1927, through 1930, except, Repairing and Cleaning wells and cost of abandoning wells.

(B) Includes, for the years 1927, through 1930, only the cost of Repairing and Cleaning wells and cost of abandoning wells.

[fols. 3597-3598]

Plaintiffs' Exhibit No. 5—Continued

Gas Sales

Lone Star Gas Company—Dallas, Texas

For the twelve months periods ended

	3-31-1934			12-31-1933			12-31-1932			12-31-1931			12-31-193	
	M.C.F.	Average Price	Amount	M.C.F.	Average Price	Amount	M.C.F.	Average Price	Amount	M.C.F.	Average Price	Amount	M.C.F.	Average Price
Affiliated Companies:														
Domestic	14,171,179	$.4000	$5,668,123.26	13,722,595	$.4004	$5,494,113.15	16,390,072	$.3995	$6,548,514.44	16,357,932	$.3994	$6,533,579.28	17,158,007	$.4040
Industrial	11,815,942	.1362	1,609,045.23	11,427,697	.1369	1,565,670.69	12,171,047	.1439	1,751,850.57	13,127,475	.1510	1,982,580.32	15,120,467	.1618
Total	25,987,121	.2800	7,277,168.49	25,150,292	.2807	7,059,783.84	28,561,119	.2906	8,300,365.01	29,485,407	.2888	8,516,159.60	32,278,474	.2905
Other Companies:														
Domestic	218,226	.4000	87,290.28	222,238	.4000	88,894.92	261,616	.4000	104,646.48	665,755	.4286	285,378.62	816,260	.4355
Industrial	245,593	.1339	32,873.67	232,736	.1337	31,119.77	281,693	.1309	36,875.80	945,464	.1472	139,180.85	1,328,601	.1501
Total	463,819	.2591	120,163.95	454,974	.2638	120,014.69	543,309	.2605	141,522.28	1,611,219	.2635	424,559.47	2,144,861	.2587
Other Sales:														
Field Sales:														
Compressor Stations	509,869	.0631	32,194.32	1,019,482	.0638	65,049.15	1,137,383	.0643	73,153.52	1,243,956	.0647	80,446.01	1,401,435	.0672
Gasoline Plants	1,081,711	.0642	66,199.20	497,767	.0624	31,057.90	610,137	.0627	38,264.98	776,236	.0635	49,287.12	864,802	.0687
Miscellaneous Industrial Sales:														
Outside—Industrial	3,877,376	.1109	429,946.86	3,710,835	.1111	412,176.92	2,169,910	.1242	269,484.10	1,034,055	.1783	184,365.00	3,559,153	.1625
Interdepartmental—Industrial	4,723	.1275	602.06	5,044	.1272	641.60	170,059	.0407	6,923.48	477,147	.0227	10,822.25	668,049	.0686
Total	5,423,679	.0975	528,942.44	5,233,128	.0973	508,925.57	4,087,489	.0949	387,826.08	3,531,394	.0920	324,920.38	6,493,439	.1198
Total Gas Sales:														
Domestic	14,389,405	.4000	5,755,413.54	13,944,833	.4004	4,583,008.07	16,651,688	.3995	6,653,160.92	17,023,687	.4005	6,818,957.90	17,974,267	.4054
Industrial	17,485,214	.1242	2,170,861.34	16,893,561	.1247	2,105,716.03	16,540,229	.1316	2,176,552.15	17,604,333	.1390	2,446,681.55	22,942,507	.1493
Grand Total	31,874,619	$.2487	$7,926,274.88	30,838,394	$.2493	$7,688,724.10	33,191,917	$.2660	$8,829,713.37	34,628,020	$.2676	$9,265,639.45	40,916,774	$.2618

	12-31-1930		12-31-1929			12-31-1928			12-31-1927		
F.	Average Price	Amount	M.C.F.	Average Price	Amount	M.C.F.	Average Price	Amount	M.C.F.	Average Price	Amount
,007	$.4040	$6,931,580.21	16,814,583	$.4078	$6,856,640.67	13,595,363	$.4081	$5,548,920.36	10,852,054	$.4069	$4,415,606.76
,467	.1618	2,447,193.84	16,878,240	.1602	2,704,371.91	14,296,867	.1646	2,353,327.84	18,047,224	.1578	2,847,207.11
,474	.2905	9,378,774.05	33,692,823	.2838	9,561,012.58	27,892,230	.2833	7,902,248.20	28,899,278	.2513	7,262,813.87
,260	.4355	355,525.36	867,339	.4287	371,847.04	1,396,802	.4201	586,808.84	1,319,233	.4080	538,198.72
601	.1501	199,459.50	1,543,350	.1459	225,257.77	2,089,407	.1489	311,045.54	2,420,865	.1511	365,878.52
,861	.2587	554,984.86	2,410,689	.2477	597,104.81	3,486,209	.2575	897,854.38	3,740,098	.2417	904,077.24
435	.0672	94,197.62	1,395,301	.0701	97,765.01	1,393,452	.0674	93,942.89	1,427,400	.0609	86,921.77
802	.0687	59,385.69	800,346	.0759	60,724.57	744,893	.0759	56,529.26	645,339	.0760	49,045.75
153	.1625	578,548.09	3,793,274	.1710	648,635.19	3,043,478	.1791	545,252.59	3,619,313	.1884	681,909.81
049	.0686	45,845.08	685,414	.1177	80,683.74	132,499	.0486	6,440.74	137,891	.1079	14,982.11
439	.1198	777,976.48	6,674,335	.1330	887,808.51	5,314,322	.1321	702,165.48	5,829,943	.1428	832,759.44
267	.4054	7,287,105.57	17,681,922	.4088	7,228,487.71	14,992,165	.4093	6,135,729.20	12,171,287	.4070	4,953,805.48
507	.1493	3,424,629.82	25,095,925	.1521	3,817,438.19	21,700,596	.1551	3,366,538.86	26,298,032	.1538	4,045,845.07
774	$.2618	$10,711,735.39	42,777,847	$.2582	$11,045,925.90	36,692,761	$.2590	$9,502,268.06	38,469,319	$.2339	$8,999,650.55

Plaintiff's Exhibit No. 5—Continued

[fol. 3599]

Miscellaneous Non-Operating Revenues

Lone Star Gas Company—Dallas, Texas

	For the twelve months periods ended							
	3-31-1934	12-31-1933	12-31-1932	12-31-1931	12-31-1930	12-31-1929	12-31-1928	12-31-1927
Cottage Rentals	$9,948.00	$9,896.00	$10,228.25	$10,211.00	$10,838.08	$9,983.00	$9,582.15	$9,273.75
Office Building Rentals	25,715.00	25,765.00	13,680.00	17,901.44	20,335.96	19,051.67	18,850.00	4,140.00
Farm Rentals	994.22	1,097.32	47.88	532.50	.....	.....	270.00	302.50
Lease Rentals	.....	.....	.....	211.00	138.75	262.25	258.00	243.00
Telephone Pole Rentals	250.41	205.15	225.13	242.05	1,149.75	584.95	285.55	366.45
Real Estate Rentals	.....	.....	566.39	60.00	340.00	2,035.00	829.67	.....
Telephone Revenues	.....	.....	475.00	1,140.00	.....	.....	.....	.....
Sales of Electric Current	834.90	846.99	694.65	660.80	762.75	389.13	540.32	427.74
Miscellaneous Labor Revenues	.....	.....	.....	1,206.34	1,395.56	.....	.....	.....
Sundry Earnings	86.52	54.02	211.94	979.41	918.79	10.00	28.50	10.00
Accounts Payable balances charged off	.....	.....	.....	354.51	.....	.....	.....	.....
Dividends on Insurance Premiums	.....	.....	.....	.....	75.23	239.78	4,503.96	3,327.68
Sales of Gas Drippings	.....	.....	.....	.....	.....	.....	.....	1,915.74
Sale of Lease	.....	.....	.....	.....	.....	300.00	.....	.....
Junk Wood and Construction Tools Sold	.....	.....	67.63	1,092.80	32.85	13.25	20.95	171.05
Extension Books	.....	.....	.....	.....	.....	.....	.....	446.50
Old Freight Claims received	239.93	239.93	1,752.63	.....	.....	.....	.....	.....
Royalty Interest—Gas	38.25	37.63	33.35	.....	.....	.....	.....	.....
Total	$38,107.23	$38,142.04	$27,982.85	$34,591.85	$35,987.72	$32,869.03	$35,169.10	$20,624.41

Plaintiff's Exhibit No. 5—Continued

[fol. 3600]

Gas Purchased

Lone Star Gas Company—Dallas, Texas

For the twelve months periods ended

	Total Gas Purchased			Purchased from Wells Owned by Others			Royalty Gas Purchased			Gas Storage		
	M. C. F.	Average Price	Amount	M. C. F.	Average Price	Amount	M. C. F.	Average Price	Amount	M. C. F.	Average Price	Amount
March 31, 1934	21,183,253	$.0540	$1,144,620.17	20,528,621	$.0551	$1,130,380.94	996,881	$.0486	$48,464.09	342,249*	$.10	$34,224.86*
December 31, 1933	20,614,682	.0549	1,132,028.98	20,109,921	.0561	1,128,844.14	927,328	.0490	45,441.54	422,567*	.10	42,256.70*
December 31, 1932	22,660,358	.0536	1,214,964.33	21,714,431	.0535	1,161,350.98	786,092	.0479	37,629.85	159,835	.10	15,983.50
December 31, 1931	23,658,778	.0629	1,487,431.81	23,037,719	.0636	1,465,276.05	731,645	.0454	33,214.36	110,586*	.10	11,058.60*
December 31, 1930	29,589,173	.0676	2,000,705.73	28,742,556	.0683	1,963,776.40	852,219	.0440	37,489.53	5,602*	.10	560.20*
December 31, 1929	32,167,968	.0686	2,205,527.40	31,665,973	.0693	2,193,234.89	670,530	.0435	29,146.01	168,535*	.10	16,853.50*
December 31, 1928	29,275,765	.0626	1,833,783.69	28,908,812	.0627	1,811,606.65	366,953	.0604	22,177.04	.....	.10	.....
December 31, 1927	31,706,928	.0632	2,002,932.49	31,441,952	.0631	1,982,981.91	264,976	.0753	19,950.58	.....	.10	.....

* Represents the excess of gas stored over gas withdrawn.

BLANK

PAGE

Plaintiffs' Exhibit No. 5—Continued

[fol. 3601]

Gathering Expenses

Lone Star Gas Company—Dallas, Texas

	For the twelve months periods ended			
	3-31-1934	12-31-1933	12-31-1932	12-31-1931
Operation:				
Superintendence	$24,338.36	$24,440.42	$17,056.96	$11,056.67
Labor operating wells	26,962.47	25,126.18	26,993.62	17,998.72
Field lines labor	9,027.24	8,949.66	9,907.70	12,852.72
Field measuring station labor	15,892.96	15,470.27	16,834.79	18,963.72
Superintendence supplies and expenses	3,531.65	3,340.05	3,995.16	1,495.62
Gas wells supplies and expenses	8,581.80	8,822.67	11,167.62	6,112.54
Field lines supplies and expenses	2,136.16	2,169.11	3,577.49	4,665.46
Field measuring station supplies and expenses	6,654.35	6,803.24	8,448.86	9,235.13
Other supplies and expenses	1,223.83	1,096.35	790.40	9,845.59
Damages	66.42	40.94	74.43	70.20
Maintenance:				
Superintendent of Maintenance	1,207.32	1,329.70	1,149.75	1,612.99
Maintenance of field lines	7,536.01	8,989.60	11,400.40	12,683.23
Maintenance of field structures	133.22	465.96	128.69	98.50
Maintenance of measuring stations	23,769.36	23,596.38	22,204.55	23,189.21
Maintenance of gas cleaners	.....	.....	.....	4.82
Changing Construction	397.76	430.72	772.29	8,380.28
Other Maintenance expenses	255.04	255.04	607.59	2,695.69
	$131,713.95	$131,326.29	$135,110.30	$140,961.09

Plaintiffs' Exhibit No. 5—Continued

[fol. 3602]

Producing and Gathering Expenses

Lone Star Gas Company—Dallas, Texas

For the calendar years 1927, to 1930, both inclusive

	1930	1929	1928	1927
Operation:				
Foremen	$2,975.66	$1,137.96	$3,598.39	$6,887.66
Blowing wells and drips	7,749.44	9,210.00	6,142.21	4,271.25
Other labor	5,408.37	4,473.50	3,242.92	4,865.28
Auto and livery	945.77	284.02	306.64	1,906.20
Tools and supplies	2,285.78	2,958.95	1,941.04	4,361.25
Miscellaneous expense	49,290.09	33,802.78	6,180.68	5,444.16
Damages	250.00	52.00	.....	.....
Maintenance:				
Changing Construction	10,755.20	7,667.77	33,589.53	20,019.08
Repairs to lines	18,880.33	15,171.45	12,126.78	10,628.37
Repairing and cleaning wells	56,035.78	29,678.98	44,976.88	23,623.89
Abandoning wells	4,836.63	3,531.53	1,207.04*	8,454.52
	$159,413.05	$107,968.94	$110,898.03	$90,461.66
Less Expenses Considered Entirely Applicable to Production:				
Repairing and cleaning wells	56,035.78	29,678.98	44,976.88	23,623.89
Abandoning wells	4,836.63	3,531.53	1,207.04*	8,454.52
	60,872.41	33,210.51	43,769.84	32,078.41
Gathering Expenses (A)	$98,540.64	$74,758.43	$67,128.19	$58,383.25

* Indicates red figure.

(A) Includes undistributed producing expenses.

(Here follows one paster, side folio 3603)

BLANK

PAGE

Plaintiff's Exhibit No. 5—Continued

[fol. 3603]

Compressor Station Expenses

Lone Star Gas Company—Dallas, Texas

Operations	For the twelve months periods ended							
	3-31-1934	12-31-1933	12-31-1932	12-31-1931	12-31-1930	12-31-1929	12-31-1928	12-31-1927
Superintendence	$39,039.43	$39,746.25	$41,836.69	$55,443.95	$45,209.69	$41,821.56	$34,108.01	$34,325.82
Engineers and Oilers (labor)	81,947.76	83,791.08	95,805.09	131,385.83	161,772.68	169,565.48	177,420.50	192,385.29
Other labor	33,023.66	27,983.74	24,136.22	28,345.16	29,274.54	23,896.01	24,113.09	22,841.32
Fuel	66,185.57	65,049.15	72,475.30	80,446.01	94,197.62	97,617.12	93,962.80	87,255.73
Water	18,902.68	19,593.90	20,770.15	24,183.80	33,669.38	26,673.94	22,297.49	26,916.01
Lubricants	5,621.34	5,234.56	6,426.04	8,020.66	9,280.23	9,939.13	11,094.57	11,203.06
Tool expense	2,068.75	2,115.69	1,455.22	2,310.41	3,580.15	3,232.50	3,345.01	3,692.54
Miscellaneous supplies and expenses	16,624.36	16,567.09	19,177.17	29,340.04	29,036.27	28,887.71	25,833.10	32,781.36
Maintenance								
Maintenance of Machinery	46,859.27	47,124.84	47,013.51	53,107.46	82,082.21	89,045.48	91,235.24	101,822.44
Maintenance of Water System	7,069.15	6,831.22	7,677.59	8,999.57	10,392.23	9,169.83	6,946.13	9,030.56
Maintenance of Pipe and Fittings	6,026.31	4,718.05	3,152.39	6,235.46	9,058.45	11,078.77	9,021.18	8,181.73
Maintenance of Structures	12,876.97	9,079.22	6,045.55	9,829.51	20,133.63	16,939.81	16,398.63	17,942.26
Changing Construction	3,118.28	3,341.71	4,783.59	785.56	528.52	549.70	264.01	1,893.16
Maintenance of other compressor station equipment	6,943.28	7,256.51	7,648.10	8,858.99	4,099.36	4,272.92	551.80*	7,016.76
	$346,306.81	$338,433.01	$358,402.61	$447,292.41	$532,314.96	$532,689.96	$515,487.76	$557,288.04

* Indicates red figures

BLANK

PAGE

Plaintiffs' Exhibit No. 5—Continued

[fol. 3604]

Transmission System Expenses

Lone Star Gas Company—Dallas, Texas

	For the twelve months periods ended			
	3-31-1934	12-31-1933	12-31-1932	12-31-1931
Operations:				
Superintendence	$49,303.81	$48,304.84	$54,776.46	$60,580.76
Line walkers	54,998.30	55,942.24	60,492.43	86,454.82
Inspection	30,905.84	29,837.02	27,975.69	31,433.20
Measuring station labor	28,455.86	28,706.30	25,287.40	22,106.89
Other Transmission system labor	37,948.76	39,570.41	28,022.45	27,875.81
Superintendence supplies and expenses	11,460.76	11,375.14	12,584.08	17,867.06
Measuring Station supplies and expenses	11,003.30	11,742.59	11,617.68	12,717.68
Transmission lines supplies and expenses	23,395.04	24,100.02	22,413.64	21,875.14
Transmission system rents	15,445.17	15,438.49	15,955.75	16,201.13
Transmission and Compressor charges paid to others	256.12	597.42	498.71	6,825.41
Damages	3,309.28	3,190.06	5,998.55	4,272.55
Maintenance:				
Superintendence of maintenance	5,318.67	5,700.55	3,372.08	7,888.08
Maintenance of:				
Measuring station structures	10,719.60	9,885.37	6,582.18	22,202.70
Transmission lines	78,125.81	83,535.21	106,597.18	139,504.48
Measuring station equipment	47,436.43	45,692.65	48,679.03	65,684.60
Gas cleaners	513.62	479.71	865.88	1,088.24
River Crossings	2,441.78	2,435.23	2,723.62	407.50
Other transmission line equipment	9,630.04	9,358.77	8,325.45	21,780.66
Changing construction	5,446.78	5,628.54	11,318.11	17,348.30
	$426,114.97	$431,520.56	$454,086.37	$584,115.01

Plaintiffs' Exhibit No. 5—Continued

[fol. 3605]

Transmission System Expenses

Lone Star Gas Company—Dallas, Texas

For the calendar years 1927, to 1930, both inclusive

	1930	1929	1928	1927
Operations:				
Foremen	$57,269.59	$41,471.94	$36,043.39	$18,341.48
Line walkers	133,766.78	130,679.40	123,613.58	102,045.59
Inspection	45,680.49	57,061.96	56,820.72	52,172.69
Regulating and Measuring stations	85,972.74	81,480.28	120,029.39	116,554.65
Auto and livery	18,128.47	16,981.63	9,575.96	5,192.00
Damages	6,278.46	3,761.45	1,712.33	2,609.95
Tools and supplies	13,178.02	13,073.25	11,668.86	7,330.94
Miscellaneous	101,490.12	73,969.50	13,698.77	13,183.30
Maintenance:				
Repairs to lines	157,013.28	121,097.15	135,106.84	134,406.88
Repairs to buildings	13,228.19	7,748.43	6,314.99	7,663.09
Repairs to regulating and Measuring stations	129,603.63	125,494.83	108,856.15	104,604.89
Telephone and Telegraph	28,627.79	27,969.89	24,917.55	18,249.13
Changing Construction	10,857.83	14,929.19	11,895.37	18,353.76
Repairs to River Crossings	126.41	967.03	3,187.55	3,625.30
	$801,221.80	$716,685.93	$663,441.45	$604,333.65

Plaintiffs' Exhibit No. 5—Continued

[fol. 3606]

General Expenses

Lone Star Gas Company—Dallas, Texas

	For the twelve months periods ended			
	3-31-1934	12-31-1933	12-31-1932	12-31-1931
Administrative salaries	$120,761.98	$118,248.00	$121,454.05	$145,745.68
Other General Office salaries	320,137.69	312,304.38	299,001.89	307,850.98
General Office supplies and expenses	15,940.03	15,160.09	11,871.96	23,894.23
General Office traveling and incidental expenses	28,592.26	28,278.53	32,413.26	22,907.99
General stationery and printing	12,301.64	12,213.71	17,330.60	16,011.29
Law expense	50,291.79	52,182.40	48,279.18	53,426.94
General Office rent	13,576.79	13,611.77	16,404.72	6,279.27
Maintenance of general structures	27,134.85	27,196.73	29,572.81	24,650.71
Maintenance of general office equipment	2,275.06	2,271.74	2,470.16	2,146.07
Telephone and telegraph system labor	8,162.81	8,321.63	10,014.62	12,077.19
Telephone and telegraph system supplies and expenses	3,100.26	4,096.05	5,472.91	6,044.29
Maintenance of telephone and telegraph system	9,318.89	9,076.68	7,894.55	10,109.98
Regulatory Commission expenses	56,204.18	66,792.39	163,739.01	17,695.86
Charitable donations	10,021.05	10,671.70	10,341.77	9,848.67
Injuries and damages	838.34	47.14	339.56	7.49
Insurance expense	27,948.98	27,724.59	28,830.99	32,647.86
Welfare and pensions	8,165.09	8,287.62	8,917.53	8,502.89
Miscellaneous general administrative expenses	32,216.03	55,645.86	39,200.92	49,012.06
New Business advertising salaries	16,140.99	13,990.36	9,078.37	9,548.77
New Business soliciting and commissions	19,827.92	20,357.09	20,715.95	27,969.98
Other New Business Labor	1.93	1.93	.....	.....
Advertising supplies and expenses	55,266.43	54,847.92	45,407.69	81,234.85
New Business supplies and expenses	10,071.41	10,596.64	12,326.93	7,372.38
	$848,296.40	$871,324.95	$941,079.43	$874,985.43

Plaintiffs' Exhibit No. 5—Continued

[fol. 3607]

General Expenses

Lone Star Gas Company—Dallas, Texas
For the calendar years 1927, to 1930, both inclusive

	1930	1929	1928	1927
Salaries and expenses of Officials	$104,050.29	$81,090.76	$82,400.98	$66,350.51
Office salaries and expenses	247,847.52	195,500.45	173,547.09	189,125.41
Legal Department salaries and expenses	49,610.12	40,466.43	34,740.54	28,138.35
Insurance	42,847.80	61,455.25	35,619.77	37,112.81
Telephone and telegraph	21,696.24	20,338.20	20,871.93	16,901.39
Subscriptions and donations	28,576.43	32,884.30	18,829.45	13,640.75
Engineering Department salaries and expenses	102,248.62	67,590.35	49,661.33	26,518.83
Office Building expenses	23,736.49	21,988.51	22,469.34	16,256.13
Geological Department expenses	8,821.76	6,235.01	5,602.45	5,598.65
Valuation suspense	42,974.76	74,474.90	.....	.....
Advertising	71,196.15	98,476.65	70,162.37	60,759.04
Industrial gas expenses	35,719.16	33,285.95	28,453.61	.....
Miscellaneous	49,171.91	42,621.85	23,987.93	31,346.45
	$828,497.25	$776,408.61	$566,346.79	$491,748.32

[fol. 3608]

Producing Expenses

Lone Star Gas Company—Dallas, Texas
For the twelve months periods ended

	3-31-1934	12-31-1933	12-31-1932	12 31-1931
Abandoning Wells	$1,626.52	$1,601.52	$1,222.49	$17,389.70
Superintendence of lifting	5,834.90	5,868.58	4,424.28	1,395.25
Labor	25.36	25.36	18.62	131.84
Lifting supplies and expenses	4.37	14.65	5.73	1.43
Maintenance	143.14	188.11	48.26	147.59
Repairing and cleaning out wells	30,797.95	31,777.90	23,771.22	33,377.03
Miscellaneous lifting expense	2,181.65	1,932.68	1,514.07	7,625.56
	$40,613.89	$41,408.80	$31,004.67	$60,068.40

Plaintiffs' Exhibit No. 5—Continued

[fol. 3609]

Public Service Property

Lone Star Gas Company—Dallas, Texas

December 31, 1931

	Adjusted Book Cost	Audit Increases Decreases*	Book Cost	Increase By Company's Revaluation	Total Per Books
Leases	$1,260,569.86	$50,292.32*	$1,310,862.18	.....	$1,310,862.18
Mineral Rights	14,795.25	50.00*	14,845.25	.....	14,845.25
Gas Rights	21,974.48	.....	21,974.48	.....	21,974.48
Lands in fee, Clay County, Texas	27,344.70	.....	27,344.70	.....	27,344.70
Lands in fee, Limestone County, Texas	3,003.00	.....	3,003.00	.....	3,003.00
Lands in fee, Stephens County, Oklahoma	10,878.27	.....	10,878.27	.....	10,878.27
Drilling Tools	116,995.56	.....	116,995.56	.....	116,995.56
Production System Property—Gas Farms	3,300,240.16	239,381.34	3,060,858.82	$850,725.16	3,911,583.98
Gathering System Property	1,129,890.23	66,167.50*	1,196,057.73	396,584.37	1,592,642.10
Petrolia Field Account	758,619.23	116,415.59	642,203.64	693,297.43	1,335,501.07
Compressor Station Property	5,061,015.20	.....	5,061,015.20	1,509,894.51	6,570,909.71
Transmission System Property—Pipe Lines and Equipment	35,084,401.17	66,167.50	35,018,233.67	13,706,438.86	48,724,672.53
Gas Connections	15,050.78	.....	15,050.78	.....	15,050.78
Telephone and Telegraph System	360,841.23	.....	360,841.23	460,896.11	821,737.34
Automotive Equipment	389,241.48	.....	389,241.48	124,838.78	514,080.26
Dallas Machine Shop	131,862.70	6,512.41*	138,375.11	43,951.37	182,326.48
Real Estate	88,640.84	6,512.41	82,128.43	79,449.47	161,577.90
General Office Building	468,772.79	.....	468,772.79	142,461.23	611,234.02
General Office Furniture and Fixtures	198,408.01	.....	198,408.01	62,696.70	261,104.71
Tools and Construction Equipment	12,607.40	.....	12,607.40	.....	12,607.40
	$48,455,152.34	$305,454.61	$48,149,697.73	$18,071,233.99	$66,220,931.72

Plaintiffs' Exhibit No. 5—Continued

[fol. 3610]

Leases

Lone Star Gas Company—Dallas, Texas

December 31, 1931

	Adjusted Book Cost	Decrease By Audit Adjustments	Book Cost
Texas Leases	$1,206,782.43	$47,852.74	$1,254,635.17
Oklahoma Leases	34,623.72	2,439.58	37,063.30
Newly acquired leases carried in the "Construction Work in Progress" Account	19,163.71	.....	19,163.71
	$1,260,569.86	$50,292.32	$1,310,862.18

Plaintiffs' Exhibit No. 5—Continued

[fol. 3611]

Production System Property—Gas Farms

Lone Star Gas Company—Dallas, Texas

December 31, 1931

	Adjusted Book Cost	Increase By Audit Adjustments	Book Cost	Increase By Company's Revaluation	Total Per Books
Gas Farms	$3,294,558.36	$239,381.34	$3,055,177.02	$850,725.16	$3,905,902.18
Completed Construction carried in "Work in Progress" account	5,681.80	.....	5,681.80	.....	5,681.80
	$3,300,240.16	$239,381.34	$3,060,858.82	$850,725.16	$3,911,583.98
Adjusted Book Cost—Gas Farms	$3,294,558.36	.....	.....	.....	.....
Leases or Land—including purchased wells	.....	$1,019,487.88	.....	.....	.....
Well Construction	.....	.....	$1,258,113.93	.....	.....
Equipment	.....	.....	.....	$986,134.16	.....
Engineering, Interest, and Other Overheads	.....	.....	.....	.....	$30,822.39

Plaintiffs' Exhibit No. 5—Continued

[fol. 3612]

Gathering System Property
Lone Star Gas Company—Dallas, Texas
December 31, 1931

	Adjusted Book Cost	Increase By Company's Revaluation	Total Per Books
Panhandle Field	$255,095.28	$37,039.29	$292,134.57
Petrolia Field	7,799.41	134,922.65	142,722.06
Pottsboro Field	3,570.88	5,484.28	9,055.16
South Texas Field	6,727.06	.....	6,727.06
West Texas Field	530,291.24	92,469.39	622,760.63
Duncan Field	90,668.17	102,780.67	193,448.84
Fox Field	177,927.11	223,637.20	401,564.31
Miscellaneous	57,811.08	199,749.11*	141,938.03*
	$1,129,890.23	$396,584.37	$1,526,474.60

* Indicates red figures.

[fol. 3613]

Petrolia Field Account
Lone Star Gas Company—Dallas, Texas
December 31, 1931

Pipe		$73,896.34
Right-of-Way Expense		20.00
Fittings		15,796.29
Drips and Blow Offs		879.94*
Other Material		1,228.68
Construction		100,553.36
Buildings		5,459.44
Gas Rights and Leases		347,922.99
Regulating Stations		4,066.59
Measuring Stations		2,437.32
Gas Wells		208,527.16
Miscellaneous Items		409.00*
Total		$758,619.23

* Indicates red figures.

Revaluation		
December 31, 1925	$97,317.87	
December 31, 1928	595,979.56	
Total Revaluation		693,297.43
Total		$1,451,916.66
Total shown above		$1,451,916.66
Total shown as "per books" in our schedule of Public Service Property		1,335,501.07
Difference		$116,415.59
Difference made up of:		
Clay County, Texas, leases, carried in Undeveloped Leases, transferred to Petrolia Field account in the above schedule	$45,577.49	
Well construction cost, charged to Operations by Company, Capitalized in the above schedule	70,838.10	
	$116,415.59	$116,415.59

Plaintiffs' Exhibit No. 5—Continued

[fol. 3614]

Compressor Station Property

Lone Star Gas Company—Dallas, Texas

December 31, 1931

	Adjusted Book Cost	Increase By Company's Revaluation	Total Per Books
Compressor Station Property	$5,059,353.59	$1,509,894.51	$6,569,248.10
Completed Construction carried in "Work in Progress" account	1,661.61	.....	1,661.61
	$5,061,015.20	$1,509,894.51	$6,570,909.71

(Here follows one paster, side folio 3615)

BLANK

PAGE

[fol. 3615]

Plaintiff's Exhibit No. 5—Continued

Transmission System Property—Pipe Lines and Equipment

Lone Star Gas Company—Dallas, Texas

December 31, 1931

Line	Adjusted Book Cost	Increase by Company's Revaluation	Total Per Books	Rights-of-Way	Lands and Leaseholds	Lines			Measuring Station Structures	Other Structures	Measuring Station Equipment	Other Equipment	Engineering, Interest and Other Overheads
						Pipe	Fittings	Construction					
"A" System	$4,346,598.14	$2,317,559.54	$6,664,157.68	$46,661.24	$3,764.52	$2,860,642.56	$287,871.83	$935,980.53	$9,532.97	$94,021.67	$32,243.21	$37,228.85	$38,650.76
"B" System	1,245,254.12	1,137,633.84	2,382,887.96	19,979.80	1,692.68	729,174.56	121,571.75	316,493.27	9,530.04	6,120.44	29,352.62	9,417.49	1,921.47
"2-B" System	1,978,991.93	.....	1,978,991.93	23,199.44	.....	1,256,201.65	9,369.83	507,686.58	520.99	5,204.05	4,763.48	10,157.37	161,888.54
"C" System	642,521.25	600,376.79	1,242,898.04	12,088.51	2,393.54	353,282.94	44,421.70	159,030.93	10,858.30	5,745.73	35,587.85	12,053.28	7,058.47
"E" System	1,942,645.95	816,785.43	2,759,431.38	54,340.46	4,470.20	1,136,374.60	29,143.78	585,303.98	16,065.56	16,428.08	44,093.04	19,252.30	37,173.95
"F" System	840,478.55	794,722.46	1,635,201.01	22,053.26	1,553.39	442,225.93	85,356.92	240,224.35	3,974.59	3,737.95	20,182.80	7,998.97	13,170.39
"G" System	2,200,477.98	762,490.40	2,962,968.38	32,160.05	2,227.17	1,166,285.92	178,670.82	659,585.68	5,457.89	71,918.98	20,260.23	38,149.73	25,761.51
"H" System	1,602,009.99	453,427.15	2,055,437.14	16,677.37	1,166.65	918,186.54	114,076.55	430,445.35	12,955.53	98,073.75	22,651.91	15,426.52*	3,202.86
"J" System	666,559.31	321,706.04	988,265.35	8,428.21	2,696.03	351,214.95	52,503.84	201,848.42	.....	6,700.48	25,655.56	12,769.48	4,742.34
"K" System	6,066,438.98	1,353,089.47	7,419,528.45	75,916.43	6,528.62	3,576,399.91	353,522.74	1,932,350.97	249.49	19,915.66	51,241.87	31,193.40	19,119.89
"L" System	3,655,596.77	1,358,798.09	5,014,394.86	65,165.34	6,118.55	2,191,121.91	72,215.72	1,149,516.46	577.72	29,525.50	67,642.20	67,286.02	6,427.35
"M" System	1,828,451.41	591,784.21	2,420,235.62	40,646.09	4,813.30	1,023,542.99	76,621.41	600,981.72	4,953.06	3,363.03	42,353.90	29,556.18	1,619.73
"O" System	5,759,011.38	2,352,199.01	8,111,210.39	101,564.22	5,014.80	3,510,607.53	337,559.37	1,532,065.75	848.38	47,809.07	102,470.34	93,480.98	27,590.94
"R" System	711,331.97	268,444.38	979,776.35	10,748.14	559.48	423,024.83	49,641.25	207,690.35	.....	441.56	4,606.28	13,713.79	906.29
Number System	1,567,763.32	577,422.05	2,145,185.37	24,754.69	995.18	994,970.06	42,554.69	531,294.59	24.18*	696.64	26,599.88	61,681.57*	7,603.34
Sundry Adjustments	1,246.01*	.....	1,246.01*	.....	.....	.....	1,246.01*	.....	.....	.....	.....	.....	.....
Completed Construction—"Work in Progress"	$35,052,885.04 31,516.13	$13,706,438.86	$48,759,323.90 31,516.13	$554,383.25	$43,994.11	$20,933,256.88	$1,853,856.19	$9,990,498.93	$75,500.34	$409,702.59	$529,705.17	$305,149.75	$356,837.83
	$35,084,401.17	$13,706,438.86	$48,790,840.03										

* Indicates red figures.

BLANK

PAGE

Plaintiffs' Exhibit No. 5—Continued

[fol. 3616]

Real Estate

Lone Star Gas Company—Dallas, Texas

December 31, 1931

	Adjusted Book Cost	Increase By Company's Revaluation	Total Per Books
General Office Building Site			
80 x 90 feet at Northwest corner of Wood and Harwood Streets in Block 98½ City of Dallas, Texas..	$44,502.87	$18,986.00	$63,488.87
Dallas Machine Shop Site			
150 x 227 feet Block 866, City of Dallas, Texas; Lots 1, 13, 14, Block 866, City of Dallas, Texas; Lot 15, Block 866, City of Dallas, Texas..	$19,574.21	$16,056.19	$35,630.40
Lots 2, and 3, Block 866, City of Dallas, Texas, (Dallas Machine Shop).....	6,512.41	.....	6,512.41
	26,086.62	16,056.19	42,142.81
Vacant Property			
70x80 feet, Block 98½, City of Dallas, Texas, fronting 70 feet on North side of Wood Street and extending back approximately 80 feet towards Jackson Street.....	18,051.35	8,226.07	26,277.42
Property Sold to Dallas Gas Company on Which Revaluation Was Not Removed From Books			
100 x 90 feet at Southwest corner of Harwood and Jackson Streets, in Block 98½, City of Dallas, Texas..	.....	$24,951.50	$24,951.50
70 x 90 feet in Block 98½, City of Dallas, Texas, fronting 70 feet on South side of Jackson Street and extending back 90 feet towards Wood Street.....	.....	11,229.71	11,229.71
	.....	36,181.21	36,181.21
	$88,640.84	$79,449.47	$168,090.31

(Here follow 2 pasters, side folios 3617, 3718-19)

BLANK

PAGE

Plaintiff's Exhibit No. 5—Continued

[fol. 3617]

Summary of Public Service Property

Lone Star Gas Company—Dallas, Texas

Adjusted Book Cost	3-31-1934	12-31-1933	For the twelve months periods ended 12-31-1932	12-31-1931	12-31-1930	12-31-1929	12-31-1928	12-31-1927	1-1-1927
Leases			$1,100,964.23	$1,260,569.86	$1,359,938.91	$1,182,139.79	$429,474.17	$264,793.42	$223,760.53
Mineral Rights			66,922.61	14,795.25	14,845.25	1,306.00			
Gas Rights			22,436.48	21,974.48	33,610.00				
Lands in Fee—Clay County, Texas			38,110.70	27,344.70	27,344.70	27,344.70	27,225.20	27,225.20	27,225.20
Lands in Fee—Limestone County, Texas			3,003.00	3,003.00	3,003.00	3,003.00	3,003.00	3,003.00	3,003.00
Lands in Fee—Stephens County, Oklahoma			10,878.27	10,878.27	10,878.27	10,878.27	10,878.27	10,878.27	10,878.27
Lands in Fee—Grady County, Oklahoma			254.23						
Lands in Fee—Eastland County, Texas								5,172.16	5,172.16
Drilling Tools			106,091.00	116,995.56	130,363.30	165,390.41	157,632.20	200,504.27	183,028.66
Production System Property—Gas Farms			4,660,941.28	3,300,240.16	2,995,826.25	2,031,018.48	919,609.39	671,022.66	527,107.73
Gathering System Property			1,483,952.02	1,129,890.23	541,689.24	142,782.73	135,232.43	135,337.59	136,619.80
Petrolia Field Account				758,619.23	717,379.35	789,237.25	785,953.58	755,320.63	670,009.73
Compressor Station Property			5,062,428.60	5,061,015.20	5,176,266.46	4,723,430.22	4,778,613.36	4,501,081.42	4,081,161.99
Transmission System Property—Pipe Lines and Equipment			36,263,983.13	35,084,401.17	35,685,325.24	34,299,974.09	28,789,533.60	26,025,621.69	18,759,905.44
Gas Connections			15,215.42	15,050.78	24,954.90	32,795.76	26,638.93		
Telephone and Telegraph System			383,199.63	360,841.23	356,382.08	350,818.77	325,345.62	214,686.58	134,107.90
Automotive Equipment			363,470.69	389,241.48	423,195.48	439,109.58	299,824.48	280,084.22	139,061.95
Dallas Machine Shop			132,618.98	131,862.70	132,130.83	136,758.18	109,909.13		
Real Estate			88,640.84	88,640.84	88,640.84	178,768.53	178,768.53	128,065.08	111,172.47
General Office Building			491,492.10	468,772.79	468,887.79	468,322.23	464,216.50	461,113.88	190,604.16
General Office Furniture and Fixtures			206,189.37	198,408.01	158,058.74	134,010.47	109,746.30	88,343.16	60,685.94
Tools and Construction Equipment			13,784.40	12,607.40	14,131.50	11,353.10			
Total	$50,325,548.93	$50,283,644.65	$50,514,576.98	$48,455,152.34	$48,362,852.13	$45,128,441.56	$37,551,604.69	$33,772,253.23	$25,263,504.93
Revaluation									
Per Company's Books	16,492,486.05	16,492,486.05	18,811,539.67	18,220,415.98	18,522,464.06	9,728,461.08	9,728,461.08	9,793,783.28	9,803,860.00
Grand Total	$66,818,034.98	$66,776,130.70	$69,326,116.65	$66,675,568.32	$66,885,316.19	$54,856,902.64	$47,280,065.77	$43,566,036.51	$35,067,364.93

Plaintiff's Exhibit No. 5—Continued

[fol. 3618-3619]

Summary of Depreciation Reserves

Lone Star Gas Company—Dallas, Texas

From January 1, 1927, to Dec. 31, 1933, both inclusive

	Total	Drilling Tools	Production System Property	Transmission & Gathering Systems	Compressor Station Property	Telephone & Telegraph System	*Automotive Equipment	Dallas Machine Shop	General Office Building	Office Furniture and Fixtures	Tools and Construction Equipment
Balance per books at January 1, 1927	$8,294,762.08	$136,003.37	$61,592.54	$6,516,967.66	$1,479,317.70	$28,199.12	$55,752.78	$.....	$8,811.87	$8,117.04	$.....
Depreciation set up for the year 1927	1,280,856.10	.....	15,218.65	961,307.92	204,721.71	9,000 93	70,927.55	.....	16,351.70	3,327.64	.....
	9,575,618.18	136,003.37	76,811.19	7,478,275.58	1,684,039.41	37,2	126,680.33	.....	25,163.57	11,444.68	.....
Net reduction to the reserve for the year	245,097.73	566.44	1,609.86	184,461.32	12,598.44	.....	44,519.99	.....	.....	1,341.68	.....
Balance per books at December 31, 1927	9,330,520.45	135,436.93	75,201.33	7,293,814.26	1,671,440.97	37,200.05	82,160.34	.....	25,163.57	10,103.00	.....
Depreciation set up for the year 1928	1,198,192.50	15,515.82	20,099.01	868,874.24	150,129.48	8,399.51	111,799.49	.....	18,074.36	5,300.59	.....
	10,528,712.95	150,952.75	95,300.34	8,162,688.50	1,821,570.45	45,599.56	193,959.83	.....	43,237.93	15,403.59	.....
Net reduction to the reserve for the year	260,768.59	49,724.75	13,075.07	140,047.99	32,081.28	.....	23,181.08	.....	.....	2,658.42	.....
Balance per books at December 31, 1928	10,267,944.36	101,228.00	82,225.27	8,022,640.51	1,789,489.17	45,599.56	170,778.75	.....	43,237.93	12,745.17	.....
	1,190,062.06	16.534.04	32,444.26	869,092.38	128,907.34	12,750.75	97,217.28	7'973.03	18,558.21	6,584.77	.....
Depreciation set up for the year 1929	11,458,006.42	117,762.04	114,669.53	8,891,732.89	1,918,396.51	58,350.31	267,996.03	7,973.03	61,796.14	19,329.94	.....
Net reduction to the reserve for the year	450,335.00	9,335.63	7,548.09	151,122.72	197,117.96	.....	82,597.97	.....	950.00	1,662.63	.....
Balance per books at December 31, 1929	11,007,671.42	108,426.41	107,121.44	8,740,610.17	1,721,278.55	58,350.31	185,398.06	7,973.03	60,846.14	17,667.31	.....
Depreciation set up for the year 1930	580,022.80	13,036.33	64,369.60	269,957.57	30,296.90	2,537.13	167,617.17	5,131.47	18,695.27	8,041.06	340.30
	11,587,694.22	121,462.74	171,491.04	9,010,567.74	1,751,575.45	60,887.44	353,015.23	13,104.50	79,541.41	25,708.37	340.30
Net reduction to the reserve for the year	464,875.93	45,360.65	11,758.80	208,513.40	77,139.62	.....	117,965.06	.....	1,118.03	3,020.37	.....
Balance per books at December 31, 1930	11,122,818.29	76,102.09	159,732.24	8,802,054.34	1,674,435.83	60,887.44	235,050.17	13,104.50	78,423.38	22,688.00	340.30
Depreciation set up for the year 1931	1,841,779.67	11,699.56	114,313.21	1,351,493.48	200,116.40	17,689.36	113,113.82	6,932.16	18,518.75	7,902.93	.....
	12,964,597.96	87,801.65	274,045.45	10,153,547.82	1,874,552.23	78,576.80	348,163.99	20,036.66	96,942.13	30,590.93	340.30
Net reduction to the reserve for the year	720,014.28	14,295.20	37,136.58	449,902.77	167,740.62	257.44	48,644.91	16.00	.....	1,816.58	204:18
Balance per books at December 31, 1931	12,244,583.68	73,506.45	236,908.87	9,703,645.05	1,706,811.61	78,319.36	299,519.08	20,020.66	96,942.13	28,774.35	136.12
Depreciation set up for the year 1932	1,841,508.16	10,609.10	174,291.10	1,346,683.85	210,280.46	18,883.20	45,424.04	6,900.72	18,515.29	9,920.40	.....
	14,086,091.84	84,115.55	411,199.97	11,050,328.90	1,917,092.07	97,202.56	344,943.12	26,921.38	115,457.42	38,694.75	136.12
Net reduction to the reserve for the year	**62,725.18	12,584.26	28,594.70	**192,153.76	36,907.76	.....	41,833.68	.....	8,344.28	1,163.90	.....
Balance per books at December 31, 1932	14,148,817.02	71,531.29	382,605.27	11,242,482.66	1,880,184.31	97,202.56	303,109.44	26,921.38	107,113.14	37,530.85	136.12
Depreciation set up for the year 1933	1,882,333.41	8,490.19	192,080.54	1,394,433.12	210,069.11	18,949.67	21,882.38	6,924.65	19,194.28	10,309.47	.....
	16,031,150.43	80,021.48	574,685.81	12,636,915.78	2,090,253.42	116,152.23	324,991.82	33,846.03	126,307.42	47,840.32	136.12
Net reduction to the reserve for the year	335,736.55	20,833.55	11,971.30	189,032.45	65,845.35	1,635.07	43,032.61	.....	29.65	3,350.32	6.25
Balance per books at December 31, 1933	$15,695,413.88	$59,187.93	$562,714.51	$12,447,883.33	$2,024,408.07	$114,517.16	$281,959.21	$33,846.03	$126,277.77	$44,490.00	$129.87

* All figures reduced by 5½%, representing the proportion of automotive equipment determined to be non-public service property.

** Indicates red figures.

BLANK

PAGE

[fol. 3620] PLAINTIFFS' EXHIBIT No. 6

[fol. 3621] Lone Star Gas Company

Texas Gathering, Transmission, Compressing and General Property

Reproduction Cost New Appraisal

June 15, 1934

Hawley, Freese and Nichols

J. A. Phillips Co.

[fol. 3622] Table of Contents

	Side folio
Summary	3623
Gathering System Property:	
Rights of Way	3625
Field Measuring Station Structures	3626
Field Measuring Station Equipment	3627
Field Line Equipment	3628
Transmission System Property:	
Transmission Measuring Station Land	3629
Transmission Measuring Station Leaseholds	3631
Other Transmission System Land	3632
Other Transmission System Leaseholds	3633
Rights of Way	3634
Transmission System Measuring Station Structures	3636
Other Transmission System Structures	3639
Transmission System Measuring Station Equipment	3640
Transmission Line Equipment	3643
Compressing System Property:	
Compressing Stations	3646
General System Property:	
General Office Land	3647
Other General Land	3648
General Office Structure	3649
Other General Structures	3650
General Office Furniture and Fixtures	3651
Other General Furniture and Fixtures	3652
General Shop Equipment	3653
General Tools	3654

Plaintiffs' Exhibit No. 6—Continued

General System Property—Contd.
Automotive and Construction Equipment 3655
General Telephone System 3656
Non-Physical Properties:
Administrative and Legal Expenses During Construction 3659
Engineering and Supervision During Construction 3659
Taxes During Construction 3659
Interest During Construction 3660
Preliminary and Organization Expenses 3661
Working Capital 3662

[fol. 3623]

Texas Gathering, Transmission, Compressing, and General System Property

Reproduction Cost New
June 15, 1934

Summary

Gathering System Property	
Rights of Way	$9,179.61
Field Measuring Station Structures	27,319.78
Field Measuring Station Equipment	93,943.02
Field Line Equipment	789,328.10
	919,770.51
Transmission System Property	
Transmission Measuring Station Land	82,596.45
Transmission Measuring Station Leaseholds	8,678.26
Other Transmission System Land	21,102.59
Other Transmission System Leaseholds	863.74
Rights of Way	899,090.73
Transmission System Measuring Station Structures	131,951.63
Other Transmission System Structures	90,355.40
Transmission System Measuring Station Equipment	372,610.06
Transmission Line Equipment	27,052,546.81
	28,659,795.67
Compressing System Property	
Compressing Stations	4,146,111.57
General System Property	
General Office Land	38,308.70
Other General Land	42,375.53
General Office Structure	276,436.36
Other General Structures	40,239.02
General Office Furniture and Fixtures	178,537.58
Other General Furniture and Fixtures	10,371.57

[fol. 3624]

General Shop Equipment	89,440.23
General Tools	113,132.76
Automotive and Construction Equipment—Net	72,711.13
General Telephone System	261,919.77
	1,123,472.65

Plaintiffs' Exhibit No. 6—Continued

Non-Physical Properties	
Administrative and Legal Expenses During Construction	$687,874.26
Engineering and Supervision During Construction	1,705,863.84
Taxes During Construction	8,500.00
Interest During Construction	1,522,468.89
Preliminary and Organization Expenses	194,005.00
Working Capital	1,289,000.00
	5,407,711.99
Total—Texas Gathering, Transmission, Compressing and General System Property	$40,256,862.39

[fol. 3625] Gathering System Rights of Way

Field:	
Pottsboro	132.60
Panhandle	2,778.00
West Texas	6,269.01
Total	9,179.61

[fol. 3626] Field Measuring Station Structures

Field:	
Panhandle	8,745.96
Pottsboro	51.52
West Texas	15,346.48
Gas Purchase Stations	3,175.82
Total	27,319.78

[fol. 3627] Field Measuring Station Equipment

Field:	
Panhandle	36,493.11
Pottsboro	206.23
West Texas	49,466.20
Gas Purchase Stations	7,777.48
Total	93,943.02

[fol. 3628] Field Line Equipment

Field:	
Panhandle	205,731.85
Pottsboro	444.36
West Texas	583,151.89
Total	789,328.10

Plaintiffs' Exhibit No. 6—Continued

[fol. 3629] Transmission Measuring Station Land

A System		
A-1-1 Oklaunion	$426.89	
A-3 Harold	299.33	
A-4 Vernon	150.00	
A-6 Chillicothe	313.66	
A-10 Electra	175.00	
		$1,364.88
B System		4,513.34
C System		1,590.69
E System		
E Clarkesville	563.82	
E-1 Denison	232.60	
E-3 Whitesboro	436.74	
E-6 Bonham	749.63	
E-7 Honey Grove	242.47	
E-8 Dodd City	395.23	
E-&-E-9 Junction	671.76	
E-10 Melissa	343.26	
E-10-5 Howe	381.34	
E-10-5-1 Van Alystne	434.51	
E-10-6-1 Savoy	364.47	
E-11 Windon	389.48	
E-12 Brookston	357.41	
E-13 Petty	316.85	
E-14 Roxton	163.53	
E-15 Collinsville	352.91	
E-17 Ravenna	247.49	
E-18 Paris	529.90	
E-19 Blossom	337.77	
E-20 Detroit	374.05	
E-22 Bagwell	305.39	
E-22-1 Deport	347.91	
E-22-2 Fulbright	312.18	
E, E-1 & E-2 Jct	50.00	
		8,900.70
F System		3,201.37

[fol. 3630]

G System		
G-3, St. Jo	364.71	
G-3-1, Lindsey	309.35	
G-3-2, Myra	225.26	
G-3-3, Muenster	379.41	
		1,278.73
J System		6,062.22
K System		8,697.85
L System		15,495.09
M System		8,441.47
O System		19,774.57
R System		1,426.99
Numbered System		1,848.55
Total		82,596.45

Plaintiffs' Exhibit No. 6—Continued

[fol. 3631] Transmission Measuring Station Leaseholds

A System		
Iowa Park Road	$85.94	
A-2, Iowa Park	226.56	
A-5, Tolbert	129.03	
A-11, N. Wichita Falls	800.40	
A-12, E. Wichita Falls	147.45	
		$1,389.38
B System		412.14
E System		
E-2, Sherman	57.35	
E-10-1, Ector	239.57	
E-1-2, Whitewright	202.05	
E-10-3, Trenton	39.69	
E-10-4, Westminster	242.19	
E-10-6, Bolls	267.10	
E-10-7, Anna	212.24	
E-& E-7, Junction	23.77	
		1,283.96
F System		184.01
J System		170.17
K System		448.93
L System		1,339.13
M System		950.06
O System		2,056.84
R System		233.68
Numbered System		209.96
Total		8,678.26

[fol. 3632] Other Transmission System Land

Line		
A	Shamrock Whse Site	$1,545.32
A	North Pease River Crossing	105.00
A	South Pease River Crossing	50.00
A	Salt Fork of Red River Bridge	50.00
A	Vernon Camp Site	3,187.90
A & A-2	Gate Valve Site	575.00
B	Cottage Site, Clay Co.	287.50
B-7	North Fort Worth Whse Site	1,569.62
C	Old Irving Compressing Station Site	460.00
C	Irving Whse Site	125.00
C	Irving Whse Site	1,998.65
K & KA	Lipan Whse Site	1,019.19
K & KC	Ranger Whse Site	460.00
KBA	Foremans Cottage Site	75.00
KC	Abilene Whse Site	999.60
KP	Field Foreman's Cottage Site	175.00
KD	Lot Adjoining X-Ray Whse	258.75
L	Waco Whse Site	1,927.58
L	Brazos River Bridge Site	345.00
L	Brazos River Bridge Site	230.00
M	L & M Junct. Site	351.90
M	Richland Whse Site	1,948.70

Plaintiffs' Exhibit No. 6—Continued

Other Transmission System Land—Contd.

Line		
M	Richland Cottage Site	$345.00
O	Brazos River Bridge West Site	230.00
O	Joshua Whse Site	693.15
18	Moran Whse Site	963.42
18	Moran Cottage Site	100.00
18 & KC	Cleaner Site	343.89
33	Eastland Whse Site	682.42
	Total	$21,102.59

[fol. 3633] Other Transmission System Leaseholds

A	Line Walkers Shack Site, Hardeman Co.	$21.25
A	Line Walkers Shack Site, Wheeler Co.	35.00
B	Bowie Junction Site	277.88
E	Gas Cleaners Site, Fannin Co.	44.84
E	Gainesville Jct. Storage Lot	47.47
F	Line Walkers Shack Site, Denton Co.	23.30
O & K	Brazos River Bridge Site	414.00
	Total	$863.74

[fol. 3634] Transmission System Rights of Way

A System		
Main Line	58,779.0 rods @ .9258	54,417.60
Tap Lines	1,688.4 rods @ .9268	1,564.81
Gathering Lines	11,179.8 rods @ .8323	9,304.95
Hollis Bridge Company		28,000.00
B System	39,171.9 rods @ .9268	36,304.52
2nd B System	31,289.9 rods @ .9268	28,999.48
C System	12,846.9 rods @ .9268	11,906.51
E System		
Main and Tap Lines	73,220.4 rods @ .9268	67,860.67
Gathering Lines	3,576.2 rods @ .8323	2,976.47
F System	42,476.7 rods @ .9268	39,367.41
G System	6,908.9 rods @ .9268	6,403.17
H System	397.8 rods @ .9268	368.68
J System	14,470.3 rods @ .9268	13,411.08
K System		
Main and Tap Lines	123,742.1 rods @ .9268	114,684.18
Gathering Lines	40,147.0 rods @ .8323	33,414.35
L System		
Main and Tap Lines	127,703.1 rods @ .9268	118,355.23
Gathering Lines	1,518.8 rods @ .8323	1,264.10
M System	76,113.4 rods @ .9268	70,541.90

Plaintiffs' Exhibit No. 6—Continued

[fol. 3635]

Transmission System Rights of Way—Contd.

O System		
Main and Tap Lines	154,408.6 rods @ .9268	$143,105.89
Gathering Lines	16,478.5 rods @ .8323	13,715.06
R System		
Main and Tap Lines	21,453.4 rods @ .9268	19,883.01
Gathering Lines	6,344.9 rods @ .8323	5,280.86
Numbered System	72,940.7 rods @ .8323	60,708.55
T.P.U. System	20,728.4 rods @ .8323	17,252.25
Total		889,090.73

[fol. 3636]

Transmission System Measuring Station Structures

A System		
A Iowa Park Road No. 1	$108.36	
A Iowa Park Road No. 2	63.49	
A Petrolia Gardens	63.71	
A Wichita Falls Road	19.80	
A-1-1 Oklaunion	178.23	
A-2 Iowa Park	201.39	
A-3 Harrold	193.01	
A-4 Vernon	856.58	
A-5 Tolbert	145.77	
A-6 Chillicothe	278.99	
A-10 Electra	955.61	
A-11 N. Wichita Falls	184.88	
A-12 E. Wichita Falls	273.73	
A-13 Burkburnett	55.41	
A Electra Prod. Co	50.11	
A Sta. 2254 + 05 Electra	252.89	
A Sta. 2 + 86 Petrolia	196.58	
A Sta. 4980 + 99, Quanah	90.91	
A Vernon	142.33	
A Sta. 763 + 60, Wichita Falls	164.58	
A-1 Sta. 67 + 31, Oklaunion	84.44	
		$4,560.80
B System		5,847.17
C System		6,366.59
E System		
E Clarkesville	876.11	
E-1 Denison	285.69	
E-2 Sherman	263.24	
E-3 Whitesboro	312.33	
E-6 Bonham	826.44	
E-7 Honey Grove	924.30	
E-8 Dodd City	220.69	
E-9 Gainesville Motor House	222.68	
E-9 Gainesville Regular House	353.17	
E-10 Melissa	537.14	
E-10-1 Ector	215.75	
E-10-2 Whitewright	239.10	
[folio 3637] E-10-3 Trenton	207.02	
E-10-4 Westminster	214.42	
E-10-5 Howe	537.75	
E-10-5-1 Van Alystne	218.45	
E-10-6 Bells	209.51	

Plaintiffs' Exhibit No. 6—Continued

Transmission System Measuring Station Structures—Contd.

E System—Contd.		
E-10-6-1 Savoy	$198.02	
E-10-7 Anna	235.23	
E-11 Windom	210.12	
E-12 Brookston	218.63	
E-13 Petty	206.06	
E-14 Roxton	224.25	
E-15 Collinsville	241.25	
E-17 Ravenna	516.19	
E-18 Paris	421.87	
E-19 Blossom	568.50	
E-20 Detroit	560.48	
E-21 Bagwell	518.14	
E-22-1 Deport	596.76	
E-22-2 Fulbright	501.70	
E-4 Gainesville G.S.T.S. Regulator House No. 1	82.56	
E-4 Gainesville G.S.T.S. Regulator House No. 2	51.08	
E-4 Gainesville G.S.T.S. Meter House	58.40	
E Denison-Paris Jct.	150.65	
E Gainesville Jct. Gravitometer House	78.61	
E Gainesville Jct. Meter House	143.72	
E Gainesville Jct. Regulator House	341.09	
E Near Honey Grove Tap	119.22	
E Near Tap to Sherman	19.35	
		$12,925.67
F System		4,329.20
G System		
G-3 St. Jo	574.19	
G-3-1 Lindsey	531.20	
G-3-2 Myra	533.84	
G-3-3 Muenster	509.24	
G-1 Empire State, Gainesville	178.19	
		$2,326.66

[fol. 3638]

H System		
H-1 Byers Meter House	79.16	
H-1 Byers Regulator House	34.23	
H-2 Petrolia Meter House	80.87	
H-2 Petrolia Regulator House	36.61	
		$230.87
J System		5,462.28
K System		15,944.69
L System		24,632.39
M System		10,931.12
O System		30,534.57
R System		2,090.42
Numbered System		4,381.75
Government 10" Line		205.73
T P U System		1,181.72
Total		$131,951.63

Plaintiffs' Exhibit No. 6—Continued

[fol. 3639]

Other Transmission System Structures

A System		$17,813.67
B System		14,036.43
C System		8,995.92
E System		4,369.43
H System		
Byers Cleaner House	$64.60	
Petrolia Cottage No. 41	1,350.18	
		1,414.78
J System		12,638.99
K System		16,454.55
L System		6,059.79
M System		8,174.19
O System		397.65
Total		$90,355.40

[fol. 3640]

Transmission System Measuring Station Equipment

A System		
A Iowa Park Road No. 1	$491.97	
A Iowa Park Road No. 2	493.25	
A Petrolia Gardens	592.96	
A Wichita Falls, Charlie Road	135.17	
A-1-1 Oklaunion	1,044.78	
A-2 Iowa Park	980.17	
A-3 Harrold	823.71	
A-4 Vernon	1,567.89	
A-5 Tolbert	508.71	
A-6 Chillicothe	1,018.13	
A-10 Electra	1,597.17	
A-11 N. Wichita Falls	695.41	
A-12 E. Wichita Falls	2,100.94	
A-13 Burkburnet	239.86	
A Electra Prod. Co.	709.03	
A Electra	448.59	
A Hollis, Okla.	446.41	
A Petrolia	421.92	
A Quanah	68.03	
A Vernon	145.05	
A Wichita Falls	162.90	
A-1 Oklaunion	262.96	
		$14,955.01
B System		22,685.72
C System		19,401.22
E System		
E Clarkesville	1,903.05	
E-1 Denison	2,355.88	
E-2 Sherman	2,152.54	
E-3 Whitesboro	1,230.89	
E-6 Bonham	1,266.06	
E-7 Honey Grove	923.44	
E-8 Dodd City	816.05	
E-9 Gainesville Meter House	1,261.49	
E-9 Gainesville Regulator House	620.01	
E-10 Melissa	684.27	
E-10-1 Ector	826.35	

Plaintiffs' Exhibit No. 6—Continued

[fol. 3641]

Transmission System Measuring Station Equipment
(Cont'd)

E System (Cont'd)		
E-10-2 White Wright	$1,014.21	
E-10-3 Trenton	752.61	
E-10-4 Westminster	619.64	
E-10-5 Howe	701.37	
E-10-5-1 Van Alystne	1,096.59	
E-10-6 Bells	738.97	
E-10-6-1 Savoy	738.39	
E-10-7 Anna	758.62	
E-11 Windom	690.25	
E-12 Brookston	664.34	
E-13 Petty	697.62	
E-14 Roxton	858.05	
E-15 Collinsville	1,061.06	
E-17 Ravenna	728.13	
E-18 Paris	1,734.95	
E-19 Blossom	1,213.20	
E-20 Detroit	1,221.27	
E-21 Bagwell	707.49	
E-22-1 Deport	1,209.97	
E-22-2 Fulbright	684.05	
E-4 Gainesville G.S.T.S. Regulator House No. 1	108.11	
E-4 Gainesville G.S.T.S. Regulator House No. 2	275.87	
E-4 Gainesville G.S.T.S. Meter House	441.41	
E Gainesville Jct. Gravitometer House	450.93	
E Gainesville Jct. Meter House	265.36	
E Gainesville Jct. Regulator House	1,765.01	
E Denison Paris Jct.	44.92	
E Near Honey Grove Tap	105.31	
E Near Tap to Sherman	59.71	
		$35,447.44
F System		17,146.50
[fol. 3642]		
G System		
G-3 St. Jo	1,525.04	
G-3-1 Lindsey	722.78	
G-3-2 Myra	733.48	
G-3-3 Muervster	806.47	
G-1 Empire State, Gainesville	650.90	
		$4,438.67
H System		
H-1 Byers Meter House	760.94	
H-1 Byers Regulator House	128.68	
H-2 Petrolia Meter House	759.88	
H-2 Petrolia Regulator House	103.51	
H & H2 Merrick & Goldsmith, Petrolia	74.06	
		1,827.07
J System		23,368.79
K System		30,299.12
L System		59,787.73
M System		43,754.15
O System		68,613.86
R System		4,651.82
Numbered System		17,710.75
Government 10" Line		830.64
T P U System		7,691.57
Total		372,610.06

Plaintiffs' Exhibit No. 6—Continued

[fol. 3643]

Transmission Line Equipment

A System		
Transmission Line Equipment Exclusive of Excavation		$3,255,171.87
Machine Excavation	347,016.5 Cy @ .375	130,131.19
Hand Excavation	1,343.2 Cy @ 1.31	1,759.59
Rock Excavation	28,618.8 Cy @ 3.50	100,165.80
		3,487,228.45
B System		
Transmission Line Equipment Exclusive of Excavation		2,974,018.44
Machine Excavation	281,137.1 Cy @ .375	105,426.41
Hand Excavation	1,803.4 Cy @ 1.31	2,362.45
Rock Excavation	30,375.5 Cy @ 3.50	106,314.25
		3,188,121.55
C System		
Transmission Line Equipment Exclusive of Excavation		536,252.69
Machine Excavation	45,910.0 Cy @ .375	17,216.25
Hand Excavation	15,621.3 Cy @ 1.31	20,463.90
Rock Excavation	1,405.5 Cy @ 3.50	4,919.25
		578,852.09
E System		
Transmission Line Equipment Exclusive of Excavation		1,370,105.96
Machine Excavation	182,428.4 Cy @ .375	68,410.65
Hand Excavation	2,330.4 Cy @ 1.31	3,052.82
Rock Excavation	3,561.5 Cy @ 3.50	12,465.25
		1,454,034.68
F System		
Transmission Line Equipment Exclusive of Excavation		986,588.81
Machine Excavation	126,544.2 Cy @ .375	47,454.08
Hand Excavation	251.7 Cy @ 1.31	329.73
Rock Excavation	2,971.4 Cy @ 3.50	10,399.90
		1,044,772.52

[fol. 3644]

G System		
Transmission Line Equipment Exclusive of Excavation		57,536.63
Machine Excavation	14,815.9 Cy @ .375	5,555.96
Hand Excavation	6.2 Cy @ 1.31	8.12
Rock Excavation	454.4 Cy @ 3.50	1,590.40
		64,691.11
H System		
Transmission Line Equipment Exclusive of Excavation		2,359.52
Hand Excavation	540.0 Cy @ 1.31	707.40
		3,066.92
J System		
Transmission Line Equipment Exclusive of Excavation		491,049.17
Machine Excavation	58,047.2 Cy @ .375	21,767.70
Hand Excavation	311.9 Cy @ 1.31	408.59
Rock Excavation	1,122.0 Cy @ 3.50	3,927.00
		517,152.46

Plaintiffs' Exhibit No. 6—Continued

Transmission Line Equipment—Contd.

K System		
Transmission Line Equipment Exclusive of Excavation		$4,437,041.20
Machine Excavation	362,097.3 Cy @ .375	135,786.49
Hand Excavation	21,990.4 Cy @ 1.31	28,807.42
Rock Excavation	110,057.0 Cy @ 3.50	385,199.50
		4,986,834.61
L System		
Transmission Line Equipment Exclusive of Excavation		2,707,893.79
Machine Excavation	351,788.2 Cy @ .375	131,920.58
Hand Excavation	2,496.5 Cy @ 1.31	3,270.42
Rock Excavation	16,583.8 Cy @ 3.50	58,043.30
		2,901,128.09

[fol. 3645]

M System		
Transmission Line Equipment Exclusive of Excavation		1,328,653.56
Machine Excavation	169,469.1 Cy @ .375	63,550.91
Hand Excavation	283.9 Cy @ 1.31	371.91
Rock Excavation	2,974.1 Cy @ 3.50	10,409.35
		1,402,985.73
O System		
Transmission Line Equipment Exclusive of Excavation		4,277,134.59
Machine Excavation	444,990.1 Cy @ .375	166,871.29
Hand Excavation	8,986.8 Cy @ 1.31	11,772.71
Rock Excavation	102,669.0 Cy @ 3.50	359,341.50
		4,815,120.09
R System		
Transmission Line Equipment Exclusive of Excavation		566,771.91
Machine Excavation	49,789.6 Cy @ .375	18,671.10
Hand Excavation	1,567.1 Cy @ 1.31	2,052.90
Rock Excavation	9,184.7 Cy @ 3.50	32,146.45
		619,642.36
Numbered System		
Transmission Line Equipment Exclusive of Excavation		1,223,885.94
Machine Excavation	78,369.1 Cy @ .375	29,388.41
Hand Excavation	1,952.7 Cy @ 1.31	2,558.04
Rock Excavation	16,851.6 Cy @ 3.50	58,980.60
		1,314,812.99
T.P.U. System		
Transmission Line Equipment Exclusive of Excavation		617,022.83
Machine Excavation	20,899.3 Cy @ .375	7,837.24
Hand Excavation	14,779.5 Cy @ 1.31	19,361.14
Rock Excavation	8,537.7 Cy @ 3.50	29,881.95
		674,103.16
Total Transmission Line Equipment		27,052,546.81

Plaintiffs' Exhibit No. 6—Continued

[fol. 3646] Compressing System Property

Compressing Station:

Alvord	$14,504.68
Brad	162,192.74
Brazos	89,622.32
Breckenridge	290,099.28
Caddo	261,986.25
Cheaney	137,093.05
Desdemona	77,229.85
Eastland	130,994.31
Gainesville	76,295.28
Ibex	249,130.72
Joshua No. 1	441,055.93
Joshua No. 2	69,602.39
Petrolia	1,056,638.41
Pueblo	87,367.65
Ranger No. 1	128,855.56
Ranger No. 2	113,004.96
Ranger No. 3	291,650.92
Ranger No. 4	165,904.20
Sipe Springs	182,576.20
Tiffin	51,066.71
X-Ray	69,240.16
Total	4,146,111.57

[fol. 3647] General Office Land

General Office Land—$44,545.00.
Allocated to Texas Properties 86%—$38,308.70.

[fol. 3648] Other General Land

Other General Land—$49,273.87.
Allocated to Texas Properties 86%—$42,375.53.

[fol. 3649] General Office Structure

General Office Structure—$321,437.63.
Allocated to Texas Properties 86%—$276,436.36.

Plaintiffs' Exhibit No. 6—Continued

[fol. 3650] Other General Structures

Other General Structures—$46,789.56.
Allocated to Texas Properties 86%—$40,239.02.

[fol. 3651] General Office Furniture and Fixtures

General Office Furniture and Fixtures—$207,601.84.
Allocated to Texas Properties 86%—$178,537.58.

[fol. 3652] Other General Furniture and Fixtures

Other General Furniture and Fixtures—$12,059.97.
Allocated to Texas Properties 86%—$10,371.57.

[fol. 3653] General Shop Equipment

General Shop Equipment—$104,000.27.
Allocated to Texas Properties 86%—$89,440.23.

[fol. 3654] General Tools

General Tools—$131,549.72.
Allocated to Texas Properties 86%—$113,132.76.

[fol. 3655] Automotive and Construction Equipment

Automotive and Construction Equipment—Net $84,547.82 (Ex. 10).
Allocated to Texas Properties 86%—$72,711.13.

[fol. 3656] General Telephone System

Line:

Petrolia to Shamrock	$64,545.43
Tap to Hollis Gasoline Plant	104.77
Tap to Shamrock	421.65
Tap to Vernon Whse	101.59
Petrolia to Fort Worth	29,670.09
B-2 to Bowie	1,287.34
B-5 to Decatur	802.13
Dallas to Fort Worth	12,797.15
North Ft. Worth to Ft. Worth Office	470.18
Irving to Gainesville	19,995.83
Gainesville Jct. to Gainesville	114.00
Petrolia Tap	475.12

Plaintiffs' Exhibit No. 6—Continued

Tap to Petrolia Loading Rack	$308.26
J. E. C. Jct. to Joshua	9,531.16
Tap to South Ft. Worth	366.47
Tap to A. C. Hogue	167.18
Tap to Handley	566.54
Gordon to Ibex and Plant No. 3	20,683.74
Tap to Tiffin Gasoline Plant	1,277.02
KB Jct. to Sipe Springs	11,925.11
Tap to Ranger Plant No. 1	114.24
[fol. 3657] Tap to Ranger Plant No. 2	$302.45
KA Jct. to Mineral Wells Field	6,646.96
Tap to Cheaney Compressor Station	2,677.19
Ranger Plant No. 3 to Pueblo Gasoline Plant	5,989.26
Tap to Pueblo Loading Rack	625.95
Garden to X-Ray	2,534.85
Plant 108 to Plant No. 3	115.79
Line to Plant lot and offices	1,221.98
Line to Plant 103	93.70
Plant No. 3 to Ranger	316.42
Ranger Plant No. 3 to Eastland Compressor Station	1,039.66
Plant 109 to Plant 109-A	1,222.07
Gordon Gasoline Plant to Gordon	150.20
Dallas to Joshua and Gordon to K. & O. Jct.	27,901.09
Tap to Second Ave. Dallas	1,369.05
Joshua to Gordon	26,538.36
Tap to Brad Compressor Station	2,206.14
Tap to Warren Lease	611.45
Tap to Caddo Compressor Station	764.76
Tap to Breckenridge Compressor Station	300.80
[fol. 3658] Joshua to L. & M. Jct.	$2,305.12
Tap to Strawn	1,261.52
Total	$261,919.77

Plaintiffs' Exhibit No. 6—Continued

[fol. 3659]

Administration and Legal Expenses During Construction, Engineering and Supervision During Construction, Taxes During Construction

Gathering System Rights of Way	9,179.61
Field Measuring Station Structures	27,319.78
Field Measuring Station Equipment	93,943.02
Field Line Equipment	789,328.10
Transmission System Measuring Station Land	82,596.45
Transmission System Measuring Station Leaseholds	8,678.26
Other Transmission System Land	21,102.59
Other Transmission System Leaseholds	863.74
Transmission System Rights of Way	899,090.73
Transmission System Measuring Station Structures	131,951.63
Other Transmission System Structures	90,355.40
Transmission System Measuring Station Equipment	372,610.06
Transmission Line Equipment	27,052,546.81
Compressing Station	4,146,111.57
Other General Structures	40,239.02
General Shop Equipment	89,440.23
General Telephone System	261,919.77
Total "A"	34,117,276.77
General Office Structure	276,436.36
Total "B"	34,393,713.13
Engineering and Supervision During Construction—5% of $34,117,276.77 (Total "A")	1,705,863.84
Administration and Legal Expenses During Construction—2% of $34,393,713.13 (Total "B")	687,874.26
Taxes During Construction	8,500.00

[fol. 3660]

Interest During Construction

Gathering System Rights of Way	9,179.61	
Transmission Measuring Station Land	82,596.45	
Transmission Measuring Station Leaseholds	8,678.26	
Other Transmission System Land	21,102.59	
Other Transmission System Leaseholds	863.74	
Transmission System Rights of Way	899,090.73	
Other General Land	42,375.53	
	1,063,886.91@6%	63,833.21
Field Measuring Station Structures	27,319.78	
Field Measuring Station Equipment	93,943.02	
Field Line Equipment	789,328.10	
	910,590.90@2½%	22,764.77
Transmission System Measuring Station Structures	131,951.63	
Other Transmission System Structures	90,355.40	
Transmission System Measuring Station Equipment	372,610.06	
Transmission Line Equipment	27,052,546.81	
Compressing Stations	4,146,111.57	
Other General Structures	40,239.02	
General Shop Equipment	89,440.23	
General Telephone System	261,919.77	
	32,185,174.49@4%	1,287,406.98

Plaintiffs' Exhibit No. 6—Continued

General Office Land	38,308.70@9%	3,447.78
General Office Structures	276,436.36@5½%	15,204.00
Administration and Legal Expenses during Construction	687,874.26	
Engineering and Supervising during Construction	1,705,863.84	
Taxes during Construction	8,500.00	
Preliminary and Organization Expenses	194,005.00	
	2,596,243.10@5%	129,812.15
Total		1,522,468.89

[fol. 3661] Preliminary and Organization Expenses

Preliminary Geological Investigations	$114,444.00
Preliminary Engineering Investigations	49,695.00
Attorney's Fees	15,000.00
Charter and Qualification Fees	10,000.00
Franchise Tax	17,144.00
Corporation License Tax	3,273.00
Federal Capital Stock Tax	15,895.00
Engraving Common Stock Certificates	136.00
	225,587.00
Allocated to Texas—86%	194,005.00

[fols. 3662-3663] Working Capital

Materials and Supplies	$416,000.00
Cash Working Capital:	
Bank Balances—$300,000 @ 86%	258,000.00
45 Days' Expenses	200,000.00
Advances on Gas Purchase Contracts	360,000.00
Pre-paid Insurance and Rentals—$32,000 @ 86%	27,500.00
Gas in System—150,000 M @ $.06	9,000.00
Petrolia Field Line Equipment Salvage Value	18,500.00
Total	$1,289,000.00

[fol. 3664] PLAINTIFFS' EXHIBIT No. 7

[fol. 3665] Lone Star Gas Company

Texas Gathering, Transmission, Compressing and General Property

Annual Depreciation, June 15, 1934

Hawley, Freese and Nichols

J. A. Phillips Co.

[fol. 3666] Table of Contents

	Side folio
Annual Depreciation	3667
Annual Depreciation Rates:	
Gathering System Rights of Way	3668
Field Measuring Station Structures	3668
Field Measuring Station Equipment	3668
Field Line Equipment	3668
Transmission System Measuring Station Leaseholds	3669
Other Transmission System Leaseholds	3669
Transmission System Rights of Way	3669
Transmission System Measuring Station Structures	3669
Other Transmission System Structures	3669
Transmission System Measuring Station Equipment	3669
Transmission Line Equipment	3670
Compressing Stations	3673
General Office Structure	3674
Other General Structures	3674
General Office Furniture and Fixtures	3674
Other General Office Furniture and Fixtures	3674
General Shop Equipment	3674
General Telephone System	3674
Non-Physical Property	3674
Calculation of Total Annual Rates	3675
Mortality and Distribution Curves—Steel Pipe	3677
Historic Replacements and Abandonments	3678

[fol. 3667] Annual Depreciation Allowance

Gathering System Property:	Reproduction Cost—New	Annual Rate	Annual Amount
Rights of Way	$9,179.61	5.296	$486.15
Field Measuring Station Structures	27,319.78	5.296	1,446.86
Field Measuring Station Equipment	93,943.02	3.707	3,482.47
Field Line Equipment	789,328.10	5.085	40,137.33

Plaintiffs' Exhibit No. 7—Continued

Annual Depreciation Allowance—Continued

Transmission System:	Reproduction Cost—New	Annual Rate	Annual Amount
Transmission Measuring Station Leaseholds	8,678.26	.....	401.31
Other Transmission System Leaseholds	863.74	.....	71.68
Rights of Way	899,090.73	.344	3,092.87
Transmission System Measuring Station Structures	131,951.63	1.823	2,405.48
Other Transmission System Structures	90,355.40	1.823	1,647.18
Transmission System Measuring Station Equipment	372,610.06	1.978	7,370.23
Transmission Line Equipment	27,052,546.81	2.185	590,557.10
Compressing System Property:			
Compressing Stations	4,145,111.57	3.376	139,972.73
General System Property:			
General Office Structures	276,436.36	1.396	3,859.05
Other General Structures	40,239.02	1.823	733.56
General Office Furniture and Fixtures	178,537.58	8.219	14,674.00
Other General Furniture and Fixtures	10,371.57	8.219	852.44
General Shop Equipment	89,440.23	4.296	3,842.35
General Telephone System	261,919.77	1.048	2,744.92
Non-Physical Properties:			
Administrative and Legal Expenses During Construction	687,874.26	.344	2,366.29
Engineering and Supervision During Construction	1,705,863.84	.344	5,868.17
Taxes During Construction	8,300.00	.344	29.24
Interest During Construction	1,522,468.89	.344	5,237.29
Preliminary and Organization Expense	194,003.00	.344	667.38
Total Annual Depreciation Allowance			$831,946.08

[fol. 3668]

Annual Depreciation

Gathering System Rights of Way
Amortization of 100% in 13 years 5.296%

Field Measuring Station Structures
Amortization of 100% in 13 years 5.296%

Field Measuring Station Equipment
Amortization of 70% in 13 years 3.707%

Field Line Equipment

Year	Replacements	Annual Rate—%	Amortization Fund—%
1	.02	5.085	5.065
2	.05	5.085	10.404
3	.09	5.085	16.023
4	.15	5.085	21.919
5	.22	5.085	28.099
6	.31	5.085	34.560
7	.40	5.085	41.319
8	.51	5.085	48.373
9	.63	5.085	55.730
10	.75	5.085	63.409
11	.88	5.085	71.419
12	1.01	5.085	79.779
13	1.14	5.085	88.511

[fol. 3669]

Transmission System Measuring Station Leaseholds
Annual lease accruals $401.31

Other Transmission System Leaseholds
Annual lease accruals 71.68

Transmission System Rights of Way
Amortization of 100% in 50 years ..... .344%

9512

Plaintiffs' Exhibit No. 7—Continued

Transmission System Measuring Station Structures	
Amortization of 100% in 25 years	1.823%
Other Transmission System Structures	
Amortization of 100% in 25 years	1.823%
Transmission System Measuring Station Equipment	
Current Replacements	1.332%
Amortization of 100% in 40 years	.646%
Total Annual Rate	1.978%

[fol. 3670] Transmission Line Equipment

Main Lines—69.58% @ 2.139% 1.488%

Year	Replacements—%	Annual Rate for Replacements & Amortization %	Major Removals %	Major Rehabilitations %	Total Annual Rate %	Amortization Fund %
1	.02	1.70	.289	.150	2.139	1.68
2	.05	1.70	.289	.150	2.139	3.43
3	.09	1.70	.289	.150	2.139	5.25
4	.15	1.70	.289	.150	2.139	7.11
5	.22	1.70	.289	.150	2.139	9.02
6	.31	1.70	.289	.150	2.139	10.95
7	.40	1.70	.289	.150	2.139	12.91
8	.51	1.70	.289	.150	2.139	14.88
9	.63	1.70	.289	.150	2.139	16.84
10	.75	1.70	.289	.150	2.139	18.80
11	.88	1.70	.289	.150	2.139	20.75
12	1.01	1.70	.289	.150	2.139	22.68
13	1.14	1.70	.289	.150	2.139	24.60
14	1.27	1.70	.289	.150	2.139	26.51
15	1.39	1.70	.289	.150	2.139	28.41
16	1.53	1.70	.289	.150	2.139	30.28
17	1.65	1.70	.289	.150	2.139	32.15
18	1.78	1.70	.289	.150	2.139	34.00
19	1.91	1.70	.289	.150	2.139	35.83
20	2.05	1.70	.289	.150	2.139	37.63
21	2.18	1.70	.289	.150	2.139	39.41
22	2.30	1.70	.289	.150	2.139	41.17
23	2.40	1.70	.289	.150	2.139	42.94
24	2.50	1.70	.289	.150	2.139	44.72
25	2.58	1.70	.289	.150	2.139	46.52
26	2.65	1.70	.289	.150	2.139	48.36
27	2.70	1.70	.289	.150	2.139	50.26
28	2.75	1.70	.289	.150	2.139	52.23
29	2.78	1.70	.289	.150	2.139	54.29
30	2.82	1.70	.289	.150	2.139	56.43
31	2.86	1.70	.289	.150	2.139	58.66
32	2.91	1.70	.289	.150	2.139	60.97
33	2.95	1.70	.289	.150	2.139	63.38
34	3.00	1.70	.289	.150	2.139	65.89
35	3.05	1.70	.289	.150	2.139	68.50
36	3.11	1.70	.289	.150	2.139	71.21
37	3.16	1.70	.289	.150	2.139	74.05
38	3.22	1.70	.289	.150	2.139	76.95
39	3.28	1.70	.289	.150	2.139	79.99
40	3.34	1.70	.289	.150	2.139	83.16
41	3.39	1.70	.289	.150	2.139	86.47
42	3.43	1.70	.289	.150	2.139	89.93
43	3.46	1.70	.289	.150	2.139	93.57
44	3.47	1.70	.289	.150	2.139	97.42
45	3.46	1.70	.289	.150	2.139	101.51

(Here follows 1 photo, side folio 3671)

BLANK

PAGE

Tap Lines - 18.91% @ 1.989%

,376%

Year	Replacements %	Annual Rate for Replacements & Amortization %	Major Removals %	Total Annual Rate %	Amortization Fund %
1	.02	1.700	.289	1.989	1.68
2	.05	1.70	.289	1.989	3.43
3	.09	1.70	.289	1.989	5.25
4	.15	1.70	.289	1.989	7.11
5	.22	1.70	.289	1.989	9.02
6	.31	1.70	.289	1.989	10.95
7	.40	1.70	.289	1.989	13.91
8	.51	1.70	.289	1.989	14.88
9	.63	1.70	.289	1.989	16.84
10	.75	1.70	.289	1.989	18.80
11	.88	1.70	.289	1.989	20.75
12	1.01	1.70	.289	1.989	22.68
13	1.14	1.70	.289	1.989	24.50
14	1.27	1.70	.289	1.989	26.51
15	1.39	1.70	.289	1.989	28.41
16	1.55	1.70	.289	1.989	30.28
17	1.65	1.70	.289	1.989	32.15
18	1.78	1.70	.289	1.989	34.00
19	1.91	1.70	.289	1.989	35.83
20	2.05	1.70	.289	1.989	37.63
21	2.18	1.70	.289	1.989	39.41
22	2.30	1.70	.289	1.989	41.17
23	2.40	1.70	.289	1.989	42.94
24	2.50	1.70	.289	1.989	44.72
25	2.56	1.70	.289	1.989	46.52
26	2.65	1.70	.289	1.989	48.36
27	2.70	1.70	.289	1.989	50.26
28	2.75	1.70	.289	1.989	52.23
29	2.78	1.70	.289	1.989	54.29
30	2.82	1.70	.289	1.989	56.43
31	2.96	1.70	.289	1.989	58.66
32	2.91	1.70	.289	1.989	60.97
33	2.99	1.70	.289	1.989	63.38
34	3.00	1.70	.289	1.989	65.39
35	3.05	1.70	.289	1.989	68.50
36	3.11	1.70	.289	1.989	71.31
37	3.16	1.70	.289	1.989	74.05
	3.22	1.70	.289	1.989	76.95
	3.28	1.70	.289	1.989	79.99
	3.34	1.70	.289	1.989	83.16
		1.70	.289	1.989	86.47
		1.70	.289	1.989	89.93
		1.70	.289	1.989	93.57
		1.70	.289	1.989	97.42
		1.70	.289	1.989	100.81

2160A

BLANK

PAGE

Plaintiffs' Exhibit No. 7—Continued

[fol. 3672]

Gathering Lines 11.51% @ 2.770% .319%

Year	Replatements %	Annual Rate %	Amortization Fund %
1	.02	2.77	2.750
2	.05	2.77	5.635
3	.09	2.77	8.653
4	.15	2.77	11.792
5	.92	2.77	15.050
6	.31	2.77	18.413
7	.40	2.77	21.888
8	.51	2.77	25.461
9	.63	2.77	29.129
10	.75	2.77	32.897
11	.88	2.77	36.761
12	1.01	2.77	40.727
13	1.14	2.77	44.801
14	1.27	2.77	48.989
15	1.39	2.77	53.308
16	1.53	2.77	57.746
17	1.65	2.77	62.331
18	1.78	2.77	67.061
19	1.91	2.77	71.945
20	2.05	2.77	76.982

Total Annual Rate for Transmission Line Equipment 2.183%

[fol. 3673]

Compressing Stations

Main Line Stations.....33.72% @ 2.571% .867%

Item	Per Cent of Total	Life in Years	Annual Rate %	Weighted Annual Rate %
Land and Improvements	1.61	50	.344	.006
Leaseholds	.17	50	.344	.001
Joint Property	.23	20	2.718	.006
Class A Structures	7.63	25	1.823	.139
Class B Structures	7.02	16	3.895	.273
Main Units	47.37	35	.879	.416
Auxiliary Units	4.19	20	2.718	.114
Cooling System and Piping	21.40	20	2.718	.582
Lighting Equipment	.74	10	7.587	.056
Furniture and Fixtures	.15	7	11.914	.018
Fire Protection	.08	10	7.587	.006
Shop Equipment	1.73	7	11.914	.206
Other Equipment	3.02	10	7.587	.229
Boiler Plant	3.45	20	2.718	.094
Water Supply	1.21	20	2.718	.033
Current Replacements	....	..	.....	.392
Total				2.571

Field Stations.....66.28% @ 3.786% 2.509%

Plaintiffs' Exhibit No. 7—Continued

Item	Per Cent of Total	Life in Years	Annual Rate %	Weighted Annual Rate %
Land and Improvements	2.11	50	.344	.007
Leaseholds	.83	50	.344	.003
Class A Structures	6.50	25	1.823	.118
Class B Structures	7.99	16	3.895	.311
Main Units	49.93	35	.879	.439
Auxiliary Units	4.06	20	2.718	.110
Water Supply	1.49	25	1.823	.027
Cooling System and Piping	21.84	20	2.718	.594
Lighting Equipment	.48	10	7.587	.036
Furniture and Fixtures	.16	7	11.914	.019
Fire Protection	.28	10	7.587	.021
Other Equipment	4.33	10	7.587	.328
Current Replacements	....	..	.....	.413
Removals and Abandonments	....	..	.....	1.360
Total				3.786
Total Annual Rate for Compressing Stations				3.376%

[fol. 3674]

General Office Structure

Current Replacements	.750%
Amortization of 100% in 40 years	.646%
Total Annual Rate	1.396%

Other General Structures

Amortization of 100% in 25 years	1.825%

General Office Furniture and Fixtures
Other General Furniture and Fixtures

Item	Per Cent of Total	Life in Years	Annual Rate %	Weighted Annual Rate
Furniture and Fixtures	50.66	20	2.718	1.377
Machine Equipment	34.03	5	17.740	6.037
Law Library	4.70	20	2.718	.128
Draperies	1.47	10	7.587	.116
Rugs	3.38	7	11.914	.403
Dictographs	5.80	20	2.718	.158
Total Annual Rate				8.219

General Shop Equipment

Amortization of 100% in 15 years	4.296%

General Telephone System

Current Replacements	.402%
Amortization of 100% in 40 years	.646%
Total Annual Rate	1.048%

Non-Physical Property

Amortization of 100% in 50 years	.344%

(Here follow 2 pasters, side folios 3675 and 3676, and 2 photos, folios 3677 and 3678)

BLANK

PAGE

Plaintiff's Exhibit No. 7—Continued

[fol. 3675]

Annual Renewal Factor %	.0	.04	.07	.12	.18	.27	.35	.46	.57	.69	.81	.93	1.07	1.19	1.31	1.43
Age in Years	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Renewals of Original Units %	.02	.05	.09	.15	.22	.31	.40	.51	.63	.75	.87	1.00	1.13	1.25	1.37	1.50
1	.000000	.000008	.000014	.000024	.000036	.000054	.000070	.000092	.000114	.000118	.000162	.000186	.000214	.000238	.000262	.000286
2	.000000	.000000	.000020	.000035	.000060	.000090	.000135	.000175	.000230	.000285	.000345	.000405	.000465	.000535	.000595	.000655
3	.020000	.000000	.000000	.000036	.000063	.000108	.000162	.000243	.000315	.000414	.000513	.000621	.000729	.000837	.000963	.001071
4		.050008	.000000	.000000	.000060	.000105	.000180	.000270	.000405	.000525	.000690	.000856	.001036	.001216	.001396	.001606
5			.090036	.000000	.000000	.000088	.000154	.000264	.000396	.000595	.000771	.001013	.001255	.001520	.001784	.002048
6				.150095	.000000	.000000	.000124	.000217	.000373	.000559	.000838	.001087	.001428	.001770	.002142	.002515
7					.220219	.000000	.000000	.000160	.000281	.000481	.000721	.001082	.001403	.001844	.002285	.002766
8						.310445	.000000	.000000	.000205	.000358	.000614	.000921	.001381	.001790	.002353	.002915
9							.400825	.000000	.000000	.000253	.000443	.000759	.001138	.001707	.002213	.002909
10								.511421	.000000	.000000	.000301	.000528	.000904	.001356	.002035	.002638
11									.632319	.000000	.000000	.000350	.000613	.001050	.001576	.002364
12										.753588	.000000	.000000	.000403	.000705	.001209	.001814
13											.875398	.000000	.000000	.000456	.000799	.001369
14												1.007808	.000000	.000000	.000506	.000886
15													1.140969	.000000	.000000	.000556
16														1.265024	.000000	.000000
17															1.390118	.000000
18																1.526398
19																
20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
32																
33																
34																
35																
36																
37																
38																
39																
40																
41																
42																
43																
44																
45																
46																
47																
48																
49																
50																

Calculation of Total Annual Renewal Rates
Based on Distribution Curve for

	1.43 16 1.50	1.56 17 1.62	1.68 18 1.74	1.80 19 1.86	1.92 20 1.98	2.04 21 2.10	2.15 22 2.20	2.24 23 2.28	2.31 24 2.36	2.39 25 2.42
62	.000286	.000312	.000336	.000360	.000384	.000408	.000430	.000448	.000462	.000478
95	.000655	.000715	.000780	.000840	.000900	.000960	.001020	.001075	.001120	.001155
63	.001071	.001179	.001288	.001405	.001513	.001621	.001729	.001837	.001936	.002017
96	.001606	.001786	.001966	.002146	.002341	.002522	.002702	.002882	.003062	.003227
84	.002048	.002356	.002621	.002885	.003149	.003435	.003700	.003964	.004228	.004492
42	.002515	.002887	.003322	.003694	.004067	.004439	.004843	.005215	.005588	.005961
85	.002766	.003247	.003728	.004289	.004770	.005251	.005732	.006253	.006734	.007215
53	.002915	.003529	.004143	.004756	.005472	.006086	.006700	.007313	.007978	.008592
13	.002909	.003604	.004363	.005122	.005881	.006766	.007525	.008283	.009042	.009864
35	.002638	.003467	.004295	.005200	.006104	.007008	.008063	.008968	.009872	.010776
76	.002364	.003064	.004027	.004990	.006040	.007091	.008141	.009367	.010417	.011468
09	.001814	.002721	.003527	.004636	.005745	.006954	.008163	.009373	.010784	.011993
99	.001369	.002054	.003081	.003993	.005248	.006504	.007873	.009242	.010611	.012208
06	.000886	.001518	.002277	.003416	.004428	.005819	.007211	.008729	.010247	.011765
00	.000556	.000973	.001668	.002502	.003753	.004865	.006395	.007924	.009592	.011260
—	.000000	.000611	.001068	.001832	.002748	.004121	.005342	.007021	.008700	.010532
18		.000000	.000662	.001158	.001985	.002977	.004466	.005789	.007609	.009428
	1.526398		.000000	.000713	.001248	.002140	.003210	.004815	.006241	.008202
		1.654023		.000000	.000766	.001340	.002297	.003445	.005168	.006699
			1.783152		.000000	.000819	.001433	.002456	.003684	.005526
				1.913937		.000000	.000872	.001527	.002617	.003926
					2.046542		.000000	.000919	.001608	.002757
						2.181126		.000000	.000959	.001678
							2.297847		.000000	.000999
								2.396845		.000000
									2.498259	
										2.582218

Plaintiff's Exhibit No. 7—Continued

[fol. 3676]

Including Replacements of Replacements

33½ Year Average Life Steel Pipe

2.44	2.47	2.49	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.49	2.47	2.44
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
2.46	2.48	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.48	2.46	2.42
.000488	.000494	.000498	.000500	.000500	.000500	.000500	.000500	.000500	.000500	.000500	.000500	.000500	.000500	.000500	.000498	.000494	.000488
.001195	.001220	.001235	.001245	.001250	.001250	.001250	.001250	.001250	.001250	.001250	.001250	.001250	.001250	.001250	.001250	.001245	.001235
.002080	.002152	.002197	.002224	.002242	.002251	.002251	.002251	.002251	.002251	.002251	.002251	.002251	.002251	.002251	.002251	.002251	.002242
.003362	.003467	.003587	.003662	.003707	.003737	.003752	.003752	.003752	.003752	.003752	.003752	.003752	.003752	.003752	.003752	.003752	.003752
.004735	.004933	.005087	.005263	.005373	.005439	.005483	.005505	.005505	.005505	.005505	.005505	.005505	.005505	.005505	.005505	.005505	.005505
.006333	.006675	.006954	.007171	.007420	.007575	.007668	.007730	.007761	.007761	.007761	.007761	.007761	.007761	.007761	.007761	.007761	.007761
.007696	.008177	.008618	.008978	.009259	.009580	.009780	.009900	.009981	.010021	.010021	.010021	.010021	.010021	.010021	.010021	.010021	.010021
.009206	.009819	.010433	.010996	.011456	.011814	.012223	.012479	.012632	.012734	.012786	.012786	.012786	.012786	.012786	.012786	.012786	.012786
.010623	.011382	.012141	.012899	.013595	.014164	.014607	.015112	.015429	.015618	.015745	.015808	.015808	.015808	.015808	.015808	.015808	.015808
.011756	.012660	.013565	.014469	.015373	.016202	.016880	.017408	.018011	.018388	.018614	.018764	.018840	.018840	.018840	.018840	.018840	.018840
.012518	.013656	.014707	.015757	.016808	.017858	.018821	.019609	.020222	.020922	.021360	.021622	.021797	.021885	.021885	.021885	.021885	.021885
.013202	.014412	.015722	.016931	.018141	.019350	.020559	.021668	.022575	.023280	.024087	.024591	.024893	.025094	.025195	.025195	.025195	.025195
.013578	.014947	.016316	.017799	.019168	.020537	.021907	.023276	.024531	.025558	.026356	.027269	.027840	.028182	.028410	.028524	.028524	.028524
.013536	.015054	.016572	.018090	.019734	.021252	.022770	.024288	.025806	.027198	.028337	.029222	.030234	.030867	.031246	.031499	.031626	.031626
.012928	.014874	.016542	.018211	.019879	.021686	.023354	.025022	.026690	.028358	.029888	.031139	.032112	.033224	.033919	.034336	.034614	.034753
.012364	.014196	.016332	.018164	.019996	.021827	.023812	.025643	.027475	.029307	.031139	.032818	.034191	.035260	.036481	.037244	.037702	.038007
.011413	.013398	.015382	.017698	.019683	.021668	.023653	.025803	.027788	.029772	.031757	.033742	.035561	.037050	.038208	.039531	.040358	.040854
.010164	.012304	.014444	.016583	.019080	.021220	.023359	.025499	.027817	.029957	.032097	.034237	.036376	.038338	.039943	.041191	.042617	.043509
.008804	.010909	.013206	.015503	.017800	.020479	.022776	.025073	.027369	.029857	.032154	.034451	.036748	.039044	.041150	.042872	.044212	.045743
.007163	.009414	.011665	.014121	.016577	.019033	.021898	.024354	.026810	.029266	.031926	.034382	.036838	.039294	.041749	.044001	.045843	.047275
.005889	.007634	.010033	.012432	.015050	.017667	.020284	.023338	.025955	.028573	.031190	.034026	.036643	.039260	.041878	.044495	.046894	.048857
.004136	.006204	.008042	.010570	.013098	.015855	.018613	.021370	.024587	.027344	.030102	.032859	.035846	.038604	.041361	.044119	.046876	.049404
.002876	.004314	.006471	.008389	.011025	.013662	.016538	.019414	.022291	.025646	.028522	.031399	.034275	.037391	.040267	.043143	.046019	.048896
.001749	.002998	.004497	.006745	.008744	.011492	.014240	.017238	.020236	.023234	.026731	.029729	.032727	.035725	.038973	.041971	.044969	.047967
.001033	.001808	.003099	.004648	.006972	.009038	.011878	.014719	.017817	.020916	.024015	.027630	.030728	.033827	.036926	.040283	.043381	.046480
.000000	.001060	.001854	.003179	.004768	.007152	.009271	.012185	.015098	.018277	.021455	.024634	.028342	.031521	.034700	.037878	.041322	.044500
	.000000	.001079	.001889	.003238	.004857	.007285	.009444	.012412	.015380	.018617	.021855	.025093	.028870	.032108	.035346	.038584	.042091
2.648827		.000000	.001100	.001925	.003300	.004951	.007426	.009626	.012651	.015677	.018977	.022277	.025578	.029428	.032728	.036029	.039329
	2.698161		.000000	.001114	.001950	.003342	.005013	.007520	.009748	.012812	.015876	.019218	.022560	.025903	.029802	.033144	.036486
		2.750278		.000000	.001129	.001976	.003388	.005081	.007622	.009880	.012986	.016091	.019479	.022866	.026254	.030206	.033593
			2.785216		.000000	.001145	.002004	.003436	.005154	.007732	.010022	.013172	.016322	.019758	.023195	.026631	.030640
				2.822975		.000000	.001163	.002035	.003488	.005232	.007848	.010174	.013371	.016569	.020057	.023545	.027033
					2.863524		.000000	.001181	.002067	.003543	.005315	.007973	.010335	.013583	.016831	.020374	.023918
						2.906826		.000000	.001201	.002101	.003602	.005703	.008104	.010505	.013807	.017108	.020710
							2.952824		.000000	.001221	.002137	.003663	.005495	.008242	.010684	.014042	.017400
								3.001430		.000000	.001242	.002174	.003727	.005591	.008387	.010871	.014288
									3.052556		.000000	.001265	.002213	.003794	.005692	.008537	.011067
										3.106116		.000000	.001288	.002254	.003865	.005797	.008695
											3.162008		.000000	.001312	.002296	.003936	.005905
												3.220428		.000000	.001337	.002340	.004011
													3.280382		.000000	.001355	.002371
														3.342678		.000000	.001373
															3.386920		.000000
																3.432999	
																	3.460823

2	2.44 43 2.42	2.39 44 2.36	2.31 45 2.28	2.24 46 2.20	2.15 47 2.10	2.04 48 1.98	1.92 49 1.86	1.80 50 1.74	Annual Renewal Factor % Age in Years Renewals of Original Units %
494	.000488	.000478	.000462	.000448	.000430	.000408	.000386	.000360	1
245	.001235	.001220	.001195	.001155	.001120	.001075	.001020	.000960	2
251	.002242	.002224	.002197	.002152	.002080	.002017	.001936	.001837	3
752	.003752	.003737	.003707	.003662	.003587	.003467	.003362	.003227	4
505	.005505	.005505	.005483	.005439	.005373	.005263	.005087	.004933	5
761	.007761	.007761	.007761	.007730	.007668	.007575	.007420	.007171	6
021	.010021	.010021	.010021	.010021	.009981	.009900	.009780	.009580	7
786	.012786	.012786	.012786	.012786	.012786	.012734	.012632	.012479	8
808	.015808	.015808	.015808	.015808	.015808	.015808	.015745	.015618	9
840	.018840	.018840	.018840	.018840	.018840	.018840	.018840	.018764	10
885	.021885	.021885	.021885	.021885	.021885	.021885	.021885	.021885	11
195	.025195	.025195	.025195	.025195	.025195	.025195	.025195	.025195	12
524	.028524	.028524	.028524	.028524	.028524	.028524	.028524	.028524	13
326	.031626	.031626	.031626	.013626	.031626	.031626	.031626	.031626	14
314	.034753	.034753	.034753	.034753	.034753	.034753	.034753	.034753	15
702	.038007	.038160	.038160	.038160	.038160	.038160	.038160	.038160	16
358	.040854	.041185	.041351	.041351	.041351	.041351	.041351	.041351	17
317	.043509	.044044	.044400	.044579	.044579	.044579	.044579	.044579	18
212	.045743	.046700	.047274	.047657	.047848	.047848	.047848	.047848	19
343	.047275	.048912	.049936	.050550	.050959	.051164	.051164	.051164	20
394	.048857	.050384	.052129	.053219	.053874	.054310	.054528	.054528	21
370	.049404	.051472	.053080	.054919	.056067	.056757	.057216	.057446	22
019	.048896	.051532	.053689	.055367	.057285	.058483	.059202	.059681	23
969	.047967	.050964	.053713	.055961	.057710	.059708	.060958	.061707	24
581	.046480	.049579	.052677	.055518	.057842	.059649	.061715	.063006	25
223	.044500	.047679	.050857	.054036	.056050	.059334	.061188	.063307	26
84	.042091	.045329	.048567	.051805	.055042	.058010	.060439	.062328	27
29	.039329	.042904	.046205	.049505	.052805	.056106	.059131	.061606	28
44	.036486	.039829	.043449	.046792	.050134	.053476	.056818	.059882	29
06	.033593	.036981	.040369	.044038	.047426	.050814	.054201	.057589	30
31	.030640	.034076	.037512	.040948	.044671	.048107	.051543	.054980	31
45	.027033	.031103	.034591	.038079	.041568	.045346	.048835	.052323	32
74	.023918	.027461	.031595	.035139	.038682	.042225	.046064	.049607	33
08	.020710	.024316	.027913	.032115	.035717	.039319	.042920	.046822	34
42	.017400	.021063	.024726	.028389	.032662	.036325	.039988	.043652	35
71	.014288	.017705	.021432	.025160	.028887	.033235	.036963	.040690	36
37	.011067	.014545	.018023	.021818	.025612	.029407	.033833	.037628	37
97	.008695	.011271	.014814	.018356	.022221	.026085	.029950	.034459	38
36	.005905	.008857	.011481	.015090	.018698	.022635	.026571	.030508	39
40	.004011	.006017	.009025	.011699	.015376	.019053	.023064	.027076	40
55	.002371	.004064	.006096	.009145	.011854	.015580	.019305	.023370	41
00	.001373	.002403	.004120	.006179	.009269	.012015	.015792	.019568	42
—	.000000	.001384	.002423	.004153	.006229	.009344	.012113	.015920	43
99		.000000	.001388	.002429	.004164	.006247	.009370	.012146	44
	3.460823		.000000	.001384	.002423	.004153	.006230	.009345	45
		3.470282		.000000	.001381	.002417	.004144	.006216	46
			3.461238		.000000	.001371	.002399	.004113	47
				3.453564		.000000	.001353	.002367	48
					3.427102		.000000	.001335	49
						3.381683		.000000	50
							3.337126		
								3.293218	

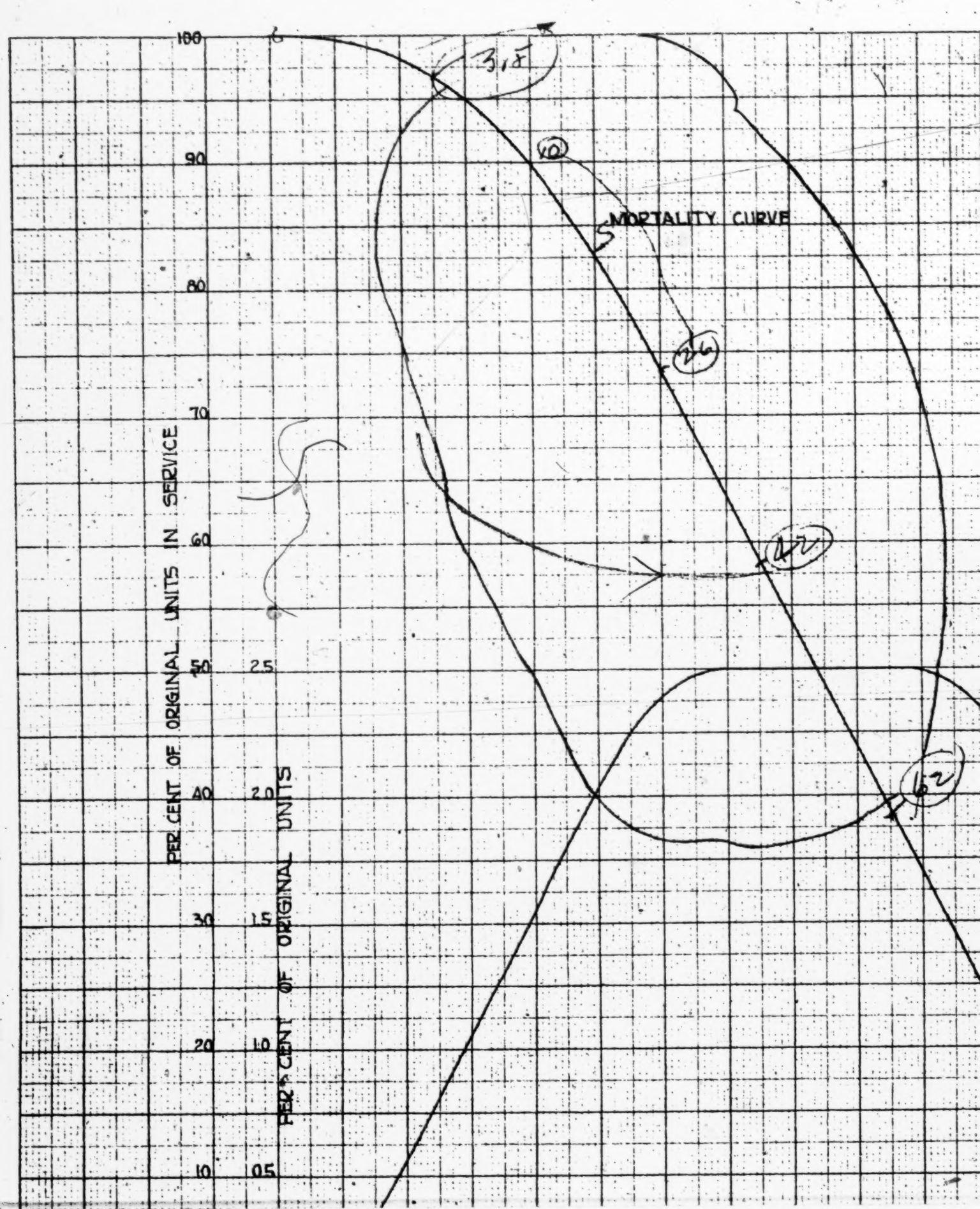

100
90
80
70
60
50
40
30
20
10
25
20
15
10
05
PER CENT OF ORIGINAL UNITS IN SERVICE
PER CENT OF ORIGINAL UNITS
MORTALITY CURVE
3.8
40
26
42
62

PLATE I

DEPRECIATION ANALYSIS - STEEL PIPE

MORTALITY CURVE AND DISTRIBUTION CURVE OF REPLACEMENTS AND ABANDONMENTS OF ORIGINAL UNITS — 33⅓ YEAR AVERAGE LIFE

HAWLEY FREESE & NICHOLS

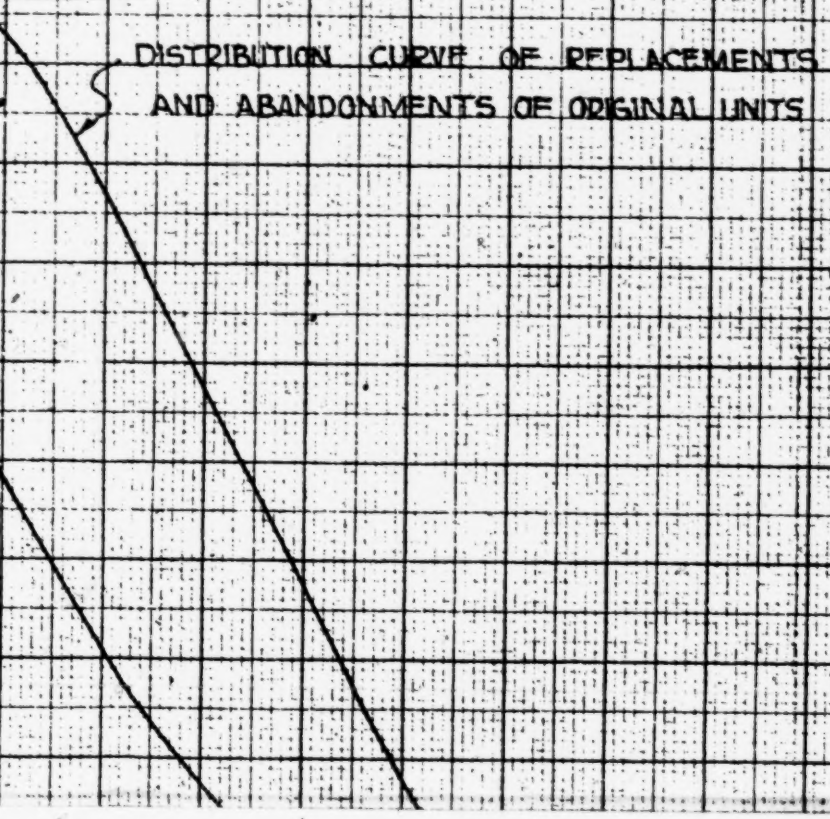


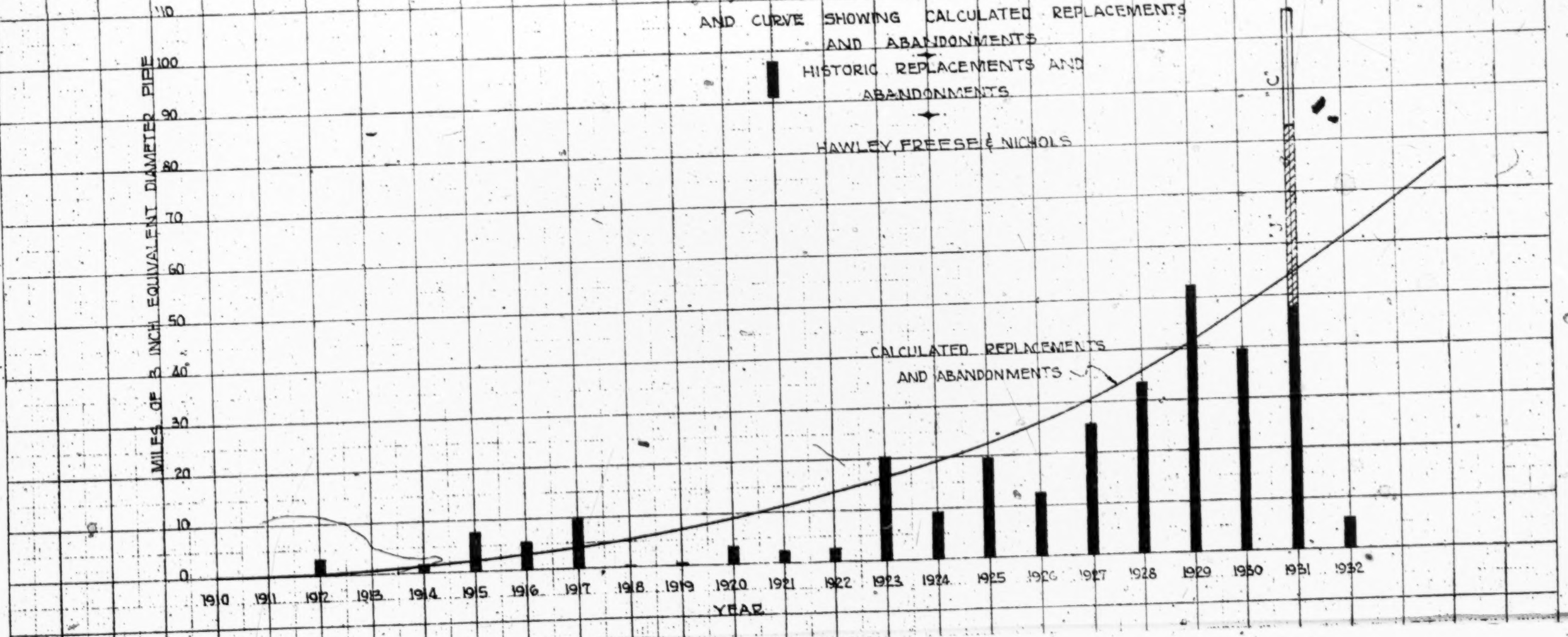
PLATE II

DEPRECIATION ANALYSIS - STEEL PIPE

HISTORIC REPLACEMENTS AND ABANDONMENTS BY YEARS OF LONE STAR GAS COMPANY AND CURVE SHOWING CALCULATED REPLACEMENTS AND ABANDONMENTS

HISTORIC REPLACEMENTS AND ABANDONMENTS

HAWLEY, FREESE & NICHOLS



BLANK

PAGE

[fols. 3679-3681] PLAINTIFFS' EXHIBIT 8

Lone Star Gas Company

Report on Effect of Degree Day Deficiencies on Revenue and Earnings for Years Ending December 31, 1933, March 31, 1934

Covering Texas Operations Only

Hawley, Freese and Nichols

J. A. Phillips Co.

[fol. 3682] Table of Contents

	Side folio
Amount Available for Return	3683
Amount of 8¢ Domestic Gate Rate Reduction	3684
Value of Company Produced Gas	3685
Effect of Degree Day Deficiencies on Revenue	3686
Dallas Degree Day Deficiencies	3687
Ft. Worth Degree Day Deficiencies	3688
Waco Degree Day Deficiencies	3689
Abilene Degree Day Deficiencies	3690
Sherman Degree Day Deficiencies	3691
Weighted DDD Yearly Average	3692
Weighted DDD Below Yearly Average Year Ending Dec. 31, 1933	3692
Degree Day Deficiencies Year Ending March 31, 1934	3693
Weighted DDD Below Yearly Average Year Ending March 31, 1934	3694
Cubic Feet Per Domestic Customer Per DDD	3695
Federal Income Tax	3696

Plaintiffs' Exhibit No. 8—Continued

[fo.l 3683] Amount Available for Return at 32¢ Domestic Gate Rate after Correction to Normal Temperatures Years Ending Dec. 31, 1933 and March 31, 1934

Revenues	Year Ending 3-31-34	12-31-33
Revenues @ 40¢ Domestic Gate Rate	$7,663,034.50	$7,423,680.87
Amount of 8¢ Domestic Gate Rate Reduction	1,106,537.68	1,070,458.16
Revenues @ 32¢ Domestic Gate Rate	$6,556,496.82	$6,353,222.71
Expenses		
Gas Purchased	$1,073,493.16	$1,071,170.87
Gathering Expenses	96,589.70	95,911.08
Compressing Station Expenses	310,679.12	303,454.78
Transmission System Expenses	368,419.03	374,275.77
General Expenses	733,121.58	754,282.79
Taxes Other than Gross Production and Federal Income Taxes	295,218.11	295,218.11
Auto and Truck Expenses—Underdistributed	3,221.27	3,223.15
Bad Debts and Adjustments	5,155.29	5,210.33
Miscellaneous Non-Operating Expenses	192.72	192.72
Texas-Oklahoma Gas Sales Adjustment	62,234.07	29,617.92
	$2,948,324.05	$2,932,557.52
	$3,608,172.77	$3,420,665.19
Depreciation	831,946.08	831,946.08
	$2,776,226.69	$2,588,719.11
Value of Company Produced Gas	232,644.75	212,031.46
	$2,543,581.94	$2,376,687.65
Temperature Correction	268,829.64	441.240.12
	$2,812,411.58	$2,817,927.77
Federal Income Tax	97,534.45	96,073.64
	$2,714,877.13	$2,721,854.13
Return on $40,256,862.39	6.74%	6.76%

[fol. 3684]

Amount of 8¢ Domestic Gate Rate Reduction For Twelve Months Periods Ended

	3-31-34	12-31-33
Total Domestic Gas Sales—Texas	13,831,721	13,380,727
Rate Reduction	.08	.08
Amount of 8¢ Domestic Gate Rate Reduction	$1,106,537.68	$1,070,458.16

Plaintiffs' Exhibit No. 8—Continued

[fol. 3685] Value of Company Produced Gas

Year 1933	M.C.F.	Average Price	Amount
Quarter ended 3-31-33	2,063,563	$.0406	$83,800.03
Quarter ended 6-30-33	962,570	.0377	36,316.23
Quarter ended 9-30-33	1,026.522	.0368	37,752.27
Quarter ended 12-31-33	1,379,600	.0392	54,162.93
Total	5,432,255	$.0390	$212,031.46
Twelve Months Ended March 31, 1934			
Quarter ended 6-30-33	962,570	$.0377	$36,316.23
Quarter ended 9-31-33	1,026,522	.0368	37,752.27
Quarter ended 12-31-33	1,379,600	.0392	54,162.93
Quarter ended 3-31-34	2,511,597	.0415	104,413.22
Total	5,880,289	$.6396	$232,644.65

[fol. 3686]

Effect of Degree Day Deficiencies on Revenue

Year Ending	DDD Below Average	C.F. per Customer per DDD	Domestic Customers in Texas	Gain in Net Revenue for Average Temperature Year Gas @ $0.26
Dec. 31, 1933	540	18.63	196,421	$513,768.97
Dec. 31, 1933	540	*16.00	196,421	441,240.12
March 31, 1934	329	18.63	†196,421	313,018.52
March 31, 1934	329	*16.00	†196,421	268,829.64

* Figures testified by P. M. Biddison, Sherman Transcript, page 356.

† Used same as for year ending Dec. 31, 1933.

Plaintiffs' Exhibit No. 8—Continued

[fol. 3687]

Dallas, Texas

Degree Day Deficiencies Based on Average Daily Temperatures Below 65° F

Year Ending Dec. 31	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1933	356	542	242	105	5	0	0	0	0	14	225	361	1,850
1932*	530	276	420	50	1	0	0	0	0	92	391	687	2,447
1931*	520	362	445	159	39	0	0	0	0	40	173	445	2,183
1930*	970	259	333	1	0	0	0	0	8	109	284	605	2,569
1929*	620	762	201	38	10	0	0	0	0	77	505	502	2,715
1928*	519	439	224	191	8	0	0	0	0	58	345	549	2,333
1927*	539	327	259	59	0	0	0	0	0	15	141	657	1,997
1926*	660	277	362	150	0	0	0	0	0	40	335	533	2,357
1925*	663	282	156	24	0	0	0	0	0	123	282	610	2,140
1924*	731	510	442	85	0	0	0	0	0	54	216	582	2,620
1923*	295	522	361	51	0	0	0	0	0	140	288	417	2,074
1922*	674	380	293	51	0	0	0	0	0	54	249	394	2,095
1921*	398	348	134	101	0	0	0	0	0	46	153	421	1,601
1920	687	425	278	96	18	0	0	0	12	69	403	512	2,500
1919	625	507	269	70	18	0	0	0	0	58	326	644	2,517
1918	917	387	163	111	6	0	0	0	16	57	363	480	2,500
1917	533	457	283	105	76	0	0	0	1	171	250	744	2,620
1916	578	490	182	147	38	0	0	0	10	73	351	538	2,407
1915	618	377	579	61	9	0	0	0	0	32	231	463	2,370
1914	399	615	349	121	15	0	0	0	0	89	253	776	2,617
Total	11,832	8,544	5,975	1,776	243	0	0	0	47	1,411	5,764	10,920	46,512
20 Yr. Av.	592	427	299	89	12				2	71	288	546	2,—6

* From Exhibit No. 33 D. A. Hulcy—R. R. Commission Hearing 1933.

Plaintiffs' Exhibit No. 8—Continued

[fol. 3688]

Ft. Worth, Texas

Degree Day Deficiencies Based on Average Daily Temperatures Below 65°.

Year Ending Dec. 31	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1933	323	515	224	73	4	0	0	0	0	8	210	340	1,697
1932	528	267	375	42	0	0	0	0	1	70	378	664	2,325
1931	471	322	413	144	29	0	0	0	0	29	165	433	2,006
1930	924	238	303	0	0	0	0	0	10	89	258	545	2,367
1929	591	727	197	38	8	0	0	0	0	62	482	458	2,563
1928	491	398	211	195	4	0	0	0	0	47	326	523	2,195
1927	590	380	278	69	6	0	0	0	16	23	145	642	2,149
1926	625	294	386	159	27	0	0	0	7	57	303	537	2,375
1925	666	273	145	24	8	0	0	0	0	204	278	587	2,185
1924	726	514	449	95	36	0	0	0	10	58	217	642	2,747
1923	370	521	353	52	9	0	0	0	0	166	276	460	2,207
1922	684	394	286	64	2	0	0	0	0	61	257	401	2,149
1921	431	357	150	121	15	0	0	0	0	52	166	423	1,715
1920	687	423	279	125	23	0	0	0	10	68	402	522	2,539
1919	596	496	278	75	16	5	0	0	4	67	348	647	2,532
1918	874	392	151	125	7	0	0	0	15	51	352	477	2,444
1917	515	454	282	103	89	0	0	0	1	171	229	751	2,575
1916	572	475	172	156	42	0	0	0	8	62	355	525	2,347
1915	607	356	566	59	12	0	0	0	0	27	218	439	2,284
1914	377	582	325	122	23	0	0	0	0	98	252	788	2,567
1913	591	593	395	116	4	0	0	0	26	185	135	602	2,647
1912	757	571	493	103	16	0	0	0	9	61	298	605	2,913
1911	419	343	146	115	19	0	0	0	0	130	415	616	2,203
1910	524	578	103	89	34	0	0	0	0	104	229	525	2,186
1909	545	*419	237	113	20	0	0	0	2	45	138	651	2,170
Totals	14,484	10,882	7,197	2,377	453	5	0	0	119	1,975	6,812	13,783	58,087
25 Yr. Av.	580	435	288	95	18	0	0	0	5	79	272	551	2,323

20 Year Average—No Record Available.

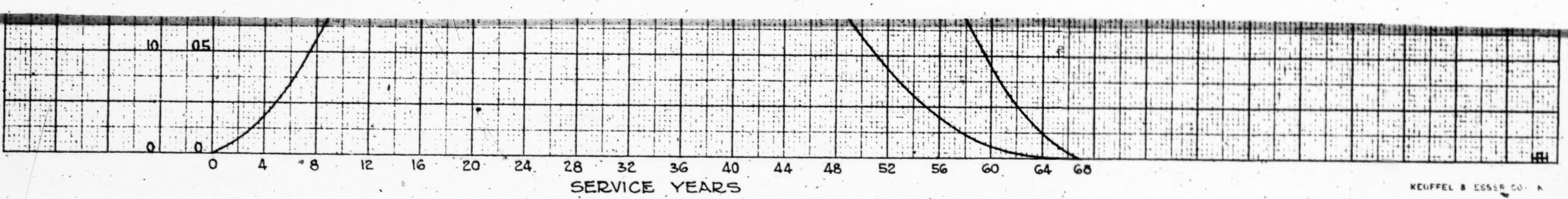
Plaintiffs' Exhibit No. 8—Continued

fol. 3689]

Waco, Texas

Degree Day Deficiencies Based on Average Daily Temperatures Below 65° F

Year Ending Dec. 31	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1933	294.6	462.8	158.1	51.5	1.5	0	0	0	0	2.0	180.4	294.7	1445.6
1932	485.5	234.1	372.0	33.5	0	0	0	0	0	70.6	368.4	616.9	2181.0
1931	481.7	292.2	387.7	126.0	17.1	0	0	0	0	16.6	156.5	453.6	1931.4
1930	878.3	236.2	308.9	0	0	0	0	0	.8	73.7	261.8	575.4	2335.1
1929	545.9	669.2	188.2	21.3	13.8	0	0	0	0	53.9	444.8	501.4	2438.5
1928	478.2	415.2	194.4	175.9	2.0	0	0	0	0	45.8	304.9	501.6	2118.0
1927	505.9	277.7	261.0	59.3	8.5	0	0	0	9.5	19.8	93.6	619.1	1854.4
1926	676.7	256.8	339.6	134.2	6.0	0	0	0	3.3	23.4	317.0	495.0	2252.0
1925	623.6	243.1	110.9	26.3	5.5	0	0	0	0	202.1	272.0	590.8	2074.3
1924	676.3	484.4	400.3	76.8	18.7	0	0	0	7.0	54.8	203.6	523.9	2445.8
1923	261.8	476.7	377.5	72.0	2.0	0	0	0	0	116.9	286.5	427.4	2020.8
1922	627.7	340.0	271.3	50.8	2.5	0	0	0	0	51.4	224.4	348.5	1916.6
1921	335.8	294.9	103.2	98.3	7.3	0	0	0	0	47.2	167.4	411.1	1465.2
1920	615.7	318.5	245.3	76.0	5.0	0	0	0	7.0	78.3	367.3	470.5	2183.6
1919	566.1	425.9	223.3	28.4	7.8	5.5	0	0	7.5	36.4	306.9	557.3	2165.1
1918	758.8	376.4	129.8	82.1	7.0	0	0	0	5.3	39.1	332.1	465.1	2197.7
1917	451.7	366.1	242.6	80.3	67.8	0	0	0	0	161.0	223.9	617.2	2210.6
1916	484.2	379.1	106.6	108.5	19.1	0	0	0	6.0	59.3	309.8	445.1	1917.7
1915	561.3	291.3	503.1	67.5	6.5	0	0	0	0	19.0	200.5	403.7	2052.7
1914	370.1	502.1	316.7	94.2	8.3	0	0	6	0	79.5	219.5	707.4	2297.8
Total	10679.9	7344.7	5240.5	1462.7	206.4	5.5	0	0	46.4	1250.8	5241.3	10025.7	41503.9
20 Yr. Average	534	368	262	73	10	0	0	0	2	63	262	501	2075


10
05
0
0
0
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
SERVICE YEARS
KEUFFEL & ESSER CO.

[fol. 3690]

Plaintiffs' Exhibit No. 8—Continued

Abilene, Texas

Degree Day Deficiencies Based on Average Daily Temperatures Below 65° F

Year Ending Dec. 31	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1933	403	557	232	95	8	0	0	0	0	3	242	415	1955
1932	605	295	423	43	7	0	0	0	3	142	406	729	2653
1931	574	380	468	161	39	0	0	0	0	46	240	573	2481
1930	991	228	340	1	2	0	0	0	14	119	340	682	2717
1929	631	731	263	40	11	0	0	0	6	101	532	504	2819
1928	590	466	238	180	14	0	0	0	6	64	389	588	2535
1927	586	359	289	70	11	2	0	0	29	38	174	707	2265
1926	731	317	397	194	22	0	0	0	44	51	364	597	2717
1925	716	297	142	47	18	0	0	0	6	254	351	670	2501
1924	769	565	477	121	49	0	0	0	25	78	267	699	3050
1923	386	541	427	110	14	0	0	0	0	212	381	590	2661
1922	740	443	307	76	7	0	0	0	0	104	321	483	2481
1921	459	433	200	135	8	0	0	0	3	58	241	478	2015
1920	731	462	298	149	28	0	0	0	11	88	472	560	2799
1919	724	499	349	114	21	16	0	0	14	105	433	676	2951
Total	9636	6573	4850	1536	259	18	0	0	161	1463	5153	8951	38600
15 Yr. Average	642	438	323	103	17	1	0	0	10	98	344	597	2573

Plaintiffs' Exhibit No. 8—Continued

[fol. 3691]

Sherman, Texas

Degree Day Deficiencies Based on Average Daily Temperatures Below 65° F

Year Ending Dec. 31	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1933	421	544	252	73	1	0	0	0	0	8	266	429	1994
1932	601	272	397	61	5	0	0	0	0	85	422	722	2565
1931	544	339	427	141	32	0	0	0	0	47	193	489	2212
1930	1002	254	301	2	0	0	0	0	4	96	318	627	2604
1929	708	789	190	36	8	0	0	0	18	80	537	489	2855
1928	588	499	274	181	23	2	0	0	0	73	427	638	2705
1927	707	391	344	90	3	0	0	0	11	14	174	697	2431
1926	714	392	447	222	18	0	0	0	27	67	434	681	3002
1925	739	336	227	26	21	0	0	0	0	238	337	656	2580
1924	802	573	497	91	31	0	0	0	11	61	282	726	3074
1923	372	599	432	66	12	0	0	0	0	162	333	498	2474
1922	660	356	280	60	3	0	0	0	0	49	268	453	2129
1921	391	344	119	91	0	0	0	0	0	36	160	409	1550
1920	718	486	281	117	25	0	0	0	8	62	348	506	2551
1919	673	539	290	74	17	6	0	0	3	52	389	694	2737
Total	9640	6713	4758	1331	199	8	0	0	82	1130	4888	8714	37463
15 Yr. Average	643	448	317	89	13	1	0	0	5	75	326	581	2498

Note.—Records 1927–1933 Inclusive @ Gainesville.
1919 Inclusive @ Gainesville.

Plaintiffs' Exhibit No. 8—Continued

[fol. 3692]

Determination of Weighted DDD Below Yearly Average

Year Ending Dec. 31, 1933

	Average Yearly DDD	DDD 1933	DDD Below Average	Approx. No. of Customers	Ratio of Customers	Weighted DDD Below Average	Weighted Average Yearly DDD
Dallas	2326	1850	476	65,000	.552	263	1284
Ft. Worth	2323	1697	626	33,000	.279	175	648
Waco	2075	1446	629	10,000	.084	53	174
Abilene	2573	1955	618	6,000	.051	32	131
Sherman	2498	1994	504	4,000	.034	17	85
Total				118,000	1.00	540	2322
1933 Weighted DDD Below Average							540
1933 Weighted DDD							1782

[fol. 3693]

Degree Day Deficiencies

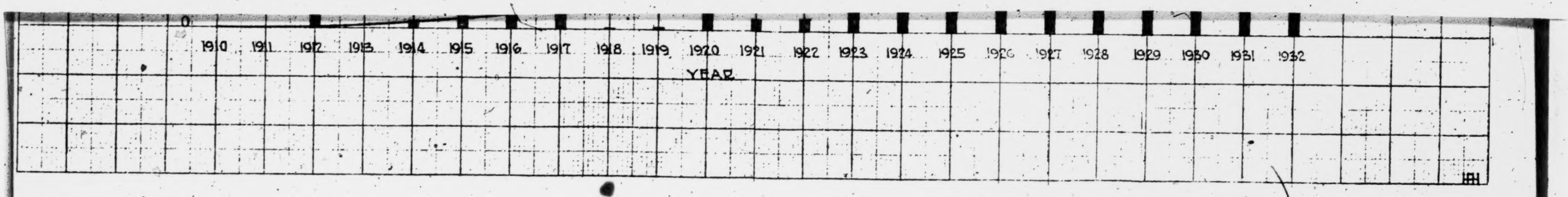
Based on Average Daily Temperatures

Below 65° F

Year Ending March 31, 1934

	April	May	June	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	Total	Yearly Average	DDD Below Average
Dallas	105	5	0	0	14	225	361	529	470	348	2057	2326	269
Ft. Worth	73	4	0	0	8	210	340	500	440	339	1914	2323	409
Waco	51.5	1.5	0	0	2.0	160.4	294.7	458.6	413.5	298.6	1700.8	2075	374.2
Abilene	95	8	0	0	3	242	415	539	460	369	2131	2573	442
*Sherman	73	1	0	0	8	266	429	540	454	369	2140	2498	358

* Taken at Gainesville.


0
1910
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
YEAR
181

Plaintiffs' Exhibit No. 8—Continued

[fol. 3694]

Determination of Weighted DDD Below Yearly Average

Year Ending March 31, 1934

	Ratio of Customers	DDD Below Average	Weighted DDD Below Average
Dallas	.552	269	149
Ft. Worth	.279	409	114
Waco	.084	374.2	31
Abilene	.051	442	23
Sherman	.034	358	12
Total	1.000		
Weighted DDD Below Average			329

Plaintiffs' Exhibit No. 8—Continued

[fol. 3695]

Determination of Cubic Feet Per Domestic Customer Per DDD

	June			July			August		
	Domestic Gate Sales M.C.F.	Domestic Customers	M.C.F. Per Customer Per Month	Domestic Gate Sales M.C.F.	Domestic Customers	M.C.F. Per Customer Per Month	Domestic Gate Sales M.C.F.	Domestic Customers	M.C.F. Per Customer Per Month
1927	451,796	137,621	3.28	405,374	137,275	2.95	388,025	139,808	2.77
1928	517,865	170,724	3.03	479,371	169,575	2.83	452,415	169,675	2.67
1929	590,331	188,453	3.13	526,003	187,064	2.82	511,481	187,275	2.73
1930	624,080	198,394	3.14	526,883	196,303	2.68	516,522	196,154	2.63
1931	654,486	208,228	3.14	573,352	205,624	2.79	602,622	204,807	2.94
1932	641,555	200,152	3.20	591,294	197,187	3.00	544,360	195,928	2.78
1933	590,400	194,783	3.03	529,250	192,440	2.75	544,122	193,837	2.80
Total			21.95			19.82			19.32
Average			3.13			2.83			2.76

Average for June, July and August 2.91 M.C.F. per Domestic Customer per month.

Note.—Above based on sales corresponding to the number of domestic customers comparable. The customers indicated are not in each case the total number of domestic customers served.

Total Domestic Gate Sales in Texas 1933	13,380,727	M.C.F.
196,421 (No. Domestic Customers—Taxes) x 2.91 x 12	6,859,021	M.C.F.
	6,521,706	M.C.F.

$$\frac{6,521,706 \times 1,000}{196,421 \times 1,782} = 18,63 \text{ C.F. Per Meter Per D.D.D.}$$

(Weighted)
(1933 DDD)

Plaintiffs' Exhibit No. 8—Continued

[fols. 3696-3697]

Federal Income Tax

	Twelve Months Periods ended	
	3-31-34	12-31-33
Net Profit before Federal Income Tax per Schedule of Return	$2,812,411.58	$2,817,928.77
Add: Depreciation per Schedule of Return	831,946.08	831,946.08
	$3,644,357.66	$3,649,874.85
Depreciation Allowance 5% on Rate Base of $40,256,862.39	2,012,843.12	2,012,843.12
	$1,631,514.54	$1,637,031.73
Interest Deduction:		
86% of $1,072,294.43	922,173.09	.....
86% of 1,091,063.20	.....	938,314.35
Net Profit for Federal Income Tax	$709,341.45	698,717.38
Federal Income Tax @ 13.75%	$97,534.45	96,073.64

[fol. 3698]

EXHIBIT No. 9

Offered by Plaintiff—Filed July 10, 1934

Chart Showing Directors and Their Official Positions in the Listed Companies

	Lone Star Gas Corp.	Community Natural Gas Co.	County Gas Co.	Dallas Gas Company The	Lone Star Gas Company	Municipal Gas Company	Texas Cities Gas Co.
Chase, Frank L.		D, P, GM			D, VP		
Cobb, D. L.	S, T	VP, S			D, S, T	D, VP, T	S, T
Cole, L. W.						D, S	
Cornatzer, H. G.		D, T					
Crawford, R. A.	D, VP		D	D	D, VP, GM		
Denning, L. B.	P, D		D	D	D, P	D	D, P
Gregory, Thomas B	D, VP						D, VP
Griffith, Karl F.	D, VP, GC	GC			D, GC	GC	D, VP, GC
Harding, R. E.					D		
Hulcy, D. A.	Asst to Pres.						D
Keith, Ben E.					D		
Kizer, C. C.			D, T	D, T			
McCabe, J. B.						D, P, GM	
May, C. L.		D, VP, Asst. Mgr.					D, VP, GM
Redding, R. M.			Ch. Engr.	Ch. Engr.			D
Richardson, F. L.		D					
Schmidt, E. F.		D					
Soper, R. G.			D, P, GM	D, P, GM		D	D
Wright, W. F.			D, VP	D, VP			
Number of Directors in Companies (Total)	7	5	5	5	7	5	7

Legend:
D—Director
P—President
VP—Vice President
S—Secretary
T—Treasurer
GM—General Manager
GC—General Counsel
Ch. Engr.—Chief Engineer

[fol. 3699] PLAINTIFFS' EXHIBIT No. 10

[fol. 3700] THE STATE OF TEXAS,
County of Tarrant.

Know All Men by These Presents:

That We, I. H. Kempner, L. B. Denning, H. C. Edrington, W. P. Gage, and J. W. Ricker, do herein and hereby organize ourselves, our associates, and successors into a corporate body, under the General Laws of the State of Texas, to do a gas business, and for purposes hereinafter more fully explained.

I

The name of this corporation shall be: "Lone Star Gas Company."

II

The purpose for which this Company is organized is to "buy, sell, and furnish oil and gas for light, heat, and other purposes; to lay down, construct, maintain, and operate pipe lines, tanks, pump stations, connections, fixtures, storage houses, and such machinery apparatus, devices, and arrangements as may be necessary to operate such pipes and pipe lines between different points in this State; to own, hold, use, and occupy such lands, rights-of-way, easements, franchises, buildings, and structures as may be necessary to the purpose of this corporation."

[fol. 3701]

III

The business of this Company is to be, and shall be, transacted in Fort Worth, Tarrant County, Texas, (Ft. Worth being its principal office) but it will also do business, and maintain offices, in Wise County, Montague County, and Clay County, Texas.

IV

This corporation is organized to exist for the term of Fifty Years from the date of the filing and approval of this charter.

V

The Directors of the Company for the first year shall be five (5) in number, and consist of the following named persons, To-wit:

I. H. Kempner, of Galveston, Galveston County, Texas.
H. C. Edrington, of Ft. Worth, Tarrant County, Texas.
L. B. Denning, of Wellston, State of Ohio.
W. P. Gage, of Beaumont, Jefferson County, Texas.
J. W. Ricker, of Wichita Falls, Wichita County, Texas.

VI

The amount of the capital stock of this corporation is fixed at Two Million Five Hundred Thousand ($2,500,000.00) Dollars, divided into shares of One Hundred ($100.00) Dollars each, of par value; twenty-five thousand (25,000) shares being the total authorized issue of capital stock.

[fol. 3702]

VII

We, the undersigned, present this Charter and pray that the same be filed in the office of the Honorable Secretary of State of the State of Texas.

Witness our hands, this, the Third Day of June, 1909.

L. B. Denning. W. P. Gage. J. W. Ricker.

THE STATE OF TEXAS,
County of Dallas.

Before me, the undersigned authority, on this day personally appeared L. B. Denning, W. P. Gage, and J. W. Ricker, all well known to me to be the persons whose names are subscribed to the foregoing instrument, and they each acknowledged to me, that they had executed the same for the purposes and considerations therein expressed.

Given under my hand and seal of office, this, the 3rd Day of June, 1909.

M. A. Sepley, Notary Public, Dallas County, Texas.
(Seal.)

[fol. 3703] [Endorsed:] 20298. "Lone Star Gas Company." Charter. Fort Worth. Cap. Stock $2,500,000. Filing Fee $2540. Franchise $875. Remarks, 25000 shares, 50 yrs., $1,250,000 pd. in. C. 10-8. Filed in the Office of the Secretary of State this 4 day of June, 1909. W. B. Townsend, Secretary of State.

[fol. 3704] THE STATE OF TEXAS,
County of Dallas.

L. B. Denning, W. P. Gage, and J. W. Ricker, all being duly sworn, depose and say, as follows, To-wit:

I

That they are each interested in the organization of the "Lone Star Gas Company", and that they are the identical persons whose names appear in the Charter of said Company as Directors along with I. H. Kempner and H. C. Edrington.

II

Affiants further say, that all of the capital stock, to-wit: Two Million Five Hundred Thousand Dollars ($2,500,000), as provided for in the Charter of said "Lone Star Gas Company" has been, in good faith, subscribed for, and one-half thereof has been fully paid for, as hereinafter explained.

III

The names, place of residence, and Post-Office address of each subscriber for said shares of capital stock that have been paid in, and is now in the hands of the Board of Direcoors mentioned in the Charter is, as follows to-wit:

Treat & Crawford, of Pittsburgh, Pa., Amount paid in	$500,000.00
H. C. Edrington, of Ft. Worth, Texas, Amount paid in	$375,000.00
I. H. Kempner, of Galveston, Texas, Amount paid in	100,000.00
G. W. Crawford, of Pittsburgh, Pa., Amount paid in	150,000.00
L. B. Denning, of Wellston, Ohio, Amount paid in	$115,000.00
W. P. Gage, of Beaumont, Texas, Amount paid in	$5,000.00
J. W. Ricker, of Wichita Falls, Tex., Amount paid in	$5,000.00
Total Amount of capital stock paid for at par	$1,250,000.00

[fol. 3705]

IV

That the subscription to said capital stock above referred to was paid in cash by I. H. Kempner, by G. W. Crawford, by L. B. Denning, by J. W. Ricker, and by W. P. Gage.

V

That the subscription of Treat & Crawford, of Five hundred Thousand ($500,000.00) Dollars was paid in to the Company, as follows:

By them executing a good and sufficient Deed of Conveyance, transferring the natural gas, and the natural gas rights to about Forty One Thousand (41,000) acres of land located in Clay and Archer Counties, Texas, and a considerable part thereof located near Petrolia, or in the proven gas field of Clay County, Texas; that said property so conveyed by Treat & Crawford is of the actual value to the Company at which it was taken; that is, affiants say, that each and all of them are familiar with the property transferred to the Company by Treat & Crawford, the same above described, and that the cash value of such property is, in the opinion and to the best of the knowledge and belief of each, and all the affiants, Five Hundred Thousand ($500,000.00) Dollars, and is of the kind and character of property that will be needed and can be profitably used and handled by the Company.

VI

Affiants further show, that the subscription of H. C. Edrington to the capital stock of the "Lone Star Gas Company", to the amount of Three Hundred and Seventy-five Thousand ($375,000.00) Dollars was paid for by him executing a Conveyance to two (2) large, valuable, natural gas wells and part interest in three others located near Petrolia, in Clay County, Texas, and the natural gas right to a large acreage of land tributary thereto, and to the pipe lines conveying said natural gas from the wells in the [fol. 3706] field to the town of Petrolia; and then to the pipe line and all appurtenances, Right-of-way, etc., extending from the gas field to the town of Wichita Falls; and also the Right of Way giving the right to lay gas pipes and

erect thereon telegraph and telephone lines, and at all times, have ingress and egress thereto on a line extending from the gas field through Clay County, Montague County, Wise County, and Tarrant County, into the City of Ft. Worth, and which property so conveyed by said H. C. Edrington for said capital stock is, to the best of the knowledge and belief of affiants, of the cash value to the Company of the amount at which it was taken, as above explained.

VII

The capital stock of the "Lone Star Gas Company", to the extent of One Million Two Hundred and Fifty Thousand ($1,250,000.00) Dollars that has not yet been paid for, has been subscribed for by the following persons:

Treat & Crawford, of Pittsburgh, Pa., for	$650,000.00
H. C. Edrington, of Ft. Worth, Texas, for	$350,000.00
L. B. Denning, of Wellston, Ohio, for	$100,000.00
J. W. Ricker, of Wichita Falls, Tex., for	$75,000.00
W. P. Gage, of Beaumont, Texas, for	$75,000.00
Total Stock subscribed but not paid for	$1,250,000.00

Witness our hands, this the 3rd day of June, 1909.
L. B. Denning. W. P. Gage. J. W. Ricker.

Sworn to and Subscribed before me by L. B. Denning, W. P. Gage, and J. W. Ricker, on this, the 3rd day of June, 1909. M. A. Sipley, Notary Public, Dallas Co., Tex. (Seal.)

[fols. 3707-3708] STATE OF TEXAS,
County of Travis.

L. B. Denning, being duly sworn, deposes and says, as follows, to wit:

That he is interested in the organization of the "Lone Star Gas Company", and that he is the same person whose name appears in the charter of said Company as a director along with I. H. Kempner, H. C. Edrington, W. P. Gage, and J. W. Ricker;

That he is, and has been for more than seven years, acquainted with, and a business representative of, Treat

& Crawford, of Pittsburg, Pa., who are the same persons whose names appear as subscribers for the capital stock of said Gas Company;

That said firm of Treat & Crawford is a partnership consisting of Milo C. Treat, whose place of residence is in the City of Washington, State of Pennsylvania, and George W. Crawford, whose place of residence is in the City of Pittsburg, State of Pennsylvania;

That the office and place of business of said Treat & Crawford is located at 2017, Farmers Bank Building, in the City of Pittsburg, State of Pennsylvania;

That the interest of said Milo C. Treat and George W. Crawford in the capital stock subscribed for and paid in by them is as follows:

To Milo C. Treat, the undivided one-half interest of $500,000, or $250,000.

To Geo. W. Crawford, the undivided one-half interest of $500,000, or $250,000.

That the interest of the said Milo C. Treat and George W. Crawford in the capital stock of said Company subscribed but not yet paid for, is as follows:

To Milo C. Treat, the undivided one-half interest of $650,000, or $325,000.

To Geo. W. Crawford, the undivided one-half interest in $650,000, or $325,000.

Witness my hand, this the 4th day of June, A. D. 1909.

L. B. Denning.

Sworn to and subscribed before me by L. B. Denning on this the 4th day of June, 1909. Fred C. Wolfe, N. P. Notary Public Travis County, Texas. (Seal.)

(Here follows 1 photolithograph, side folio 3709).

BLANK

PAGE

Exhibit 11 #4
offered by [illegible]
Filed 7/12/54

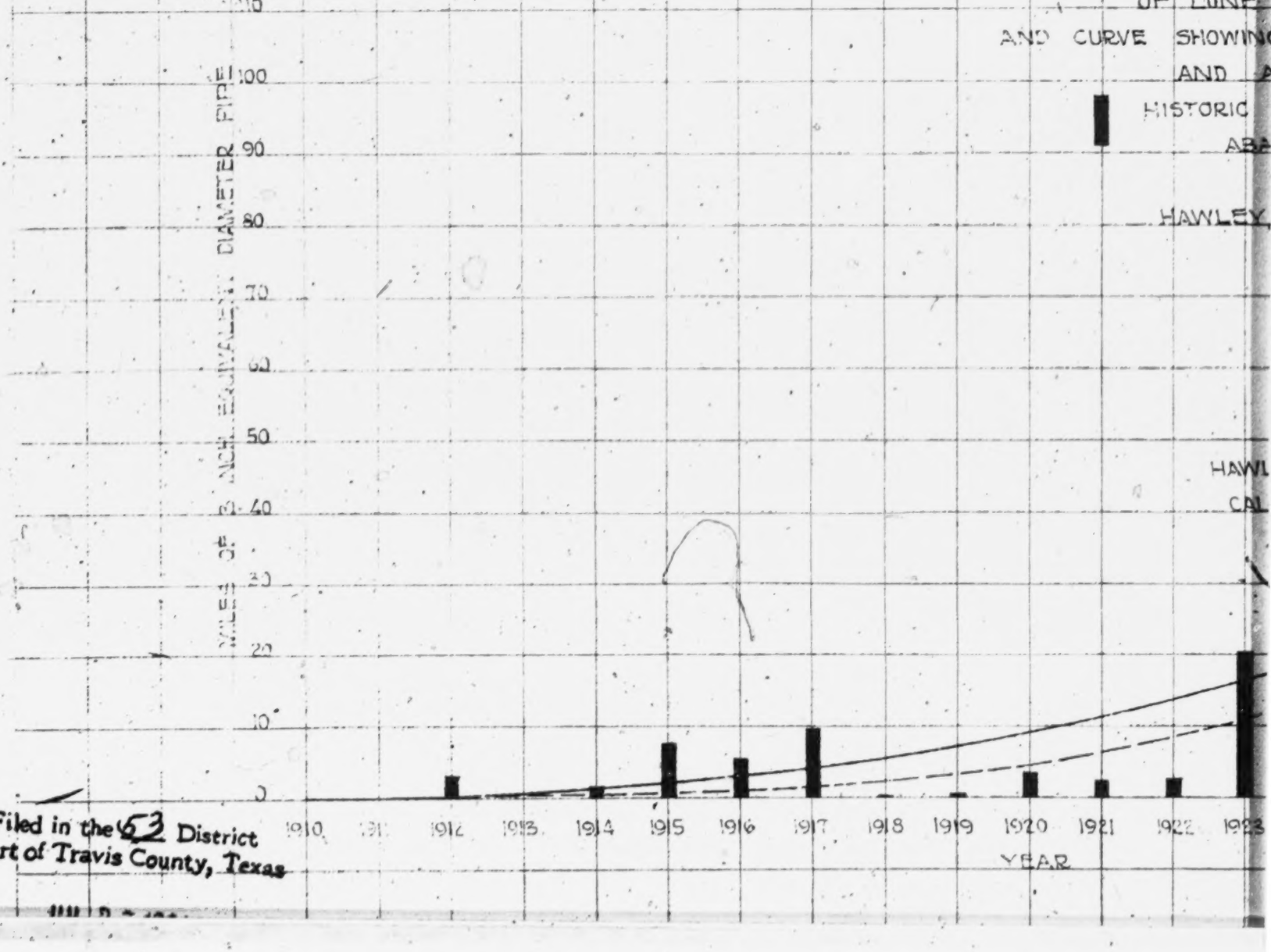
53033

DEPRECIATION

HISTORIC REPLACEMENT
OF LONE
AND CURVE SHOWIN
AND
HISTORIC
ABA

HAWLEY

HAWL
CAL

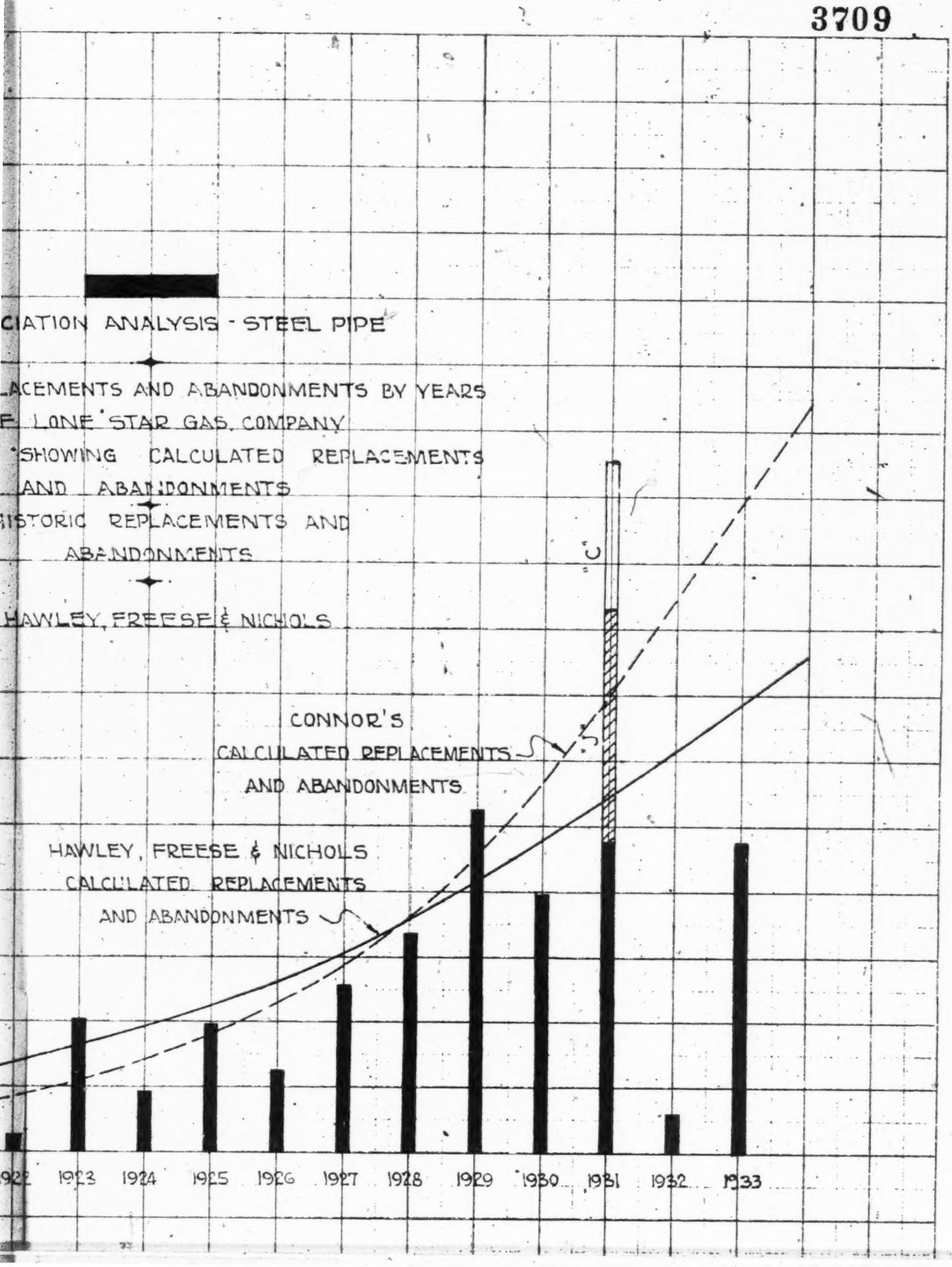


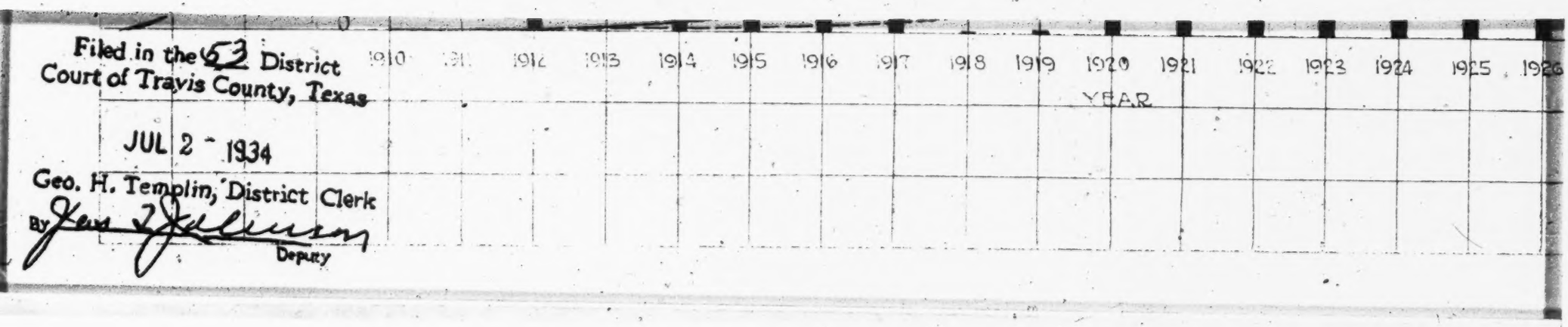
Filed in the 53 District Court of Travis County, Texas

CIATION ANALYSIS - STEEL PIPE

LACEMENTS AND ABANDONMENTS BY YEARS
F LONE STAR GAS COMPANY
SHOWING CALCULATED REPLACEMENTS
AND ABANDONMENTS
ISTORIC REPLACEMENTS AND
ABANDONMENTS

HAWLEY, FREESE & NICHOLS





Filed in the 53 District
Court of Travis County, Texas

JUL 2 - 1934

Geo. H. Templin, District Clerk

By [signature]
Deputy

BLANK

PAGE

[fols. 3710-3712] DEFENDANT'S EXHIBIT NO. 1

[fol. 3713] IN THE DISTRICT COURT OF THE UNITED STATES FOR THE WESTERN DISTRICT OF TEXAS, AUSTIN DIVISION

In Equity. No. 467

LONE STAR GAS COMPANY, Plaintiff,

vs.

THE RAILROAD COMMISSION OF TEXAS, LON A. SMITH, C. V. Terrell and E. O. Thompson, Said Persons Being the Members of and Constituting the Railroad Commission of Texas; James V. Allred, Attorney General of the State of Texas; Community Natural Gas Company, Municipal Gas Company, Texas Cities Gas Company, County Gas Company, the Dallas Gas Company, Waxahachie Gas Company, and Gainesville Gas and Electric Company, Corporations, Defendants

BILL OF COMPLAINT

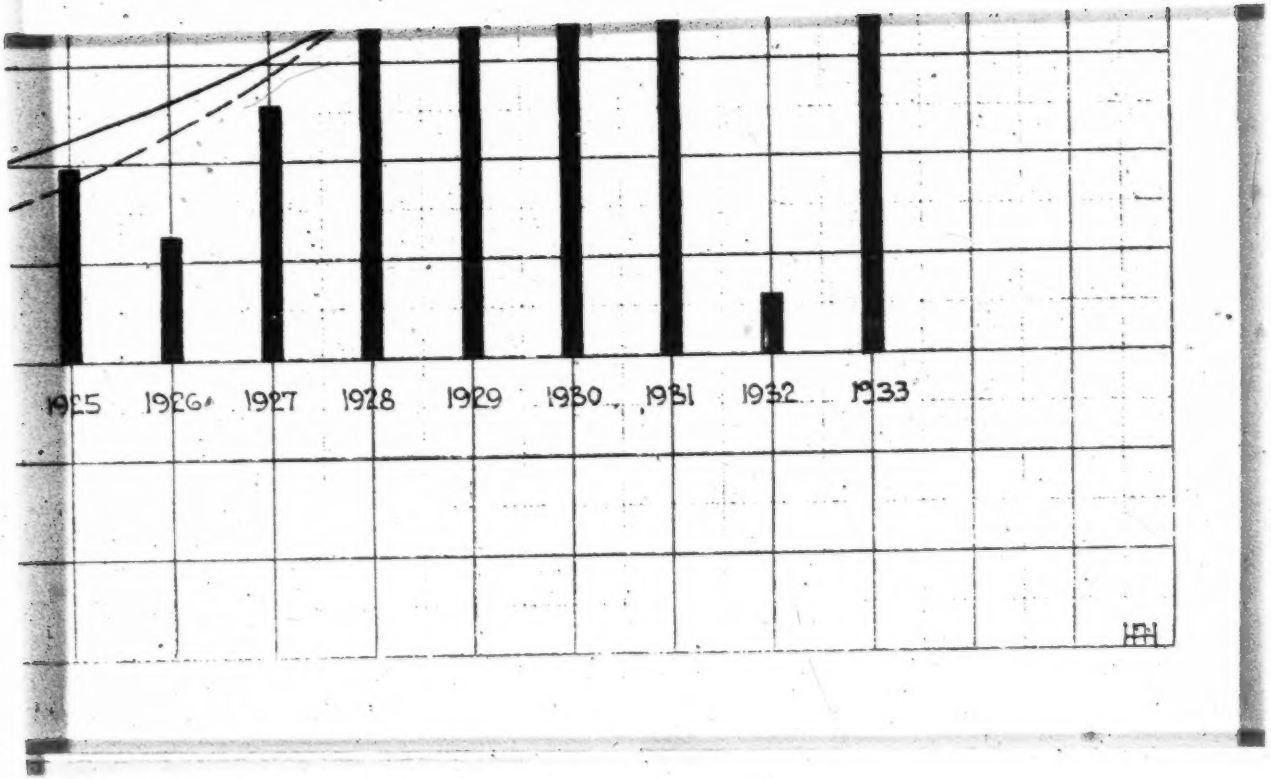
To the Judges of the District Court of the United States for the Western District of Texas:

Lone Star Gas Company, Plaintiff, brings this its Bill of Complaint, against the following Defendants: The [fol. 3714] Railroad Commission of Texas, Lon A. Smith, C. V. Terrell and E. O. Thompson, said persons being the members of and constituting the Railroad Commission of Texas; James V. Allred, Attorney General of the State of Texas; Community Natural Gas Company, Municipal Gas Company, Texas Cities Gas Company, County Gas Company, the Dallas Gas Company, Waxahachie Gas Company, and Gainesville Gas and Electric Company.

For cause of action the Plaintiff alleges:

I

Plaintiff Lone Star Gas Company is a corporation, duly incorporated, created and existing under and pursuant to the laws of the State of Texas, having its principal office and domicile in the City of Dallas, County of Dallas, State of Texas, and in the Northern District of Texas, Dallas Division; and is a corporate citizen, resident and inhabitant


1925
1926
1927
1928
1929
1930
1931
1932
1933

of the State of Texas and of the United States and of the Northern District of Texas.

II

The Defendants Lon A. Smith, C. V. Terrell and E. O. Thompson are each duly elected members of and are the persons constituting the Railroad Commission of Texas. The Railroad Commission of Texas is an administrative or legislative board or commission of the State of Texas and has certain powers relating to the regulation of the [fol. 3715] rates of public utilities engaged in the natural gas business, said powers and duties being defined by Articles 6050 to 6066 of the Revised Civil Statutes of Texas, 1925. These said Defendants, purporting to act under the power and authority conferred upon them by law, have entered the Order herein complained of.

The Defendant James V. Allred is the duly elected, qualified and acting Attorney General of the State of Texas and is charged with the general power and duty of carrying out and enforcing the laws of said State, and the orders and acts of the Railroad Commission of Texas, and particularly the Order herein complained of.

All of the foregoing Defendants are citizens, inhabitants and residents of the State of Texas and of the United States and, so the Plaintiff is informed and believes, of the Western District of Texas.

III

(a) The Defendant Community Natural Gas Company is a corporation duly organized and existing under and by virtue of the laws of the State of Delaware, with its principal office at 100 West 10th Street in the City of Wilmington, New Castle County, Delaware. During all of the times herein alleged the said Defendant has continuously been qualified, and is now duly qualified, to do and conduct its corporate business in the State of Texas under a permit duly issued to it by the Secretary of State of the State of Texas. Said Defendant has and maintains an office in the [fol. 3716] City of Dallas, Dallas County, Texas, and in the Northern District of Texas.

(b) The Defendant Municipal Gas Company is a corporation duly organized and existing under and by virtue of the laws of the State of Texas, with its principal office

and domicile in the City of Dallas, Dallas County, Texas, and is a corporate citizen, inhabitant and resident of the State of Texas and of the United States and of the Northern District of Texas.

(c) The Defendant Texas Cities Gas Company is a corporation duly organized and existing under and by virtue of the laws of the State of Texas, with its principal office and domicile in the City of Dallas, Dallas County, Texas, and is a corporate citizen, inhabitant and resident of the State of Texas and of the United States and of the Northern District of Texas.

(d) The Defendant County Gas Company is a corporation duly organized and existing under and by virtue of the laws of the State of Texas, with its principal office and domicile in the City of Dallas, Dallas County, Texas, and is a corporate citizen, resident and inhabitant of the State of Texas and of the United States and of the Northern District of Texas.

(e) The Defendant The Dallas Gas Company is a corporation duly organized and existing under and by virtue of the laws of the State of Texas, with its principal office and domicile in the City of Dallas, Dallas County, Texas, and [fol. 3717] is a corporate citizen, resident and inhabitant of the State of Texas and of the United States and of the Northern District of Texas.

(f) The Defendant Waxahachie Gas Company is a corporation organized and existing under and by virtue of the laws of the State of Arizona but has a principal office in the City of Waxahachie, Ellis County, Texas. During all of the times herein alleged the said Defendant has continuously been qualified, and is now duly qualified, to do and conduct its corporate business in the State of Texas under a permit duly issued to it by the Secretary of the State of the State of Texas. Said Defendant has and maintains an office in the City of Waxahachie, Ellis County, Texas, and in the Northern District of Texas.

(g) The Defendant Gainesville Gas and Electric Company is a corporation duly organized and existing under and by virtue of the laws of the State of Texas, with its principal office and domicile in the City of Gainesville, Cooke

2185

County, Texas, and is a corporate citizen, resident and inhabitant of the State of Texas and of the United States and of the Eastern District of Texas.

IV

This suit is of a civil nature in equity and is brought for the purpose of restraining and enjoining the enforcement and execution of a certain Order entered by The Railroad Commission of Texas, signed by the persons constituting the said Commission, in Gas Utilities Docket No. 75, dated [fol. 3718] September 13, 1933, finding, among other things, that the price of forty cents (40¢) per one thousand (1,000) cubic feet charged by the Plaintiff for domestic gas transported, sold and delivered by it in interstate and intrastate commerce to the corporate Defendants at the city gates of approximately two hundred fifty (250) towns and cities located within the State of Texas, is unreasonable and excessive to the extent of eight cents (8¢) per one thousand (1,000) cubic feet; that thirty-two cents (32¢) per one thousand (1,000) cubic feet is a reasonable price to be charged and collected for said gas; and ordering and commanding Plaintiff, hereafter, to charge and receive for such gas from the corporate Defendants herein a rate not to exceed thirty-two cents (32¢) per one thousand (1,000) cubic feet. A true and correct copy of said Order, together with the accompanying Opinion of The Railroad Commission, is hereto attached, marked "Exhibit A" for identification, and by such reference incorporated herein and made a part hereof.

This suit is also brought for the purpose of restraining and enjoining the Defendants Community Natural Gas Company, Municipal Gas Company, Texas Cities Gas Company, County Gas Company, the Dallas Gas Company, Waxahachie Gas Company and Gainesville Gas and Electric Company and each of them, who are the distributing companies having contracts with Plaintiff which will be affected by the aforesaid Order, from failing or refusing to carry out their respective contracts with the Plaintiff for the sale by [fol. 3719] Plaintiff and purchase by the said several corporate Defendants of natural gas for domestic purposes at the city gates of approximately two hundred fifty (250) towns and cities wherein the said corporate Defendants own and operate natural gas distribution plants; and which said contracts provide a rate, price or charge of forty cents (40¢)

er one thousand (1,000) cubic feet and which said price or harge the said corporate Defendants have for many years een paying, and are now paying to the Plaintiff for domes- c natural gas, as more particularly stated hereinafter.

This suit presents a substantial Federal question and ontroversy arising under the Constitution and laws of the nited States in that, as Plaintiff avers, the rate or price hat the said Order of The Railroad Commission of Texas equires the Plaintiff to charge the corporate Defendants or natural gas is confiscatory of Plaintiff's property used r useful in the public service and in furnishing natural gas the said corporate Defendants; and the promulgation and nforcement of the said Order necessarily does and will de- rive Plaintiff of its property, devoted to public service and sed and useful therein, without due process of law, denies Plaintiff the equal protection of law, denies to Plain- ff freedom of contract and impairs the obligation of con- act, and directly and substantially interferes with the busi- ess of Plaintiff and its right to engage in interstate com- erce free from such direct and substantial interference, l in violation of its rights under the Constitution of the nited States, and specifically in violation and contraven-
ol. 3720] tion of the Fourteenth Amendment, Section 10 Article 1 and Section 8 of Article 1 of the Constitution of e United States, as is hereinafter more fully set forth. herefore said Order of The Railroad Commission of Texas null and void.

The amount in controversy in this suit exceeds the sum or lue of Three Thousand & 00/100 ($3,000.00) Dollars, ex- usive of interest and costs.

V

For more than fifteen (15) years prior to the filing of this it the Plaintiff has owned and operated a system of pipe es and appurtenant equipment located in the States of klahoma and Texas, and during all of that time has been gaged in the production, purchase, transportation and le of natural gas in interstate commerce in said States as a ntinuous and established business. From time to time and er since its incorporation on June 4, 1909, and down to e time of the filing of this suit, additional supplies of gas ing necessary for the conduct of the Plaintiff's business, laintiff has caused to be purchased in the States of Texas

and Oklahoma gas leases and gas rights and has caused to be constructed at great expense numerous pipe lines connecting its source of gas supply in the States of Texas and Oklahoma with the markets which it serves in interstate commerce in the States of Texas and Oklahoma.

Plaintiff is engaged in the purchase, production, transportation and sale of natural gas from approximately four thousand (4,000) miles of integrated pipe line system in [fol. 3721] Texas and Oklahoma to natural gas distributing companies doing business in the two said States, including the corporate Defendants herein, and which said natural gas distributing companies serve more than two hundred thousand (200,000) customers in the State of Texas, representing a population of more than one million people. Plaintiff supplies natural gas at wholesale and for domestic purposes to the said distributing companies at the city gates of more than two hundred seventy-five (275) towns, cities and communities in the States of Oklahoma and Texas, at a uniform price of forty cents (40¢) per one thousand (1,000) cubic feet, with negligible exceptions necessitated by long term contracts. The said city gate price of forty cents (40¢) per one thousand (1,000) cubic feet has been established by written contracts between Plaintiff and the various natural gas distributing companies, including the corporate Defendants herein, and said contracts, all of which are now and were at the time of the entry of the Order by the Railroad Commission in full force and effect, and said uniform price have prevailed for a period of many years preceding the filing of this suit. By virtue of its said contracts with the several distributing companies who are corporate Defendants herein, the Plaintiff has been engaged continuously, and is now engaged in transporting, selling at wholesale and delivering through its pipe lines in interstate commerce natural gas for domestic purposes in substantial amounts at the city gates of the following towns and cities in the State of Texas, to-wit: Dallas, Gainesville, Sherman, Wichita Falls, Denison, Denton, McKinney, Vernon, Bon- [fol. 3722] ham, and many others. The gas so delivered by Plaintiff at the city gates of said towns and cities has been and is now being transported uninterruptedly through Plaintiff's high pressure pipe lines extending from the State of Oklahoma into the State of Texas.

VI

That on or about the 14th day of October, 1932, The Railroad Commission of Texas ordered an investigation of the reasonableness of the rates and charges of the Lone Star Gas Company for natural gas sold and delivered at the city gates of the several towns and cities in the State of Texas where Plaintiff was selling gas at wholesale, and set said cause or investigation for a hearing on November 1, 1932. Said cause was and is known as Gas Utilities Docket No. 75, before The Railroad Commission of Texas.

The hearings in said investigation before the said Commission were held from time to time, and evidence and exhibits were introduced to show that the contracts between the Plaintiff and the corporate Defendants herein, and under which contracts the Plaintiff sells natural gas to the corporate Defendants at the city gate, were reasonable and were contracts such as would be made by persons dealing at arm's length; that the rate or price of forty cents (40¢) per one thousand (1,000) cubic feet, which the Plaintiff charges to the corporate Defendants herein for natural gas delivered for domestic purposes at the city gates of the towns and cities served in the State of Texas by the Plaintiff's pipe line system, was fair and reasonable; that the fair [fol. 3723] value of the property of the Plaintiff used or useful in the business of supplying natural gas to the corporate Defendants herein and all other natural gas distributing companies receiving gas at the city gate from the Plaintiff was more than Seventy Million ($70,000,000.00) Dollars; that a fair minimum allowance for depreciation, depletion and amortization reserve charge was more than Three Million, Four Hundred Thousand & 00/100 ($3,400,000.00) Dollars per annum; that the fair and reasonable annual net return which the Plaintiff should be permitted to earn under rates imposed upon it by public authority was not less than ten per cent (10%) of the present fair value of its said properties used and useful in the public service after deducting operating expenses of every kind and character, including a proper allowance for depreciation, depletion and other reserves.

VII

That on or about the 13th day of September, 1933, The Railroad Commission of Texas handed down an Order, ac-

companied by an Opinion, in Gas Utilities Docket No. 75 before The Railroad Commission of Texas, heretofore identified as "Exhibit A" and made a part of this Bill of Complaint; that in this Order, together with the accompanying Opinion, The Railroad Commission of Texas purported to find that the price of forty cents (40¢) per one thousand (1,000) cubic feet for domestic gas sold by the Plaintiff to the corporate Defendants herein was excessive and unreasonable; that said charge was excessive in the amount of [fol. 3724] eight cents (8¢) per one thousand (1,000) cubic feet; that thirty-two cents (32¢) is a reasonable price for Plaintiff to receive for such gas; and said Order, in effect, commanded and decreed that the Plaintiff Lone Star Gas Company should thereafter ignore its contracts with the corporate Defendants herein and make no charge to them and receive no payments from them for domestic gas transported and delivered by it at a rate price or charge in excess of thirty-two cents (32¢) per one thousand (1,000) cubic feet.

Plaintiff shows that The Railroad Commission of Texas is the final legislative and administrative Board or Commission to which Plaintiff may appeal, and no other legislative or administrative board, commission, body or agency of the State of Texas is authorized to supersede the rate, price or charge of the Plaintiff as fixed by The Railroad Commission of Texas, and to establish fair, reasonable and compensatory rates in lieu thereof. Therefore, the legislative remedy of this Plaintiff to prevent the confiscation of its property under the said Order, "Exhibit A" hereto, has been exhausted.

Plaintiff therefore shows that it has no plain, adequate and complete remedy at law.

VIII

Plaintiff shows that the Opinion and Order of The Railroad Commission of Texas, said Opinion and Order being "Exhibit A" hereto, found a reproduction cost, new, as of December 31, 1931, for Transmission and Production prop- [fol. 3725] erties, exclusive of Leaseholds, of Forty-four Million, Six Hundred Six Thousand, Three Hundred Thirty-seven & 16/100 ($44,606,337.16) Dollars; a fair value of Leaseholds as of December 31, 1931, of One Million, Nine Hundred Ninety-one Thousand, Six Hundred Thirteen

& 92/100 ($1,991,613.92) Dollars, and a "rate base" of Forty-six Million, Two Hundred Forty-six Thousand, Six Hundred Seventeen & 53/100 ($46,246,617.53) Dollars to cover Plaintiff's public service property used and useful in connection with its business of purchasing, transporting, selling and delivering natural gas in interstate and intrastate commerce. Said rate base so found by The Railroad Commission of Texas was at least Twenty-three Million & 00/100 ($23,000,000.00) Dollars lower than the fair and reasonable value of said property as of December 31, 1931, January 1, 1933, and now, and the method adopted, and the results reached by The Railroad Commission of Texas was erroneous and contrary to the well established rules of law in that, among other things:

(a) The said Commission completely disregarded and ignored, not only the actual cost of Plaintiff's public service property as reflected by its books, in the approximate amount of Fifty Million ($50,000,000.00) Dollars, which, in view of recent increases in the cost of steel pipe, and the upward trend of prices generally and particularly applicable to materials going into and comprising Plaintiff's public service property, fairly represented a minimum value of the property and elements of value included therein;

[fol. 3726] (b) The said Commission grossly underestimated the true present reproduction cost of the public service property of the Plaintiff and the items of property which the Commission included in its reproduction cost estimate, in that, among other things, it entirely disregarded and ignored substantial increases in the cost of steel pipe comprising by far the greater part of the value of the physical property included in the Commission's estimate;

(c) The said Commission, as is disclosed by its Order and Opinion, "Exhibit A," arbitrarily and capriciously eliminated from its so-called determination of a rate base numerous items of physical property which were and are both used and useful by the Plaintiff in its public service business, some of the items so eliminated by the Commission being gas wells and gas leaseholds, and other property owned by the Plaintiff and located in what is known as the Petrolia Field, and actually used and useful in the best judgment of the management of the Plaintiff in connection with Plaintiff's public service business, the actual cost of said properties in

the aggregate amounting to Six Hundred Eighty-seven Thousand, Seven Hundred Eighty-one & 13/100 ($687,-781.13) Dollars; and furthermore the said Commission arbitrarily and capriciously eliminated from its so-called rate base, and contrary to the undisputed testimony in said investigation, net capital additions to the public service property of Plaintiff in the calendar year of 1932, which net capital additions had an actual cost to Plaintiff of Two Million, Two Hundred Fifty-seven Thousand, Six Hundred Eighty-two & 07/100 Dollars ($2,257,682.07);

[fol. 3727] (d) The said Commission wholly failed and refused to include in its so-called "rate base," as reflected by the Order and Opinion, "Exhibit A" hereto, any amount to cover that element of value actually present in and constituting a part of Plaintiff's public service property, known and referred to as "going value" or "going concern value" or value resulting from the business which the Plaintiff has developed and which it now has;

(e) The said Commission, as disclosed by the Order and Opinion, "Exhibit A" hereto, in stating the net income of the Plaintiff which would be available for return under the present city gate rate of forty cents (40¢) per one thousand (1,000) cubic feet, and under the thirty-two cent city gate rate made mandatory by the aforesaid Order, improperly computed the net income of the Plaintiff from its public service property for the calendar year of 1931, improperly and arbitrarily disallowed necessary operating expenses actually incurred in the amount of Two Hundred Seventeen Thousand, Eight Hundred Eighty-four & 05/100 ($217,-884.05) Dollars for the calendar year of 1931, and also wholly and improperly disregarded as an operating expense the Federal income taxes which were payable for said year. In this connection, Plaintiff would show that all of the operating expenses incurred by the Plaintiff and reflected by its books for the calendar year of 1931, and all other periods herein, were incurred in the exercise of good faith and reflected the best judgment of the management of the Plaintiff.

(f) The Railroad Commision of Texas, in the Order and [fol. 3728] Opinion, "Exhibit A" hereto, in computing the amount available to Plaintiff for return on its public service property, allowed only the grossly inadequate sum of Nine

Hundred Sixty-eight Thousand, Sixty-six & 98/100 ($968,066.98) Dollars, or less than two per cent (2%) of the actual cash cost of the Plaintiff's public service property, as an annual depreciation charge; whereas, there was no competent testimony of any kind or character introduced in said investigation before The Railroad Commission of Texas upon which such a determination could have been made.

(g) Said Order, "Exhibit A" hereto, does not and will not in the future permit a fair return to the Plaintiff upon its property used and useful in the public service and in the suppyling of natural gas service to the corporate Defendants herein and to other natural gas distributing plants receiving their natural gas supply wholesale at the city gate from this Plaintiff. Said Order, together with the accompanying Opinion upon which said Order purports to be based, does, in fact, and its effect will be (1) to restrict the "rate base" to approximately sixty-six per cent (66%) of the true value of the Plaintiff's said property; (2) to exaggerate the net earnings of the Plaintiff and to make said net earnings appear to be in excess of Plaintiff's true net earnings; and (3) to restrict the return yielded by such fictitious net earnings upon said insufficient and improper rate base to the wholly inadequate and confiscatory rate of six per cent (6%) per annum, as stated in "Exhibit A" hereto. In this connection, [fol. 3729] Plaintiff shows that the minimum return which has been generally allowed in this territory to other public utilities of a less hazardous nature is eight per cent (8%) per annum.

(h) The aforesaid Order of The Railroad Commission of Texas, in determining the gross and net revenues of the Plaintiff for the purpose of calculating the rates for domestic gas to be charged at the city gate by the Plaintiff, has erroneously and improperly disregarded the decline in gross and net revenues of the Plaintiff for the calendar years of 1931 and 1932, and for the twelve months ended April 30, 1933, in spite of the fact that the volume of business of the Plaintiff and the trend of its annual earnings have been continuously downward since the year 1929, and all of which was made manifest in the investigation by the said Commission.

Specifically, the Plaintiff would show that if the said Order, "Exhibit A" hereto, had been effective continuously

during the year of 1932 on all of its sales of domestic gas at the city gates of the towns and cities supplied by its integrated pipe line system in the States of Oklahoma and Texas, then (1) using the actual public service revenues and operating expenses of the Plaintiff for the calendar year of 1932, and (2) using the rate base of Forty-six Million, Two Hundred Forty-six Thousand, Six Hundred Seventeen & 53/100 ($46,246,617.53) Dollars, and (3) using the depreciation allowance of Nine Hundred Sixty-eight Thousand, Sixty-six & 98/100 ($968,066.98) Dollars, as allowed by the Opinion and Order, "Exhibit A" hereto, the net amount [fol. 3730] available for return to Plaintiff would have been only Two Million, Four Hundred Eighty-four Thousand, Five Hundred Twelve & 41/100 (2,484,512.41) Dollars, or only five and thirty-seven one-hundred-s (5.37%) per cent upon said rate base or property value and, similarly, the net amount available for return for the twe've months ended June 30, 1933, would have been Two Million, Three Hundred Sixty-two Thousand, Eight Hundred Seventy-two & 09/100 ($2,362,872.09) Dollars, or only five and eleven one-hundredths (5.11%) per cent upon said rate base or property value, whereas by the said Order and Opinion, "Exhibit A" hereto, it was determined that six per cent (6%) per annum was the minimum annual net return which Plaintiff was entitled to receive.

IX

The public service business of the Plaintiff has been conducted efficiently and economically during all of the times herein referred to, and is now being so conducted. In truth and in fact the operating expenses of the Plaintiff for the past three (3) years have been unusually low and will tend to materially increase in the future. Plaintiff shows that it has subscribed to and complied with the employment agreement of the President of the United States, as modified for the natural gas industry, all as pursuant to the National Industrial Recovery Act, and that the effect thereof, due to the shortening of labor hours and increases in wages and salaries, will be to add not less than Two Hundred and Fifty Thousand Dolars ($250,000.00) per annum to the inescapa- [fol. 3731] ble operating expenses in connection with the public service business of the Plaintiff.

X

Plaintiff shows that the present fair value of its property used and useful in the business of supplying natural gas to the corporate Defendants herein, and all other natural gas distributing companies receiving gas at the city gate from the Plaintiff, was at the time of the hearing before The Railroad Commission, and is now, more than Seventy Million Dollars ($70,000,000.00); that a sum not less than Three Million, Four Hundred Thousand ($3,400,000.00) Dollars is a fair minimum annual allowance for a depreciation, depletion and amortization reserve charge; that a fair and reasonable annual net return which it should be permitted to earn, considering the hazards of the natural gas business, the rate of return of other utilities of a less hazardous nature, the return necessary to attract a free flow of capital for investment in the enterprise and to insure the financial soundness of the Plaintiff, is not less than ten per cent (10%) of the present fair value of its public service properties after deducting operating expenses and an annual allowance for depreciation, depletion and other proper reserves.

Plaintiff further shows that the net amount available for depreciation, depletion, amortization, Federal income tax and return on said value of its public service properties for the year ended December 31, 1931, at the prevailing rate of forty cents (40¢) per one thousand (1,000) cubic feet for domestic gas was only Four Million, Nine Hundred Eight [fol. 3732] Thousand, Twenty-four & 24/100 ($4,908,024.24) Dollars, or approximately seven per cent (7%) on said rate base; and that deducting Federal income taxes and the sum of Three Million, Four Hundred Thousand & 00/100 ($3,400,000.00) Dollars as the fair and reasonable allowance for depreciation, depletion and amortization for the year ending December 31, 1931, leaves for net return less than two per cent (2%) on said rate base or fair value.

XI

Plaintiff would show that it has devoted and dedicated to, and used and useful in the business of supplying natural gas and natural gas service to the towns and cities in the States of Oklahoma and Texas, which towns and cities it supplies with natural gas at the city gates, properties of the actual cash cost, as reflected by its books on December 31, 1932, of Fifty Million, Thirty-four Thousand, Four Hundred

Thirty-one & 70/100 ($50,034,431.70) Dollars, and that the cost of its public service property as reflected by its books is less than the true value thereof for the reason that in the twenty-four (24) years of its corporate existence it has not been its general policy to capitalize engineering and supervisory costs, administrative and legal expenses and taxes and interest during construction. The said cost of Fifty Million, Thirty-four Thousand, Four Hundred Thirty-one & 70/100 ($50,034,431.70) Dollars, which the books of the Plaintiff reflect as the cost of its public service properties on December 31, 1932, does not include materials and supplies on hand and used and useful in the public service business of the Plaintiff, nor does it include cash working capi- [fol. 3733] tal requirements of the Plaintiff necessary in the conduct of its public service business. In this connection, Plaintiff would show that for the year ended December 31, 1932, the net amount available for depreciation, depletion, amortization and return on its public service properties was Four Million, Six Hundred Fifty-eight Thousand, Five Hundred Six & 46/100 ($4,658,506.46) Dollars, or only nine and thirty-one-one-hundredths (9.31%) per cent of the actual cost of the properties reflected by the books of the Plaintiff on December 31, 1932.

Also, Plaintiff would show that the actual cost to the Plaintiff of its public service properties as reflected by its books on June 30, 1933, was Forty-nine Million, Nine Hundred Twenty-three Thousand, One Hundred Thirty-seven & 26/100 ($49,923,137.26) Dollars, and that for the twelve (12) months ended June 30, 1933, the net amount available for depreciation, depletion, amortization and return on said public service property was Four Million, Four Hundred Ninety-one Thousand, Eight Hundred Twenty-five & 60/100 ($4,491,825.60) Dollars, or only eight and ninety-nine-one-hundredths (8.99%) per cent of the said book cost.

XII

That the enforcement of said Order, "Exhibit A" hereto, will, as heretofore shown, operate to confiscate the public service property and business of the Plaintiff and that under the terms and provisions of said Order, Plaintiff is being and will be subjected to a cash loss of approximately Four [fol. 3734] Thousand & 00/100 ($4,000.00) Dollars per day, and that such loss will continue until the equitable relief herein prayed for is granted.

The Statutes of Texas provide that any person or concern failing to comply with any valid order of the Commission, when not stayed or suspended by court order, shall be subject to penalties payable to the State of Texas of not less than One Hundred Dollars ($100.00) nor more than One Thousand ($1,000.00) Dollars for each offense, each violation and each day such failure to comply continues to constitute a separate offense. Such Statutes likewise provide a fine of not less than Fifty ($50.00) Dollars nor more than One Thousand ($1,000.00) Dollars, and, in addition, imprisonment for not less than ten (10) days nor more than six (6) months, to be imposed on the owner, officer, director, agent or employee of any corporation owning and operating gas pipe lines willfully violating the Statutes governing gas companies doing business in Texas.

In this connection, Plaintiff alleges that unless the Defendants, The Raiload Commission of Texas and the individual members constituting the said Commission, and the Attorney General of the State of Texas, are restrained and enjoined as herein prayed, they will, as Plaintiff believes and so alleges, attempt to compel Plaintiff to supply domestic gas to the Defendant distributing companies at the confiscatory rate prescribed by the Order of the said Railroad Commission of Texas, and, in the event of Plaintiff's failure so to do, will attempt to enforce the penalties prescribed by the Statutes of the State of Texas, and Plain-[fol. 3735] tiff, its directors, officers, agents, servants and employees will be deterred and prevented by the threat of said penalties from charging the presently prevailing rate of forty cents (40¢) per one thousand (1,000) cubic feet for domestic gas and from charging any rate other than that prescribed by the Order of The Railroad Commission, and, thereby, Plaintiff will be forced to submit to the confiscation of its property without due process of law, and in violation of its rights under the Constitution of the United States, as hereinbefore alleged, and will be subjected to great and irreparable loss, damage and injury.

XIII

That the said Order is unconstitutional, null and void, and is in excess of the authority conferred by law upon The Railroad Commission of the State of Texas, in that:

(a) The said Railroad Commission and the Defendant members thereof, in the investigation of the contracts be-

tween Plaintiff and the Defendant distributing companies for the supply of gas at the city gates of the respective communities served by the Defendant distributing companies and the reasonableness of the price or rate charged by Plaintiff under the aforesaid contracts, approached all questions involving the same as if it had power and jurisdiction under the law to fix the rates and commodity charges of the Plaintiff, and has, in effect, undertaken to fix the rates and commodity charges of the Plaintiff in relation to its interstate business, and the effect of the said [fol. 3736] Opinion and Order and the enforcement thereof by the said Railroad Commission is and will be to usurp the power to regulate and burden interstate commerce, and thereby the said Commission has acted wholly without constitutional or lawful authority, power or jurisdiction;

(b) The Railroad Commission of Texas is a creature of the Legislature of the State of Texas, deriving its powers from the Statutes of the State of Texas, which, likewise, limit the exercise of the same; that such right, power and authority as is given to The Railroad Commission of Texas by Statute to investigate the reasonableness of the rate charged by Plaintiff for the sale and delivery of domestic gas, at wholesale at the city gates, to the distributing companies named as Defendants herein is conferred by the provisions of Article 6053, Revised Statutes of Texas, 1925; that if the aforesaid Article purports and was intended to confer upon The Railroad Commission of Texas the power and authority to fix, establish and enforce the adequate and reasonable price of natural gas, and reasonable rates and charges for transporting, producing, distributing, buying, selling and delivering gas moving uninterruptedly in high pressure pipe lines running from outside the State of Texas into the State of Texas, and constituting and being a part of interstate transportation and interstate commerce, then the said Statute under which The Railroad Commission of Texas purported to act in entering the Order, "Exhibit A" hereto, herein attacked, is void as being in contravention of the commerce clause of the Constitution of the United [fol. 3737] States. That if the said Statute should be construed as not conferring, or having been intended to confer upon The Railroad Commission of Texas the power of fixing and establishing rates and prices for natural gas moving continuously from outside the State of Texas into the

State of Texas in high pressure pipe lines, such movement, transportation and sale being a part of interstate commerce, then The Railroad Commission of Texas, in entering the Order which it has entered in this case has exceeded the power and authority conferred upon it by law, and has usurped a power not conferred upon it by law, for which reason the Order herein attacked is unconstitutional, null and void.

(c) A substantial portion of the natural gas purchased by the Defendant distributing companies respectively at the respective city gates of the various communities served by them is natural gas transported by Plaintiff in interstate commerce, national in its character, and Plaintiff is lawfully entitled to sell said gas to the several Defendant distributing companies herein and to other purchasers in the State of Texas and Oklahoma without interference by The Railroad Commission of Texas; and the Opinion and Order of The Railroad Commission of Texas, "Exhibit A" attached hereto, unlawfully deprives the Plaintiff of the benefits and advantages of its ownership of said gas and said pipe line system and the fruits of its said interstate transportation, and unlawfully denies to Plaintiff the free right to sell from its said transportation system its natural [fol. 3738] gas so continuously transported in interstate commerce and unlawfully deprives Plaintiff of the rights guaranteed to it by Article 1, Section 8, Clause 3 of the Constitution of the United States, and imposes upon Plaintiff an unreasonable regulation, and places an undue and direct burden upon, and constitutes a direct interference with interstate commerce.

(d) The said Opinion and Order, "Exhibit A" hereto, violates Article 1, Section 10, Subdivision 1 of the Constitution of the United States in that they, and each of them, impair the obligation of the contracts between Plaintiff and the several Defendant distributing companies, under which each of the said Defendant distributing companies purchases gas from the Plaintiff.

(e) The said Opinion and Order, "Exhibit A" hereto, are in violation of the Fourteenth Amendment to the Constitution of the United States, in that they deprive the Plaintiff of its property without due process of law, de-

stroys its freedom of contract, and deny to it the equal protection of the laws.

(f) The said Order of The Railroad Commission of Texas requiring Plaintiff to charge and collect for domestic gas delivered by it to the various distributing companies thirty-two cents (32¢) per one thousand (1,000) cubic feet, and denying to it the right to charge an amount in excess thereof, fixes a rate, charge and price that would not produce a reasonable return on the present fair value of the public service properties of the Plaintiff, used and useful [fol. 3739] in furnishing its interstate as well as intrastate gas service to Defendant distributing companies and others, and if the Plaintiff were required to deliver gas to the said distributing companies at the rate of thirty-two cents (32¢) per one thousand (1,000) cubic feet, as prescribed by The Railroad Commission, the result would be that the Plaintiff's public service properties would be confiscated, and it would be deprived of its properties without due process of law, all in violation of the Fourteenth Amendment to the Constitution of the United States.

(g) The Plaintiff, in the sale of the natural gas transported by it in interstate commerce, is limited to the markets connected with its transportation system as now located, and if the said Orders of the Railroad Commission are enforced, the result will be that Plaintiff will be deprived of all markets for its domestic gas at rates and charges other than those attempted to be established by the said Railroad Commission in its Opinion and Order, and Plaintiff will be deprived of the right to carry on its business, and will be deprived of its property without due process of law, all in violation of the Fourteenth Amendment and the Commerce Clause of the Constitution of the United States.

(h) In refusing to include in the rate base of the Plaintiff and in a determination of the present value of its public service property, as more fully appears in "Exhibit A" hereto, certain items of property used and useful by the Plaintiff in its public service business, and in excluding from operating expenses, expenses actually and normally [fol. 3740] incurred by the Plaintiff in the conduct of its said business, and in the exercise of the best judgment of

its officers and directors. The Railroad Commission of Texas unlawfully and unreasonably usurped the prerogatives, duties and authority of the officers and directors of the Plaintiff upon whom rests the responsibility for the management of the Plaintiff's business; all in violation of the rights of the Plaintiff under the Constitution of the United States, and with the result that, to the extent of such arbitrary deductions, Plaintiff is deprived of its property devoted to public use without due process of law, and its property is confiscated, contrary to the provisions of the Fourteenth Amendment to the Constitution of the United States.

(i) The said Order of The Railroad Commission of Texas is void and in excess of the authority conferred by law upon the said Commission in that it deprives Plaintiff of an opportunity to have a judicial determination as to the legality of its contracts and charges to each of the Defendant distributing companies, by arbitrarily requiring the Plaintiff to reduce its charges for its gas to each of the Defendant distributing companies, irrespective of whether such charges be finally sustained as legal or not; and the said Order further on this account seeks to deprive, and does deprive, the Plaintiff of its property and business without due process of law and denies Plaintiff the equal protection of the laws under the Fourteenth Amendment to the Constitution of the United States, and operates to impair the obligations of its contracts with each of the Defend- [fol. 3741] ant distributing companies, contrary to Section 10 of Article 1 of the Constitution of the United States.

XIV

Each and every one of the said contracts between the Plaintiff and the corporate Defendants providing for the sale by the Plaintiff and purchase by the Defendants of natural gas for domestic purposes at the city gates of the several towns and cities in the State of Texas are affected by the Order, "Exhibit A" attached hereto, of The Railroad Commission of the State of Texas. The result of the promulgation and enforcement of the aforesaid Order is and will be to change and vary the obligations of each of the Defendant distributing companies under their respective

contracts with the Plaintiff in that the said distributing companies will be permitted, and, in effect, compelled to pay thirty-two cents (32¢) per one thousand (1,000) cubic feet for gas delivered to them under their aforesaid contracts, instead of forty cents (40¢) per one thousand (1,000) cubic feet as now required by said contracts. The right and power of The Railroad Commission of the State of Texas to enter the Order in question, thus changing the contracts to which the distributing companies are parties, and their obligations thereunder, are directly and substantially involved herein. Each and every distributing company which is named as a Defendant herein is interested in and will be affected by the enforcement of the Order herein complained of, and is a proper and necessary party to a full and complete determination of the Federal questions [fol. 3742] involving said contracts raised by the Plaintiff in this Bill of Complaint.

Plaintiff shows that said contracts and the business had by the plaintiff pursuant thereto are absolutely necessary for the continuance of Plaintiff as a going concern, and that Plaintiff could not survive without such business, nor can it supply natural gas under said contracts at the rate prescribed by The Railroad Commission without a resultant destruction in the value of its property required in performing its obligations.

Plaintiff represents that with respect to its public service business, its sales of gas for industrial purposes and all purposes other than for domestic use, are profitable to it in that such sales produce substantial net revenues over and above the cost of making such sales. Industrial gas is sold in open market competition with other fuels and it is not possible for Plaintiff to increase its net earnings by increasing its rates and charges for industrial gas or for gas sold for other than domestic purposes.

Furthermore, Plaintiff shows that the distributing companies named as Defendants are necessary and proper parties to the granting of that relief requisite to fully and completely protect it preliminarily and upon final hearing; and that the relief hereinafter prayed against them is ancillary and incidental to the relief sought by the Plaintiff against the enforcement of the Order herein complained of. In this connection, Plaintiff says that while the Order in question does not purport or expressly undertake to pro-

hibit the distributing companies from paying the Plaintiff an amount in excess of thirty-two cents (32¢) per one thou-
[fol. 3743] sand (1,000) cubic feet for domestic gas purchased at the city gates, nevertheless such is and must be the necessary and inevitable effect of the enforcement of such Order.

That unless the said distributing companies are restrained as hereinafter prayed, during the pendency of this suit, Plaintiff believes and so alleges that voluntarily or involuntarily, through fear of violating or aiding and abetting in the violation of the said Order of The Railroad Commission of the State of Texas, "Exhibit A" hereto, and because of the threat of penalties prescribed by law, the Defendant distributing companies will not pay Plaintiff in excess of the rate of thirty-two cents (32¢) per one thousand (1,000) cubic feet prescribed by the said Order, "Exhibit A" hereto, and will be coerced and deterred from paying Plaintiff the rates and charges for domestic gas as fixed and prescribed under the terms of their respective contracts with the Plaintiff governing the sale and purchase of domestic gas, and thereby Plaintiff will be forced to submit to the confiscation of its property without due process of law and in violation of its rights under the commerce and contract clauses of the Constitution of the United States as alleged hereinbefore more specifically, all to its great and irreparable damage, loss and injury.

XV

Furthermore, if, during the pendency of this suit, as Plaintiff believes and alleges, the distributing companies will be induced and caused to resist and refuse payment of any charges and rates for natural gas furnished and sup-
[fol. 3744] plied by Plaintiff other than those that may result from the enforcement of the said Order of The Railroad Commission of the State of Texas, Plaintiff has no adequate remedy at law and no practical way to collect the charges due it under the contracts aforesaid. Plaintiff can not refuse service because of default of the Defendant distributing companies in the payment of bills for domestic gas, without subjecting itself to penalties for violation of the Order of The Railroad Commission of the State of Texas, and without precipitating a large number of suits in various jurisdictions throughout the State of Texas to

restrain its action in this respect and for damages; nor can it attempt to collect its bills through litigation without being subject to an endless multiplicity of suits, the issues in which would be the same as those herein involved. In each of said suits the issues will be the same and it will be necessary to determine whether the rates charged by the Plaintiff are lawful, just and reasonable.

This suit is, therefore, brought to prevent such a multiplicity of suits and in order that all matters in controversy may be determined in this one proceeding.

Plaintiff has no plain, adequate and complete remedy at law.

Wherefore, being without adequate remedy save in this court of equity, Plaintiff prays the Court:

First, that the rate, charge and price of thirty-two cents (32¢) per one thousand (1,000) cubic feet for domestic gas, as fixed and prescribed in the Opinion and Order of The Railroad Commission of Texas, "Exhibit A" hereto, of [fol. 3745] date September 13, 1933, be decreed to be confiscatory and in violation of the Constitution of the United States, and that said Opinion and Order imposing said rate be declared to be unconstitutional, null, void and unenforceable.

Second, that The Railroad Commission of Texas, its agents, servants, employees and representatives, and the individual members of The Railroad Commission of Texas, and the Attorney General of the State of Texas, Defendants herein, and each of them, as well as their successors in office, and their agents, servants, employees and representatives, and all other persons, be temporarily and permanently restrained and enjoined from any attempt to enforce the said Opinion and Order of The Railroad Commission of Texas of September 13, 1933, "Exhibit A" hereto, or any other order of the said Railroad Commission of Texas in this or any other proceeding based thereon or giving effect thereto, or to compel Plaintiff, its directors, officers, agents, servants and employees, directly or indirectly, whether by penalties, forfeitures or otherwise, in any manner whatsoever, to observe and comply with the said Order in any respect, or to observe or comply with any other Order of The Railroad Commission of Texas that may be based in whole or in part on or which gives any effect to said Opinion

and Order, or to compel Plaintiff, its directors, officers, agents, servants and employees, directly or indirectly, to observe, comply with and keep in force, and charge, bill and collect from the distributing companies to which it delivers domestic gas, the rate of thirty-two cents (32¢) per [fol. 3746] one thousand (1,000) cubic feet prescribed by The Railroad Commission of Texas in its said Opinion and Order, "Exhibit A" hereto, and to prevent or in any way, directly or indirectly, to interfere with Plaintiff, its directors, officers, agents, servants and employees, in charging, billing and collecting for domestic gas delivered by it at the city gates of various towns and cities located in the State of Texas, now or at any time in the future, forty cents (40¢) per one thousand (1,000) cubic feet; and that the enforcement and execution of the said Opinion and Order of the Railroad Commission of Texas of September 13, 1933, "Exhibit A" hereto, be temporarily and permanently enjoined and restrained;

Third, that The Railroad Commission of Texas, its agents, servants, employees and representatives, and the individual members of The Railroad Commission of Texas, and the Attorney General of the State of Texas, Defendants herein, and each of them, as well as their successors in office and their agents, servants, employees and representatives, and all other persons, be temporarily and permanently enjoined and restrained from attempting in any way, directly or indirectly, whether by threat of penalties, forfeitures, or in any manner whatsoever, to compel the distributing companies named to comply with and observe the said Opinion and Order of The Railroad Commission of Texas, of September 13, 1933, "Exhibit A" hereto, or the rate of thirty-two cents (32¢) per one thousand (1,000) cubic feet for domestic gas furnished by Plaintiff to them, and each of them, or to prevent them from paying, or interfering with their paying, the rate, charge and price for [fol. 3747] domestic gas delivered to them by Plaintiff, fixed by their respective contracts with Plaintiff.

Fourth, that the Defendant distributing companies, and each of them, their directors, officers, agents, servants, employees and representatives, and all other persons, be temporarily and permanently restrained and enjoined from observing or complying with the said Order of The Railroad Commission of Texas, "Exhibit A" hereto, or any other order of the said Railroad Commission; or any law,

ordinance or order that may be based in whole or in part on the said Order of The Railroad Commission, "Exhibit A" hereto, or that may purport to or does give any effect thereto, or from failing or refusing to pay to Plaintiff for domestic natural gas delivered by Plaintiff to them at the various city gates, a price or rate per thousand cubic feet less than the price, rate and charge which each and all of said distributing companies have been and are now paying to Plaintiff for such gas.

Fifth, that for the hearing of this cause and with respect to the granting of the temporary and interlocutory injunction and the permanent injunction herein prayed for, this Honorable Court and the Judge hereof call to his assistance two additional Judges, as provided by Section 266 of the Judicial Code of the United States.

Sixth, that Plaintiff have such other and further relief, both general and special, as may be just and equitable in the premises.

[fol. 3748] May it please your Honors to grant unto the Plaintiff a writ of subpœna of the United States of America, issuing out of and under the seal of this Honorable Court, directed to the said Defendants, The Railroad Commission of Texas, Lon A. Smith, C. V. Terrell and E. O. Thompson, said persons being the members of and constituting The Railroad Commission of Texas, James V. Allred, Attorney General of the State of Texas, Community Natural Gas Company, Municipal Gas Company, Texas Cities Gas Company, County Gas Company, The Dallas Gas Company, Waxahachie Gas Company, and Gainesville Gas and Electric Company, corporations, commanding them, and each of them, on a certain day to be named therein, and under a certain penalty, to appear and make answer to this Bill of Complaint, and to perform and abide by such orders, directions or decrees as may be made them in the premises, and that pending the final hearing of this cause, a preliminary and interlocutory injunction may be issued as above prayed. May it likewise please your Honor to authorize issuance of notice of said hearing to Miriam A. Ferguson, Governor of the State of Texas.

And the Plaintiff will ever pray.

Lone Star Gas Company, by Karl F. Griffith, Thompson & Barwise, Ben H. Powell, Roy C. Coffee, Marshall Newcomb, Its Solicitors.

[fols. 3749-3841] UNITED STATES OF AMERICA,
The State of Texas,
County of Dallas, ss:

On this 21st day of September, 1933, before me personally appeared Karl F. Griffith, who being by me first duly sworn, deposes and says that he is Vice-President of Lone Star Gas Company, the Plaintiff herein; that he has read the foregoing Bill of Complaint and knows the contents thereof; that he is familiar with all the matters and facts involved therein, and that he had knowledge of all the facts upon which the special relief prayed for herein is asked, and that all of the allegations, denials and facts therein contained are true.

Karl F. Griffith.

Subscribed and sworn to before me this 21st day of September, A. D. 1933. Chas. G. Hess, Jr., Notary Public in and for Dallas County, Texas. My commission expires the 1st day of June, 1935. (Notarial Seal.)

[fols. 3842-3930] Defendant's Exhibit No. 3 omitted. See Exhibit "A", printed side pages 19, ante.

[fol. 3931] DEFENDANT'S EXHIBIT No. 4

Lone Star Gas Company

Public Service Operations

Statement of Revenues, Expenses, and Amount Available for Return Based on 32¢ Domestic Gate Rate—Actual Operating Expenses as Reflected by Company's Books—Depreciation and Depletion Allowances as Calculated by Commission

Rate Base as Determined by Commission for Periods Shown Below

Twelve Months Ended December 31st, 1932

Twelve Months Ended June 30th, 1933

[fol. 3932-3933]

	Twelve Months Ended	
	December 31st, 1932	June 30th, 1933
Gross Revenues		
Gas Sales	$7,497,578.33	$7,191,752.46
Misc'l. Operating Revenues	1,491.98	1,403.52
Other Non-Operating Revenues	12,192.19	30,423.69
Total	$7,511,262.50	$7,223,579.67
Deductions from Gross Revenues		
Gas Purchased	$1,177,334.48	$1,130,214.01
Production System Expense	82,923.07	92,190.26
Gathering System Expense	135,110.30	127,747.99
Transmission System Expense	454,086.37	434,598.91
Compressor Station Expense	358,402.61	336,125.79
New Business Expense	87,528.94	89,725.16
General Expense	940,748.36	889,146.59
Uncollectible Bills	5,399.25	4,794.61
Taxes—Other than Federal	343,693.30	363,693.30
Cancelled and Surrendered Leases	255,829.03	208,751.84
Total	$3,841,055.81	$3,676,988.46
Available for Depreciation, Depletion, Fed. Income Tax & Return	$3,670,206.69	$3,546,591.21
Depreciation and Depletion	987,598.35	997,629.80
Available for Federal Income Tax and Return	$2,682,608.34	$2,548,961.41
Federal Income Tax	208,202.84	195,346.60
Available for Return	$2,474,405.50	$2,353,614.81
Rate Base—(As set out in findings by Railroad Commission)	$46,520,137.06	$46,972,794.61
Available for Return Per Cent of Rate Base	5.32	5.01

[fol. 3934] DEFENDANT'S EXHIBIT No. 5

Lone Star Gas Company

Public Service Operations

Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended December 31st, 1931

[fol. 3935] Rate Base (Actual Cost of Public Service Property as Reflected by Books)	$47,776,749.63
Amount Available for Depreciation & Return	$4,605,721.83
Amount Available for Depreciation & Return—Per Cent of Rate Base	9.64

[fol. 3936] Statement of Revenues, Expenses, and Amount Available for Depreciation and Return Twelve Months Ended December 31st, 1931

Operating Revenues:	
Gas Sales	$9,265,639.45
Miscellaneous Operating Revenues	1,631.35
Total Operating Revenues	$9,267,270.80
Operating Expenses:	
Gas Purchased	$1,456,830.39
Production System Expense	$156,541.38
Gathering System Expense	140,961.09
Transmission System Expense	584,115.01
Compressor Station Expense	447,292.41
New Business Expense	126,125.98
General Expense	840,234.83
Total	$2,295,270.70
Total Gas Expense	$3,752,101.09
Uncollectible Bills	4,369.63
Taxes—Other than Federal Income	399,008.95
Cancelled and Surrendered Leases	239,230.96
Total Operating Expenses	$4,394,710.63

Defendant's Exhibit No. 5—Continued

Operating Earnings	$4,872,560.17
Non-Operating Revenues	35,464.07
Gross Income	$4,908,024.24
Non-Operating Revenue Deductions:	
Federal Income Tax	$302,302.41
Total	$302,302.41
Amount Available for Depreciation and Return	$4,605,721.83

Defendant's Exhibit No. 5—Continued

[fols. 3937-3938]

Lone Star Gas Company

Public Service Property at December 31st, 1931

	Investment per Books	Completed Construction	Total	Revaluation	Cost at Dec. 31, 1931
Undistributed Intangible Property	$6,338,000.00	$.....	$6,338,000.00	$6,338,000.00	$.....
Production System Property—Gas					
Gas Leases, Rights, & Lands in Fee	$1,369,744.17	$19,163.71	$1,388,907.88	$.....	$1,388,907.88
Gas Farms	5,127,856.43	5,681.80	5,133,538.23	1,632,694.87	3,500,843.36
Total	$6,497,600.60	$24,845.51	$6,522,446.11	$1,632,694.87	$4,889,751.24
Gathering and Transmission System Property	$50,233,511.94	$31,516.13	$50,265,028.07	$13,848,567.57	$36,416,460.50
Compressor Station Property	$6,569,248.10	$1,661.61	$6,570,909.71	$1,509,894.51	$5,061,015.20
Other Public Service Property					
Automotive Equipment—Net	$212,371.61	$2,317.00	$214,688.61	$124,838.78	$89,849.83
Dallas Machine Shop	182,326.48	.....	182,326.48	43,951.37	138,375.11
Drill Tools—Net	43,489.11	.....	43,489.11	.....	43,489.11
Gas Connections	15,050.78	.....	15,050.78	.....	15,050.78
Gen. Off. Building and Equipment	611,234.02	.....	611,234.02	142,461.23	468,772.79
Gen. Off. Furniture and Fixtures	261,104.71	.....	261,104.71	62,696.70	198,408.01
Real Estate	161,577.90	.....	161,577.90	79,449.47	82,128.43
Telephone & Telegraph System	987,570.72	.....	987,570.72	626,729.49	360,841.23
Tools and Construction Equipment	12,607.40	.....	12,607.40	.....	12,607.40
Total	$2,487,332.73	$2,317.00	$2,489,649.73	$1,080,127.04	$1,409,522.69
Grand Total	$72,125,693.37	$60,340.25	$72,186,033.62	$24,409,283.99	$47,776,749.63

[fol. 3939] DEFENDANT'S EXHIBIT No. 6

Lone Star Gas Company

Public Service Operations

Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended December 31st, 1932

[fol. 3940] Rate Base (Actual Cost of Public Service Property as Reflected by Books.)	$50,034,431.70
Amount Available for Depreciation & Return	$4,658,506.46
Amount Available for Depreciation & Return—Per Cent of Rate Base	9.31

[fol. 3941] Statement of Revenues, Expenses, and Amount Available for Depreciation and Return, Twelve Months Ended December 31st, 1932

Operating Revenues:	
Gas Sales	$8,829,713.37
Miscellaneous Operating Revenues	1,491.98
Total Operating Revenues	$8,831,205.35
Operating Expenses:	
Gas Purchased	$1,177,334.48
Production System Expense	$82,923.07
Gathering System Expense	135,110.30
Transmission System Expense	454,086.37
Compressor Station Expense	358,402.61
New Business Expense	87,528.94
General Expense	940,748.36
Total	$2,058,799.65
Total Gas Expense	$3,236,134.13

Defendant's Exhibit No. 6—Continued

Uncollectible Bills	5,399.35
Taxes—Other than Federal Income	343,693.30
Cancelled and Surrendered Leases	255,829.03
Total Operating Expenses	$3,841,055.81
Operating Earnings	$4,990,149.54
Non-Operating Revenues	20,679.83
Gross Income	$5,010,829.37
Non-Operating Revenue Deductions:	
Federal Income Tax	$343,835.27
Other Non-Operating Deductions	8,487.64
Total	$352,322.91
Amount Available for Depreciation and Return	$4,658,506.46

Defendant's Exhibit No. 6—Continued

[fols. 3942-3948]

Lone Star Gas Company

Public Service Property at December 31st, 1932

	Investment per Books	Completed Construction	Total	Revaluation	Cost at Dec. 31, 1932
Undistributed Intangible Property	$6,700,000.00	$.....	$6,700,000.00	$6,500,000.00	$200,000.00
Production System Property—Gas					
Gas Leases, Rights, & Lands in Fee	$1,276,931.11	$15,980.73	$1,292,911.84	$.....	$1,292,911.84
Gas Farms	6,434,413.29	14,135.11	6,448,548.40	2,136,703.48	4,311,844.92
Total	$7,711,344.40	$30,115.84	$7,741,460.24	$2,136,703.48	$5,604,756.76
Gathering and Transmission System Property	$51,789,260.75	$20,733.77	$51,809,994.52	$14,067,117.90	$37,742,876.62
Compressor Station Property	$6,559,250.68	$11,380.39	$6,570,631.07	$1,509,894.51	$5,060,736.56
Other Public Service Property					
Automotive Equipment—Net	$184,631.77	$568.32	$185,200.09	$124,838.78	$60,361.31
Dallas Machine Shop	182,804.96	277.80	183,082.76	43,951.37	139,131.39
Drill Tools—Net	34,559.71	.....	34,559.71	.....	34,559.71
Gas Connections	15,215.42	.....	15,215.42	.....	15,215.42
G. O. Building and Equipment	633,953.33	.....	633,953.33	142,461.23	491,492.10
Gen. Office Furniture & Fixtures	268,886.07	.....	268,886.07	62,696.70	206,189.37
Real Estate	161,577.90	.....	161,577.90	79,449.47	82,128.43
Telephone & Telegraph System	1,026,072.15	1,603.71	1,027,675.86	644,476.23	383,199.63
Tools & Construction Equipment	13,784.40	.....	13,784.40	.....	13,784.40
Total	$2,521,485.71	$2,449.83	$2,523,935.54	$1,097,873.78	$1,426,061.76
Grand Total	$75,281,341.54	$64,679.83	$75,346,021.37	$25,311,589.67	$50,034,431.70

[fol. 3949] DEFENDANT'S EXHIBIT No. 8

Lone Star Gas Company

Public Service Operations

Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended December 31st, 1933

[fol. 3950] Rate Base (Actual Cost of Public Service Property as Reflected by Books.)	$49,837,026.06
Amount Available for Depreciation & Return	$3,892,748.58
Amount Available for Depreciation & Return —Per Cent of Rate Base	7.81

[fol. 3951] Statement of Revenues, Expenses, and Amount Available for Depreciation and Return, Twelve Months Ended December 31st, 1933

Operating Revenues:	
Gas Sales	$7,688,724.10
Miscellaneous Operating Revenues	1,442.91
Total Gas Revenues	$7,690,167.01
Operating Expenses:	
Gas Purchased	$1,086,587.44
Production System Expense	105,554.86
Gathering System Expense	131,326.29
Transmission System Expense	431,520.56
Compressor Station Expense	338,433.01
New Business Expense	99,793.94
General Expense	859,234.88
Total	$1,965,863.54
Total Gas Expense	$3,052,450.98
Uncollectible Bills	6,530.77
Taxes—Other than Federal Income	360,476.91
Cancelled and Surrendered Leases	188,629.92
Total Operating Expenses	$3,608,088.58

Defendant's Exhibit No. 8—Continued

Operating Earnings	$4,082,078.43
Non-Operating Revenues	61,198.22
Gross Income	$4,143,276.65
Non-Operating Revenue Deductions:	
Federal Income Tax	$223,331.34
Other Non-Operating Deductions	27,196.73
Total	$250,528.07
Amount Available for Depreciation and Return	$3,892,748.58

Defendant's Exhibit No. 8—Continued

[fols. 3952-3953]

Lone Star Gas Company

Public Service Property at December 31st, 1933

	Investment per Books	Completed Construction	Total	Revaluation	Cost at Dec. 31, 1933
Undistributed Intangible Property	$6,700,000.00	$.....	$6,700,000.00	$6,500,000.00	$200,000.00
Production System Property—Gas					
Gas Leases, Rights, & Lands in Fee	$1,173,844.35	$.....	$1,173,844.35	$.....	$1,173,844.35
Gas Farms	4,234,436.50	184.04	4,234,620.54	.....	4,234,620.54
Total	$5,408,280.85	$184.04	$5,408,464.89	$.....	$5,408,464.89
Gathering and Transmission System Property	$52,044,487.85	$14,180.19	$52,058,668.04	$14,330,753.59	$37,727,914.45
Compressor Station Property	$6,557,166.14	$1,011.85	$6,558,177.99	$1,517,275.23	$5,040,902.76
Other Public Service Property					
Automotive Equipment—Net	$92,301.16	$611.38	$92,912.54	$.....	$92,912.54
Dallas Machine Shop	139,785.99	.....	139,785.99	.....	139,785.99
Drill Tools—Net	25,713.93	.....	25,713.93	.....	25,713.93
Gas Connections	15,089.99	.....	15,089.99	.....	15,089.99
Gen. Off. Building & Equipment	497,218.24	.....	497,218.24	.....	497,218.24
Gen. Off. Furniture & Fixtures	212,021.28	.....	212,021.28	.....	212,021.28
Real Estate	78,768.53	.....	78,768.53	.....	78,768.53
Telephone & Telegraph System	1,027,646.11	.....	1,027,646.11	644,476.23	383,169.88
Tools and Construction Equipment	15,063.58	.....	15,063.58	.....	15,063.58
Total	$2,103,608.81	$611.38	$2,104,220.19	$644,476.23	$1,459,743.96
Grand Total	$72,813,543.65	$15,987.46	$72,829,531.11	$22,992,505.05	$49,837,026.06

[fol. 3954] DEFENDANT'S EXHIBIT No. 9

Lone Star Gas Company

Public Service Operations

Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended March 31st, 1934

[fol. 3955] Rate Base (Actual Cost of Public Service Property as Reflected by Books.)	$49,872,761.09
Amount Available for Depreciation & Return	$4,120,143.52
Amount Available for Depreciation & Return—Per Cent of Rate Base	8.26

[fol. 3956] Statement of Revenues, Expenses, and Amount Available for Depreciation and Return, Twelve Months Ended March 31st, 1934

Operating Revenues:	
Gas Sales	$7,926,274.88
Miscellaneous Operating Revenues	1,596.78
Total Operating Revenues	$7,927,871.66
Operating Expenses:	
Gas Purchased	$1,096,156.08
Production System Expense	$108,299.55
Gathering System Expense	131,713.95
Transmission System Expense	426,114.97
Compressor Station Expense	346,306.81
New Business Expense	101,308.68
General Expense	837,107.65
Total	$1,950,851.61
Total Gas Expense	$3,047,007.69
Uncollectible Bills	6,475.73
Taxes—Other than Federal Income	360,476.91
Cancelled and Surrendered Leases	169,362.09
Total Operating Expenses	$3,583,322.42

Defendant's Exhibit No. 9—Continued

Operating Earnings	$4,344,549.24
Non-Operating Revenues	62,027.10
Gross Income	$4,406,576.34
Non-Operating Revenue Deductions:	
Federal Income Tax	$259,297.97
Other Non-Operating Revenue Deductions	27,134.85
Total	$286,432.82
Amount Available for Depreciation and Return	$4,120,143.52

Defendant's Exhibit No. 9—Continued

[fols. 3957-3958]

Lone Star Gas Company

Public Service Property at March 31st, 1934

	Investment per Books	Completed Construction	Total	Revaluation	Cost at March 31, 1934
Undistributed Intangible Property	$6,700,000.00	$.....	$6,700,000.00	$6,500,000.00	$200,000.00
Production System Property—Gas					
Gas Leases, Rights, & Lands in Fee	$1,173,256.80	$6,054.36	$1,179,311.16	$.....	$1,179,311.16
Gas Farms	4,234,229.29	270.01	4,234,499.30	.....	4,234,499.30
Total	$5,407,486.09	$6,324.37	$5,413,810.46	$.....	$5,413,810.46
Gathering System Property	$2,084,493.24	$10,192.95	$2,094,686.19	$600,210.39	$1,494,475.80
Transmission System Property	$49,976,714.42	$15,718.37	$49,992,432.79	$13,730,524.20	$36,261,908.59
Compressor Station Property	$6,556,543.48	$6,778.47	$6,563,321.95	$1,517,275.23	$5,046,046.72
Other Public Service Property:					
Automotive Equipment—Net	$84,475.63	$2,578.50	$87,054.13	$.....	$87,054.13
Dallas Machine Shop	139,993.75	.....	139,993.75	.....	139,993.75
Drill Tools—Net	26,390.23	.....	26,390.23	.....	26,390.23
Gas Connections	15,523.05	.....	15,523.05	.....	15,523.05
Gen. Off. Building and Equipment	497,223.85	.....	497,223.85	.....	497,223.85
Gen. Off. Furniture and Fixtures	212,961.23	.....	212,961.23	.....	212,961.23
Real Estate	78,768.53	.....	78,768.53	.....	78,768.53
Telephone and Telegraph System	1,027,695.75	.....	1,027,695.75	644,476.23	383,219.52
Tools and Construction Equipment	15,385.23	.....	15,385.23	.....	15,385.23
Total	$2,098,417.25	$2,578.50	$2,100,995.75	$644,476.23	$1,456,519.52
Grand Total	$72,823,654.48	$41,592.66	$72,865,247.14	$22,992,486.05	$49,872,761.09

[fol. 3959] DEFENDANT'S EXHIBIT No. 10.

Lone Star Gas Company

Public Service Operations

Amount Available for Depreciation and Return on Rate Base for Twelve Months Ended April 30th, 1934

[fol. 3960] Rate base (Actual Cost of Public Service Property as Reflected by Books.)	$49,858,751.23
Amount Available for Depreciation and Return	4,114,322.81
Amount Available for Depreciation and Return—Per Cent of Rate Base	8.25

[fol. 3961] Statement of Revenues, Expenses, and Amount Available for Depreciation and Return, Twelve Months Ended April 30th, 1934

Operating Revenues:	
Gas Sales	$7,921,446.79
Miscellaneous Operating Revenues	1,640.51
Total Operating Revenues	$7,923,087.30
Operating Expenses:	
Gas Purchased	$1,093,297.36
Production System Expense	$107,403.80
Gathering System Expense	132,979.91
Transmission System Expense	428,557.04
Compressor Station Expense	349,311.51
New Business Expense	102,140.30
General Expense	832,114.97
Total	$1,952,507.53
Total Gas Expense	$3,045,804.89

Defendant's Exhibit No. 10—Continued

Uncollectible Bills	6,474.03
Taxes—Other than Federal Income	360,476.91
Cancelled and Surrendered Leases	172,958.04
Total Operating Expenses	$3,585,713.87
Operating Earnings	4,337,373.43
Non-Operating Revenues	62,581.24
Gross Income	$4,399,954.67
Non-Operating Revenue Deductions:	
Federal Income Tax	$258,481.70
Other Non-Operating Deductions	27,150.16
Total	$285,631.86
Amount Available for Depreciation and Return	$4,114,322.81

Defendant's Exhibit No. 10—Continued

[fols. 3962-3963]

Lone Star Gas Company

Public Service Property at April 30th, 1934

	Investment per Books	Completed Construction	Total	Revaluation	Cost at April 30, 1934
Undistributed Intangible Property	$6,700,000.00	$.....	$6,700,000.00	$6,500,000.00	$200,000.00
Production System Property—Gas					
Gas Leases, Rights, & Lands in Fee	$1,158,541.63	$3,882.69	$1,162,424.32	$.....	$1,162,424.32
Gas Farms	4,235,259.66	4.26	4,235,263.92	.....	4,235,263.92
Total	$5,393,801.29	$3,886.95	$5,397,688.24	$.....	$5,397,688.24
Gathering System Property	2,095,602.85	1,294.36	2,096,897.21	600,210.39	1,496,686.82
Transmission System Property	49,985,847.45	6,632.77	49,992,480.22	13,730,524.20	36,261,956.02
Compressor Station Property	6,557,578.85	5,672.51	6,563,251.36	1,517,275.23	5,045,976.13
Other Public Service Property					
Automotive Equipment—Net	$83,835.24	$712.58	$84,547.82	$.....	$84,547.82
Dallas Machine Shop	139,981.59	555.34	140,536.93	.....	140,536.93
Drill Tools—Net	27,122.10	.....	27,122.10	.....	27,122.10
Gas Connections	16,032.72	.....	16,032.72	.....	16,032.72
Gen. Office Building & Equipment	497,223.85	.....	497,223.85	.....	497,223.85
Gen. Office Furniture & Fixtures	213,501.18	.....	213,501.18	.....	213,501.18
Real Estate	78,768.53	.....	78,768.53	.....	78,768.53
Telephone and Telegraph System	1,027,695.75	.....	1,027,695.75	644,476.23	383,219.52
Tools and Construction Equipment	15,491.37	.....	15,491.37	.....	15,491.37
Total	$2,099,652.33	$1,267.92	$2,100,920.25	$644,476.23	$1,456,444.02
Grand Total	$72,832,482.77	$18,754.51	$72,851,237.28	$22,992,486.05	$49,858,751.23

Defendant's Exhibit No. 11

[fols. 3964-3965]

Lone Star Gas Company

Statement Showing Detail of Operating Expense

for Periods Shown Below

	Twelve Months Ending				
Production System Expense:	Dec. 31, 1931	Dec. 31, 1932	June 30, 1933	Dec. 31, 1933	Mar. 31, 1934
306 Drilling Costs	$65,871.56	$14,288.55	$15,747.35	$18,704.52	$19,221.57
312 Abandoning Wells	17,389.70	1,222.49	635.93	1,601.52	1,626.52
313 Well Rentals and Royalties	30,601.42	37,629.85	45,338.23	45,441.54	48,464.09
320 Superintendence of Lifting	1,395.25	4,424.28	5,223.45	5,868.58	5,834.90
321 Labor—Lifting	131.84	18.62	24.53	25.36	25.36
325 Lifting Supplies and Expenses	1.43	5.73	16.01	14.65	4.37
326 Maintenance	147.59	48.26	112.53	188.11	143.14
328 Repairing and Cleaning out Wells	33,377.03	23,771.22	23,133.11	31,777.90	30,797.95
329 Miscellaneous Lifting Expenses	7,625.56	1,514.07	1,959.12	1,932.68	2,181.65
Total Production System Expense	$156,541.38	$82,923.07	$92,190.26	$105,554.86	$108,299.55
Gathering System Expense:					
Operations:					
341 Superintendence	$11,056.67	$17,056.96	$20,653.76	$24,440.42	$24,338.36
342 Labor—Operating Wells	17,998.72	26,993.62	24,124.72	25,126.18	26,962.47
343 Field Line—Labor	12,852.72	9,907.70	9,230.02	8,949.66	9,027.24
344 Field Measuring Station—Labor	18,963.72	16,834.79	15,233.79	15,470.27	15,892.96
345 Superintendence—Supplies and Expenses	1,495.62	3,995.16	3,137.36	3,340.05	3,531.65
346 Gas Wells—Supplies and Expenses	6,112.54	11,167.62	9,328.04	8,822.67	8,581.80
347 Field Line—Supplies and Expenses	4,665.46	3,577.49	2,367.39	2,169.11	2,136.16
348 Field Measuring Station Supplies & Expenses	9,235.13	8,448.86	7,358.62	6,803.24	6,654.35
349 Other Supplies and Expenses	9,845.59	790.40	1,176.18	1,096.35	1,223.83
350 Damages	70.20	74.43	31.38	40.94	66.42
Total	$92,296.37	$98,847.03	$92,641.26	$96,258.89	$98,415.24

Maintenance:					
351 Superintendence of Maintehance	$1,612.99	$1,149.75	$854.13	$1,329.70	$1,207.32
352 Maintenance of Field Lines	12,683.23	11,400.40	11,111.22	8,989.60	7,536.01
353 Maintenance of Field Structures	98.50	128.69	504.66	465.96	133.22
354 Maintenance of Field Measuring Stations	23,189.21	22,204.55	22,400.06	23,596.38	23,769.36
355 Maintenance of Gas Cleaners	4.82	.....	.....	.....	.....
356 Changing Construction	8,380.28	772.29	243.59	430.72	397.76
357 Other Maintenance Expense	2,695.69	607.59	6.93†	255.04	255.04
Total	$48,664.72	$36,263.27	$35,106.73	$35,067.40	$33,298.71
Total Gathering System Expense	$140,961.09	$135,110.30	$127,747.99	$131,326.29	$131,713.95
Transmission System Expense:					
Operations:					
361 Superintendence	$60,580.76	$54,776.46	$51,448.44	$48,304.84	$49,303.81
362 Line Walkers—Labor	86,454.82	60,492.43	55,908.17	55,942.24	54,998.30
363 Inspection—Labor	31,433.20	27,975.69	27,872.03	29,837.02	30,905.84
364 Measuring Station Labor	22,106.89	25,287.40	27,993.20	28,706.30	28,455.86
365 Other Transmission System Labor	27,875.81	28,022.45	37,403.66	39,570.41	37,948.76
366 Superintendence Supplies and Expenses	17,867.06	12,584.08	11,094.55	11,375.14	11,460.76
367 Measuring Station Supplies and Expenses	12,717.68	11,617.68	12,116.26	11,742.59	11,003.30
368 Transmission Lines Supplies and Expenses	21,875.14	15,524.75	17,063.99	18,295.08	23,395.04
368-A Inspection Supplies and Expenses	6,825.41	6,888.89	6,193.25	5,804.94	.....
369 Transmission System Rents	16,201.13	15,955.75	15,846.20	15,438.49	15,445.17
370 Trans. and Compression Charges Paid—Others	.....	498.71	856.01	597.42	256.12
371 Damages	4,272.55	5,998.55	5,911.34	3,190.06	3,309.28
Total	$308,210.45	$265,622.84	$269,707.10	$268,804.53	$266,482.24

† Red in copy.

Defendant's Exhibit No. 11—Continued

Lone Star Gas Company

Statement Showing Detail of Operating Expense
for Periods Shown Below

	Twelve Months Ending				
Maintenance:	Dec. 31, 1931	Dec. 31, 1932	June 30, 1933	Dec. 31, 1933	Mar. 31, 1934
372 Superintendence of Maintenance	$7,888.08	$3,372.08	$3,665.97	$5,700.55	$5,318.67
373 Maintenance Measuring Station Structures	22,202.70	6,582.18	2,571.73	9,885.37	10,719.60
374 Maintenance Transmission Lines	139,504.48	106,597.18	96,989.40	83,535.21	78,125.81
375 Maintenance Measuring Station Equipment	65,684.60	48,679.03	47,730.31	45,692.65	47,436.43
376 Maintenance Gas Cleaners	1,088.24	865.88	366.90	479.71	513.62
377 Maintenance River Crossings	407.50	2,723.62	2,554.82	2,435.23	2,441.78
378 Maintenance Other Trans. System Equipment	21,780.66	8,325.45	7,690.64	9,358.77	9,630.04
379 Changing Construction	17,348.30	11,318.11	3,322.04	5,628.54	5,446.78
Total	$275,904.56	$188,463.53	$164,891.81	$162,716.03	$159,632.73
Total Transmission System Expense	$584,115.01	$454,086.37	$434,598.91	$431,520.56	$426,114.97

[fols. 3966-3967]

Compressor Station Expense:					
Operation:					
381 Superintendence	$55,443.95	$41,836.69	$40,788.58	$39,746.25	$39,039.43
382 Engineers and Oilers—Labor	131,385.83	95,805.09	83,581.76	83,791.08	81,947.76
383 Other Compressor Station Labor	28,345.16	24,136.22	23,837.58	27,983.74	33,023.66
384 Fuel	80,446.01	72,475.30	64,049.12	65,049.15	66,185.57
385 Water	24,183.80	20,770.15	19,364.25	19,593.90	18,902.68
386 Lubricants	8,020.66	6,426.04	4,599.61	5,234.56	5,621.34
387 Tool Expense	2,310.41	1,455.22	1,807.98	2,115.69	2,068.75
388 Miscellaneous Supplies and Expenses	29,340.04	19,177.17	17,634.05	16,567.09	16,624.36
Total	$359,475.86	$282,081.88	$255,662.93	$260,081.46	$263,413.55
Maintenance:					
389 Maintenance of Machinery	$33,107.46	$47,013.51	$51,719.46	$47,124.84	$46,859.27
390 Maintenance of Water System	8,999.57	7,677.59	6,615.36	6,831.22	7,069.15
391 Maintenance of Pipe and Fittings	6,235.46	3,152.39	3,121.39	4,718.05	6,026.31
392 Maintenance of Structures	9,829.51	6,045.55	6,019.59	9,079.22	12,876.97
393 Changing Construction	785.56	4,783.59	4,927.23	3,341.71	3,118.28
394 Maintenance of Other Equipment	8,858.99	7,648.10	8,059.83	7,256.51	6,943.28
Total	$87,816.55	$76,320.73	$80,462.86	$78,351.55	$82,893.26
Total Compressor Station Expense	$447,292.41	$358,402.61	$336,125.79	$338,433.01	$346,306.81
New Business Expense:					
442 New Business Advertising Salaries	$9,548.77	$9,078.37	$10,963.57	$13,990.36	$16,140.99
443 New Business Soliciting and Commissions	27,969.98	20,715.95	20,017.41	20,357.09	19,827.92
445 Other New Business Labor	.....	.....	.....	1.93	1.93
446 Advertising Supplies and Expenses	81,234.85	45,407.69	47,918.08	54,847.92	55,266.43
447 New Business Supplies and Expenses	7,372.38	12,326.93	10,826.10	10,596.64	10,071.41
Total New Business Expense	$126,125.98	$87,528.94	$89,725.16	$99,793.94	$101,308.68

Defendant's Exhibit No. 11—Continued

Lone Star Gas Company
Statement Showing Detail of Operating Expense
for Periods Shown Below

	Twelve Months Ending				
General Expense:	Dec. 31, 1931	Dec. 31, 1932	June 30, 1933	Dec. 31, 1933	Mar. 31, 1934
461 Management Fees and Expenses	$91,375.38	$87,197.87	$83,573.88	$75,940.60	$78,294.78
462 Administrative Salaries	145,745.68	121,454.05	118,640.51	118,248.00	120,761.98
463 Other General Office Salaries	307,850.98	299,001.89	301,602.77	312,304.38	320,137.69
464 General Office Supplies and Expense	23,894.23	11,871.96	14,102.12	15,160.09	15,940.03
465 General Off. Traveling & Incidental Expenses	22,907.99	32,413.26	34,435.42	28,278.53	28,592.26
466 General Stationery and Printing	16,011.29	17,330.60	11,963.55	12,213.71	12,301.64
467 Law Expense	53,426.94	48,279.18	46,989.94	52,182.40	50,291.79
468 General Office Rent	6,279.27	16,404.72	34,497.82	52,571.77	52,536.79
469 Maintenance General Structures	24,650.71	29,572.81	13,106.66	.....	.....
470 Maintenance General Office Equipment	2,146.07	2,470.16	3,052.84	2,271.74	2,275.06
471 Maintenance Other General Equipment	.....	.....	.....	.....	.....
472 Telephone and Telegraph System Labor	12,077.19	10,014.62	8,896.28	8,321.63	8,162.81
473 Tel. and Tel. System Supplies and Expenses	6,044.29	5,472.91	5,246.39	4,096.05	3,100.26
474 Maint. of Telephone and Telegraph System	10,109.98	7,894.55	7,776.51	9,076.68	9,318.89
476 Regulatory Commission Expense	17,695.86	163,749.01	108,735.10	66,792.39	56,204.18
477 Charitable Donations	9,848.67	10,331.77	9,635.53	10,671.70	10,021.05
478 Injuries and Damages	7.49	339.56	386.70	47.14	838.34
479 Insurance Expense	32,647.86	28,830.99	26,368.89	27,724.59	27,948.98
480 Welfare and Pensions	8,502 89	8,917.53	9,149.13	8,287.62	8,165.09
481 Miscellaneous General Administrative Exp.	49,012.06	39,200.92	50,986.55	55,045.86	32,216.03
Total General Expense	$840,234.83	$940,748.36	$889,146.59	$859,234.88	$837,107.65
Grand Total Operating Expense	$2,295,270.70	$2,058,799.65	$1,969,534.70	$1,965,863.54	$1,950,851.61

[fol. 3968] DEFENDANT'S EXHIBIT No. 12

Lone Star Gas Company

Statement Showing Detail of Operating Expense, Twelve Months Ended April 30th, 1934

[fol. 3969] Production System Expense:

306	Drilling Costs	$19,221.57
312	Abandoning Wells	1,704.12
313	Well Rentals and Royalties	48,476.47
320	Superintendence of Lifting	5,713.82
321	Labor—Lifting	27.12
325	Lifting Supplies and Expenses	4.37
326	Maintenance	125.65
328	Repairing and Cleaning out Wells	30,091.16
329	Miscellaneous Lifting Expense	2,039.52
	Total Production System Expense	$107,403.80

Gathering System Expense:

Operations:

341	Superintendence	$23,970.77
342	Labor—Operating Wells	27,703.98
343	Field Line—Labor	8,913.11
344	Field Measuring Station—Labor	16,105.18
345	Superintendence—Supplies & Expenses	3,541.75
346	Gas Well—Supplies and Expenses	8,261.78
347	Field Line—Supplies and Expenses	2,051.48
348	Field Measuring Station—Supplies & Exp.	6,840.23
349	Other Supplies and Expenses	1,201.27
350	Damages	94.44
	Total	$98,683.99

Maintenance:

351	Superintendence of Maintenance	$1,143.46
352	Maintenance of Field Lines	8,027.71
353	Maintenance of Field Structures	118.97
354	Maintenance of Field Measuring Stations	24,283.88

Defendant's Exhibit No. 12—Continued

356	Changing Construction	466.86
357	Other Maintenance Expenses	255.04
	Total	$34,295.92
	Total Gathering System Expense	$132,979.91
Transmission System Expense:		
Operations:		
361	Superintendence	$49,976.37
362	Line Walkers	54,703.31
363	Inspection	31,490.20
364	Measuring Station Labor	28,524.42
365	Other Transmission System Labor	38,360.15
366	Superintendence Supplies and Expenses	11,853.01
367	Measuring Station Supplies and Expenses	11,048.57
368	Transmission Lines Supplies & Expenses	23,309.09
369	Transmission System Rents	15,449.41
370	Transmission & Compressor Chgs. Paid Others	201.51
371	Damages	3,344.42
	Total	$268,260.46
Maintenance:		
372	Superintendence of Maintenance	$5,291.97
373	Maintenance Measuring Station Structures	10,761.00
374	Maintenance Transmission Lines	77,705.10
375	Maintenance Measuring Station Equipment	48,027.38
376	Maintenance Gas Cleaners	498.37
377	Maintenance River Crossings	2,410.34
378	Maintenance Other Transmission Line Equip.	10,116.32
379	Changing Construction	5,486.10
	Total	$160,296.58
	Total Transmission System Expense	$428,557.04

Defendant's Exhibit No. 12—Continued

[fols. 3970-3971] Compressor Station Expense:

Operations:	
381 Superintendence	$39,310.78
382 Engineers and Oilers—Labor	81,655.38
383 Other Compressor Station Labor	34,022.90
384 Fuel	66,289.14
385 Water	19,527.36
386 Lubricants	5,666.81
387 Tool Expense	2,188.23
388 Miscellaneous Supplies and Expenses	16,526.24
Total	$265,186.84
Maintenance:	
389 Maintenance of Machinery	$46,160.43
390 Maintenance of Water System	6,853.99
391 Maintenance of Pipe and Fittings	6,385.06
392 Maintenance of Structures	14,214.61
393 Changing Construction	3,063.80
394 Maintenance of Other Compressor Sta. Equip.	7,446.78
Total	$84,124.67
Total Compressor Station Expense	$349,311.51
New Business Expense:	
442 New Business Salaries	$16,516.64
443 New Business Soliciting and Commissions	19,891.66
445 Other New Business Labor	1.93
446 Advertising Supplies and Expenses	55,781.28
447 New Business Supplies and Expenses	9,948.79
Total New Business Expense	$102,140.30
General Expense:	
461 Management Fees and Expenses	$78,244.38
462 Administrative Salaries	121,925.83
463 Other General Office Salaries	321,403.68
464 General Office Supplies and Expenses	14,939.99

Defendant's Exhibit No. 12—Continued

465	Gen. Office Traveling & Incidental Exp.	29,694.04
466	General Office Stationery and Printing	12,471.25
467	Law Expenses	49,103.10
468	General Office Rent	52,508.51
470	Maintenance General Office Equipment	2,171.85
472	Telephone and Telegraph System Labor	8,097.72
473	Telephone and Telegraph Sys. Supplies & Exp.	3,128.16
474	Maintenance of Telephone & Telegraph System	9,454.70
476	Regulatory Commission Expenses	44,361.36
477	Charitable Donations	9,883.50
478	Injuries and Damages	838.34
479	Insurance Expense	27,611.28
480	Welfare and Pensions	8,073.30
481	Miscellaneous General Administrative Exp.	38,203.98
	Total General Expense	$832,114.97
	Grand Total Operating Expense	$1,952,507.53

[fols. 3972-3975] DEFENDANT'S EXHIBIT No. 13

Lone Star Gas Company
Public Service Operations
Accounting Schedules

Based on Findings by Railroad Commission of Texas and Set Out in Their Opinion and Order Dated September 13, 1933

[fol. 3976] Summarization of Information Shown on Schedules Included in This Report

Section No. 1:

Based on actual revenues (40¢ Domestic Gate Rate), with operating expenses, depreciation and depletion allowance as

found and allowed by the Commission, and Rate Base as found by Commission and set out in their Opinion and Order. The amount available for return, expressed as a percentage of the Rate Base, is as shown below:

Twelve	Months	Ended	December 31st, 1931	8.15%
"	"	"	December 31st, 1932	8.23%
"	"	"	June 30th, 1933	7.55%
"	"	"	December 31st, 1933	6.01%
"	"	"	March 31st, 1934	6.42%

Section No. 2:

Based on actual revenues (40¢ Domestic Gate Rate), with operating expenses, other than gas purchased expense, as found and allowed by Commission, depreciation and depletion allowance calculated in same manner and with same annual rates as found and used by Commission in their Opinion and Order. Rate Base is the amount found by Commission at December 31st, 1931, plus net additions at actual cost to the Company. Based upon the above information, the amount available for return, expressed as a percentage of the Rate Base, is as shown below:

Twelve	Months	Ended	December 31st, 1931	8.15%
"	"	"	December 31st, 1932	7.94%
"	"	"	June 30th, 1933	7.42%
"	"	"	December 31st, 1933	5.98%
"	"	"	March 31st, 1934	6.41%

[fol. 3977] Section No. 3:

Based on adjusted revenues, after giving effect to Commission Order of 32¢ Domestic Gate Rate, with operating expenses, depreciation and depletion allowances as found and allowed by the Commission, and Rate Base as found by Commission and set out in their Opinion and Order dated September 13th, 1933. Based upon these findings the amount available for return, expressed as a percentage of the Rate Base, is as shown below:

Twelve	Months	Ended	December 31st, 1931	5.56%
"	"	"	December 31st, 1932	5.76%
"	"	"	June 30th, 1933	5.22%
"	"	"	December 31st, 1933	3.97%
"	"	"	March 31st, 1934	4.31%

Section No. 4:

Based on adjusted revenues, after giving effect to Commission Order of 32¢ Domestic Gate Rate, with operating expenses, other than gas purchased expense, as found and allowed by the Commission, depreciation and depletion allowance calculated in same manner and with same annual rates as found and used by Commission in their Opinion and Order. Rate Base is the amount found by Commission at December 31st, 1931, plus net additions at actual cost to the Company. Based upon the above information, the amount available for return, expressed as a percentage of the Rate Base, would be as follows:

Twelve	Months	Ended	December 31st, 1931	5.56%
"	"	"	December 31st, 1932	5.57%
"	"	"	June 30th, 1933	5.17%
"	"	"	December 31st, 1933	4.01%
"	"	"	March 31st, 1934	4.36%

[fol. 3978] Section No. 1

Basis of Calculations Included in Schedules Incorporated in This Section of Report

1. Gas Sales:

Based on 40¢ Domestic Gate Rate.

2. Rate Base:

Based on findings by Railroad Commission and as set out in their Opinion and Order dated September 13th, 1933.

3. Operating Expenses:

Based on findings by Railroad Commission and as set out in their Opinion and Order dated September 13th, 1933.

4. Depreciation and Depletion:

Based on findings by Railroad Commission and as set out in their Opinion and Order dated September 13th, 1933.

5. Federal Income Tax:

Based on Amount Available for Return as shown in schedules, less interest charges paid by the Company. The remainder being used as the basis of calculation at the prevailing rate.

Defendant's Exhibit No. 13—Continued

[fol. 3979]

Lone Star Gas Company

Public Service Operations

Statement of Revenues, Expenses, and Amount Available for Return

(Based on 40¢ Domestic Gate Rate and Operating Expenses, Depreciation, and Depletion Calculated In Same Manner as Used by Commission and Set Out in Their Opinion and Order Dated September 13th, 1933)

For Periods Shown Below

	Twelve Months Ended				
	December 31st, 1931	December 31st, 1932	June 30th, 1933	December 31st, 1933	March 31st, 1934
Gross Revenues:					
Gas Sales	$9,265,639.45	$8,829,713.37	$8,455,136.94	$7,688,724.10	$7,926,274.88
Miscel. Operating Revenues	1,631.35	1,491.98	1,403.52	1,442.91	1,596.78
Other Non-Operating Revenues	36,610.96	20,326.95	40,435.07	35,639.48	36,503.31
Total	$9,303,881.76	$8,851,532.30	$8,496,975.53	$7,725,806.49	$7,964,374.97
Deductions from Gross Revenues:					
Gas Purchased	$1,456,830.39	$1,247,561.78	$1,219,883.37	$1,182,185.66	$1,198,160.63
Production System Expense	90,669.82	68,634.52	76,442.91	86,850.34	89,077.98
Gathering System Expense	140,961.09	135,110.30	127,747.99	131,326.29	131,713.95
Transmission System Expense	584,115.01	454,086.37	434,598.91	431,520.56	426,114.97
Compressor Station Expense	447,292.41	358,402.61	336,125.79	338,433.01	346,306.81
New Business Expense	126,125.98	87,528.94	89,725.16	99,793.94	101,308.68
General Expense	731,163.59	689,811.48	696,837.61	716,501.89	703,793.31
Uncollectible Bills	4,369.63	5,399.35	4,794.61	6,530.77	6,475.73
Taxes—Other than Federal	399,008.95	343,693.30	363,693.30	360,476.91	360,476.91
Management Fees and Expenses	.....	.....	.....	.....	.....
Regulatory Commission Expense	17,695.86	12,422.54	15,089.87	17,490.09	17,490.09
Dry Hole Expense	79,453.12	70,635.93	70,635.93	68,464.51	68,464.51
Cancelled and Surrendered Leases	99,140.73	137,446.63	137,446.63	172,676.50	172,676.50
Total	$4,176,826.58	$3,610,733.75	$3,573,022.08	$3,612,250.47	$3,622,060.07

Defendant's Exhibit No. 13—Continued

Lone Star Gas Company

Public Service Operations

Statement of Revenues, Expenses, and Amount Available for Return

(Based on 40¢ Domestic Gate Rate and Operating Expenses, Depreciation, and Depletion Calculated In Same Manner as Used by Commission and Set Out in Their Opinion and Order Dated September 13th, 1933)

For Periods Shown Below

	Twelve Months Ended				
	December 31st, 1931	December 31st, 1932	June 30th, 1933	December 31st, 1933	March 31st, 1934
Available for Depreciation, Depletion, Federal Income Tax, and Return	$5,127,055.18	$5,240,798.55	$4,923,953.45	$4,113,556.02	$4,342,314.90
Depreciation and Depletion	983,698.43	987,598.35	997,629.80	1,000,017.75	1,001,440.56
Available for Federal Income Tax and Return	$4,143,356.75	$4,253,200.20	$3,926,323.65	$3,113,538.27	$3,340,874.34
Federal Income Tax	375,116.98	424,159.22	384,733.91	278,090.32	311,929.74
Available for Return	$3,768,239.77	$3,829,040.98	$3,541,589.74	$2,835,447.95	$3,028,944.60
Rate Base: (As set out in findings by Commission. See Rate Base Calculations in this report)	$46,246,617.53	$46,520,137.06	$46,972,794.61	$47,180,440.21	$47,192,765.79
Available for Return: Percent of Rate Base	8.15	8.23	7.55	6.01	6.42

Defendant's Exhibit No. 13—Continued

[fol. 3980]

Lone Star Gas Company
Public Service Operations
Comparative Statement of Revenues and Expenses
(Based on 40¢ Domestic Gate Rate)
Twelve Months Ended December 31st, 1931

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$9,265,639.45	.....	$9,265,639.45
Miscell. Operating Revenues	1,631.35	.....	1,631.35
Other Non-Operating Revenues	35,464.07	$1,146.89	36,610.96
Total	$9,302,734.87	$1,146.89	$9,303,881.76
Deductions from Gross Revenues			
Gas Purchased	$1,456,830.39	.....	$1,456,830.39
Production System Expense	90,669.82	.....	90,669.82
Gathering System Expense	140,961.09	.....	140,961.09
Transmission System Expense	584,115.01	.....	584,115.01
Compressor Station Expense	447,292.41	.....	447,292.41
New Business Expense	126,125.98	.....	126,125.98
General Expense	731,163.59	.....	731,163.59
Uncollectible Bills	4,369.63	.....	4,369.63
Taxes—Other than Federal	399,008.95	.....	399,008.95
Management Fees & Expenses	91,375.38	$91,375.38*	.....
Regulatory Commission Expense	17,695.86	.....	17,695.86
Dry Hole Expense	65,871.56	13,581.56	79,453.12
Cancelled & Surrendered Leases	239,230.96	140,090.23*	99,140.73
Total	$4,394,710.63	$217,884.05*	$4,176,826.58
Available for Depreciation, Depletion, Federal Income Tax, and Return	$4,908,024.24	$219,030.94	$5,127,055.18

* Indicates red figures.

Defendant's Exhibit No. 13—Continued

Lone Star Gas Company

Public Service Operations

Comparative Statement of Revenues and Expenses

(Based on 40¢ Domestic Gate Rate)

Twelve Months Ended December 31st, 1932

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Depreciation & Depletion	.....	.....	983,698.43
Available for Federal Income Tax and Return	.....	.....	$4,143,356.75
Federal Income Tax	.....	.....	375,116.98
Available for Return	.....	.....	$3,768,239.77
Rate Base: (As set out in findings by Commission. See Rate Base Calculation in this report)	.....		$46,246,617.53
Available for Return Percent of Rate Base	.....		8.15
[fol. 3981] Gross Revenues			
Gas Sales	$8,829,713.37	.....	$8,829,713.37
Miscel. Operating Revenues	1,491.98	.....	1,491.98
Other Non-Operating Revenues	12,192.19	$8,134.76	20,326.95
Total	$8,843,397.54	$8,134.76	$8,851,532.30
Deductions from Gross Revenues			
Gas Purchased	$1,177,334.48	$70,227.30	$1,247,561.78
Production System Expense	68,634.52	.....	68,634.52
Gathering System Expense	135,110.30	.....	135,110.30

Transmission System Expense	454,086.37	.....	454,086.37
Compressor Station Expense	358,402.61	.....	358,402.61
New Business Expense	87,528.94	.....	87,528.94
General Expense	689,811.48	.....	689,811.48
Uncollectible Bills	5,399.35	.....	5,399.35
Taxes—Other than Federal	343,693.30	.....	343,693.30
Management Fees and Expenses	87,197.87	87,197.87*	.....
Regulatory Commission Expense	163,739.01	151,316.47*	12,422.54
Dry Hole Expense	14,288.55	56,347.38	70,635.93
Cancelled & Surrendered Leases	255,829.03	118,382.40*	137,446.63
Total	$3,841,055.81	$230,322.06*	$3,610,733.75
Available for Depreciation, Depletion, Federal Income Tax, and Return	$5,002,341.73	$238,456.82	$5,240,798.55
Depreciation Depletion	.....	.....	987,598.35
Available for Federal Income Tax and Return	.....	.....	$4,253,200 20
Federal Income Tax	.....	.....	424,159.22
Available for Return	.....	.....	$3,829,040.98
Rate Base: (As set out in findihgs by Commission. See Rate Base Calculation in this report)	.....	.....	$46,520,137.06
Available for Return Percent of Rate Base	.....	.....	8.23
[fol. 3982] Gross Revenues			
Gas Sales	$8,455,136.94	.....	$8,455,136.94
Miscel. Operating Revenues	1,403.52	.....	1,403.52
Other Non-Operating Revenues	30,423.69	$10,011.38	40,435.07
Total	$8,486,964.15	$10,011.38	$8,496,975.53
Deductions from Gross Revenues			
Gas Purchased	$1,130,214.01	$89,669.36	$1,219,883.37
Production System Expense	76,442.91	.....	76,442.91

* Indicates red figures.

Defendant's Exhibit No. 13—Continued

Lone Star Gas Company
Public Service Operations
Comparative Statement of Revenues and Expenses
(Based on 40¢ Domestic Gate Rate)
Twelve Months Ended June 30th, 1933

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gathering System Expense	127,747.99	.....	127,747.99
Transmission System Expense	434,598.91	.....	434,598.91
Compressor Station Expense	336,125.79	.....	336,125.79
New Business Expense	89,725.16	.....	89,725.16
General Expense	696,837.61	.....	696,837.61
Uncollectible Bills	4,794.61	.....	4,794.61
Taxes—Other than Federal	363,693.30	.....	363,693.30
Management Fees and Expenses	83,573.88	83,573.88*	.....
Regulatory Commission Expense	108,735.10	93,645.23*	15,089.87
Dry Hole Expense	15,747.35	54,888.58	70,635.93
Cancelled and Surrendered Leases	208,751.84	71,305.21*	137,446.63
Total	$3,676,988.46	$103,966.38*	$3,573,022.08
Available for Depreciation, Depletion, Federal Income Tax, and Return	$4,809,975.69	$113,977.76	$4,923,953.45
Depreciation and Depletion	.....	.....	997,629.80
Available for Federal Income Tax and Return	.....	.....	$3,926,323.65
Federal Income Tax	.....	.....	384,733.91
Available for Return	.....	.....	$3,541,589.74
Rate Base: (As set out in findings by Commission. See Rate Base Calculation in this report)	.....	.....	$46,972,794.61
Available for Return Percent of Rate Base	.....	.....	7.55

[fol. 3983] Gross Revenues

Gas Sales	$7,688,724.10	.....	$7,688,724.10
Miscel. Operating Revenues	1,442.91	.....	1,442.91
Other Non-Operating Revenues	34,001.49	$1,637.99	35,639.48
Total	$7,724,168.50	$1,637.99	$7,725,806.49
Deductions from Gross Revenues			
Gas Purchased	$1,086,587.44	$95,598.22	$1,182,185.66
Production System Expense	86,850.34	.....	86,850.34
Gathering System Expense	131,326.29	.....	131,326.29
Transmission System Expense	431,520.56	.....	431,520.56
Compressor Station Expense	338,433.01	.....	338,433.01
New Business Expense	99,793.94	.....	99,793.94
General Expense	716,501.89	.....	716,501.89
Uncollectible Bills	6,530.77	.....	6,530.77
Taxes—Other than Federal	360,476.91	.....	360,476.91
Management Fees and Expense	75,940.60	75,940.60*	.....
Regulatory Commission Expense	66,792.39	49,302.30*	17,490.09
Dry Hole Expense	18,704.52	49,759.99	68,464.51
Cancelled and Surrendered Leases	188,629.92	15,953.42*	172,676.50
Total	$3,608,088.58	$4,161.89	$3,612,250.47
Available for Depreciation, Depletion, Federal Income Tax, and Return	$4,116,079.92	$2,523.90*	$4,113,556.02
Depreciation and Depletion	.....	.....	1,000,017.75
Available for Federal Income Tax and Return	.....	.....	$3,113,538.27
Federal Income Tax	.....	.....	278,090.32
Available for Return	.....	.....	$2,835,447.95
Rate Base:			
(As set out in findings by Commission. See Rate Base Calculation in this report)	.....	.....	$47,180,440.21
Available for Return, Percent of Rate Base	.....	.....	6.01

* Indicates red figures.

Defendant's Exhibit No. 13—Continued

[fol. 3984]

Lone Star Gas Company

Public Service Operations

Comparative Statement of Revenues and Expenses

(Based on 40¢ Domestic Gate Rate)

Twelve Months Ended March 31st, 1934

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$7,926,274.88	.....	$7,926,274.88
Miscel. Operating Revenues	1,596.78	.....	1,596.78
Other Non-Operating Revenues	34,892.25	$1,611.06	36,503.31
Total	$7,962,763.91	$1,611.06	$7,964.374.97
Deductions from Gross Revenues			
Gas Purchased	$1,096,156.08	$102,004.55	$1,198,160.63
Production System Expense	89,077.98	.....	89,077.98
Gathering System Expense	131,713.95	.....	131,713.95
Transmission System Expense	426,114.97	.....	426,114.97
Compressor Station Expense	346,306.81	.....	346,306.81
New Business Expense	101,308.68	.....	101,308.68
General Expense	703,793.31	.....	703,793.31
Uncollectible Bills	6,475.73	.....	6,475.73
Taxes—Other than Federal	360,476.91	.....	360,476.91
Management Fees and Expenses	77,110.16	77,110.16*	.....
Regulatory Commission Expense	56,204.18	38,714.09*	17,490.09
Dry Hole Expense	19,221.57	49,242.94	68,464.51
Cancelled and Surrendered Leases	169,362.09	3,314.41	172,676.50
Total	$3,583,322.42	$38,737.65	$3,622,060.07
Available for Depreciation, Depletion, Federal Income Tax, and Return	$4,379,441.49	$37,126.59*	$4,342,314.90

Depreciation and Depletion		1,001,440.56
Available for Federal Income Tax and Return		$3,340,874.34
Federal Income Tax		311.929.74
Available for Return		$3,028,944.60
Rate Base:		
(As set out in findings by Commission. See Rate Base Calculation in this report)		$47,192,765.79
Available for Return, Percent of Rate Base		6.42

● Indicates red figures.

3422

Defendant's Exhibit No. 13—Continued

[fol. 3985]

Summary of Rate Base Calculations

For Periods Shown Below

	December 31st, 1931	December 31st, 1932	June 30th, 1933	December 31st, 1933	March 31st, 1934
Rate Base to cover Public Service Property and business of Lone Star Gas Co., at December 31st, 1931, as determined by Railroad Commission and referred to on Page 71 of printed Opinion and Order dated 9/13/33	$46,246,617.53	$46,246,617.53	$46,246,617.53	$46,246,617.53	$46,246,617.53
Plus:					
Cost of physical property acquired by Company from Southern Oil Production Co., as of October 1st, 1932, and referred to on Page 79 of printed Opinion and Order of Railroad Commission dated 9/13/33. Proportionate amount applicable by periods	.....	191,650.03	574,950.08	766,600.11	766,600.11
Unamortized Regulatory Commission Expense as referred to on Page 79 of Printed Opinion and Order of Railroad Commission dated 9/13/33. Proportionate amount applicable by periods	.....	81,869.50	151,227.00	167,222.57	179,548.15
Rate Base—By Periods:					
Arrived at in same manner as used by Commission for December 31st, 1932 and set out on Page 79 of their Opinion and Order dated 9/13/33	$46,246,617.53	$46,520,137.06	$46,972,794.61	$47,180,440.21	$47,192,765.79

[fol. 3986]

Rate Base Calculations

December 31st, 1931			
Total Rate Base as shown on Page 71 of printed Opinion and Order of Railroad Commission			$46,246,617.53
December 31st, 1932			
Rate Base December 31st, 1931 as shown on Page 71 of printed Opinion and Order of Railroad Commission			$46,246,617.53
Plus: Cost of physical property acquired by Company from Southern Oil Production Co., as of October 1st, 1932, and referred to on Page 79 of printed Opinion and Order of Railroad Comm..		$766,600.11	
One fourth applicable to this period			191,650.03
Regulatory Expense capitalized for 1932, as set out on Page 79 of printed Opinion and Order of R. R. Commission		$163,739.01	
One half applicable to this period			81,869.50
Rate Base December 31st, 1932 as found by Railroad Commission and set out on Page 79 of printed Opinion and Order			$46,520,137.06
June 30th, 1933			
Rate Base December 31st, 1931 as found by Railroad Commission			$46,246,617.53
Plus: Cost of physical property acquired by Company from Southern Oil Production Company as of October 1st, 1932 and referred to on Page 79 of printed Opinion and Order of R. R. Commission.		$766,600.11	
Three-fourth applicable to this period			574,950.08
Regulatory Expense capitalized:			
Capitalized for 1932		$163,739.01	
Less written off for 1932	$12,422.54		
" " " " 1933 ½ yr	6,211.27	18,633.81	
Applicable for One Year		$145,105.20	
Incurred and capitalized during first 6 mos. 1933	$35,156.51		
One-fourth applicable to this period		8,789.13	
Less written off for 1933—½ year		2,667.33	
Unamortized at June 30th, 1933		$6,121.80	151,227.00

Defendant's Exhibit No. 13—Continued

[fol. 3987]

Rate Base Calculations—(Con.)

June 30th, 1933—(Con.)			
Rate Base June 30th, 1933, arrived at in same manner as used by Commission for December 31st, 1932 and set out on Page 79 of their Opinion and Order			$46,972,794.61
December 31st, 1933			
Rate Base December 31st, 1931 as found by Railroad Commission			$46,246,617.53
Plus: Cost of physical property acquired by Company from Southern Oil Production Company as of October 1st, 1932, and referred to on Page 79 of printed Opinion and Order of Railroad Comm.		$766,600.11	
All applicable to this period			766,600.11
Regulatory Commission Expense:			
Capitalized for the year 1932		$163,739.01	
Charged Off 1932	$12,422.54		
Charged Off 1933	12,422.54	24,845.08	
Unamortized at Dec. 31st, 1933		$138,893.93	
Capitalized for 1933	$66,792.39		
One-half applicable to this period		33,396.19	
Less written off for 1933		5,067.55	
Unamortized at Dec. 31st, 1933		$28,328.64	167,222.57
Rate Base December 31st, 1933, arrived at in same manner as used by Commission for December 31st, 1932, and set out on Page 79 of their Opinion and Order			$47,180,440.21
March 31st, 1934			
Rate Base December 31st, 1931 as found by Railroad Commission			$46,246,617.53
Plus: Cost of physical property acquired by Company from Southern Oil Production Co., as of October 1st, 1932, and referred to on Page 79 of printed Opinion and Order of Railroad Commission		$766,600.11	
All applicable to this period			766,600.11

[fol. 3988] (Brt. Fwd.)			$47,013,217.64
Regulatory Commission Expense:			
Capitalized for 1932		$163,739.01	
Chgd. off for 1932	$12,422.54		
" " " 1933	12,422.54		
" " " 1934—¼ yr.	3,105.63	27,950.71	
Unamortized at March 31st, 1934		$135,788.30	
Capitalized for 1933	$66,792.39		
¾ applicable this period		$50,094.29	
Chgd. off for 1933	5,067.55		
" " " 1934—¼ yr.	1,266.89	6,334.44	
Unamortized at March 31st, 1934		$43,759.85	$179,548.15
Rate Base March 31st, 1934—arrived at in same manner as used by Commission for Dec. 31st, 1932 and set out on Page 79 of their Opinion and Order			$47,192,765.79

Defendant's Exhibit No. 13—Continued

[fol. 3989] Depreciation and Depletion Allowances

Twelve Months Ended December 31st, 1931		
Depreciation:		
Amount allowed by Commission and set out on Page 69 of their Opinion and Order dated September 13th, 1933		$968,066.98
Depletion:		
Amount allowed by Commission and set out on Page 76 of their Opinion and Order dated September 13th, 1933		15,631.45
Total		$983,698.43
Twelve Months Ended December 31st, 1932		
Depreciation:		
Rate Base as found by Commission	$46,520,137.06	
Depreciation rate as shown on Page 80 of Commission's Opinion & Order	2.09%	
Commission Allowance		$972,270.86
Depletion:		
Amount allowed by Commission and set out on Page 76 of their Opinion and Order dated Sept. 13th, 1933		15,327.49
Total		$987,598.35
Twelve Months Ended June 30th, 1933		
Depreciation:		
Rate Base—calculated in same manner as used by Commission—See Rate Base Calculation included in this report	$46,972,794.61	
Depreciation rate as shown on Page 80 of Commission Opinion & Order	2.09%	
Allowance based on finding by Commission		$981,731.41
Depletion:		
Total gas produced—M. Cu. Ft.	5,724,506	
Less 1/8 Royalty	715,563	
Net Gas produced	5,008,943	
Depletion Rate per MCF, as shown on Page 76 of Commission Opinion & Order	$.003174	
Allowance based on finding by Commission		15,898.39
Total		$997,629.80

[fol. 3990]

Twelve Months Ended December 31st, 1933		
Depreciation:		
Rate Base—Calculated in same manner as used by Commission—See Rate Base Calculation included in this report	$47,180,440.21	

Defendant's Exhibit No. 13—Continued

Depreciation rate as shown on Page 80 of Commission's Opinion and Order.....	2.09%	
Allowance based on finding by Commission.....		$986,071.20
Depletion:		
Total gas produced—M. Cu. Ft.....	5,021,714	
Less 1/8 Royalty.....	627,714	
Net gas produced.....	4,394,000	
Depletion Rate per MCF as shown on Page 76 of Commission Opinion & Order.....	$.003174	
Allowance based on finding by Commission.....		13,946.55
Total.....		$1,000,017.75

Twelve Months Ended March 31st, 1934

Depreciation:		
Rate Base—Calculated in same manner as used by Commission—See Rate Base Calculation included in this report.....	$47,192,765.79	
Depreciation rate as shown on Page 80 of Commission Opinion and Order...	2.09%	
Allowance based on finding by Commission.....		$986,328.80
Depletion:		
Total gas produced—M. Cu. Ft.....	5,441,266	
Less 1/8 Royalty.....	680,158	
Net gas produced.....	4,761,108	
Depletion rate per MCF as shown on Page 76 of Commission Opinion & Order.....	$.003174	
Allowance based on finding by Commission.....		15,111.76
Total.....		$1,001,440.56

[fol. 3991] Federal Income Tax Calculation

Twelve Months Ended December 31st, 1931

Amount Available for Federal Income Tax and Return.....	$4,143,356.75	
Less—Interest Charges.....	1,017,381.94	
Balance—Subject to Fed. Income Tax.....	$3,125,974.81	
Federal Income Tax Rate.....	12%	
Federal Income Tax.....		$375,116.98

Twelve Months Ended December 31st, 1932

Amount Available for Federal Income Tax and Return.....	$4,253,200.20	
Less—Interest Charges.....	1,168,405.86	
Balance—Subject to Fed. Income Tax.....	$3,084,794.34	
Federal Income Tax Rate.....	13.75%	
Federal Income Tax.....		$424,159.22

Defendant's Exhibit No. 13—Continued

Twelve Months Ended June 30th, 1933		
Amount Available for Federal Income Tax and Return	$3,926,323.65	
Less—Interest Charges	1,128,258.82	
Balance—Subject to Fed. Income Tax	$2,798,064.83	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$384,733.91
Twelve Months Ended December 31st, 1933		
Amount Available for Federal Income Tax and Return	$3,113,538.27	
Less—Interest Charges	1,091,063.20	
Balance—Subject to Fed. Income Tax	$2,022,475.07	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$278,090.32
Twelve Months Ended March 31st, 1934		
Amount Available for Federal Income Tax and Return	$3,340,874.34	
Less—Interest Charges	1,072,294.43	
Balance—Subject to Fed. Income Tax	$2,268,579.91	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$311,929.74

[fol. 3992] Section No. 2

Basis of Calculations Included in Schedules Incorporated in This Section of Report

1. Gas Sales:

Based on 40¢ Domestic Gate Rate.

2. Rate Base:

As found by Railroad Commission at December 31st, 1931 and set out in their Opinion and Order dated September 13th, 1933, plus net additions at cost.

3. Operating Expenses:

Based on findings by Railroad Commission and as set out in their Opinion and Order dated September 13th, 1933, with the exception that additional gas purchase expense allowed by Commission has been eliminated from schedules. The reason for this elimination of expense is due to the inclusion of property formerly owned and operated by Meridian Gas Company being included in Rate Base as a net addition to property.

4. Depreciation and Depletion:

Based on findings by Railroad Commission and as set out in their Opinion and Order dated September 13th, 1933.

5. Federal Income Tax:

Based on amount available for return as shown in schedules, less interest charges paid by the Company. The remainder being used as the basis of calculation at the prevailing rate.

Defendant's Exhibit No. 13—Continued

[fol. 3993]

Lone Star Gas Company
Public Service Operations
Statement of Revenues, Expenses, and Amount Available for Return
(Based on 40¢ Domestic Gate Rate and Operating Expenses, Depreciation, and Depletion Calculated
In Same Manner as Used by Commission and Set Out in Their Opinion and Order Dated September 13th, 1933)
Rate Base—As Found by Commission at December 31st, 1931, Plus Net Additions at Cost
For Periods Shown Below

	Twelve Months Ended				
	December 31st, 1931	December 31st, 1932	June 30th, 1933	December 31st, 1933	March 31st, 1934
Gross Revenues:					
Gas Sales	$9,265,639.45	$8,829,713.37	$8,455,136.94	$7,688,724.10	$7,926,274.88
Misc'l. Operating Revenues	1,631.35	1,491.98	1,403.52	1,442.91	1,596.78
Other Non-Operating Revenues	36,610.96	20,326.95	40,435.07	35,639.48	36,503.31
Total	$9,303,881.76	$8,851,532.30	$8,496,975.53	$7,725,806.49	$7,964,374.97
Deductions from Gross Revenues:					
Gas Purchased	$1,456,830.39	$1,177,334.48	$1,130,214.01	$1,086,587.44	$1,096,156.08
Production System Expense	90,669.82	68,634.52	76,442.91	86,850.34	89,077.98
Gathering System Expense	140,961.09	135,110.30	127,747.99	131,326.29	131,713.95
Transmission System Expense	584,115.01	454,086.37	434,598.91	431,520.56	426,114.97
Compressor Station Expense	447,292.41	358,402.61	336,125.79	338,433.01	346,306.81
New Business Expense	126,125.98	87,528.94	89,725.16	99,793.94	101,308.68
General Expense	731,163.59	689,811.48	696,837.61	716,501.89	703,793.31
Uncollectible Bills	4,369.63	5,399.35	4,794.61	6,530.77	6,475.73
Taxes—Other than Federal	399,008.95	343,693.30	363,693.30	360,476.91	360,476.91
Management Fees & Expenses	.....	.....	.....	.....	.....
Regulatory Commission Expense	17,695.86	12,422.54	15,089.87	17,490.09	17,490.09
Dry Hole Expense	79,453.12	70,625.93	70,635.93	68,464.51	68,464.51
Cancelled and Surrendered Leases	99,140.73	137,446.63	137,446.63	172,676.50	172,676.50
Total	$4,176,826.58	$3,540,506.45	$3,483,352.72	$3,516,652.25	$3,520,055.52

Available for Depreciation, Depletion, Federal Income Tax, and Return	$5,127,055.18	$5,311,025.85	$5,013,622.81	$4,209,154.24	$4,444,319.45
Depreciation and Depletion	983,698.43	1,029,067.35	1,027,294.20	1,023,560.63	1,025,472.71
Available for Federal Income Tax and Return	$4,143,356.75	$4,281,958.50	$3,986,328.61	$3,185,593.61	$3,418,846.74
Federal Income Tax	375,116.98	428,113.49	392,984.60	287,997.93	322,650.94
Available for Return	$3,768,239.77	$3,853,845.01	$3,593,344.01	$2,897,595.68	$3,096,195.80
Rate Base—As found by Commission at December 31st, 1931, plus net additions at cost. (See Rate Base Calculation included in this report).	$46,246,617.53	$48,504,299.60	$48,393,005.16	$48,306,893.96	$48,342,628.99
Available for Return Per Cent of Rate Base	8.15	7.94	7.42	5.98	6.41

[fol. 3994]

Defendant's Exhibit No. 13—Continued

Lone Star Gas Company

Public Service Operations

Comparative Statement of Revenues and Expenses
(Based on 40¢ Domestic Gate Rate)
Rate Base—As Found by Commission at
December 31st, 1931—Plus Net Additions at Cost
Twelve Months Ended December 31st, 1931

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$9,265,639.45	.....	$9,265,639.45
Miscellaneous Operating Revenues	1,631.35	.....	1,631.35
Other Non-Operating Revenues	35,464.07	$1,146.89	36,610.96
Total	$9,302,734.87	$1,146.89	$9,303,881.76
Deductions from Gross Revenues			
Gas Purchased	$1,456,830.39	.....	$1,456,830.39
Production System Expense	90,669.82	.....	90,669.82
Gathering System Expense	140,961.09	.....	140,961.09
Transmission System Expense	584,115.01	.....	584,115.01
Compressor Station Expense	447,292.41	.....	447,292.41
New Business Expense	126,125.98	.....	126,125.98
General Expense	731,163.59	.....	731,163.59
Uncollectible Bills	4,369.63	.....	4,369.63
Taxes—Other than Federal	399,008.95	.....	399,008.95
Management Fees & Expenses	91,375.38	91,375.38†	.....
Regulatory Commission Expense	17,695.86	.....	17,695.86
Dry Hole Expense	65,871.56	13,581.56	79,453.12
Cancelled & Surrendered Leases	239,230.96	140,090.23†	99,140.73
Total	$4,394,710.63	$217,884.05†	$4,176,826.58

Available for Depreciation, Depletion, Federal Income Tax and Return	$4,908,024.24	$219,030.94	$5,127,055.18
Depreciation & Depletion			983,698.43
Available for Federal Income Tax and Return			$4,143,356.75
Federal Income Tax			375,116.98
Available for Return			$3,768,239.77
Rate Base:			
As found by Commission at December 31st, 1931—Plus Net Addition at Cost. (See Rate Base Calculation included in this report)			$46,246,617.53
Available for Return			
Per Cent of Rate Base			8.15

† Red in copy.

Defendant's Exhibit No. 13—Continued

[fol. 3995]

Lone Star Gas Company
Public Service Operations
Comparative Statement of Revenues and Expenses
(Based on 40¢ Domestic Gate Rate)
Rate Base—As Found by Commission at
December 31st, 1931—Plus Net Additions at Cost
Twelve Months Ended December 31st, 1932

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$8,829,713.37	.....	$8,829,713.37
Misc'l. Operating Revenues	1,491.98	.....	1,491.98
Other Non-Operating Revenues	12,192.19	$8,134.76	20,326.95
Total	$8,843,397.54	8,134.76	$8,851,532.30
Deductions from Gross Revenues			
Gas Purchased	$1,177,334.48	.....	$1,177,334.48
Production System Expense	68,634.52	.....	68,634.52
Gathering System Expense	135,110.30	.....	135,110.30
Transmission System Expense	454,086.37	.....	454,086.37
Compressor Station Expense	358,402.61	.....	358,402.61
New Business Expense	87,528.94	.....	87,528.94
General Expense	689,811.48	.....	689,811.48
Uncollectible Bills	5,399.35	.....	5,399.35
Taxes—Other than Federal	343,693.30	.....	343,693.30
Management Fees & Expenses	87,197.87	87,197.87†	.....
Regulatory Commission Expense	163,739.01	151,316.47†	12,422.54
Dry Hole Expense	14,288.55	56,347.38	70,635.93
Cancelled & Surrendered Leases	255,829.03	118,382.40†	137,446.63
Total	$3,841,055.81	$300,549.36†	$3,540,506.45

Available for Depreciation, Depletion, Federal Income Tax and Return	$5,002,341.73	$308,684.12	$5,311,025.85
Depreciation and Depletion			1,029,067.35
Available for Federal Income Tax and Return			$4,281,958.50
Federal Income Tax			428,113.49
Available for Return			$3,853,845.01
Rate Base:			
As found by Commission at December 31st, 1931—Plus Net Addition at Cost. (See Rate Base Calculation included in this report)			$48,504,299.60
Available for Return			
Per Cent of Rate Base			7.94

† Red in copy.

[fol. 3996]

Defendant's Exhibit No. 13—Continued

Lone Star Gas Company

Public Service Operations

Comparative Statement of Revenues and Expenses
(Based on 40¢ Domestic Gate Rate)
Rate Base—As Found by Commission at
December 31st, 1931—Plus Net Additions at Cost
Twelve Months Ended June 30th, 1933

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$8,455,136.94	.....	$8,455,136.94
Misc'l. Operating Revenues	1,403.52	.....	1,403.52
Other Non-Operating Revenues	30,423.69	$10,011.38	40,435.07
Total	$8,486,964.15	$10,011.38	$8,496,975.53
Deductions from Gross Revenues			
Gas Purchased	$1,130,214.01	.....	$1,130,214.01
Production System Expense	76,442.91	.....	76,442.91
Gathering System Expense	127,747.99	.....	127,747.99
Transmission System Expense	434,598.91	.....	434,598.91
Compressor Station Expense	336,125.79	.....	336,125.79
New Business Expense	89,725.16	.....	89,725.16
General Expense	696,837.61	.....	696,837.61
Uncollectible Bills	4,794.61	.....	4,794.61
Taxes—Other than Federal	363,693.30	.....	363,693.30
Management Fees & Expenses	83,573.88	83,573.88†	.....
Regulatory Commission Expense	108,735.10	93,645.23†	15,089.87
Dry Hole Expense	15,747.35	54,888.58	70,635.93
Cancelled and Surrendered Leases	208,751.84	71,305.21†	137,446.63
Total	$3,676,988.46	$193,635.74†	$3,483,352.72

Available for Depreciation, Depletion, Federal Income Tax and Return	$4,809,975.69	$203,647.12	$5,013,622.81
Depreciation and Depletion			1,027,294.20
Available for Federal Income Tax and Return			$3,986,328.61
Federal Income Tax			392,984.60
Available for Return			$3,593,344.01
Rate Base:			
As found by Commission at December 31st, 1931—Plus Net Addition at Cost. (See Rate Base Calculation included in this report)			$48,393,005.16
Available for Return Per Cent of Rate Base			7.42

† Red in copy.

Defendant's Exhibit No. 13—Continued

[fol. 3997]

Lone Star Gas Company
Public Service Operations
Comparative Statement of Revenues and Expenses
(Based on 40¢ Domestic Gate Rate)
Rate Base—As Found by Commission at
December 31st, 1931—Plus Net Additions at Cost
Twelve Months Ended December 31st, 1933

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$7,688,724.10	.....	$7,688,724.10
Misc'l. Operating Revenues	1,442.91	.....	1,442.91
Other Non-Operating Revenues	34,001.49	1,637.99	35,639.48
Total	$7,724,168.50	$1,637.99	$7,725,806.49
Deductions from Gross Revenues			
Gas Purchased	$1,086,587.44	.....	$1,086,587.44
Production System Expense	86,850.34	.....	86,850.34
Gathering System Expense	131,326.29	.....	131,326.29
Transmission System Expense	431,520.56	.....	431,520.56
Compressor Station Expense	338,433.01	.....	338,433.01
New Business Expense	99,793.94	.....	99,793.94
General Expense	716,501.89	.....	716,501.89
Uncollectible Bills	6,530.77	.....	6,530.77
Taxes—Other than Federal	360,476.91	.....	360,476.91
Management Fees & Expenses	75,940.60	75,940.60†	.....
Regulatory Commission Expense	66,792.39	49,302.30†	17,490.09
Dry Hole Expense	18,704.52	49,759.99	68,464.51
Cancelled & Surrendered Leases	188,629.92	15,953.42†	172,676.50
Total	$3,608,088.58	$91,436.33†	$3,516,652.25

Available for Depreciation, Depletion, Federal Income Tax and Return	$4,116,079.92	$93,074.32	$4,209,154.24
Depreciation and Depletion			1,023,560.63
Available for Federal Income Tax and Return			$3,185,593.61
Federal Income Tax			287,997.93
Available for Return			$2,897,595.68
Rate Base:			
As found by Commission at December 31st, 1931—Plus Net Addition at Cost. (See Rate Base Calculation included in this report)			$48,306,893.96
Available for Return Per Cent of Rate Base			5.98

Defendant's Exhibit No. 13—Continued

[fol. 3998]

Lone Star Gas Company

Public Service Operations

Comparative Statement of Revenues and Expenses
(Based on 40¢ Domestic Gate Rate)
Rate Base—As Found by Commission at
December 31st, 1931—Plus Net Additions at Cost
Twelve Months Ended March 31st, 1934

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$7,926,274.88	.....	$7,926,274.88
Misc'l. Operating Revenues	1,596.78	.....	1,596,78
Other Non-Operating Revenues	34,892.25	1,611.06	36,503.31
Total	$7,962,763.91	$1,611.06	$7,964,374.97
Deductions from Gross Revenues			
Gas Purchased	$1,096,156.08	.....	$1,096,156.08
Production System Expenses	89,077.98	.....	89,077.98
Gathering System Expense	131,713.95	.....	131,713.95
Transmission System Expense	426,114.97	.....	426,114.97
Compressor Station Expense	346,306.81	.....	346,306.81
New Business Expense	101,308.68	.....	101,308.68
General Expense	703,793.31	.....	703,793.31
Uncollectible Bills	6,475.73	.....	6,475.73
Taxes—Other than Federal	360,476.91	.....	360,476.91
Management Fees & Expenses	77,110.16	77,110.16†	.....
Regulatory Commission Expense	56,204.18	38,714.09†	17,490.09
Dry Hole Expense	19,221.57	49,242.94	68,464.51
Cancelled and Surrendered Leases	169,362.09	3,314.41	172,676.50
Total	$3,583,322.42	$63,266.90†	$3,520,055.52

Available for Depreciation, Depletion, Federal Income Tax and Return	$4,379,441.49	$64,877.96	$4,444,319.45
Depreciation & Depletion			1,025,472.71
Available for Federal Income Tax and Return			$3,418,846.74
Federal Income Tax			322,650.94
Available for Return			$3,096,195.80
Rate Base:			
As found by Commission at December 31st, 1931—Plus Net Addition at Cost. (See Rate Base Calculation included in this report)			$48,342,628.99
Available for Return Per Cent of Rate Base			6.41

† Red in copy.

Defendant's Exhibit No. 13—Continued

[fol. 3999]

Summary of Rate Base Calculations for Periods Shown Below

	December 31st, 1931	December 31st, 1932	June 30th, 1933	December 31st, 1933	March 31st, 1934
Rate Base to cover Public Service Property and business of Lone Star Gas Co., at December 31st, 1931, as determined by Railroad Commission and referred to on Page 71 of printed Opinion and Order dated 9/13/33	$46,246,617.53	$46,246,617.53	$46,246,617.53	$46,246,617.53	$46,246,617.53
Plus:					
Net Additions at Cost:					
Actual cost as reflected by books at respective dates	47,776,749.63	50,034,431.70	49,923,137.26	49,837,026.06	49,872,761.09
Actual cost as reflected by books at December 31st, 1931	47,776,749.63	47,776,749.63	47,776,749.63	47,776,749.63	47,776,749.63
Difference—Net Additions at Cost	$	$2,257,682.07	$2,146,387.63	$2,060,276.43	$2,096,011.46
Rate Base by periods, which is Rate Base determined by Railroad Commission at December 31st, 1931, plus net additions at cost	$46,246,617.53	$48,504,299.60	$48,393,005.16	$48,306,893.96	$48,342,628.99

Defendant's Exhibit No. 13—Continued

[fol. 4000]

Analysis of Net Additions for Periods Shown Below

	Dec. 31st, 1932	June 30th, 1933	Dec. 31st, 1933	March 31st, 1934
Undistributed Fixed Capital	$200,000.00	$200,000.00	$200,000.00	$200,000.00
Production System Property	715,005.52	582,389.51	518,713.65	524,059.22
Gathering & Transmission System Prop	1,326,416.12	1,337,842.29	1,311,453.95	1,339,923.89
Compressor Station Property	278.64†	9,527.08	20,112.44†	14,968.48†
Automobile Equipment	29,488.52†	32,928.28†	3,062.71	2,795.70†
Dallas Machine Shop	756.28	1,167.38	1,410.88	1,618.64
Drilling and Clean-out Tools	8,929.40†	9,372.69†	17,775.18†	17,098.88†
Gas Connections	164.64	843.11†	39.21	472.27
General Office Building & Equipment	22,719.31	23,144.01	28,445.45	28,451.06
General Office Furniture & Fixtures	7,781.36	11,678.03	13,613.27	14,553.22
Real Estate	.....	.....	3,359.90†	3,359.90†
Telephone System	22,358.40	22,547.39	22,328.65	22,378.29
Tools and Construction Equipment	1,177.00	1,236.02	2,456.13	2,777.83
Total	$2,257,682.07	$2,146,387.63	$2,060,276.43	$2,096,011.46

† Red in copy.

Defendant's Exhibit No. 13—Continued

[fol. 4001] Depreciation and Depletion Allowances

Twelve Months Ended December 31st, 1931		
Depreciation:		
Amount allowed by Commission and set out on Page 69 of their Opinion and Order dated September 13th, 1933		$968,066.98
Depletion:		
Amount allowed by Commission and set out on Page 76 of their Opinion and Order dated September 13th, 1933		15,631.45
Total		$983,698.43
Twelve Months Ended December 31st, 1932		
Depreciation:		
Rate Base as found by Commission at December 31st, 1931	$46,246,617.53	
Plus Net Additions at Cost	2,257,682.07	
Total	$48,504,299.60	
Depreciation Rate as shown on Page 80 of Commission's Opinion and Order	2.09%	
Allowance Based on Commission Rate		$1,013,739.86
Depletion:		
Amount allowed by Commission and set out on Page 76 of their Opinion and Order dated September 13th, 1933		15,327.49
Total		$1,029,067.35
Twelve Months Ended June 30th, 1933		
Depreciation:		
Rate Base as found by Commission at December 31st, 1931	$46,246,617.53	
Plus Net Additions at Cost	2,146,387.63	
Total	$48,393,005.16	
Depreciation Rate as shown on Page 80 of Commission's Opinion and Order	2.09%	
Allowance Based on Commission Rate		$1,011,395.81

[fol. 4002]

Depreciation—(Brought Forward)		$1,011,395.81
Depletion:		
Total gas produced—M. Cu. Ft.	5,724,506	
Less 1/8 Royalty	715,563	
Net Gas produced	5,008,943	
Depletion Rate per MCF, as shown on Page 76 of Commission Opinion and Order	$.003174	
Allowance based on Commission Rate		15,898.39
Total		$1,027,294.20

Defendant's Exhibit No. 13—Continued

Twelve Months Ended December 31st, 1933

Depreciation:		
Rate Base as found by Commission at December 31st, 1931	$46,246,617.53	
Plus—Net Addition at Cost	2,060,276.43	
Total	$48,306,893.96	
Depreciation Rate as shown on Page 80 of Commission's Opinion and Order	2.09%	
Allowance based on Commission Rate		$1,009,614.08
Depletion:		
Total Gas produced—M. Cu. Ft.	5,021,714	
Less 1/8 Royalty	627,714	
Net Gas produced	4,394,000	
Depletion Rate per MCF as shown on Page 76 of Commission Opinion & Order	$.003174	
Allowance Based on Commission Rate		13,946.55
Total		$1,023,560.63

[fol. 4003]

Twelve Months Ended March 31st, 1934

Depreciation:		
Rate Base as found by Commission at December 31st, 1931	$46,246,617.53	
Plus Net Additions at Cost	2,096,011.46	
Total	$48,342,628.99	
Depreciation Rate as shown on Page 80 of Commission's Opinion and Order	2.09%	
Allowance Based on Commission Rate		$1,010,360.95
Depletion:		
Total Gas produced—M. Cu. Ft.	5,441,266	
Less 1/8 Royalty	680,158	
Net Gas Produced	4,761,108	
Depletion Rate per MCF as shown on Page 76 of Commission Opinion and Order	$.003174	
Allowance Based on Commission Rate		15,111.76
Total		$1,025,472.71

[fol. 4004] Federal Income Tax Calculations

Twelve Months Ended December 31st, 1931

Amount Available for Federal Income Tax and Return	$4,143,356.75	
Less—Interest Charges	1,017,381.94	
Balance—Subject to Federal Income Tax	$3,125,974.81	
Federal Income Tax Rate	12%	
Federal Income Tax		$375,116.98

Defendant's Exhibit No. 13—Continued

Twelve Months Ended December 31st, 1932		
Amount Available for Federal Income Tax and Return	$4,281,958.50	
Less—Interest Charges	1,168,405.86	
Balance—Subject to Federal Income Tax	$3,113,552.64	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$428,113.49
Twelve Months Ended June 30th, 1933		
Amount Available for Federal Income Tax and Return	$3,986,328.61	
Less—Interest Charges	1,128,258.82	
Balance—Subject to Federal Income Tax	$2,858,069.79	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$392,984.60
Twelve Months Ended December 31st, 1933		
Amount Available for Federal Income Tax and Return	$3,185,593.61	
Less—Interest Charges	1,091,063.20	
Balance—Subject to Federal Income Tax	$2,094,530.41	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$287,997.93
Twelve Months Ended March 31st, 1934		
Amount Available for Federal Income Tax and Return	$3,418,846.74	
Less—Interest Charges	1,072,294.43	
Balance—Subject to Federal Income Tax	$2,346,552.31	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$322,650.94

[fol. 4005] Section No. 3

Basis of Calculations Included in Schedules Incorporated in This Section of Report

1. Gas Sales:

Based on 32¢ Domestic Gate Rate.

2. Rate Base:

Based on findings by Railroad Commission and as set out in their Opinion and Order dated September 13th, 1933.

3. Operating Expenses:

Based on findings by Railroad Commission and as set out in their Opinion and Order dated September 13th, 1933.

4. Depreciation and Depletion:

Based on findings by Railroad Commission and as set out in their Opinion and Order dated September 13th, 1933.

5. Federal Income Tax:

Based on amount available for return, as shown in schedules, less interest charges paid by the Company; the remainder being used as the basis of calculation at the prevailing rate.

[fol. 4006]

Lone Star Gas Company

Public Service Operations

Statement of Revenues, Expenses, and Amount Available for Return

(Based on 32¢ Domestic Gate Rate and Operating Expenses, Depreciation, and Depletion Calculated in Same Manner as Used by Commission and Set Out In Their Opinion and Order Dated September 13th, 1933)

For Periods Shown Below

	Twelve Months Ended				
	December 31st, 1931	December 31st, 1932	June 30th, 1933	December 31st, 1933	March 31st, 1934
Gross Revenues					
Gas Sales	$7,903,744.51	$7,497,578.33	$7,191,752.46	$6,573,137.46	$6,775,122.48
Miscel. Operating Revenues	1,631.35	1,491.98	1,403.52	1,442.91	1,596.78
Other Non-Operating Revenues	36,610.96	20,326.95	40,435.07	35,639.48	36,503.31
Total	$7,941,986.82	$7,519,397.26	$7,233,591.05	$6,610,219.85	$6,813,222.57
Deductions from Gross Revenues					
Gas Purchased	$1,456,830.39	$1,247,561.78	$1,219,883.37	$1,182,185.66	$1,198,160.63
Production System Expense	90,669.82	68,634.52	76,442.91	86,850.34	89,077.98
Gathering System Expense	140,961.09	135,110.30	127,747.99	131,326.29	131,713.95
Transmission System Expense	584,115.01	454,086.37	434,598.91	431,520.56	426,114.97
Compressor Station Expense	447,292.41	358,402.61	336,125.79	338,433.01	346,306.81
New Business Expense	126,125.98	87,528.94	89,725.16	99,793.94	101,308.68
General Expense	731,163.59	689,811.48	696,837.61	716,501.89	703,793.31
Uncollectible Bills	4,369.63	5,399.35	4,794.61	6,530.77	6,475.73
Taxes—Other than Federal	399,008.95	343,693.30	363,693.30	360,476.91	360,476.91
Management Fees and Expenses	.....	.....	.....	.....	.....
Regulatory Commission Expense	17,695.86	12,422.54	15,089.87	17,490.09	17,490.09
Dry Hole Expense	79,453.12	70,635.93	70,635.93	68,464.51	68,464.51
Cancelled and Surrendered Leases	99,140.73	137,446.63	137,446.63	172,676.50	172,676.50
Total	$4,176,826.58	$3,610,733.75	$3,573,022.08	$3,612,250.47	$3,622,060.07

Available for Depreciation, Depletion, Federal Income Tax, and Return	$3,765,160.24	$3,908,663.51	$3,660,568.97	$2,997,969.38	$3,191,162.50
Depreciation and Depletion	983,698.43	987,598.35	997,629.80	1,000,017.75	1,001,440.56
Available for Federal Income Tax and Return	$2,781,461.81	$2,921,065.16	$2,662,939.17	$1,997,951.63	$2,189,721.94
Federal Income Tax	211,689.58	240,990.65	211,018.55	124,697.16	153,646.28
Available for Return	$2,569,772.23	$2,680,074.51	$2,451,920.62	$1,873,254.47	$2,036,075.66
Rate Base: (As set out in findings by Commission. See Rate Base Calculations in this report.)	$46,246,617.53	$46,520,137.06	$46,972,794.61	$47,180,440.21	$47,192,765.79
Available for Return Per Cent of Rate Base	5.56	5.76	5.22	3.97	4.31

Defendant's Exhibit No. 13—Continued

[fol. 4007]

Lone Star Gas Company

Public Service Operations

Comparative Statement of Revenues and Expenses
(Based on 32¢ Domestic Gate Rate)

Twelve Months Ended December 31st, 1931

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$9,265,639.45	$1,361,894.94†	$7,903,744.51
Misc'l. Operating Revenues	1,631.35	.....	1,631.35
Other Non-Operating Revenues	35,464.07	1,146.89	36,610.96
Total	$9,302,734.87	$1,360,748.05†	$7,941,986.82
Deductions from Gross Revenues			
Gas Purchased	$1,456,830.39	.....	$1,456,830.39
Production System Expense	90,669.82	.....	90,669.82
Gathering System Expense	140,961.09	.....	140,961.09
Transmission System Expense	584,115.01	.....	584,115.01
Compressor Station Expense	447,292.41	.....	447,292.41
New Business Expense	126,125.98	.....	126,125.98
General Expense	731,163.59	.....	731,163.59
Uncollectible Bills	4,369.63	.....	4,369.63
Taxes—Other than Federal	399,008.95	.....	399,008.95
Management Fees and Expenses	91,375.38	91,375.38†	.....
Regulatory Commission Expense	17,695.86	.....	17,695.86
Dry Hole Expense	65,871.56	13,581.56	79,453.12
Cancelled & Surrendered Leases	239,230.96	140,090.23†	99,140.73
Total	$4,394,710.63	$217,884.05†	$4,176,826.58

Available for Depreciation, Depletion, Federal Income Tax and Return	$4,908,024.24	$1,142,864.00†	$3,765,160.24
Depreciation and Depletion			983,698.43
Available for Federal Income Tax and Return			$2,781,461.81
Federal Income Tax			211,689.58
Available for Return			$2,569,772.23
Rate Base:			
(As set out in findings by Commission. See Rate Base Calculation in this Report)			$46,246,617.53
Available for Return Per Cent of Rate Base			5.56

† Red in copy.

Defendant's Exhibit No. 13—Continued

[fol. 4008]

Lone Star Gas Company

Public Service Operations

Comparative Statement of Revenues and Expenses
(Based on 32¢ Domestic Gate Rate)

Twelve Months Ended December 31st, 1932

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$8,829,713.37	$1,332,135.04†	$7,497,578.33
Misc'l. Operating Revenues	1,491.98	.....	1,491.98
Other Non-Operating Revenues	12,192.19	8,134.76	20,326.95
Total	$8,843,397.54	$1,324,000.28†	$7,519,397.26
Deductions from Gross Revenues			
Gas Purchased	$1,177,334.48	$70,227.30	$1,247,561.78
Production System Expense	68,634.52	.....	68,634.52
Gathering System Expense	135,110.30	.....	135,110.30
Transmission System Expense	454,086.37	.....	454,086.37
Compressor Station Expense	358,402.61	.....	358,402.61
New Business Expense	87,528.94	.....	87,528.94
General Expense	689,811.48	.....	689,811.48
Uncollectible Bills	5,399.35	.....	5,399.35
Taxes—Other than Federal	343,693.30	.....	343,693.30
Management Fees & Expenses	87,197.87	87,197.87†	.....
Regulatory Commission Expense	163,739.01	151,316.47†	12,422.54
Dry Hole Expense	14,288.55	56,347.38	70,635.93
Cancelled & Surrendered Leases	255,829.03	118,382.40†	137,446.63
Total	$3,841,055.81	$230,322.06†	$3,610,733.75

Available for Depreciation, Depletion, Federal Income Tax and Return	$5,002,341.73	$1,093,678.22†	$3,908,663.51
Depreciation and Depletion			987,598.35
Available for Federal Income Tax and Return			$2,921,065.16
Federal Income Tax			240,990.65
Available for Return			$2,680,074.51
Rate Base:			
(As set out in findings by Commission. See Rate Base Calculation in this Report)			$46,520,137.06
Available for Return Per Cent of Rate Base			5.76

† Red in copy.

Defendant's Exhibit No. 13—Continued

[fol. 4009]

Lone Star Gas Company

Public Service Operations

Comparative Statement of Revenues and Expenses
(Based on 32¢ Domestic Gate Rate)

Twelve Months Ended June 30th, 1933

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$8,455,136.94	$1,263,384.48†	$7,191,752.46
Misc'l. Operating Revenues	1,403.52	.....	1,403.52
Other Non-Operating Revenues	30,423.69	10,011.38	40,435.07
Total	$8,486,964.15	$1,253,373.10†	$7,233,591.05
Deductions from Gross Revenues			
Gas Purchased	$1,130,214.01	$89,669.36	$1,219,883.37
Production System Expense	76,442.91	.....	76,442.91
Gathering System Expense	127,747.99	.....	127,747.99
Transmission System Expense	434,598.91	.....	434,598.91
Compressor Station Expense	336,125.79	.....	336,125.79
New Business Expense	89,725.16	.....	89,725.16
General Expense	696,837.61	.....	696,837.61
Uncollectible Bills	4,794.61	.....	4,794.61
Taxes—Other than Federal	363,693.30	.....	363,693.30
Management Fees and Expenses	83,573.88	83,573.88†	.....
Regulatory Commission Expense	108,735.10	93,645.23†	15,089.87
Dry Hole Expense	15,747.35	54,888.58	70,635.93
Cancelled & Surrendered Leases	208,751.84	71,305.21†	137,446.63
Total	$3,676,988.46	$103,966.38†	$3,573,022.08

Available for Depreciation, Depletion, Federal Income Tax and Return	$4,809,975.69	$1,149,406.72†	$3,660,568.97
Depreciation and Depletion			997,629.50
Available for Federal Income Tax and Return			$2,662,939.17
Federal Income Tax			211,018.55
Available for Return			$2,451,920.62
Rate Base:			
(As set out in findings by Commission. See Rate Base Calculation in this Report)			$46,972,794.61
Available for Return			
Per Cent of Rate Base			5.22

† Red in copy.

Defendant's Exhibit No. 13—Continued

[fol. 4010]

Lone Star Gas Company

Public Service Operations

Comparative Statement of Revenues and Expenses
(Based on 32¢ Domestic Gate Rate)

Twelve Months Ended December 31st, 1933

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$7,688,724.10	$1,115,586.64†	$6,573,137.46
Misc'l. Operating Revenues	1,442.91	.....	1,442.91
Other Non-Operating Revenues	34,001.49	1,637.99	35,639.48
Total	$7,724,168.50	$1,113,948.65†	$6,610,219.85
Deductions from Gross Revenues			
Gas Purchased	$1,086,587.44	$95,598.22	$1,182,185.66
Production System Expense	86,850.34	.....	86,850.34
Gathering System Expense	131,326.29	.....	131,326.29
Transmission System Expense	431,520.56	.....	431,520.56
Compressor Station Expense	338,433.01	.....	338,433.01
New Business Expense	99,793.94	.....	99,793.94
General Expense	716,501.89	.....	716,501.89
Uncollectible Bills	6,530.77	.....	6,530.77
Taxes—Other than Federal	360,476.91	.....	360,476.91
Management Fees & Expense	75,940.60	75,940.60†	.....
Regulatory Commission Expense	66,792.39	49,302.30†	17,490.09
Dry Hole Expense	18,704.52	49,759.99	68,464.51
Cancelled & Surrendered Leases	188,629.92	15,953.42†	172,676.50
Total	$3,608,088.58	$4,161.89	$3,612,250.47

Available for Depreciation, Depletion, Federal Income Tax and Return	$4,116,079.92	$1,118,110.54†	$2,997,969.38
Depreciation and Depletion			1,000,017.75
Available for Federal Income Tax and Return			$1,997,951.63
Federal Income Tax			124,697.16
Available for Return			$1,873,254.47
Rate Base:			
(As set out in findings by Commission. See Rate Base Calculation in this report)			$47,180,440.21
Available for Return			
Per Cent of Rate Base			3.97

† Red in copy.

Defendant's Exhibit No. 13—Continued

[fol. 4011]

Lone Star Gas Company

Public Service Operations

Comparative Statement of Revenues and Expenses
(Based on 32¢ Domestic Gate Rate)

Twelve Months Ended March 31st, 1934

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$7,926,274.88	$1,151,152.40†	$6,775,122.48
Misc'l. Operating Revenues	1,596.78	.....	1,596.78
Other Non-Operating Revenues	34,892.25	1,611.06	36,503.31
Total	$7,962,763.91	$1,149,541.34†	$6,813,222.57
Deductions from Gross Revenues			
Gas Purchased	$1,096,156.08	$102,004.55	$1,198,160.63
Production System Expense	89,077.98	.....	89,077.98
Gathering System Expense	131,713.95	.....	131,713.95
Transmission System Expense	426,114.97	.....	426,114.97
Compressor Station Expense	346,306.81	.....	346,306.81
New Business Expense	101,308.68	.....	101,308.68
General Expense	703,793.31	.....	703,793.31
Uncollectible Bills	6,475.73	.....	6,475.73
Taxes—Other than Federal	360,476.91	.....	360,476.91
Management Fees and Expenses	77,110.16	77,110.16†	.....
Regulatory Commission Expense	56,204.18	38,714.09†	17,490.09
Dry Hole Expense	19,221.57	49,242.94	68,464.51
Cancelled & Surrendered Leases	169,362.09	3,314.41	172,676.50
Total	$3,583,322.42	$38,737.65	$3,622,060.07

Available for Depreciation, Depletion, Federal Income Tax and Return	$4,379,441.49	$1,188,278.99†	$3,191,162.50
Depreciation and Depletion			1,001,440.56
Available for Federal Income Tax and Return			$2,189,721.94
Federal Income Tax			153,646.28
Available for Return			$2,036,075.66
Rate Base:			
(As set out in findings by Commission. See Rate Base Calculation in this Report)			$47,192,765.79
Available for Return, Per Cent of Rate Base			4.31

† Red in copy.

[fol. 4012] Rate Base Calculations

Calculations for this section of report are the same as for Section No. 1. For detail please see page Nos. 10-13, inclusive.

[fol. 4013] Depreciation and Depletion Allowances

Calculations for this section of report are the same as for Section No. 1. For detail please see Pages 14 and 15.

[fol. 4014] Federal Income Tax Calculations

Twelve Months Ended December 31st, 1931		
Amount Available for Federal Income Tax and Return	$2,781,461.81	
Less—Interest Charges	1,017,381.94	
Balance—Subject to Federal Income Tax	$1,764,079.87	
Federal Income Tax Rate	12%	
Federal Income Tax		$211,689.58
Twelve Months Ended December 31st, 1932		
Amount Available for Federal Income Tax and Return	$2,921,065.16	
Less—Interest Charges	1,168,405.86	
Balance—Subject to Fed. Income Tax	$1,752,659.30	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$240,990.65
Twelve Months Ended June 30th, 1933		
Amount Available for Federal Income Tax and Return	$2,662,939.17	
Less—Interest Charges	1,128,258.82	
Balance—Subject to Federal Income Tax	$1,534,680.35	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$211,018.55
Twelve Months Ended December 31st, 1933		
Amount Available for Federal Income Tax and Return	$1,997,951.63	
Less—Interest Charges	1,091,063.20	
Balance—Subject to Federal Income Tax	$906,888.43	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$124,697.16
Twelve Months Ended March 31st, 1934		
Amount Available for Federal Income Tax and Return	$2,189,721.94	
Less—Interest Charges	1,072,294.43	
Balance—Subject to Federal Income Tax	$1,117,427.51	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$153,646.28

[fol. 4015] Section No. 4

Basis of Calculations Included in Schedules Incorporated in This Section of Report

1. Gas Sales:

Based on 32¢ Domestic Gate Rate.

2. Rate Base:

As found by Railroad Commission at December 31st, 1931, and set out in their Opinion and Order dated September 13th, 1933, plus net additions at cost.

3. Operating Expenses:

Based on findings by Railroad Commission and as set out in their Opinion and Order dated September 13th, 1933, with the exception that additional gas purchase expense allowed by Commission has been eliminated from schedules. The reason for this elimination of expense is due to the inclusion of property formerly owned and operated by Meridian Gas Company being included in Rate Base as a net addition to property.

4. Depreciation and Depletion:

Based on findings by Railroad Commission and as set out in their Opinion and Order dated September 13th, 1933.

5. Federal Income Tax:

Based on amount available for return as shown in schedules, less interest charges paid by the Company; the remainder being used as the basis of calculation at the prevailing rate.

Defendant's Exhibit No. 13—Continued

[fol. 4016]

Lone Star Gas Company
Public Service Operations
Statement of Revenues, Expenses, and Amount Available for Return
(Based on 32¢ Domestic Gate Rate and Operating Expenses, Depreciation, and Depletion Calculated in Same Manner as Used by Commission and Set Out In Their Opinion and Order Dated September 13th, 1933)
Rate Base—As Found by Commission at December 31st, 1931, Plus Net Additions At Cost
For Periods Shown Below

	Twelve Months Ended				
	December 31st, 1931	December 31st, 1932	June 30th, 1933	December 31st, 1933	March 31st, 1934
Gross Revenues					
Gas Sales	$7,903,744.51	$7,497,578.33	$7,191,752.46	$6,573,137.46	$6,775,122.48
Misc'l. Operating Revenues	1,631.35	1,491.98	1,403.52	1,442.91	1,596.78
Other Non-Operating Revenues	36,610.96	20,326.95	40,435.07	35,639.48	36,503.31
Total	$7,941,986.82	$7,519,397.26	$7,233,591.05	$6,610,219.85	$6,813,222.57
Deductions from Gross Revenues					
Gas Purchased	$1,456,830.39	$1,177,334.48	$1,130,214.01	$1,086,587.44	$1,096,156.08
Production System Expense	90,669.82	68,634.52	76,442.91	86,850.34	89,077.98
Gathering System Expense	140,961.09	135,110.30	127,747.99	131,326.29	131,713.95
Transmission System Expense	584,115.01	454,086.37	434,598.91	431,520.56	426,114.97
Compressor Station Expense	447,292.41	358,402.61	336,125.79	338,433.01	346,306.81
New Business Expense	126,125.98	87,528.94	89,725.16	99,793.94	101,308.68
General Expense	731,163.59	689,811.48	696,837.61	716,501.89	703,793.31
Uncollectible Bills	4,369.63	5,399.35	4,794.61	6,530.77	6,475.73
Taxes—Other than Federal	399,008.95	343,693.30	363,693.30	360,476.91	360,476.91
Management Fees and Expenses	.....	.....	.....	.....	.....
Regulatory Commission Expense	17,695.86	12,422.54	15,089.87	17,490.09	17,490.09
Dry Hole Expense	79,453.12	70,635.93	70,635.93	68,464.51	68,464.51
Cancelled and Surrendered Leases	99,140.73	137,446.63	137,446.63	172,676.50	172,676.50
Total	$4,176,826.58	$3,540,506.45	$3,483,352.72	$3,516,652.25	$3,520,055.52

Available for Depreciation, Depletion, Federal Income Tax, and Return	$3,765,160.24	$3,978,890.81	$3,750,238.33	$3,093,567.60	$3,293,167.05
Depreciation and Depletion	983,698.43	1,029,067.35	1,027,294.20	1,023,560.63	1,025,472.71
Available for Federal Income Tax and Return	$2,781,461.81	$2,949,823.46	$2,722,944.13	$2,070,006.97	$2,267,694.34
Federal Income Tax	211,689.58	244,944.92	219,269.23	134,604.77	164,367.49
Available for Return	$2,569,772.23	$2,704,878.54	$2,503,674.90	$1,935,402.20	$2,103,326.85
Rate Base—As found by Commission at Dec. 31st, 1931, plus net additions at cost. (See Rate Base Calculation included in this report)	$46,246,617.53	$48,504,299.60	$48,393,005.16	$48,306,893.96	$48,342,628.99
Available for Return Per Cent of Rate Base	5.56	5.57	5.17	4.01	4.36

Defendant's Exhibit No. 13—Continued

[fol. 4017]

Lone Star Gas Company

Public Service Operations

Comparative Statement of Revenues and Expenses

(Based on 32¢ Domestic Gate Rate)

Rate Base—As Found by Commission at December 31st, 1931—Plus Net Additions at Cost

Twelve Months Ended December 31st, 1931

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$9,265,639.45	$1,361,894.94†	$7,903,744.51
Misc'l. Operating Revenues	1,631.35	.....	1,631.35
Other Non-Operating Revenues	35,464.07	1,146.89	36,610.96
Total	$9,302,734.87	$1,360,748.05†	$7,941,986.82
Deductions From Gross Revenues			
Gas Purchased	$1,456,830.39	.....	$1,456,830.39
Production System Expense	90,669.82	.....	90,669.82
Gathering System Expense	140,961.09	.....	140,961.09
Transmission System Expense	584,115.01	.....	584,115.01
Compressor Station Expense	447,292.41	.....	447,292.41
New Business Expense	126,125.98	.....	126,125.98
General Expense	731,163.59	.....	731,163.59
Uncollectible Bills	4,369.63	.....	4,369.63
Taxes—Other Than Federal	399,008.95	.....	399,008.95
Management Fees & Expenses	91,375.38	91,375.38†	.....
Regulatory Commission Expense	17,695.86	.....	17,695.86
Dry Hole Expense	65,871.56	13,581.56	79,453.12
Canceled & Surrendered Leases	239,230.96	140,090.23†	99,140.73
Total	$4,394,710.63	$217,884.05†	$4,176,826.58

Available for Depreciation, Depletion, Federal Income Tax and Return	$4,908,024.24	$1,142,864.00†	$3,765,160.24
Depreciation and Depletion			983,698.43
Available for Federal Income Tax and Return			$2,781,461.81
Federal Income Tax			211,689.58
Available for Return			$2,569,772.23
Rate Base:			
As Found by Commission at December 31st, 1931—Plus Net addition at Cost. (See Rate Base Calculation included in this report)			$46,246,617.53
Available for Return Per Cent of Rate Base			5.56

† Red in copy.

Defendant's Exhibit No. 13—Continued

[fol. 4018]

Lone Star Gas Company

Public Service Operations

Comparative Statement of Revenues and Expenses
(Based on 32¢ Domestic Gate Rate)

Rate Base—As Found by Commission at December 31st, 1931—Plus Net Additions at Cost

Twelve Months Ended December 31st, 1932

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$8,829,713.37	$1,332,135.04†	$7,497,578.33
Misc'l. Operating Revenues	1,491.98	.....	1,491.98
Other Non-Operating Revenues	12,192.19	8,134.76	20,326.95
Total	$8,843,397.54	$1,324,000.28†	$7,519,397.26
Deductions from Gross Revenues			
Gas Purchased	$1,177,334.48	.....	$1,177,334.48
Production System Expense	68,634.52	.....	68,634.52
Gathering System Expense	135,110.30	.....	135,110.30
Transmission System Expense	454,086.37	.....	454,086.37
Compressor Station Expense	358,402.61	.....	358,402.61
New Business Expense	87,528.94	.....	87,528.94
General Expense	689,811.48	.....	689,811.48
Uncollectible Bills	5,399.35	.....	5,399.35
Taxes—Other than Federal	343,693.30	.....	343,693.30
Management Fees & Expense	87,197.87	87,197.87†	.....
Regulatory Commission Expense	163,739.01	151,316.47†	12,422.54
Dry Hole Expense	14,288.55	56,347.38	70,635.93
Canceled & Surrendered Leases	255,829.03	118,382.40†	137,446.63
Total	$3,841,055.81	$300,549.36†	$3,540,506.45

Available for Depreciation, Depletion, Federal Income Tax and Return	$5,002,341.73	$1,023,450.92†	$3,978,890.81
Depreciation & Depletion			1,029,067.35
Available for Federal Income Tax and Return			$2,949,823.46
Federal Income Tax			244,944.92
Available for Return			$2,704,878.54
Rate Base:			
As found by Commission at December 31st, 1931—Plus Net Addition at Cost. (See Rate Base Calculation included in this report)			$48,504,299.60
Available for Return Per Cent of Rate Base			5.57

† Red in copy.

Defendant's Exhibit No. 13—Continued

[fol. 4019]

Lone Star Gas Company

Public Service Operations

Comparative Statement of Revenues and Expenses
(Based on 32¢ Domestic Gate Rate)

Rate Base—As Found by Commission at December 31st, 1931—Plus Net Additions at Cost

Twelve Months Ended June 30th, 1933

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$8,455,136.94	$1,263,384.48†	$7,191,752.46
Misc'l. Operating Revenues	1,403.52	.....	1,403.52
Other Non-Operating Revenues	30,423.69	10,011.38	40,435.07
Total	$8,486,964.15	$1,253,373.10†	$7,233,591.05
Deductions from Gross Revenues			
Gas Purchased	$1,130,214.01	.....	$1,130,214.01
Production System Expense	76,442.91	.....	76,442.91
Gathering System Expense	127,747.99	.....	127,747.99
Transmission System Expense	434,598.91	.....	434,598.91
Compressor Station Expense	336,125.79	.....	336,125.79
New Business Expense	89,725.16	.....	89,725.16
General Expense	696,837.61	.....	696,837.61
Uncollectible Bills	4,794.61	.....	4,794.61
Taxes—Other than Federal	363,693.30	.....	363,693.30
Management Fees & Expenses	83,573.88	83,573.88†	.....
Regulatory Commission Expense	108,735.10	93,645.23†	15,089.87
Dry Hole Expense	15,747.35	54,888.58	70,635.93
Canceled & Surrendered Leases	208,751.84	71,305.21†	137,446.63
Total	$3,676,988.46	$193,635.74†	$3,483,352.72

Available for Depreciation, Depletion, Federal Income Tax and Return	$4,809,975.69	$1,059,737.36†	$3,750,238.72
Depreciation & Depletion			1,027,294.20
Available for Federal Income Tax and Return			$2,722,944.13
Federal Income Tax			219,269.23
Available for Return			$2,503,674.90
Rate Base:			
As found by Commission at December 31st, 1931—Plus net Addition at Cost. (See Rate Base Calculation included in this report)			$48,393,005.16
Available for Return Per Cent of Rate Base			5.17

† Red in copy.

Defendant's Exhibit No. 13—Continued

[fol. 4020]

Lone Star Gas Company

Public Service Operations

Comparative Statement of Revenues and Expenses
(Based on 32¢ Domestic Gate Rate)

Rate Base—As Found by Commission at December 31st, 1931—Plus Net Additions at Cost

Twelve Months Ended December 31st, 1933

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$7,688,724.10	$1,115,586.64†	$6,573,137.46
Misc'l. Operating Revenues	1,442.91	.....	1,442.91
Other Non-Operating Revenues	34,001.49	1,637.99	35,639.48
Total	$7,724,168.50	$1,113,948.65†	$6,610,219.85
Deductions from Gross Revenues			
Gas Purchased	$1,086,587.44	.....	$1,086,587.44
Production System Expense	86,850.34	.....	86,850.34
Gathering System Expense	131,326.29	.....	131,326.29
Transmission System Expense	431,520.56	.....	431,520.56
Compressor Station Expense	338,433.01	.....	338,433.01
New Business Expense	99,793.94	.....	99,793.94
General Expense	716,501.89	.....	716,501.89
Uncollectible Bills	6,530.77	.....	6,530.77
Taxes—Other than Federal	360,476.91	.....	360,476.91
Management Fees & Expenses	75,940.60	75,940.60†	.....
Regulatory Commission Expense	66,792.39	49,302.30†	17,490.09
Dry Hole Expense	18,704.52	49,759.99	68,464.51
Canceled & Surrendered Leases	188,629.92	15,953.42†	172,676.50
Total	$3,608,088.58	$91,436.33†	$3,516,652.25

Available for Depreciation, Depletion, Federal Income Tax and Return	$4,116,079.92	$1,022,512,32†	$3,093,567.60
Depreciation & Depletion			1,023,560.63
Available for Federal Income Tax and Return			$2,070,006.97
Federal Income Tax			134,604.77
Available for Return			$1,935,402.20
Rate Base:			
As found by Commission at December 31st, 1931—Plus net Addition at Cost. (See Rate Base Calculation included in this report)			$48,306,893.96
Available for Return Per Cent of Rate Base			4.01

† Red in copy.

Defendant's Exhibit No. 13—Continued

[fol. 4021]

Lone Star Gas Company
Public Service Operations
Comparative Statement of Revenues and Expenses
(Based on 32¢ Domestic Gate Rate)
Rate Base—As Found by Commission at December 31st, 1931—Plus Net Additions at Cost
Twelve Months Ended March 31st, 1934

	As Per Company Exhibits	Commission Adjustments	As Per Commission
Gross Revenues			
Gas Sales	$7,926,274.88	$1,151,152.40†	$6,775,122.48
Misc'l. Operating Revenues	1,596.78	.....	1,596.78
Other Non-Operating Revenues	34,892.25	1,611.06	36,503.31
Total	$7,962,763.91	$1,149,541.34†	$6,813,222.57
Deduction from Gross Revenues			
Gas Purchased	$1,096,156.08	.....	$1,096,156.08
Production System Expense	89,077.98	.....	89,077.98
Gathering System Expense	131,713.95	.....	131,713.95
Transmission System Expense	426,114.97	.....	426,114.97
Compressor Station Expense	346,306.81	.....	346,306.81
New Business Expense	101,308.68	.....	101,308.68
General Expense	703,793.31	.....	703,793.31
Uncollectible Bills	6,475.73	.....	6,475.73
Taxes—Other than Federal	360,476.91	.....	360,476.91
Management Fees & Expenses	77,110.16	77,110.16†	.....
Regulatory Commission Expense	56,204.18	38,714.09†	17,490.09
Dry Hole Expense	19,221.57	49,242.94	68,464.51
Canceled & Surrendered Leases	169,362.09	3,314.41	172,676.50
Total	$3,583,322.42	$63,266.90†	$3,520,055.52

Available for Depreciation, Depletion, Federal Income Tax and Return	$4,379,441.49	$1,086,274.44†	$3,293,167.05
Depreciation and Depletion			1,025,472.71
Available for Federal Income Tax and Return			$2,267,694.34
Federal Income Tax			164,367.49
Available for Return			$2,103,326.85
Rate Base:			
As found by Commission at December 31st, 1931—Plus Net Addition at Cost. (See Rate Base Calculation included in this report)			$48,342,628.99
Available for Return, Per Cent of Rate Base			4.36

† Red in copy.

[fol. 4022] Rate Base Calculations

Calculations for this section of report are the same as for Section No. 2. For detail please see pages 24 and 25.

[fol. 4023] Depreciation and Depletion Allowances

Calculations for this section of report are the same as for Section No. 2. For detail please see page Nos. 26-28, inclusive.

[fol. 4024] Federal Income Tax Calculations

Twelve Months ended December 31st, 1931		
Amount Available for Federal Income Tax and Return	$2,781,461.81	
Less—Interest Charges	1,017,381.94	
Balance—Subject to Federal Income Tax	$1,764,079.87	
Federal Income Tax Rate	12%	
Federal Income Tax		$211,689.58
Twelve Months Ended December 31st, 1932		
Amount Available for Federal Income Tax and Return	$2,949,823.46	
Less—Interest Charges	1,168,405.86	
Balance—Subject to Federal Income Tax	$1,781,417.60	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$244,944.92
Twelve Months Ended June 30th, 1933		
Amount Available for Federal Income Tax and Return	$2,722,944.13	
Less—Interest Charges	1,128,258.82	
Balance—Subject to Federal Income Tax	$1,594,685.31	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$219,269.23
Twelve Months Ended December 31st, 1933		
Amount Available for Federal Income Tax and Return	$2,070,006.97	
Less—Interest Charges	1,091,063.20	
Balance—Subject to Federal Income Tax	$978,943.77	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$134,604.77
Twelve Months Ended March 31st, 1934		
Amount Available for Federal Income Tax and Return	$2,267,694.34	
Less—Interest Charges	1,072,294.43	
Balance—Subject to Federal Income Tax	$1,195,399.91	
Federal Income Tax Rate	13.75%	
Federal Income Tax		$164,367.49

BLANK

PAGE

BLANK

PAGE

CLERK'S COPY.

Pat.

Vol. IV

166

83-796
U.S.S.C.

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1937

No. 313

LONE STAR GAS COMPANY, APPELLANT,

vs.

STATE OF TEXAS, THE RAILROAD COMMISSION OF TEXAS, ET AL.

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF THE STATE OF TEXAS

FILED AUGUST 13, 1937.

BLANK

PAGE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1937

No. 313

LONE STAR GAS COMPANY, APPELLANT,

vs.

STATE OF TEXAS, THE RAILROAD COMMISSION OF TEXAS, ET AL.

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF THE STATE OF TEXAS

VOL. IV

INDEX.

	Original	Print
Record from District Court of Travis County—Continued.		
Statement of facts of trial on the merits—Continued.		
Defendant's Exhibits—Continued.		
No. 14—Statement Showing Lone Star Gas Company's Revenues, Expenses, and Amount Available for Return Calculations Based on Actual Operating Expenses as Reflected by Company's Books for Twelve Months Ended April 30th, 1934, on Public Service Operations.	4039	2304
No. 15—Agreement Between Lone Star Gas Company and Municipal Gas Company, dated September 30th, 1931.....	4043	2306
No. 16—Agreement Between Lone Star Gas Company and Municipal Gas Company, dated December 3rd, 1930.....	4048	2312
No. 17—Agreement Between Lone Star Gas Company and Municipal Gas Company, dated November 28th, 1927.....	4054	2317

JUDD & DETWEILER (INC.), PRINTERS, WASHINGTON, D. C., DECEMBER 28, 1937.

—3104

Record from District Court of Travis County—Continued.
Statement of facts of trial on the merits—Continued.
Defendant's Exhibits—Continued. Original Print

No. 18—Agreement Between Lone Star Gas Company and Gainesville Gas & Electric Company, dated July 1st, 1927..... 4059 2323
No. 19—Agreement Between Lone Star Gas Company and The Dallas Gas Company, dated May 15, 1925..... 4064 2328
No. 20—Agreement Supplementing Agreement dated August 14th, 1925, Between Lone Star Gas Company and The Dallas Gas Company.. 4069 2334
No. 21—Renewal and Extension of Contract Between Lone Star Gas Company and The Dallas Gas Company, dated June 7, 1930..... 4071 2336
No. 22—Agreement Between Lone Star Gas Company and Community Natural Gas Company, dated May 15, 1931..... 4073 2337
No. 23—Agreement Between Lone Star Gas Company and Waxahachie Gas Company, dated October 6, 1933..... 4079 2342
No. 24—Agreement Between Lone Star Gas Company and County Gas Company, dated May 15, 1925..... 4085 2348
No. 25—Agreement Supplementing Agreement dated May 15, 1925, between Lone Star Gas Company and County Gas Company, dated September 21, 1926..... 4091 2354
No. 26—Renewal and Extension of Contract Between Lone Star Gas Company and County Gas Company; dated June 7, 1930..... 4094 2357
No. 27—Agreement between Lone Star Gas Company and Texas Cities Gas Company, dated September 15, 1933..... 4097 2357
No. 28—Appraisal—Cost of Reproduction New for Lone Star Gas Company, January 1, 1933, Public Service Plant, Property and Business; Exclusive of Fort Worth Division..... 4103 2363

[fol. 4025] Section No. 5

The schedules in this section of the report explain and set out in detail the several adjustments and eliminations made by the Railroad Commission and as set out in their Opinion and Order dated September 13th, 1933.

[fol. 4026]

Lone Star Gas Company

Summary of Adjustments

Twelve Months Ended December 31st, 1931	Additions	Deductions
Gas Purchased	.....	$.....
Management Fees and Expenses	.....	91,375.38
Regulatory Commission Expense	.....	.....
Dry Hole Expense	$13,581.56	.....
Cancelled and Surrendered Leases	.....	140,090.23
Miscellaneous Deductions	.....	1,146.89
Total	$13,581.56	$232,612.50
		13,581.56
Net Deduction Made by Commission		$219,030.94
Twelve Months Ended December 31st, 1932		
Gas Purchased	$70,227.30	.....
Management Fees and Expenses	.....	$87,197.87
Regulatory Commission Expense	.....	151,316.47
Dry Hole Expense	56,347.38	.....
Cancelled and Surrendered Leases	.....	118,382.40
Miscellaneous Deductions	.....	8,134.76
Total	$126,574.68	$365,031.50
		126,574.68
Net Deduction Made by Commission		$238,456.82
Twelve Months Ended June 30th, 1933		
Gas Purchased	$89,669.36	.....
Management Fees and Expenses	.....	$83,573.88
Regulatory Commission Expense	.....	93,645.23
Dry Hole Expense	54,888.58	.....
Cancelled and Surrendered Leases	.....	71,305.21
Miscellaneous Deductions	.....	10,011.38
Total	$144,557.94	$258,535.70
		144,557.94
Net Deduction Based on Findings by Commission		$113,977.76

[fol. 4027]

Twelve Months Ended December 31st, 1933	Additions	Deductions
Gas Purchased	$95,598.22	.....
Management Fees and Expenses	.....	$75,940.60
Regulatory Commission Expense	.....	49,302.30
Dry Hole Expense	49,759.99	.....
Cancelled and Surrendered Leases	.....	15,953.42
Miscellaneous Deductions	.....	1,637.99
Total	$145,358.21	$142,834.31
	142,834.31	
Net Addition Based on Findings by Commission	$2,523.90	

Defendant's Exhibit No. 13—Continued

Twelve Months Ended March 31st, 1934		
Gas Purchased	$102,004.55	
Management Fees and Expenses		$77,110.16
Regulatory Commission Expense		38,714.09
Dry Hole Expense	49,242.94	
Cancelled and Surrendered Leases	3,314.41	
Miscellaneous Deductions		1,611.06
Total	$154,561.90	$117,435.31
	117,435.31	
Net Addition Based on Findings by Commission	$37,126.59	

[fol. 4028] Gas Purchased

Twelve Months Ended December 31st, 1931		
No Adjustments for this Period		
Twelve Months Ended December 31st, 1932		
Adjustment made by Commission to allow for gas delivered from properties formerly owned by Meridian Gas Company and as set out on page 77 of opinion and order		$70,227.30
Twelve Months Ended June 30th, 1933		
Adjustment made in conformity with treatment of gas delivered from property formerly owned by Meridian Gas Co., which was acquired by Lone Star Gas Co. January 1st, 1932:		
Gas delivered at Banner Measuring Station from Chickasha Field	680,000 M.C.F.	
Contract price prior to acquisition by Lone Star Gas Co. per MCF	$.15	
Amount		$102,000.00
Less: Gas purchased by Lone Star Gas Co., from other well owners in Chickasha Field, which is included in above delivery at Banner Station	154,133 M.C.F.	
Field price—per M.C.F.	$.08	
Amount		12,330.64
Net Adjustment		$89,669.36

[fol. 4029]

Twelve Months Ended December 31st, 1933		
Adjustment made in conformity with treatment by Commission of gas delivered from property formerly owned by Meridian Gas Co., which was acquired by Lone Star Gas Co., January 1st, 1932:		
Gas delivered at Banner Measuring Station from Chickasha Field	669,538 M.C.F.	
Contract price prior to acquisition by Lone Star Gas Co., per M.C.F.	$.15	
Amount		$100,430.70
Less: Gas Purchased by Lone Star Gas Co., from other well owners in Chickasha Field, which is included in above delivery at Banner Station	60,406 M.C.F.	
Field Price—per M.C.F.	$.08	
Amount		$4,832.48
Net Adjustment		$95,598.22

Defendant's Exhibit No. 13—Continued

Twelve Months Ended March 31st, 1934		
Adjustment made in conformity with treatment by Commission of gas delivered from property formerly owned by Meridian Gas Co., which was acquired by Lone Star Gas Co., January 1st, 1932:		
Gas delivered at Banner Measuring Station from Chickasha Field	761,057 M.C.F.	
Contract price prior to acquisition by Lone Star Gas Co.—Per M.C.F.	$.15	
Amount		$114,158.55
Less: Gas purchased by Lone Star Gas Co., from other well owners in Chickasha Field, which is included in above delivery at Banner Station	151,925 M.C.F.	
Field price—per M.C.F.	$.08	
Amount		12,154.00
Net Adjustment		$102,004.55

[fol. 4030] Management Fees and Expenses

Twelve Months Ended December 31st, 1931	
Actual amount paid by Company and so reflected on their books of account	$91,375.38
Based on finding of Commission and as discussed on pages 9–11 of Opinion and Order	None
Adjustment	$91,375.38†
Twelve Months Ended December 31st, 1932	
Actual amount paid by Company and so reflected on their books of account	$87,197.87
Based on finding of Commission	None
Adjustment	$87,197.87†
Twelve Months Ended June 30th, 1933	
Actual amount paid by Company and so reflected on their books of account	$83,573.88
Based on finding of Commission	None
Adjustment	$83,573.88†
Twelve Months Ended December 31st, 1933	
Actual amount paid by Company and so reflected on their books of account	$75,940.60
Based on finding of Commission	None
Adjustment	$75,940.60†
Twelve Months Ended March 31st, 1934	
Actual amount paid by Company and so reflected on their books of account	$77,110.16
Based on finding of Commission	None
Adjustment	$77,110.16†

† Red in copy.

Defendant's Exhibit No. 13—Continued

[fol. 4031] Regulatory Commission Expense

Twelve Months Ended December 31st, 1931		
Actual expense incurred by Company and so reflected on their books of account		$17,695.86
Based on finding of Commission and as set out on page 14 of Opinion and Order		17,695.86
Adjustment		None
Twelve Months Ended December 31st, 1932		
Actual expense incurred by Company and so reflected on their books of account		$163,739.01
Based on finding of Commission and as set out on page 77 of Opinion and Order		12,422.54
Adjustment		$151,316.47†
Twelve Months Ended June 30th, 1933		
Actual expense incurred by Company and so reflected on their books of account		$108,735.10
Based on finding of Commission that this expense should be amortized over a ten year period:		
Amortization of 1932 expense	$12,422.54	
Amortization of 1933 expense	2,667.33	15,089.87
Adjustment		$93,645.23†
Twelve Months Ended December 31st, 1933		
Actual expense incurred by Company and so reflected on their books of account		$66,792.39
Based on finding of Commission that this expense should be amortized over a period of ten years:		
Amortization of 1932 expense	$12,422.54	
Amortization of 1933 expense	5,067.55	17,490.09
Adjustment		$49,302.30†
Twelve Months Ended March 31st, 1934		
Actual expense incurred by Company and so reflected on their books of account		$56,204.18
Based on finding of Commission that this expense should be amortized over a ten year period:		
Same amortization charge used as for year 1933		17,490.09
Adjustment		$38,714.09†

[fol. 4032] Dry Hole Expense

Twelve Months Ended December 31st, 1931	
Actual amount charged and so reflected by Company's books of account	$65,871.56
Commission used average for five years ending Dec. 31st, 1931, as shown on page 12 of Opinion and Order	79,453.12
Adjustment	$13,581.56

† Red in copy.

Defendant's Exhibit No. 13—Continued

Dry Hole Expense—Continued

Twelve Months Ended December 31st, 1932		
Actual amount charged and so reflected by Company's books of account		$14,288.55
Based on finding of Commission that five year average should be used, which would be:		
Year 1928	$29,561.61	
1929	47,423.77	
1930	196,034.17	
1931	65,871.56	
1932	14,288.55	
Total	$353,179.66	
Yearly Average		70,635.93
Adjustment		$56,347.38
Twelve Months Ended June 30th, 1933		
Actual amount charged and so reflected by Company's books of account		$15,747.35
Yearly average for five years ended December 31st, 1932, and as shown above used for this period		70,635.93
Adjustment		$54,888.58

[fol. 4033]

Twelve Months Period Ended December 31st, 1933		
Actual amount charged and so reflected by Company's books of account		$18,704.52
Based on finding of Commission that five year average should be used, which would be:		
Year 1929	$47,423.77	
1930	196,034.17	
1931	65,871.56	
1932	14,288.55	
1933	18,704.52	
Total	$342,322.57	
Yearly Average		68,464.51
Adjustment		$49,759.99
Twelve Months Ended March 31st, 1934		
Actual amount charged and so reflected by Company's books of account		$19,221.57
Yearly average for five years ended December 31st, 1933, and as shown above, used for this period		68,464.51
Adjustment		$49,242.94

[fol. 4034] Cancelled and Surrendered Leases

Twelve Months Ended December 31st, 1931		
Actual amount charged off by Company and so reflected on their books of account		$239,230.96
Commission used average for five years ending December 31st, 1931, as shown on page 12 of Opinion and Order		99,140.73
Adjustment		$140,090.23†

† Red in copy.

Defendant's Exhibit No. 13—Continued

Twelve Months Ended December 31st, 1932		
Actual amount charged off by Company and so reflected on their books of account		$255,829.03
Based on finding of Commission that five year average should be used, which would be:		
Year 1928	$12,480.59	
1929	75,523.70	
1930	104,168.87	
1931	239,230.96	
1932	255,829.03	
Total	$687,233.15	
Yearly Average		137,446.63
Adjustment		$118,382.40†
Twelve Months Ended June 30th, 1933		
Actual amount charged off by Company and so reflected on their books of account		$208,751.84
Yearly average for five years ended December 31st, 1932, and as shown above, used for this period		137,446.63
Adjustment		$71,305.21†

[fol. 4035]

Twelve Months Ended December 31st, 1933		
Actual amount charged off by Company and so reflected by their books of account		$188,629.92
Based on finding of Commission that five year average should be used, which would be:		
Year 1929	$75,523.70	
1930	104,168.87	
1931	239,230.96	
1932	255,829.03	
1933	188,629.92	
Total	$863,382.48	
Yearly Average		172,676.50
Adjustment		$15,953.42†
Twelve Months Ended March 31st, 1934		
Actual amount charged off by Company and so reflected by their books of account		$169,362.09
Yearly average for five years ended December 31st, 1933, and as shown above, used for this period		172,676.50
Adjustment		$3,314.41

[fol. 4036] **Miscellaneous Deductions**

Twelve Months Ended December 31st, 1931	
Adjustment made by Auditors for Commission, wherein they disallowed as a deduction from Gross Income, the loss on materials sold by the Company from their warehouses	$1,146.89

† Red in copy.

Defendant's Exhibit No. 13—Continued

Twelve Months Ended December 31st, 1932

Adjustment made by Auditors for Commission, wherein they disallowed as a deduction from Gross Income, the loss on materials sold by the Company from their warehouses..... $8,134.76

Twelve Months Ended June 30th, 1933

Giving effect to same class of charges to which Commission Auditors took exception and eliminated from charges as a deduction from Gross Income..... $10,011.38

Twelve Months Ended December 31st, 1933

Giving effect to same class of charges to which Commission Auditors took exception and eliminated from charges as a deduction from Gross Income..... $1,637.99

Twelve Months Ended March 31st, 1934

Giving effect to same class of charges to which Commission Auditors took exception and eliminated from charges as a deduction from Gross Income $1,611.06

[fols. 4037-4038]

Gas Sales Adjustment

Twelve Months Ended December 31st, 1931

Domestic Gas Sales—M. Cu. Ft.....	17,023,686.7	
Reduction found by Commission and set out in their Order dated September 13th, 1933—per M Cu. Ft.....	$.08	
Reduction in Domestic Gas Sales, as shown on page 78 of Opinion and Order.....		$1,361,894.94

Twelve Months Ended December 31st, 1932

Domestic Gas Sales—M Cu. Ft.....	16,651,688	
Reduction found by Commission and set out in their Order dated September 13th, 1933—per M Cu. Ft.....	$.08	
Reduction in Domestic Gas Sales, as shown on Page 78 of Opinion and Order.....		$1,332,135.04

Twelve Months Ended June 30th, 1933

Domestic Gas Sales—M Cu. Ft.....	15,792,306	
Reduction found by Commission and set out in their Order dated September 13th, 1933—per M Cu. Ft.....	$.08	
Reduction in Domestic Gas Sales.....		$1,263,384.48

Twelve Months Ended December 31st, 1933

Domestic Gas Sales—M Cu. Ft.....	13,944,833	
Reduction found by Commission and set out in their Order dated September 13th, 1933—per M Cu. Ft.....	$.08	
Reduction in Domestic Gas Sales.....		$1,115,586.64

Twelve Months Ended March 31st, 1934

Domestic Gas Sales—M Cu. Ft.....	14,389,405	
Reduction found by Commission and set out in their Order dated September 13th, 1933—per M Cu. Ft.....	$.08	
Reduction in Domestic Gas Sales.....		$1,151,152.40

[fol. 4039] DEFENDANT'S EXHIBIT No. 14

Lone Star Gas Company

Public Service Operations

Statement of Revenues, Expenses, and Amount Available for Return

Calculations Based On Actual Operating Expenses as Reflected by Company's Books

Twelve Months Ended April 30th, 1934

[fol. 4040] Basis of Calculations in Following Statement

"A"

Gas Sales—Actual 40¢ per M Cu. Ft. Domestic Gate Rate.

Operating Expenses—Actual as reflected by Company's books.

Depreciation and Depletion—As determined by Commission.

Federal Income Tax—Amount shown as available for return calculated @ 13.75%.

Rate Base—As determined by Commission.

"B"

Gas Sales—Based on 32¢ Domestic Gate Rate.

Operating Expenses—Actual as reflected by Company's books.

Depreciation and Depletion—As determined by Commission.

Federal Income Tax—Amount shown as available for return calculated @ 13.75%.

Rate Base—As determined by Commission.

"C"

Gas Sales—Based on 32¢ Domestic Gate Rate.

Operating Expenses—Actual as reflected by Company's books.

Depreciation and Depletion—Based on Commission rate applied to Rate Base.

Federal Income Tax—Amount shown as available for return calculated @ 13.75%.

Rate Base—Cost as reflected by Company's books.

Defendant's Exhibit No. 14—Continued

[fols. 4041-4042]

Lone Star Gas Company
Public Service Operations
Statement of Revenues, Expenses, and Amount Available for Return
Twelve Months Ended April 30th, 1934
(See Preceding Page for Basis of Calculation)

	"A"	"B"	"C"
Gross Revenues			
Gas Sales	$7,921,446.79	$6,775,215.11	$6,775,215.11
Misc'l. Operating Revenues	1,640.51	1,604.51	1,604.51
Other Non-Oper. Revenues	35,431.08	35,431.08	35,431.08
Total	$7,958,518.38	$6,812,250.70	$6,812,250.70
Deductions from Gross Income			
Gas Purchased	$1,093,297.36	$1,093,297.36	$1,093,297.36
Production System Expense	88,159.42	88,159.42	88,159.42
Gathering System Expense	132,979.91	132,979.91	132,979.91
Transmission System Expense	428,557.04	428,557.04	428,557.04
Compressor Station Expense	349,311.51	349,311.51	349,311.51
New Business Expense	102,140.30	102,140.30	102,140.30
General Expense	709,509.23	709,509.23	709,509.23
Uncollectible Bills	6,474.03	6,474.03	6,474.03
Taxes—Other than Federal	360,476.91	360,476.91	360,476.91
Management Fees & Expenses	78,244.38	78,244.38	78,244.38
Regulatory Commission Expense	44,361.36	44,361.36	44,361.36
Dry Hole Expense	19,244.38	19,244.38	19,244.38
Cancelled & Surrendered Leases	172,958.04	172,958.04	172,958.04
Total	$3,585,713.87	$3,585,713.87	$3,585,713.87
Available for Depreciation, Depletion, Federal Income Tax, and Return	$4,372,804.51	$3,226,536.83	$3,226,536.83
Depreciation and Depletion	1,001,440.56	1,001,440.56	1,057,159.66
Available for Federal Income Tax and Return	$3,371,363.95	$2,225,096.27	$2,169,377.17
Federal Income Tax	463,562.54	305,950.74	298,289.36
Available for Return	$2,907,801.41	$1,919,145.53	$1,871,087.81
Rate Base	$47,192,765.79	$47,192,765.79	$49,858,751.23
Available for Return Per Cent of Rate Base	6.17	4.07	3.76

[fol. 4043] DEFENDANT'S EXHIBIT No. 15

This Agreement, Made and entered into by and between Lone Star Gas Company, a Texas corporation hereinafter styled Vendor, and Municipal Gas Company, a Texas corporation hereinafter styled Vendee,

Witnesseth:

I

That Vendor has agreed to sell and deliver to the Vendee, and Vendee has agreed to purchase and receive from the Vendor, subject to the terms, conditions, and limitations hereinafter set out, all of the natural gas necessary to meet the requirements of the domestic consumers supplied by Vendee in the following territory:

(a) Within the town or city of Iowa Park, Texas, and the suburbs thereof;

(b) Along Vendor's eighteen-inch gas pipe line extending from its junction point with Vendor's ten-inch pipe line east of Wichita Falls, Texas, to the town or city of Iowa Park.

The term of this agreement shall be for five years from November 10th, 1931.

II

The natural gas sold and purchased hereunder shall be delivered by Vendor to Vendee at Vendor's present gas measuring station near the town or city of Iowa Park, and at such other taps along the Vendor's said eighteen-inch gas transportation line between Iowa Park and Wichita Falls as shall hereafter be agreed upon in writing by the parties hereto.

Vendor agrees, at its own expense, to make for Vendee one tap on said eighteen-inch line north of Wichita Falls, but all additional taps made shall be at the expense of Vendee.

Each tap made along Vendor's said gas transportation line shall be deemed a delivery point within the meaning of this contract.

III

The natural gas to be sold by Vendor and purchased by Vendee shall be measured, with the exceptions hereinafter

provided, at the various delivery points by meters of standard type, to be installed, operated, and maintained by Vendor.

It is provided, however, that in rural sections along Vendor's said eighteen-inch gas pipe line where it is not feasible for Vendor to install and operate a master meter to measure the delivery of gas to a tap line of Vendee serving one or more domestic consumers, Vendor shall be entitled to take the monthly readings of Vendee's domestic meters on said tap line as the amount of gas sold by Vendor to Vendee at such tap. In all such cases Vendee shall afford to Vendor or its representative free access to Vendee's said domestic meters and to Vendee's records in so far as they reflect the readings of such domestic meters.

Gas may be delivered and measured by Vendor to Vendee at such pressures as may exist by virtue of operating conditions, but for purposes of payment therefor by Vendee to Vendor, it shall be computed on a pressure basis of eight ounces above 14.4 pounds absolute atmospheric pressure, at sixty degrees Fahrenheit temperature, and without allowance for variations in atmospheric or barometric pressure, [fol. 4044] and with an assumed barometric pressure of 14.4 pounds absolute at the points of measurement. The flowing and storage temperature of the gas shall be considered as sixty degrees Fahrenheit in all measurement computations. Variations in specific gravity of the gas shall be allowed for by determining their monthly mean or average values, and which values shall be applied to the computation of deliveries. In all cases where Vendor's measurements of gas delivered to Vendee are made by positive meters no temperature or specific gravity corrections shall be used in the computation of such gas deliveries.

The Vendee shall have access to the meters of the Vendor, which measure the gas sold hereunder, at any time upon demand for the purpose of inspection, and Vendee at all reasonable times may have tests or calibrations made of Vendor's meters, at Vendee's own expense and in the presence of Vendor's representatives. In the event that Vendee shall install meters to check Vendor's meters, then Vendor shall have the same rights of access to and inspection of Vendee's check meters as Vendee enjoys with reference to Vendor's meters.

IV

In the event that any of Vendor's meters becomes inoperative or manifestly in error, then the quantity of gas delivered during the period that Vendor's meter was inoperative or manifestly in error shall be determined:

(a) By correcting for the error if such error is ascertainable, during the time of the error;

(b) By computing the deliveries from Vendee's corresponding check meter during the period of error or nonoperation of Vendor's meter, if Vendee shall have installed meters of its own as check meters at the several delivery points;

(c) By estimating as nearly as may be possible the quantity of delivery from the delivery during proportionate periods under similar conditions, when such meter was registering accurately.

In the event that Vendor and Vendee shall be unable to agree upon any adjustment for any period when Vendor's meters shall have been inoperative or in error, then the matter shall be determined by three disinterested arbitrators; one to be appointed by the Vendor, one to be appointed by the Vendee, and the two so appointed to select a third. The decision of such arbitrators or any two of them shall be final, and the cost of such arbitration shall be paid one-half by Vendor and one-half by Vendee.

V

The Vendor may make deliveries of gas to the Vendee at the maximum pressures carried in its pipe line at the various delivery points. The Vendee shall install, operate, and maintain such regulators and regulator stations as it may require to regulate the pressure of the gas after delivery thereof by Vendor to Vendee. It is expressly agreed that the Vendor shall in no event be liable for any pressure fluctuation at the said delivery points, or for the control of gas pressures after delivery of the gas to the Vendee.

The Vendor will endeavor, subject to all of the limitations hereinafter set out, to deliver gas at the various delivery points at a pressure of not less than twenty pounds where such pressure is required by Vendee.

[fol. 4045]

VI

The Vendee expressly recognizes that the production and transportation of natural gas by pipe lines is subject to accidents and interruptions, and diminutions of pressure and supply. The Vendor undertakes no obligation toward Vendee other than to deliver to Vendee such gas as Vendor is able to secure from its present sources of supply and such other sources of supply to which it may extend its pipe line system. It is expressly agreed between Vendor and Vendee that Vendor shall not be liable to the Vendee for any failures to deliver gas hereunder, when such failure is occasioned by accidents to or breakage of pipe lines or machinery, diminution or failure of supply occasioned by the failure, depletion, or destruction of gas wells or fields, fires, floods, strikes, riots, explosions, act of God or the public enemy, or, and without limitation by enumeration, any other cause beyond the control of the Vendor.

VII

It is expressly covenanted and agreed by and between the parties hereto that if either party shall fail to perform any of the covenants or obligations imposed upon it under and by virtue of this contract, then the party offended shall have the right and option to cancel and terminate this contract upon giving the offending party written notice of the violation of such covenant or obligation, and such notice having been given, if the violation complained of is not remedied within ten days, then the termination of this contract shall be deemed complete. The failure of the Vendee to make payments to the Vendor for gas purchased in accordance with the provisions of this contract, shall, among other things, be considered a failure to perform a covenant or obligation of this contract and entitling the Vendor to cancel and terminate the contract.

VIII

It is further covenanted and agreed that if any court, Governmental regulatory body, or Governmental agency shall subject to review the price to be paid by Vendee for gas purchased from Vendor hereunder, and shall lawfully fix or establish another and different price for such gas, then if said price shall be fixed at any figure less than the price herein provided for, the Vendor shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendee; and if said price shall be fixed

at any figure more than the price herein provided for, then the Vendee shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendor. Such written notice when given by either party shall make the termination of this contract complete.

IX

The price to be paid by Vendee to Vendor for the gas sold and purchased hereunder shall be at the rate of forty (40¢) cents per thousand cubic feet.

The Vendor will submit to the Vendee by the 15th day of each calendar month a statement showing the amount of gas measured by Vendor's meters and delivered to Vendee during the preceding calendar month, together with the charts from Vendor's meters and the computation of deliveries for such period. These charts and computations shall be returned to Vendor at the time of or previously to the making of the payment for such monthly period. The Vendee by the 12th day of each calendar month shall furnish to the Vendor a statement of the deliveries made by Vendor to Vendee on rural tap lines where Vendor has not measured the gas delivered to Vendee through a master meter.

[fols. 4046-4047] On or before the twentieth day of each calendar month Vendee shall pay to the Vendor at Dallas, Texas, for all gas delivered by Vendor to Vendee during the preceding calendar month according to the gas measurements and computations hereinbefore provided for.

X

By domestic consumers, as used in this contract, is meant all those consumers using gas in domestic service, and is defined as including the reasonable use of natural gas for heating, lighting, and cooking in private homes, boarding houses, apartment houses, hospitals, and charitable institutions; and this classification shall further extend to those using natural gas for *lithing* and cooking only in hotels, restaurants, bakeries, and stores, and for heating in hotels and buildings where separate rooms are dependent upon natural gas for heating purposes in grates and stoves.

XI

It is understood that in addition to the gas which Vendor shall deliver to Vendee hereunder to meet the requirements of Vendee's domestic consumers the Vendor will sell and

deliver to the Vendee and the Vendee will purchase and receive from the Vendor gas for manufacturing and industrial purposes, under such terms and conditions as may hereafter be agreed to in writing by the Vendor and the Vendee; provided that in the judgment of the Vendor sufficient gas is available to warrant its sale for such purposes.

Vendee shall be entitled to receive industrial gas from Vendor at such times as Vendor is selling to other distributing companies who are receiving industrial gas from Vendor under substantially similar operating conditions.

XII

It is understood that during the term of this contract Vendor will supply gas to various other communities and cities, and Vendor agrees that it will not wilfully discriminate in favor of such other communities or cities or against Vendee or Vendee's domestic or industrial consumers in the matter of the apportioning of the supply of gas which Vendor has available. In times of extreme or peak demand Vendor will endeavor, in so far as operating conditions will permit, to apportion the supply of gas among the various communities and cities which it serves in proportion to the number of domestic consumers served in each community or city.

XIII

All of the covenants, terms, stipulations and provisions of this contract shall extend to and be binding upon the respective successors and assigns of the parties hereto.

Notices provided to be given hereunder shall be deemed sufficiently given and served when and if deposited in the United States mail, postage prepaid and registered, addressed to the Vendor at Dallas, Texas, and to the Vendee at Dallas, Texas.

Witness the execution hereof in duplicate originals on this 30th day of September, 1931.

Lone Star Gas Company, by (signed) F. L. Chase, Vice-President.

Attest: (Signed) T. J. Uhl, Asst. Secretary. (Corporate Seal, Lone Star Gas Company, Dallas, Texas.)

Municipal Gas Company, by (signed) J. B. McCabe, President.

Attest: (Signed) L. W. Cole, Secretary. (Corporate Seal, 1925, Municipal Gas Company, Texas.)

[fol. 4048] DEFENDANT'S EXHIBIT No. 16

This agreement, made and entered into by and between Lone Star Gas Company, a Texas corporation, hereinafter styled Vendor, and Municipal Gas Company, a Texas corporation, hereinafter styled Vendee,

Witnesseth:

I

The Vendor has agreed to sell and deliver to the Vendee, and the Vendee has agreed to purchase and receive from the Vendor, subject to the terms, conditions and limitations hereinafter set out, all of the natural gas necessary to meet the requirements of the domestic consumers supplied by Vendee in the towns and cities of Corsicana, Hillsboro, Waxahachie, Ennis, Cleburne, Wichita Falls, Bowie, Byers, Petrolia, Bellevue, Sunset, Alvord, Bridgeport and Decatur, Texas, and the suburbs thereof, for a term of five (5) years, commencing December 18, 1930, and thereafter until terminated by either party giving to the other party thirty (30) days written notice of termination.

II

Natural gas sold and purchased hereunder shall be delivered by Vendor to Vendee at the following delivery points:

1. At the present measuring station or stations of Vendor at each said town or city, if such measuring station is located without the corporate limits of such town or city;

2. In those cases where any present measuring station is within the corporate limits of any such town or city, then the delivery point for the gas measured at such station shall be the intersection of Vendor's pipe line, running to said station, with the corporate limits of such town or city.

III

Natural gas to be sold by Vendor and purchased by Vendee hereunder shall be measured at or conveniently near the several delivery points above named, by orifice meters of standard type, which shall be installed, operated and maintained by the Vendor.

Gas may be delivered and measured by Vendor to Vendee at such pressures as may exist by virtue of operating conditions, but for purposes of payment therefor by Vendee to Vendor, it shall be computed on a pressure basis of eight ounces above 14.4 pounds absolute pressure, at sixty degrees Fahrenheit temperature, and without allowance for variations in atmospheric or barometric pressure, and with an assumed barometric pressure of 14.4 pounds absolute at the points of measurement. The flowing and storage tem- [fol. 4049] perature of the gas shall be considered as sixty degrees Fahrenheit in all measurement computations. Variations in specific gravity of the gas shall be allowed for by determining their monthly mean or average values, and which values shall be applied to the computation of deliveries.

The Vendee shall have access to the meters of the Vendor, which measure the gas sold hereunder, at any time upon demand for the purpose of inspection, and Vendee at all reasonable times may have tests or calibrations made of Vendor's meters, at Vendee's own expense and in the presence of Vendor's representatives. In the event that Vendee shall install meters to check Vendor's meters, then Vendor shall have the same rights of access to and inspection of Vendee's check meters as Vendee enjoys with reference to Vendor's meters.

IV

In the event that any of Vendor's meters becomes inoperative or manifestly in error, then the quantity of gas delivered during the period that Vendor's meter was inoperative or manifestly in error shall be determined:

(a) By correcting for the error if such error is ascertainable, during the time of the error;

(b) By computing the deliveries from Vendee's corresponding check meter during the period of error or nonoperation of Vendor's meter, if Vendee shall have installed meters of its own as check meters at the several delivery points;

(c) By estimating as nearly as may be possible the quantity of delivery from the delivery during proportionate periods under similar conditions, when such meter was registering accurately.

In the event that Vendor and Vendee shall be unable to agree upon any adjustment for any period when Vendor's meters shall have been inoperative or in error, then the matter shall be determined by three disinterested arbitrators, one to be appointed by the Vendor, one to be appointed by the Vendee, and the two so appointed to select a third. The decision of such arbitrators or any two of them shall be final, and the cost of such arbitration shall be paid one-half by Vendor and one-half by Vendee.

V

The Vendor may make deliveries of gas to the Vendee at the maximum pressures carried in its pipe lines at the various delivery points. The Vendee shall install, operate and maintain such regulators and regulator stations as it may require to regulate the pressure of the gas after delivery thereof by Vendor to Vendee. It is expressly agreed that the Vendor shall in no event be liable for any pressure fluctuation at the said delivery points, or for the control of gas pressures after delivery of the gas to the Vendee. [fol. 4050] The Vendor will endeavor, subject to all of the limitations hereinafter set out, to deliver gas at the various delivery points at an average pressure of not less than twenty (20) pounds per square inch.

VI

The Vendee expressly recognizes that the production and transportation of natural gas by pipe lines is subject to accidents and interruptions, and diminutions of pressure and supply. The Vendor undertakes no obligation toward Vendee other than to deliver to Vendee such gas as Vendor is able to secure from its present sources of supply and such other sources of supply to which it may extend its pipe line system. It is expressly agreed between Vendor and Vendee that Vendor shall not be liable to the Vendee for any failure to deliver gas hereunder, when such failure is occasioned by accidents to or breakage of pipe lines or machinery, diminution or failure of supply occasioned by the failure, depletion, or destruction of gas wells or fields, fires, floods, strikes, riots, explosions, act of God or the public enemy, or, and without limitation by enumeration, any other cause beyond the control of the Vendor.

VII

It is expressly covenanted and agreed by and between the parties hereto that if either party shall fail to perform any of the covenants or obligations imposed upon it under and by virtue of this contract, then the party offended shall have the right and option to cancel and terminate this contract upon giving the offending party written notice of the violation of such covenant or obligation, and such notice having been given, if the violation complained of is not remedied within ten days, then the termination of this contract shall be deemed complete. The failure of the Vendee to make payments to the Vendor for gas purchased in accordance with the provisions of this contract shall, among other things, be considered a failure to perform a covenant or obligation of this contract and entitling the Vendor to cancel and terminate the contract.

VIII

It is further covenanted and agreed that if any court, Governmental regulatory body, or Governmental agency shall subject to review the price to be paid by Vendee for gas purchased from Vendor hereunder, and shall lawfully fix or establish another and different price for such gas, then if said price shall be fixed at any figure less than the price herein provided for, the Vendor shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendee; and if said price shall be fixed at any figure more than the price herein provided for, then the Vendee shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendor. Such written notice when given by either party shall make the termination of this contract complete.

[fol. 4051]

IX

The price to be paid by Vendee to Vendor for the gas sold and purchased hereunder shall be at the rate of forty (40¢) cents per thousand cubic feet.

The Vendor will submit to the Vendee by the fifteenth day of each calendar month a statement showing the amount of gas delivered to Vendee during the preceding calendar month, together with the charts from Vendor's meters, and the computation of deliveries for such period. These charts and computations shall be returned to Vendor at the time

of or previously to the making of the payment for such monthly period.

On or before the twentieth day of each calendar month Vendee shall pay to the Vendor at Dallas, Texas, for all gas delivered by Vendor to Vendee during the preceding calendar month according to the gas measurements and computations hereinbefore provided for.

X

By domestic consumers, as used in this contract, is meant all those consumers using gas in domestic service and is defined as including the reasonable use of natural gas for heating, lighting and cooking in private homes, boarding houses, apartment houses, hospitals and charitable institutions; and this classification shall further extend to those using natural gas for lighting and cooking only in hotels, restaurants, bakeries and stores, and for heating in hotels and buildings where separate rooms are dependent upon natural gas for heating purposes in grates and stoves.

XI

It is understood that, in addition to the gas which Vendor shall deliver to Vendee hereunder to meet the requirements of Vendee's domestic consumers, the Vendor will sell and deliver to the Vendee and the Vendee will purchase and receive from the Vendor gas for manufacturing and industrial purposes, under such terms and conditions as may hereafter be agreed to in writing by the Vendor and the Vendee; provided that in the judgment of the Vendor sufficient gas is available to warrant its sale for such purposes.

Vendee shall be entitled to receive industrial gas from Vendor at such times as Vendor is selling to other distributing companies who are receiving industrial gas from Vendor under substantially similar operating conditions.

XII

It is understood that during the term of this contract Vendor will supply gas to various other communities and cities, and Vendor agrees that it will not willfully discriminate in favor of such other communities or cities or against Vendee or Vendee's domestic or industrial consumers in the matter of the apportioning of the supply of gas which Vendor has available. In times of extreme or peak demand,

Vendor will endeavor, insofar as operating conditions will [fols. 4052-4053] permit, to apportion the supply of available gas among the various communities and cities which it serves in proportion to the number of domestic consumers served in each community or city.

XIII

All of the covenants, terms, stipulations and provisions of this contract shall extend to and be binding upon the respective successors and assigns of the parties hereto.

Notice as provided to be given hereunder shall be deemed sufficiently given and served when and if deposited in the United States mail, postage prepaid and registered, addressed to Vendor at Dallas, Texas, and to the Vendee at Dallas, Texas.

Witness the execution hereof in duplicate, each copy being hereby declared an original, on this 3rd day of Dec., 1930.

Lone Star Gas Company, by (signed) F. L. Chase, Vice-President.

Attest: (Signed) T. J. Uhl, Asst. Secretary. (Corporate Seal, Lone Star Gas Company, Dallas, Texas.)

Municipal Gas Company, by (signed) J. B. McCabe, President.

Attest: (Signed) L. W. Cole, Secretary. (Corporate Seal, 1925, Municipal Gas Company, Texas.)

[fol. 4054] DEFENDANT'S EXHIBIT No. 17

This Agreement, Made and entered into by and between Lone Star Gas Company, a Texas corporation hereinafter styled Vendor, and Municipal Gas Company, a Texas corporation hereinafter styled Vendee,

Witnesseth:

I

That Vendor has agreed to sell and deliver to Vendee, and Vendee has agreed to purchase and receive from Vendor, subject to the terms, conditions, and limitations hereinafter set out, all of the natural gas necessary to meet the require-

ments of the domestic consumers supplied by Vendee in the cities of Sherman, Denison, Denton, Whitesboro and McKinney, Texas, and the suburbs thereof, for a term of seven years, commencing December 1, 1927.

II.

The natural gas sold and purchased hereunder shall be delivered by Vendor to Vendee at the present measuring stations of the Vendor near the aforesaid cities where delivery of gas is now being made by the Vendor to the Vendee; and delivery may also be made at any measuring stations which may hereafter be established by mutual consent of the parties hereto.

III

The natural gas to be sold by Vendor and purchased by Vendee hereunder shall be measured at the said delivery points by meters of standard type which shall be installed, operated, and maintained by the Vendor.

Gas may be delivered and measured by Vendor to Vendee at such pressures as may exist by virtue of operating conditions, but for purposes of payment therefor by Vendee to Vendor, it shall be computed on a pressure basis of eight ounces above 14.4 pounds absolute atmospheric pressure, at sixty degrees Fahrenheit temperature, and without allowance for variations in atmospheric or barometric pressure, and with an assumed barometric pressure of 14.4 pounds absolute at the points of measurement. The flowing and storage temperature of the gas shall be considered as sixty degrees Fahrenheit in all measurement computations. Variations in specific gravity of the gas shall be allowed for by determining their monthly mean or average values, and which values shall be applied to the computation of deliveries.

The Vendee shall have access to the meters of the Vendor, which measure the gas sold hereunder, at any time upon demand for the purpose of inspection, and Vendee at all reasonable times may have tests or calibrations made of Vendor's meters, at Vendee's own expense and in the presence of Vendor's representatives. In the event that Vendee shall install meters to check Vendor's meters, then Vendor shall have the same rights of access to and inspection of Vendee's check meters as Vendee enjoys with reference to Vendor's meters.

IV

In the event that any of the meters of Vendor measuring gas delivered to the Vendee becomes inoperative or manifestly in error, then the quantity of gas delivered during the period that such meter was inoperative or manifestly in error shall be determined:

(a) By correcting for the error if such error is ascertainable, during the time of the error;

[fol. 4055] (b) By computing the deliveries from Vendee's corresponding check meter during the period of error or non-operation of Vendor's meter, if Vendee shall have installed meters of its own as check meters at the several delivery points;

(c) By estimating as nearly as may be possible the quantity of delivery from the delivery during proportionate periods under similar conditions, when such meter was registering accurately.

In the event that Vendor and Vendee shall be unable to agree upon any adjustment for any period when Vendor's meters shall have been inoperative or in error, then the matter shall be determined by three disinterested arbitrators; one to be appointed by the Vendor, one to be appointed by the Vendee, and the two so appointed to select a third. The decision of such arbitrators or any two of them shall be final, and the cost of such arbitration shall be paid one-half by Vendor and one-half by Vendee.

V

The Vendor may make deliveries of gas to the Vendee at the maximum pressures carried in its pipe line at the point of delivery. The Vendee shall install, operate, and maintain such regulators and regulator stations as it may require to regulate the pressure of the gas after delivery thereof by Vendor to Vendee. It is expressly agreed that the Vendor shall in no event be liable for any pressure fluctuation at the said delivery points, or for the control of gas pressures after delivery of the gas to the Vendee.

The Vendor will endeavor, subject to all of the limitations hereinafter set out, to deliver gas to the Vendee at the said delivery point at a pressure of twenty pounds per square inch.

VI

The Vendee expressly recognizes that the production and transportation of natural gas by pipe lines is subject to accidents and interruptions, and diminutions of pressure and supply. The Vendor undertakes no obligation toward Vendee other than to deliver to Vendee such gas as Vendor is able to secure from its present sources of supply and such other sources of supply to which it may extend its pipe line system. It is expressly agreed between Vendor and Vendee that Vendor shall not be liable to the Vendee for any failure to deliver gas hereunder, when such failure is occasioned by accidents to or breakage of pipe lines or machinery, diminution or failure of supply occasioned by the failure, depletion, or destruction of gas wells or fields, fires, floods, strikes, riots, explosions, act of God or the public enemy, or, and without limitation by enumeration, any other cause beyond the control of the Vendor.

VII

It is expressly covenanted and agreed by and between the parties hereto that if either party shall fail to perform any of the covenants or obligations imposed upon it under and by virtue of this contract, then the party offended shall have the right and option to cancel and terminate this contract upon giving the offending party written notice of the violation of such covenant or obligation, and such notice having been given, if the violation complained of is not remedied within ten days, then the termination of this contract shall be deemed complete. The failure of the Vendee to make payments to the Vendor for gas purchased in accordance with the provisions of this contract, shall, among other things, be considered a failure to perform a covenant or obligation of this contract and entitling the Vendor to cancel and terminate the contract.

VIII

It is further covenanted and agreed that if any court, Governmental regulatory body, or Governmental agency [fol. 4056] shall subject to review the price to be paid by Vendee for gas purchased from Vendor hereunder, and shall lawfully fix or establish another and different price for such gas, then if said price shall be fixed at any figure less than the price herein provided for, the Vendor shall have the

right and option to cancel and terminate this agreement by giving written notice to the Vendee; and if said price shall be fixed at any figure more than the price herein provided for, then the Vendee shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendor. Such written notice when given by either party shall make the termination of this contract complete.

IX

The price to be paid by Vendee to Vendor for the gas sold and purchased hereunder shall be at the rate of forty (40¢) cents per thousand cubic feet.

The Vendor will submit to the Vendee by the fifteenth day of each calendar month, a statement showing the amount of gas delivered to Vendee during the preceding calendar month, together with the charts from Vendor's meters, and the computation of deliveries for such period. These charts and computations shall be returned to Vendor at the time of or previously to the making of the payment for such monthly period.

On or before the twentieth day of each calendar month Vendee shall pay to the Vendor at Dallas, Texas, for all gas delivered by Vendor to Vendee during the preceding calendar month according to the gas measurements and computations hereinbefore provided for.

X

By domestic consumers, as used in this contract, is meant all those consumers using gas in domestic service, and is defined as including the reasonable use of natural gas for heating, lighting, and cooking in private homes, boarding houses, apartment houses, hospitals, and charitable institutions; and this classification shall further extend to those using natural gas for lighting and cooking only in hotels, restaurants, bakeries, and stores, and for heating in hotels and buildings where separate rooms are dependent upon natural gas for heating purposes in grates and stoves.

XI

It is understood that, in addition to the gas which Vendor shall deliver to Vendee hereunder to meet the requirements of Vendee's domestic consumers, the Vendor will sell and deliver to the Vendee and the Vendee will purchase and receive from the Vendor gas for manufacturing and indus-

trial purposes, under such terms and conditions as may hereafter be agreed to in writing by the Vendor and the Vendee; provided that in the judgment of the Vendor sufficient gas is available to warrant its sale for such purposes.

Vendee shall be entitled to receive industrial gas from Vendor at such times as Vendor is selling to other distributing companies who are receiving industrial gas from Vendor under substantially similar operating conditions.

XII

It is understood that during the term of this contract Vendor will supply gas to various other communities and cities, and Vendor agrees that it will not willfully discriminate in favor of such other communities or cities or against Vendee or Vendee's domestic or industrial consumers in the matter of the apportioning of the supply of gas which Vendor has available. In times of extreme or peak demand Vendor will endeavor, in so far as operating conditions will permit, to apportion the supply of available gas among the [fols. 4057-4058] various communities and cities which it serves in proportion to the number of domestic consumers served in each community or city.

XIII

All of the covenants, terms, stipulations, and provisions of this contract shall extend to and be binding upon the respective successors and assigns of the parties hereto.

Notices provided to be given hereunder shall be deemed sufficiently given and served when and if deposited in the United States mail, postage prepaid and registered, addressed to the Vendor at Dallas, Texas, and to the Vendee at Dallas, Texas.

Witness the execution hereof in duplicate originals on this 28th day of November, 1927.

Lone Star Gas Company, by (signed) F. L. Chase, Vice-President.

Attest: (Signed) T. J. Uhl, Asst. Secretary. (Corporate Seal, Lone Star Gas Company, Dallas, Texas.)

Municipal Gas Company, by (signed) J. B. McCabe, Vice-President.

Attest: (Signed) L. W. Cole, Asst. Secretary. (Corporate Seal, 1925, Municipal Gas Company, Texas.)

[fol. 4059] DEFENDANT'S EXHIBIT No. 18

This Agreement, Made and entered into by and between Lone Star Gas Company, a Texas corporation hereinafter styled Vendor, and Gainesville Gas & Electric Company, a Texas corporation hereinafter styled Vendee,

Witnesseth:

I

That Vendor has agreed to sell and deliver to Vendee, and Vendee has agreed to purchase and receive from Vendor, subject to the terms, conditions and limitations hereinafter set out, all of the natural gas necessary to meet the requirements of the domestic consumers supplied by Vendee in the City of Gainesville, Texas, and the suburbs thereof, for a term of seven years, commencing August 8, 1927.

II

The natural gas sold and purchased hereunder shall be delivered by Vendor to Vendee at the present measuring station of the Vendor near the City of Gainesville where delivery of gas is now being made by the Vendor to the Vendee.

III

The natural gas to be sold by Vendor and purchased by Vendee hereunder shall be measured at the said delivery point by a meter or meters of standard type, which shall be installed, operated, and maintained by the Vendor.

Gas may be delivered and measured by Vendor to Vendee at such pressures as may exist by virtue of operating conditions, but for purposes of payment therefor by Vendee to Vendor, it shall be computed on a pressure basis of eight ounces above 14.4 pounds absolute atmospheric pressure, at sixty degrees Fahrenheit temperature, and without allowance for variations in atmospheric or barometric pressure, and with an assumed barometric pressure of 14.4 pounds absolute at the points of measurement. The flowing and storage temperature of the gas shall be considered as sixty degrees Fahrenheit in all measurement computations. Variations in specific gravity of the gas shall be allowed for by determining their monthly mean or average values, and which values shall be applied to the computation of deliveries.

The Vendee shall have access to the meters of the Vendor, which measure the gas sold hereunder, at any time upon demand for the purpose of inspection, and Vendee at all reasonable times may have tests or calibrations made of Vendor's meters, at Vendee's own expense and in the presence of Vendor's representatives. In the event that Vendee shall install meters to check Vendor's meters, then Vendor shall have the same rights of access to and inspection of Vendee's check meters as Vendee enjoys with reference to Vendor's meters.

IV

In the event that any of the meters of Vendor measuring gas delivered to the Vendee becomes inoperative or manifestly in error, then the quantity of gas delivered during the period that such meter was inoperative or manifestly in error shall be determined:

(a) By correcting for the error if such error is ascertainable, during the time of the error;

(b) By computing the deliveries from Vendee's corresponding Check meter during the period of error or nonoperation of Vendor's meter, if Vendee shall have installed meters of its own as check meters at the several delivery points;

[fol. 4060] (c) By estimating as nearly as may be possible the quantity of delivery from the delivery during proportionate periods under similar conditions, when such meter was registering accurately.

In the event that Vendor and Vendee shall be unable to agree upon any adjustment for any period when Vendor's meters shall have been inoperative or in error, then the matter shall be determined by three disinterested arbitrators; one to be appointed by the Vendor, one to be appointed by the Vendee, and the two so appointed to select a third. The decision of such arbitrators or any two of them shall be final, and the cost of such arbitration shall be paid one-half by Vendor and one-half by Vendee.

V

The Vendor may make deliveries of gas to the Vendee at the maximum pressures carried in its pipe line at the

point of delivery. The Vendee shall install, operate, and maintain such regulators and regulator stations as it may require to regulate the pressure of the gas after delivery thereof by Vendor to Vendee. It is expressly agreed that the Vendor shall in no event be liable for any pressure fluctuation at the said delivery points, or for the control of gas pressures after delivery of the gas to the Vendee.

The Vendor will endeavor, subject to all of the limitations hereinafter set out, to deliver gas to the Vendee at the said delivery point at a pressure of twenty pounds per square inch.

VI

The Vendee expressly recognizes that the production and transportation of natural gas by pipe lines is subject to accidents and interruptions, and diminutions of pressure and supply. The Vendor undertakes no obligation toward Vendee other than to deliver to Vendee such gas as Vendor is able to secure from its present sources of supply and such other sources of supply to which it may extend its pipe line system. It is expressly agreed between Vendor and Vendee that Vendor shall not be liable to the Vendee for any failure to deliver gas hereunder, when such failure is occasioned by accidents to or breakage of pipe lines or machinery, diminution or failure of supply occasioned by the failure, depletion, or destruction of gas wells or fields, fires, floods, strikes, riots, explosions, act of God or the public enemy, or, and without limitation by enumeration, any other cause beyond the control of the Vendor.

VII

It is expressly covenanted and agreed by and between the parties hereto that if either party shall fail to perform any of the covenants or obligations imposed upon it under and by virtue of this contract, then the party offended shall have the right and option to cancel and terminate this contract upon giving the offending party written notice of the violation of such covenant or obligation, and such notice having been given, if the violation complained of is not remedied within ten days, then the termination of this contract shall be deemed complete. The failure of the Vendee to make payments to the Vendor for gas purchased in accordance with the provisions of this contract, shall, among other things, be considered a failure to perform a

covenant or obligation of this contract and entitling the Vendor to cancel and terminate the contract.

VIII

It is further covenanted and agreed that if any court, Governmental regulatory body, or Governmental agency [fol. 4061] shall subject to review the price to be paid by Vendee for gas purchased from Vendor hereunder, and shall lawfully fix or establish another and different price for such gas, then if said price shall be fixed at any figure less than the price herein provided for, the Vendor shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendee; and if said price shall be fixed at any figure more than the price herein provided for, then the Vendee shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendor. Such written notice when given by either party shall make the termination of this contract complete.

IX

The price to be paid by Vendee to Vendor for the gas sold and purchased hereunder shall be at the rate of forty (40¢) cents per thousand cubic feet.

The Vendor will submit to the Vendee by the fifteenth day of each calendar month, a statement showing the amount of gas delivered to Vendee during the preceding calendar month, together with the charts from Vendor's meters, and the computation of deliveries for such period. These charts and computations shall be returned to Vendor at the time of or previously to the making of the payment for such monthly period.

On or before the twentieth day of each calendar month Vendee shall pay to the Vendor at Dallas, Texas, for all gas delivered by Vendor to Vendee during the preceding calendar month according to the gas measurements and computations hereinbefore provided for.

X

By domestic consumers, as used in this contract, is meant all those consumers using gas in domestic service, and is defined as including the reasonable use of natural gas for heating, lighting, and cooking in private homes, boarding

houses, apartment houses, hospitals and charitable institutions; and this classification shall further extend to those using natural gas for lighting and cooking only in hotels, restaurants, bakeries, and stores, and for heating in hotels and buildings where separate rooms are dependent upon natural gas for heating purposes in grates and stoves.

XI

It is understood that, in addition to the gas which Vendor shall deliver to Vendee hereunder to meet the requirements of Vendee's domestic consumers, the Vendor will sell and deliver to the Vendee and the Vendee will purchase and receive from the Vendor gas for manufacturing and industrial purposes, under such terms and conditions as may hereafter be agreed to in writing by the Vendor and the Vendee; provided that in the judgment of the Vendor sufficient gas is available to warrant its sale for such purposes.

Vendee shall be entitled to receive industrial gas from Vendor at such times as Vendor is selling to other distributing companies who are receiving industrial gas from Vendor under substantially similar operating conditions.

XII

It is understood that during the term of this contract Vendor will supply gas to various other communities and cities, and Vendor agrees that it will not willfully discriminate in favor of such other communities or cities or against Vendee or Vendee's domestic or industrial consumers in the matter of the apportioning of the supply of gas which Vendor has available. In times of extreme or peak demand Vendor will endeavor, in so far as operating conditions will permit, to apportion the supply of available gas among the various communities and cities which it serves in proper-
[fols. 4062-4063] tion to the number of domestic consumers served in each community or city.

XIII

All of the covenants, terms, stipulations, and provisions of this contract shall extend to and be binding upon the respective successors and assigns of the parties hereto.

Notices provided to be given hereunder shall be deemed sufficiently given and served when and if deposited in the United States mail, postage prepaid and registered, ad-

dressed to the Vendor at Dallas, Texas, and to the Vendee at Gainesville, Texas.

Witness the execution hereof in duplicate originals on this 1st day of July, 1927.

Lone Star Gas Company, by (signed) F. L. Chase, Vice President.

Attest: (Signed) T. J. Uhl, Asst. Secretary. (Corporate Seal, Lone Star Gas Company, Dallas, Texas.)

Gainesville Gas & Electric Company, by (signed) Rufus C. Dawes, Vice-President.

Attest: (Signed) S. M. Hoch, Secretary. (Corporate Seal, Gainesville Gas & Electric Co., Gainesville, Texas.)

[fol. 4064] DEFENDANT'S EXHIBIT No. 19

This Agreement, made and entered into by and between Lone Star Gas Company, a Texas corporation hereinafter styled Vendor, and The Dallas Gas Company, a Texas corporation hereinafter styled Vendee,

Witnesseth:

I

That Vendor has agreed to sell and deliver to Vendee, and Vendee has agreed to purchase and receive from Vendor, subject to the terms, conditions, and limitations hereinafter set out, all of the natural gas necessary to meet the requirements of the domestic consumers supplied by Vendee in the city of Dallas, Texas, for a term of five years commencing June 9, 1925.

II

The natural gas sold and purchased hereunder shall be delivered by Vendor to Vendee at the following delivery points near the corporate limits of the city of Dallas:

1st. At a point on the present sixteen-inch line extending from Irving to Oak Lawn, said point to be on Lot 29, Block "C" of Forrest Park Addition to the city of Dallas.

2d. At a point on the present sixteen-inch line extending from Irving to the Union Station railway terminal, just

west of the railroad track embankment north of the Union Station.

3d. At the present measuring station on the Irving-Oak Cliff line west of Oak Cliff.

When an additional pipe line is constructed by Vendor extending from Irving, Texas, to the corporate limits of the city of Dallas, as is hereinafter provided, an additional delivery point shall be designated by agreement of Vendor and Vendee at a convenient place upon the discharge terminus of said line in proximity to the corporate limits of the city of Dallas.

III

Natural gas to be sold by Vendor and purchased by Vendee hereunder shall be measured at the several delivery points by orifice meters of standard type, which shall be installed, operated, and maintained by the Vendor.

Gas may be delivered and measured by Vendor to Vendee at such pressures as may exist by virtue of operating conditions, but for purposes of payment therefor by Vendee to Vendor, it shall be computed on a pressure basis of eight ounces above 14.4 pounds absolute atmospheric pressure, at sixty degrees Fahrenheit temperature, and without allowance for variations in atmospheric or barometric pressure, and with an assumed barometric pressure of 14.4 pounds absolute at the points of measurement. The flowing and storage temperature of the gas shall be considered as sixty degrees Fahrenheit in all measurement computations. Variations in specific gravity of the gas shall be allowed for by determining their monthly mean or average values, and which values shall be applied to the computation of deliveries.

The Vendee shall have access to the meters of the Vendor, which measure the gas sold hereunder, at any time upon demand for the purpose of inspection, and Vendee at all rea- [fol. 4065] sonable times may have tests or calibrations made of Vendor's meters, at Vendee's own expense and in the presence of Vendor's representatives. In the event that Vendee shall install meters to check Vendor's meters, then Vendor shall have the same rights of access to and in-

spection of Vendee's check meters as Vendee enjoys with reference to Vendor's meters.

IV

In the event that any of Vendor's meters becomes inoperative or manifestly in error, then the quantity of gas delivered during the period that Vendor's meter was inoperative or manifestly in error shall be determined:

(a) By correcting for the error if such error is ascertainable, during the time of the error;

(b) By computing the deliveries from Vendee's corresponding check meter during the period of error or nonoperation of Vendor's meter, if Vendee shall have installed meters of its own as check meters at the several delivery points;

(c) By estimating as nearly as may be possible the quantity of delivery from the delivery during proportionate periods under similar conditions, when such meter was registering accurately.

In the event that Vendor and Vendee shall be unable to agree upon any adjustment for any period when Vendor's meters shall have been inoperative or in error, then the matter shall be determined by three disinterested arbitrators; one to be appointed by the Vendor, one to be appointed by the Vendee, and the two so appointed to select a third. The decision of such arbitrators or any two of them shall be final, and the cost of such arbitration shall be paid one-half by Vendor and one-half by Vendee.

V

The Vendor may make deliveries of gas to the Vendee at the maximum pressures carried in its pipe lines at the various delivery points. The Vendee shall install, operate, and maintain such regulators and regulator stations as it may require to regulate the pressure of the gas after delivery thereof by Vendor to Vendee. It is expressly agreed that the Vendor shall in no event be liable for any pressure fluctuation at the said delivery points, or for the control of gas pressures after delivery of the gas to the Vendee.

The Vendor will endeavor, subject to all of the limitations hereinafter set out, to deliver gas at the various delivery points at an average pressure, for any given time, of twenty pounds, it being agreed that pressures in excess of thirty pounds at the Oak Cliff measuring station shall be considered as thirty pounds in determining such average pressure. Vendee recognizes that especially in times of peak demand for gas from Vendor's pipe line system, the pressures above provided for may be materially affected by the sales of gas from tap lines on Vendor's pipe lines between the town of Irving, Texas, and the City of Dallas.

VI

The Vendor has agreed to operate, and maintain at Irving, Texas, on its Line C-2 known as the Irving-Oak Cliff line, gas compressors having a maximum capacity of 428,000 cubic feet per hour with a discharge pressure of 130 pounds. These compressors shall be operated by Vendor, upon the request of Vendee, at such times as the pressure at the present measuring station on the Irving-Oak Cliff line shall fall below twenty pounds. At any time after June 1, 1928, Vendor at Vendee's option, the option to be exercised by giving written notice, shall be required within a reasonable time to commence and complete the construction of an additional sixteen-inch pipe line extending from Irving, Texas, to the corporate limits of the city of Dallas [fol. 4066] as they then exist, at some point to be mutually agreed upon, between the northwestern part of the corporate limits of Dallas, north Oak Lawn, and the northwestern part of the corporate limits of Oak Cliff; provided, however, when and if said sixteen-inch line is completed and in operation, Vendor shall be entitled to discontinue the operation of and remove its said gas compressors at Irving, Texas.

VII

The Vendee expressly recognizes that the production and transportation of natural gas by pipe lines is subject to accidents and interruptions, and diminutions of pressure and supply. The Vendor undertakes no obligation toward Vendee other than to deliver to Vendee such gas as Vendor is able to secure from its present sources of supply and such other sources of supply to which it may extend its

pipe line system. It is expressly agreed between Vendor and Vendee that Vendor shall not be liable to the Vendee for any failure to deliver gas hereunder, when such failure is occasioned by accidents to or breakage of pipe lines or machinery, diminution or failure of supply occasioned by the failure, depletion, or destruction of gas wells or fields, fires, floods, strikes, riots, explosions, act of God or the public enemy, or, and without limitation by enumeration, any other cause beyond the control of the Vendor.

VIII

It is expressly covenanted and agreed by and between the parties hereto that if either party shall fail to perform any of the covenants or obligations imposed upon it under and by virtue of this contract, then the party offended shall have the right and option to cancel and terminate this contract upon giving the offending party written notice of the violation of such covenant or obligation, and such notice having been given, if the violation complained of is not remedied within ten days, then the termination of this contract shall be deemed complete. The failure of the Vendee to make payments to the Vendor for gas purchased in accordance with the provisions of this contract, shall, among other things, be considered a failure to perform a covenant or obligation of this contract and entitling the Vendor to cancel and terminate the contract.

IX.

It is further covenanted and agreed that if any court, Governmental regulatory body, or Governmental agency shall subject to review the price to be paid by Vendee for gas purchased from Vendor hereunder, and shall lawfully fix or establish another and different price for such gas, then if said price shall be fixed at any figure less than the price herein provided for, the Vendor shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendee; and if said price shall be fixed at any figure more than the price herein provided for, then the Vendee shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendor. Such written notice when given by either party shall make the termination of this contract complete.

X

The price to be paid by Vendee to Vendor for the gas sold and purchased hereunder shall be at the rate of forty (40¢) cents per thousand cubic feet.

The Vendor will submit to the Vendee by the fifteenth day of each calendar month, a statement showing the amount of gas delivered to Vendee during the preceding calendar month, together with the charts from Vendor's meters, and the computation of deliveries for such period. These charts and computations shall be returned to Vendor at the time of or previously to the making of the payment for such monthly period.

On or before the twentieth day of each calendar month Vendee shall pay to the Vendor at Dallas, Texas, for all [fols. 4067-4068] gas delivered by Vendor to Vendee during the preceding calendar month according to the gas measurements and computations hereinbefore provided for.

XI

By domestic consumers, as used in this contract, is meant all those consumers using gas in domestic service, and is defined as including the reasonable use of natural gas for heating, lighting, and cooking in private homes, boarding houses, apartment houses, hospitals, and charitable institutions; and this classification shall further extend to those using natural gas for lighting and cooking only in hotels, restaurants, bakeries, and stores, and for heating in hotels and buildings where separate rooms are dependent upon natural gas for heating purposes in grates and stoves.

XII

It is understood that, in addition to the gas which Vendor shall deliver to Vendee hereunder to meet the requirements of Vendee's domestic consumers, the Vendor will sell and deliver to the Vendee and the Vendee will purchase and receive from the Vendor gas for manufacturing and industrial purposes, under such terms and conditions as may hereafter be agreed to in writing by the Vendor and the Vendee; provided that in the judgment of the Vendor sufficient gas is available to warrant its sale for such purposes.

Vendee shall be entitled to receive industrial gas from Vendor at such times as Vendor is selling to other dis-

tributing companies who are receiving industrial gas from Vendor under substantially similar operating conditions.

XIII

It is understood that during the term of this contract Vendor will supply gas to various other communities and cities, and Vendor agrees that it will not willfully discriminate in favor of such other communities or cities or against Vendee or Vendee's domestic or industrial consumers in the matter of the apportioning of the supply of gas which Vendor has available. In times of extreme or peak demand Vendor will endeavor, in so far as operating conditions will permit, to apportion the supply of available gas among the various communities and cities which it serves in proportion to the number of domestic consumers served in each community or city.

XIV

All of the covenants, terms, stipulations and provisions of this contract shall extend to and be binding upon the respective successors and assigns of the parties hereto.

Notices provided to be given hereunder shall be deemed sufficiently given and served when and if deposited in the United States mail, postage prepaid and registered, addressed to the Vendor at Dallas, Texas, and to the Vendee at Dallas, Texas.

Witness the execution hereof in duplicate originals on this 15th day of May, 1925.

Lone Star Gas Company, by (signed) R. A. Crawford, First Vice-President.

Attest: (Signed) Thomas J. Uhl, Secretary. (Corporate Seal, Lone Star Gas Company, Dallas, Texas.)

The Dallas Gas Company, by (signed) H. C. Morris, Vice-President.

Attest: (Signed) R. G. Soper, Secretary. (Seal, The Dallas Gas Company, Dallas, Texas.)

[fols. 4069-4070] DEFENDANT'S EXHIBIT No. 20

This Agreement Made and Entered Into by and between Lone Star Gas Company, a corporation of Texas herein-

after styled Vendor, and The Dallas Gas Company, a corporation of Texas hereinafter styled Vendee,

Witnesseth:

I

That this agreement is supplemental to and amendatory of a certain contract of date May 15, 1925, between the Vendor and the Vendee relating to the sale by Vendor and the purchase by Vendee of natural gas for domestic consumption in the city of Dallas, Texas.

II

The Vendor has agreed to commence within 90 days from the date hereof, the construction of an eighteen (18") inch natural gas pipe line extending from a point on its present pipe line system near Joshua, Texas, to a point approximately one fourth mile south of the intersection of the Dallas-Lancaster highway and the north line of the L. Horst six hundred and forty acre survey in Dallas County, Texas. The said line shall be completed within 150 days from the date hereof.

At any two points, on said pipe line, which Vendee may designate, Vendor shall install, operate and maintain orifice meters of standard type to measure gas to be delivered at such points to the Vendee; and these said points when designated by the Vendee shall be deemed delivery points to the full extent that other delivery points are designated in the said contract of May 15, 1925.

III

In consideration of the foregoing obligation of Vendor, Vendee hereby waives its right and releases its option to require Vendor to construct an additional pipe line from Irving, Texas, to the corporate limits of the city of Dallas, as is specifically set forth in Article VI of the said contract of May 15, 1925. Furthermore, Vendee agrees that upon the completion by Vendor of the pipe line extension provided in Article II hereof and the commencement of deliveries of gas to Vendee through the said pipe line the Vendor shall be relieved of any further obligation to commence and maintain any gas compressors at Irving, Texas, as is also provided by Article VI of the said Contract of May 15, 1925.

IV

Except as herein expressly recited, this agreement shall not serve in any manner to change, modify or amend the said contract of May 15, 1925, between Vendor and Vendee.

Witness the execution hereof in duplicate originals on this 14th day of August, 1925.

Lone Star Gas Company, by (signed) R. A. Crawford, First Vice-President.

Attest: (Signed) D. L. Cobb, Secretary. (Corporate Seal, Lone Star Gas Company, Dallas, Texas.)

The Dallas Gas Company, by (signed) H. C. Morris, Vice-President.

Attest: (Signed) R. G. Soper, Secretary. (Seal, The Dallas Gas Company, Dallas, Texas.)

[fols. 4071-4072] DEFENDANT'S EXHIBIT No. 21

THE STATE OF TEXAS,
County of Dallas:

The existing contract between Lone Star Gas Company and The Dallas Gas Company for the sale by the former and purchase by the latter of natural gas for domestic consumption in the City of Dallas, which contract by its terms will terminate on June 9, 1930, by mutual agreement, is hereby renewed and extended for a period of five (5) years, beginning on June 9, 1930, and ending on June 9, 1935, upon all and singular the same terms, conditions and price specified and provided in said existing contract, and with the further provision that after June 9, 1935, such contract as hereby renewed and extended shall continue in full force and effect until the thirtieth day after either party shall give notice in writing to the other of termination.

Witness the Execution Hereof in Duplicate, each copy being hereby declared an original, on this 7th day of June, 1930.

Lone Star Gas Company, by (signed) Karl F. Griffith, Vice-President.

Attest: (Signed) T. J. Uhl, Asst. Secretary. (Corporate Seal, Lone Star Gas Company, Dallas, Texas.)

The Dallas Gas Company, by (signed) H. C. Morris, President.

Attest: (Signed) R. G. Soper, Secretary. (Seal, The Dallas Gas Company, Dallas, Texas.)

[fol. 4073] DEFENDANT'S EXHIBIT No. 22

This Agreement, made and entered into by and between Lone Star Gas Company, a Texas corporation, hereinafter styled Vendor, and Community Natural Gas Company, a corporation domiciled in Dallas, Texas, hereinafter styled Vendee,

Witnesseth:

I

The Vendor has agreed to sell and deliver to the Vendee, and the Vendee has agreed to purchase and receive from the Vendor, subject to the terms, conditions and limitations hereinafter set out, all of the natural gas necessary to meet the requirements of the domestic consumers supplied by the distributing plants now comprising the Vendee's system, and any other distributing plants which may be added to Vendee's system by mutual agreement of the parties hereto, for a term of five (5) years, commencing January 1, 1931, and thereafter until terminated by either party giving to the other party ninety (90) days written notice of termination.

II

The delivery point of the natural gas sold by the Vendor hereunder shall be the measuring stations of Vendor located at or near the corporate limits of the towns served by it.

III

Natural gas to be sold by Vendor and purchased by Vendee hereunder shall be measured at the delivery points above named, by orifice meters of standard type, which shall be installed, operated and maintained by Vendor.

Gas may be delivered and measured by Vendor to Vendee at such pressures as may exist by virtue of operating condi-

tions, but for purposes of payment therefor by Vendee to Vendor, it shall be computed on a pressure basis of eight ounces above 14.4 pounds absolute pressure, at sixty degrees Fahrenheit temperature, and without allowance for variations in atmospheric or barometric pressure, and with an assumed barometric pressure of 14.4 pounds absolute at the points of measurement. The flowing and storage temperature of the gas shall be considered as sixty degrees Fahrenheit in all measurement computations. Variations in specific gravity of the gas shall be allowed for by determining their monthly mean or average values, and which values shall be applied to the computation of deliveries.

The Vendee shall have access to the meters of the Vendor which measure the gas sold hereunder, at any time upon demand, for the purpose of inspection, and Vendee at all reasonable times may have tests or calibrations made of Vendor's meters, at Vendee's own expense and in the presence of Vendor's representatiyes. In the event that Vendee shall install meters to check Vendor's meters, then Vendor shall have the same rights of access to and inspection of Vendee's check meters as Vendee enjoys with reference to Vendor's meters.

[fol. 4074] IV

In the event that any of Vendor's meters becomes inoperative or manifestly in error, then the quantity of gas delivered during the period that Vendor's meter was inoperative or manifestly in error shall be determined:

(a) By correcting for the error, if such error is ascertainable, during the time of the error;

(b) By computing the deliveries from Vendee's corresponding check meter during the period of error or nonoperation of Vendor's meter, if Vendee shall have installed meters of its own as check meters at the several delivery points;

(c) By estimating as nearly as may be possible the quantity of delivery from the delivery during proportionate periods under similar conditions, when such meter was registering accurately.

In the event that Vendor and Vendee shall be unable to agree upon any adjustment for any period when Vendor's meters shall have been inoperative or in error, then the mat-

ter shall be determined by three disinterested arbitrators, one to be appointed by the Vendor, one to be appointed by the Vendee, and the two so appointed to select a third. The decision of such arbitrators, or any two of them, shall be final, and the cost of such arbitration shall be paid one-half by Vendor and one-half by Vendee.

V

The Vendor may make deliveries of gas to the Vendee at the maximum pressures carried in its pipe lines at the various delivery points. The Vendee shall install, operate and maintain such regulators and regulator stations as it may require to regulate the pressure of the gas after delivery thereof by Vendor to Vendee. It is expressly agreed that the Vendor shall in no event be liable for any pressure fluctuation at the said delivery points, or for the control of gas pressures after delivery of gas to the Vendee.

The Vendor will endeavor, subject to all of the limitations hereinafter set out, to deliver gas at the delivery point at a pressure of not less than twenty (20) pounds per square inch.

VI

The Vendee expressly recognizes that the production and transportation of natural gas by pipe lines is subject to accidents and interruptions, and diminutions of pressure and supply. The Vendor undertakes no obligation toward Ven- [fol. 4075] dee other than to deliver to Vendee such gas as Vendor is able to secure from its present sources of supply and such other sources of supply to which it may extend its pipe line system. It is expressly agreed between Vendor and Vendee that Vendor shall not be liable to the Vendee for any failure to deliver gas hereunder, when such failure is occasioned by accidents to or breakage of pipe lines or machinery, diminution or failure of supply occasioned by the failure, depletion or destruction of gas wells or fields, fires, floods, strikes, riots, explosions, act of God or the public enemy, or, and without limitation by enumeration, any other cause beyond the control of the Vendor.

VII

It is expressly covenanted and agreed by and between the parties hereto that if either party shall fail to perform any of the covenants or obligations imposed upon it under and

by virtue of this contract, then the party offended shall have the right and option to cancel and terminate this contract upon giving the offending party written notice of the violation of such covenant or obligation, and such notice having been given, if the violation complained of is not remedied within ten days, then the termination of this contract shall be deemed complete. The failure of the Vendee to make payments to the Vendor for gas purchased in accordance with the provisions of this contract shall, among other things, be considered a failure to perform a covenant or obligation of this contract and entitling the Vendor to cancel and terminate the contract.

VIII

It is further covenanted and agreed that if any court, Governmental regulatory body, or Governmental agency shall subject to review the price to be paid by Vendee for gas purchased from Vendor hereunder, and shall lawfully fix or establish another and different price for such gas, then if said price shall be fixed at any figure less than the price herein provided for, the Vendor shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendee; and if said price shall be fixed at any figure more than the price herein provided for, then the Vendee shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendor. Such written notice when given by either party shall make the termination of this contract complete.

IX

The price to be paid by Vendee to Vendor for the gas sold and purchased hereunder shall be at the rate of forty (40¢) cents per thousand cubic feet.

The Vendor will submit to the Vendee by the fifteenth day of each calendar month a statement showing the amount of gas delivered to Vendee during the preceding calendar month, together with the charts from Vendor's meters, and the computation of deliveries for such period. These charts and computations shall be returned to Vendor at the time of or previously to the making of the payment for such monthly period.

[fol. 4076] On or before the twentieth day of each calendar month Vendee shall pay to the Vendor at Dallas, Texas,

for all gas delivered by Vendor to Vendee during the preceding calendar month according to the gas measurements and computations hereinbefore provided for.

X

By domestic consumers, as used in this contract, is meant all those consumers using gas in domestic service, and is defined as including the reasonable use of natural gas for heating, lighting and cooking in private homes, boarding houses, apartment houses, hospitals and charitable institutions; and this classification shall further extend to those using natural gas for lighting and cooking only in hotels, restaurants, bakeries and stores, and for heating in hotels and buildings where separate rooms are dependent upon natural gas for heating purposes in grates and stoves.

XI

It is understood that, in addition to the gas which Vendor shall deliver to Vendee hereunder to meet the requirements of Vendee's domestic consumers, the Vendor will sell and deliver to the Vendee and the Vendee will purchase and receive from the Vendor gas for manufacturing and industrial purposes, under such terms and conditions as may hereafter be agreed to in writing by the Vendor and the Vendee; provided that in the judgment of the Vendor sufficient gas is available to warrant its sale for such purposes.

Vendee shall be entitled to receive industrial gas from Vendor at such times as Vendor is selling to other distributing companies who are receiving industrial gas from Vendor under substantially similar operating conditions.

XII

It is understood that during the term of this contract Vendor will supply gas to various other communities and cities, and Vendor agrees that it will not willfully discriminate in favor of such other communities or cities or against Vendee or Vendee's domestic or industrial consumers in the matter of the apportioning of the supply of gas which Vendor has available. In times of extreme or peak demand, Vendor will endeavor, insofar as operating conditions will permit, to apportion the supply of available gas among the various communities and cities which it serves

in proportion to the number of domestic consumers served in each community or city.

XIII

It is agreed and understood that this contract supersedes any and all agreements for the sale of domestic gas which have heretofore been in effect between the parties hereto.

XIV

All of the covenants, terms, stipulations and provisions of this contract shall extend to and be binding upon the respective successors and assigns of the parties hereto. [fols. 4077-4078] Notice as provided to be given hereunder shall be deemed sufficiently given and served when and if deposited in the United States mail, postage prepaid and registered, addressed to Vendor at Dallas, Texas, and to the Vendee at Dallas, Texas.

Witness the execution hereof, in duplicate, each copy being hereby declared an original, on this 15th day of May, 1931.

Lone Star Gas Company, by (signed) R. A. Crawford, Vice-President.

Attest: (Signed) T. J. Uhl, Asst. Secretary. (Corporate Seal, Lone Star Gas Company, Dallas, Texas.)

Community Natural Gas Company, by (signed) F. L. Chase, President.

Attest: (Signed) F. L. Richardson, Asst. Secretary. (Corporate seal, Community Natural Gas Company.)

[fol. 4079] DEFENDANT'S EXHIBIT No. 23

This Agreement, made and entered into by and between Lone Star Gas Company, a corporation of the State of Texas, hereinafter styled Vendor, and the Waxahachie Gas Company, a corporation of the State of Arizona, licensed to do business in the State of Texas, hereinafter styled Vendee.

Witnesseth:

I

The Vendor has agreed to sell and deliver to the Vendee, and the Vendee has agreed to purchase and receive from

the Vendor, subject to the terms, conditions and limitations hereinafter set out, all of the natural gas necessary to meet the requirements of the domestic consumers supplied by Vendee in the town of Waxahachie, Texas, and the suburbs thereof, for a term of one (1) year, commencing July 1, 1933, and thereafter until terminated by either party giving to the other party thirty (30) days written notice of termination.

II

The gas to be sold and purchased hereunder shall be measured by a meter or meters of standard type to be installed, operated and maintained by the Vendor at the place of the delivery of said gas to the Vendee, and which place of delivery is hereby designated as being the now existing measuring station of the Vendor near the southern city limits of Waxahachie, Texas.

Gas may be delivered and measured by Vendor to Vendee at such pressures as may exist by virtue of operating conditions. It is agreed, for the purpose of this contract, that the unit of measurement of gas delivered hereunder shall be a cubic foot at an absolute pressure of eight (8) ounces per square inch above fourteen and four tenths (14.4) pounds per square inch, and at a temperature base of sixty (60) degrees Fahrenheit; and for the purpose of payment hereunder by Vendee to Vendor it is agreed that the quantities of gas delivered shall be computed from the meter records, in accordance with Boyle's Law for volume variations due to the pressure, with an agreed flowing and storage temperature of sixty (60) degrees Fahrenheit, and for an average specific gravity obtained by tests of the gas made by the balance method.

The Vendee shall have access to the meters of the Vendor, which measure the gas sold hereunder, at any time upon demand for the purpose of inspection, and Vendee at all reasonable times may have tests or calibrations made of Vendor's meters, at Vendee's own expense and in the presence of Vendor's representatives. In the event that Vendee shall install meters to check Vendor's meters, then Vendor shall have the same rights of access to and inspection of Vendee's check meters as Vendee enjoys with reference to Vendor's meters.

III

In the event that Vendor's meter becomes inoperative or manifestly in error, then the quantity of gas delivered dur- [fol. 4080] ing the period that Vendor's meter was inoperative or manifestly in error shall be determined:

(a) By correcting for the error if such error is ascertainable, during the time of the error;

(b) By computing the deliveries from Vendee's corresponding check meter during the period of error or nonoperation of Vendor's meter, if Vendee shall have installed a meter of its own as a check meter at the point of delivery.

(c) By estimating as nearly as may be possible the quantity of delivery from the delivery during proportionate periods under similar conditions, when such meter was registering accurately.

In the event that Vendor and Vendee shall be unable to agree upon any adjustment for any period when Vendor's meter shall have been inoperative or in error, then the matter shall be determined by three disinterested arbitrators, one to be appointed by the Vendor, one to be appointed by the Vendee, and the two so appointed to select a third. The decision of such arbitrators or any two of them shall be final, and the cost of such arbitration shall be paid one-half by Vendor and one-half by Vendee.

IV

The Vendor may make deliveries of gas to the Vendee at the maximum pressures carried in its pipe lines at the above mentioned delivery point. The Vendee shall install, operate and maintain such regulators and regulator stations as it may require to regulate the pressure of the gas after delivery thereof by Vendor to Vendee. It is expressly agreed that the Vendor, for causes beyond its control as herein specified, shall not be liable for any pressure fluctuation at said delivery point and in no event shall be liable for control of gas pressures after delivery of the gas to the Vendee.

The Vendor will use reasonable diligence, subject to all of the limitations hereinafter set out, to deliver gas at the said delivery point at an average pressure of not less than twenty (20) pounds per square inch.

V

The Vendee expressly recognizes that the production and transportation of natural gas by pipe lines is subject to accidents and interruptions, and diminutions of pressure and supply. The Vendor undertakes no obligation toward Vendee other than to deliver to Vendee such gas as Vendor is able to secure from its present sources of supply and such other sources of supply to which it may extend its pipe line system. It is expressly agreed between Vendor and Vendee that Vendor shall not be liable to the Vendee for any failure to deliver gas hereunder, when such failure is occasioned by accidents to or breakage of pipe lines or machinery, diminution or failure of supply occasioned by the [fol. 4081] failure, depletion or destruction of gas wells or fields, fires, floods, strikes, riots, explosions, act of God or the public enemy, or, and without limitation by enumeration, any other cause beyond the control of the Vendor.

VI

It is expressly covenanted and agreed by and between the parties hereto that if either party shall fail to perform any of the covenants or obligations imposed upon it under and by virtue of this contract, then the party offended shall have the right and option to cancel and terminate this contract upon giving the offending party written notice of the violation of such covenant or obligation, and such notice having been given, if the violation complained of is not remedied within ten days, then the termination of this contract shall be deemed complete. The failure of the Vendee to make payments to the Vendor for gas purchased in accordance with the provisions of this contract shall, among other things, be considered a failure to perform a covenant or obligation of this contract and entitling the Vendor to cancel and terminate the contract.

VII

It is further covenanted and agreed that if any court, Governmental regulatory body, or Governmental agency shall subject to review the price to be paid by Vendee for gas purchased from Vendor hereunder, and shall lawfully

fix or establish another and different price for such gas, then if said price shall be fixed at any figure less than the price herein provided for, the Vendor shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendee; and if said price shall be fixed at any figure more than the price herein provided for, then the Vendee shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendor. Such written notice when given by either party shall make the termination of this contract complete.

VIII

The price to be paid by Vendee to Vendor for the gas sold and purchased hereunder shall be at the rate of forty (40¢) cents per thousand cubic feet.

In the event Vendor shall, during the term of this contract, sell domestic gas to any competitive distributing company in Waxahachie at a rate per thousand cubic feet less than the rate specified herein, then the rate herein shall be reduced to such price charged to such competitive company.

The Vendor will submit to the Vendee by the tenth day of each calendar month a statement showing the amount of gas delivered to Vendee during the preceding calendar month, together with the charts from Vendor's meters, and the computation of deliveries for such period. These charts and computations shall be returned to Vendor at the time of or previously to the making of the payment for such monthly period.

[fol. 4082] On or before the twentieth day of each calendar month Vendee shall pay to the Vendor at Dallas, Texas, for all gas delivered by Vendor to Vendee during the preceding calendar month according to the gas measurements and computations hereinbefore provided for.

IX

By domestic consumers, as used in this contract, is meant all those consumers using gas in domestic service, and is defined as including the reasonable use of natural gas for heating, lighting and cooking in private homes, boarding houses, apartment houses, hospitals and charitable institutions; and this classification shall further extend to those using natural gas for lighting and cooking only in hotels, restaurants, bakeries and stores, and for heating in hotels

and buildings where separate rooms are dependent upon natural gas for heating purposes in grates and stoves.

X

It is understood that, in addition to the gas which Vendor shall deliver to Vendee hereunder to meet the requirements of Vendee's domestic consumers, the Vendor will sell and deliver to the Vendee and the Vendee will purchase and receive from the Vendor gas for manufacturing and industrial purposes, under such terms and conditions as may hereafter be agreed to in writing by the Vendor and the Vendee; provided that in the judgment of the Vendor sufficient gas is available to warrant its sale for such purposes.

Vendee shall be entitled to receive industrial gas from Vendor at such times as Vendor is selling to other distributing companies who are receiving industrial gas from Vendor under substantially similar operating conditions.

XI

It is understood that during the term of this contract Vendor will supply gas to various other communities and cities, and Vendor agrees that it will not wilfully discriminate in favor of such other communities or cities or against Vendee or Vendee's domestic or industrial consumers in the matter of the apportioning of the supply of gas which Vendor has available. In times of extreme or peak demand, Vendor will endeavor, insofar as operating conditions will permit, to apportion the supply of available gas among the various communities and cities which it serves in proportion to the number of domestic consumers served in each community or city.

XII

All of the covenants, terms, stipulations and provisions of this contract shall extend to and be binding upon the respective successors and assigns of the parties hereto.

Notice as provided to be given hereunder shall be deemed sufficiently given and served when and if deposited in the United States mail, postage prepaid and registered, ad-
[fols. 4083-4084] dressed to Vendor at Dallas, Texas, and to the Vendee at Waxahachie, Texas.

Witness the execution hereof in duplicate, each copy being hereby declared an original on this 6th day of October, 1933.

Lone Star Gas Company, by (Signed) F. L. Chase, Vice-President.

Attest: (Signed) by T. J. Uhl, Asst. Secretary. (Seal.)

Waxahachie Gas Company, by (Signed) F. W. White, President.

Attest: (Signed) by P. L. Fordyce, Secretary. (Seal.)

Approved as to Form. K. F. G., Legal Department.

[fol. 4085] DEFENDANT'S EXHIBIT No. 24

This Agreement, made and entered into by and between Lone Star Gas Company, a Texas Corporation hereinafter styled Vendor, and County Gas Company, a Texas corporation hereinafter styled Vendee.

Witnesseth:

I

That Vendor has agreed to sell and deliver to the Vendee, and Vendee has agreed to purchase and receive from the Vendor, subject to the terms, conditions, and limitations hereinafter set out, all of the natural gas necessary to meet the requirements of the domestic consumers supplied by Vendee in the following territory:

(a) Within the corporate limits of the City of Dallas, Texas.

(b) In the suburbs of the City of Dallas and the territory adjacent thereto.

(c) In the towns of Arlington, Dalworth, Grand Prairie, and Highland Park, Texas, the suburbs of said towns, and the territory adjacent thereto.

(d) Along Vendor's gas transportation lines between the junction point of the old and new Fort Worth-Dallas Pike west of Arlington, Texas, and the western corporate limits of the City of Dallas; and also along Vendor's gas transportation lines between Irving, Texas, and the corporate limits of the City of Dallas.

The term of this agreement shall be for five years commencing June 9, 1925.

II

The natural gas sold and purchased hereunder shall be delivered by Vendor to Vendee at the present measuring stations on Vendor's gas transportation lines near the towns of Arlington, Dalworth, and Grand Prairie, at the other measuring stations now established where gas is being supplied by Vendor to Vendee, and at such other points along the Vendor's gas transportation lines as shall hereafter be agreed upon by the parties hereto. It is contemplated that some gas will be delivered by Vendor to the Dallas Gas Company, a corporation domiciled at Dallas, Texas, for the use and benefit of Vendee, and such deliveries shall be made at the measuring stations near the City of Dallas where the Vendor will also deliver gas to the Dallas Gas Company for the use of the said company.

Each additional tap made by Vendee along Vendor's said gas transportation lines shall be deemed a delivery point within the meaning of this contract. Additional taps may be made by Vendee along Vendor's said lines, but such taps shall not be made for individual consumers, except with the written consent of Vendor, nor shall they be located at intervals of less than five hundred feet along Vendor's said lines. In no event shall taps be made by Vendee on Vendor's pipe lines until written notice is given by Vendee to Vendor giving exact location and size of tap desired. All work done in connection with such taps shall be under the supervision and to the satisfaction of the Vendor, but at the sole expense of the Vendee.

III

The natural gas to be sold by Vendor and purchased by Vendee shall be measured, with the exceptions hereinafter provided, at the various delivery points by meters of standard type, to be installed, operated, and maintained by Vendor.

[fol. 4086] It is provided, however, that in rural sections, along Vendor's gas transportation lines where it is not feasible for Vendor to install and operate a master meter to measure the delivery of gas to a tap line of Vendee serving one or more domestic consumers, Vendor shall be entitled to take the monthly readings of Vendee's domestic

meters on said tap line as the amount of gas sold by Vendor to Vendee at such tap. In all such cases Vendee shall afford to Vendor or its representatives free access to Vendee's said domestic meters and to Vendee's records in so far as they reflect the readings of such domestic meters.

Gas may be delivered and measured by Vendor to Vendee at such pressures as may exist by virtue of operating conditions, but for purposes of payment therefor by Vendee to Vendor, it shall be computed on a pressure basis of eight ounces above 14.4 pounds absolute atmospheric pressure, at sixty degrees Fahrenheit temperature, and without allowance for variations in atmospheric or barometric pressure, and with an assumed barometric pressure of 14.4 pounds absolute at the points of measurement. The flowing and storage temperature of the gas shall be considered as sixty degrees Fahrenheit in all measurement computations. Variations in specific gravity of the gas shall be allowed for by determining their monthly mean or average values, and which values shall be applied to the computation of deliveries. In all cases where Vendor's measurements of gas delivered to Vendee are made by positive meters no temperature or specific gravity corrections shall be used in the computation of such gas deliveries.

The Vendee shall have access to the meters of the Vendor, which measure the gas sold hereunder, at any time upon demand for the purpose of inspection, and Vendee at all reasonable times may have tests or calibrations made of Vendor's meters, at Vendee's own expense and in the presence of Vendor's representatives. In the event that Vendee shall install meters to check Vendor's meters, then Vendor shall have the same rights of access to and inspection of Vendee's check meters as Vendee enjoys with reference to Vendor's meters.

IV

In the event that any of Vendor's meters becomes inoperative or manifestly in error, then the quantity of gas delivered during the period that Vendor's meter was inoperative or manifestly in error shall be determined:

(a) By correcting for the error if such error is ascertainable, during the time of the error;

(b) By computing the deliveries from Vendee's corresponding check meter during the period of error or non-

operation of Vendor's meter, if Vendee shall have installed meters of its own as check meters at the several delivery points;

(c) By estimating as nearly as may be possible the quantity of delivery from the delivery during proportionate periods under similar conditions, when such meter was registering accurately.

In the event that Vendor and Vendee shall be unable to agree upon any adjustment for any period when Vendor's meters shall have been inoperative or in error, then the matter shall be determined by three disinterested arbitrators; one to be appointed by the Vendor, one to be appointed by the Vendee, and the two so appointed to select a third. The decision of such arbitrators or any two of them shall be final, and the cost of such arbitration shall be paid one-half by Vendor and one-half by Vendee.

[fol. 4087]

V

The Vendor may make deliveries of gas to the Vendee at the maximum pressures carried in its pipe lines at the various delivery points. The Vendee shall install, operate, and maintain such regulators and regulator stations as it may require to regulate the pressure of the gas after delivery thereof by Vendor to Vendee. It is expressly agreed that the Vendor shall in no event be liable for any pressure fluctuation at the said delivery points, or for the control of gas pressures after delivery of the gas to the Vendee.

The Vendor will endeavor, subject to all of the limitations hereinafter set out, to deliver gas at the various delivery points at a pressure of not less than twenty pounds where such pressure is required by Vendee.

VI

The Vendee expressly recognizes that the production and transportation of natural gas by pipe lines is subject to accidents and interruptions, and diminutions of pressure and supply. The Vendor undertakes no obligation toward Vendee other than to deliver to Vendee such gas as Vendor is able to secure from its present sources of supply and such other sources of supply to which it may extend its pipe line system. It is expressly agreed between Vendor and Vendee that Vendor shall not be liable to the Vendee for any failure

2351

to deliver gas hereunder, when such failure is occasioned by accidents to or breakage of pipe lines or machinery, diminution or failure of supply occasioned by the failure, depletion, or destruction of gas wells or fields, fires, floods, strikes, riots, explosions, act of God or the public enemy, or, and without limitation by enumeration, any other cause beyond the control of the Vendor.

VII

It is expressly covenanted and agreed by and between the parties hereto that if either party shall fail to perform any of the covenants or obligations imposed upon it under and by virtue of this contract, then the party offended shall have the right and option to cancel and terminate this contract upon giving the offending party written notice of the violation of such covenant or obligation, and such notice having been given, if the violation complained of is not remedied within ten days, then the termination of this contract shall be deemed complete. The failure of the Vendee to make payments to the Vendor for gas purchased in accordance with the provisions of this contract, shall, among other things, be considered a failure to perform a covenant or obligation of this contract and entitling the Vendor to cancel and terminate the contract.

VIII

It is further covenanted and agreed that if any court, Governmental regulatory body, or governmental agency shall subject to review the price to be paid by Vendee for gas purchased from Vendor hereunder, and shall lawfully fix or establish another and different price for such gas, then if said price shall be fixed at any figure less than the price herein provided for, the Vendor shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendee; and if said price shall be fixed at any figure more than the price herein provided for, then the Vendee shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendor. Such written notice when given by either party shall make the termination of this contract complete.

IX

The price to be paid by Vendee to Vendor for the gas sold and purchased hereunder shall be at the rate of forty (40¢) cents per thousand cubic feet.

[fol. 4088] The Vendor will submit to the Vendee by the 15th day of each calendar month a statement showing the amount of gas measured by Vendor's meters and delivered to Vendee during the preceding calendar month, together with the charts from Vendor's meters and the computation of deliveries for such period. These charts and computations shall be returned to Vendor at the time of or previously to the making of the payment for such monthly period. The Vendee by the 12th day of each calendar month shall furnish to the Vendor a statement of the deliveries made by Vendor to Vendee on rural tap lines where Vendor has not measured the gas delivered to Vendee through a master meter.

On or before the twentieth day of each calendar month Vendee shall pay to the Vendor at Dallas, Texas, for all gas delivered by Vendor to Vendee during the preceding calendar month according to the gas measurements and computations hereinbefore provided for.

X

By domestic consumers, as used in this contract, is meant all those consumers using gas in domestic service, and is defined as including the reasonable use of natural gas for heating, lighting, and cooking in private homes, boarding houses, apartment houses, hospitals, and charitable institutions; and this classification shall further extend to those using natural gas for lighting and cooking only in hotels, restaurants, bakeries, and stores, and for heating in hotels and buildings where separate rooms are dependent upon natural gas for heating purposes in grates and stoves.

XI

It is understood that in addition to the gas which Vendor shall deliver to Vendee hereunder to meet the requirements of Vendee's domestic consumers the Vendor will sell and deliver to the Vendee and the Vendee will purchase and receive from the Vendor gas for manufacturing and industrial purposes, under such terms and conditions as may hereafter be agreed to in writing by the Vendor and the Vendee; provided that in the judgment of the Vendor sufficient gas is available to warrant its sale for such purposes.

Vendee shall be entitled to receive industrial gas from Vendor at such times as Vendor is selling to other distribut-

ing companies who are receiving industrial gas from Vendor under substantially similar operating conditions.

XII

It is understood that during the term of this contract Vendor will supply gas to various other communities and cities, and Vendor agrees that it will not willfully discriminate in favor of such other communities or cities or against Vendee or Vendee's domestic or industrial consumers in the matter of the apportioning of the supply of gas which Vendor has available. In times of extreme or peak demand Vendor will endeavor, in so far as operating conditions will permit, to apportion the supply of available gas among the various communities and cities which it serves in proportion to the number of domestic consumers served in each community or city.

XIII

All of the covenants, terms, stipulations and provisions of this contract shall extend to and be binding upon the respective successors and assigns of the parties hereto.

Notices provided to be given hereunder shall be deemed sufficiently given and served when and if deposited in the United States mail, postage prepaid and registered, addressed to the Vendor at Dallas, Texas, and to the Vendee at Dallas, Texas.

[fols. 4089-4090] Witness the execution hereof in duplicate originals on this 15th day of May, 1925.

Lone Star Gas Company, by (signed) R. A. Crawford, First Vice-President.

Attest: (Signed) Thomas J. Uhl, Asst. Secretary. (Corporate Seal, Lone Star Gas Company, Dallas, Texas.)

County Gas Company, by (signed) H. C. Morris, Vice-President.

Attest: (Signed) R. G. Soper, Secretary. (Corporate Seal, County Gas Company.)

[fol. 4091] DEFENDANT'S EXHIBIT No. 25

This Agreement, Made and entered into by and between Lone Star Gas Company, a corporation of Texas, herein-

after styled Vendor, and County Gas Company, a corporation of Texas hereinafter styled Vendee,

Witnesseth:

I

This agreement is supplemental to and amendatory of a certain contract of date May 15, 1925, between Vendor and Vendee relating to the sale by Vendor and purchase by Vendee of natural gas for domestic consumption in the City of Dallas, and other points and places in Dallas County, Texas.

II

The Vendor has agreed to commence within thirty days from the date hereof, the construction of an eighteen-inch natural gas pipe line beginning at a point which is the intersection of its Line "O" with an extension of Second Avenue (sometimes called Kaufman Road) from the City of Dallas, and extending in a northwesterly direction for a distance of approximately 5560 feet to the east property line of the Southern Pacific Railroad. The said pipe line shall be completed within sixty (60) days from the date hereof.

III

By the time of the completion of the said line Vendor shall have installed and shall be ready to operate an orifice meter or meters of standard type at the junction of the said eighteen-inch tap line with the said Line "O" for the purpose of measuring gas to be delivered by Vendor to Vendee at such point, and thereafter Vendor shall operate and maintain said meter or meters for the term of this agreement; and the location of said meter or meters shall be deemed a delivery point for the sale by Vendor and purchase by Vendee of natural gas to the full extent that other delivery points are named and designated in the aforesaid contract of May 15, 1925.

IV

In consideration of the foregoing obligation assumed by Vendor, Vendee agrees to build an eighteen-inch natural gas pipe line connecting the high pressure gas distributing system in the City of Dallas with the northwest terminus of Vendor's said eighteen-inch tap line; and Vendee further agrees to have such work completed by the time Ven-

dor is ready to make deliveries of gas through its said eighteen-inch tap line.

V

When, as, and if the corporate limits of the City of Dallas are extended, prior to June 9, 1930, to include all or any portion of Vendor's said eighteen-inch tap line, then Vendee shall immediately purchase from Vendor such part of said line as is taken into or included within the corporate limits of the City of Dallas.

Any purchase, as above provided, of said tap line or any portion thereof by Vendee from Vendor, shall be made on the basis of the cost of the pipe line less depreciation accrued upon the books of the Vendor.

[fol. 4092]

VI

Except as herein expressly recited, this agreement shall not serve in any manner to change, modify, or amend said contract of May 15, 1925, between Vendor and Vendee.

Witness the execution hereof in duplicate originals, on this 21 day of September, 1926.

Lone Star Gas Company, by (signed) R. A. Crawford, First Vice-President.

Attest: (Signed) D. L. Cobb, Secretary. (Corporate Seal, Lone Star Gas Company, Dallas, Texas.)

County Gas Company, by (signed) H. C. Morris, Vice-President.

Attest: (Signed) R. G. Soper, Secretary. (Corporate Seal, County Gas Company.)

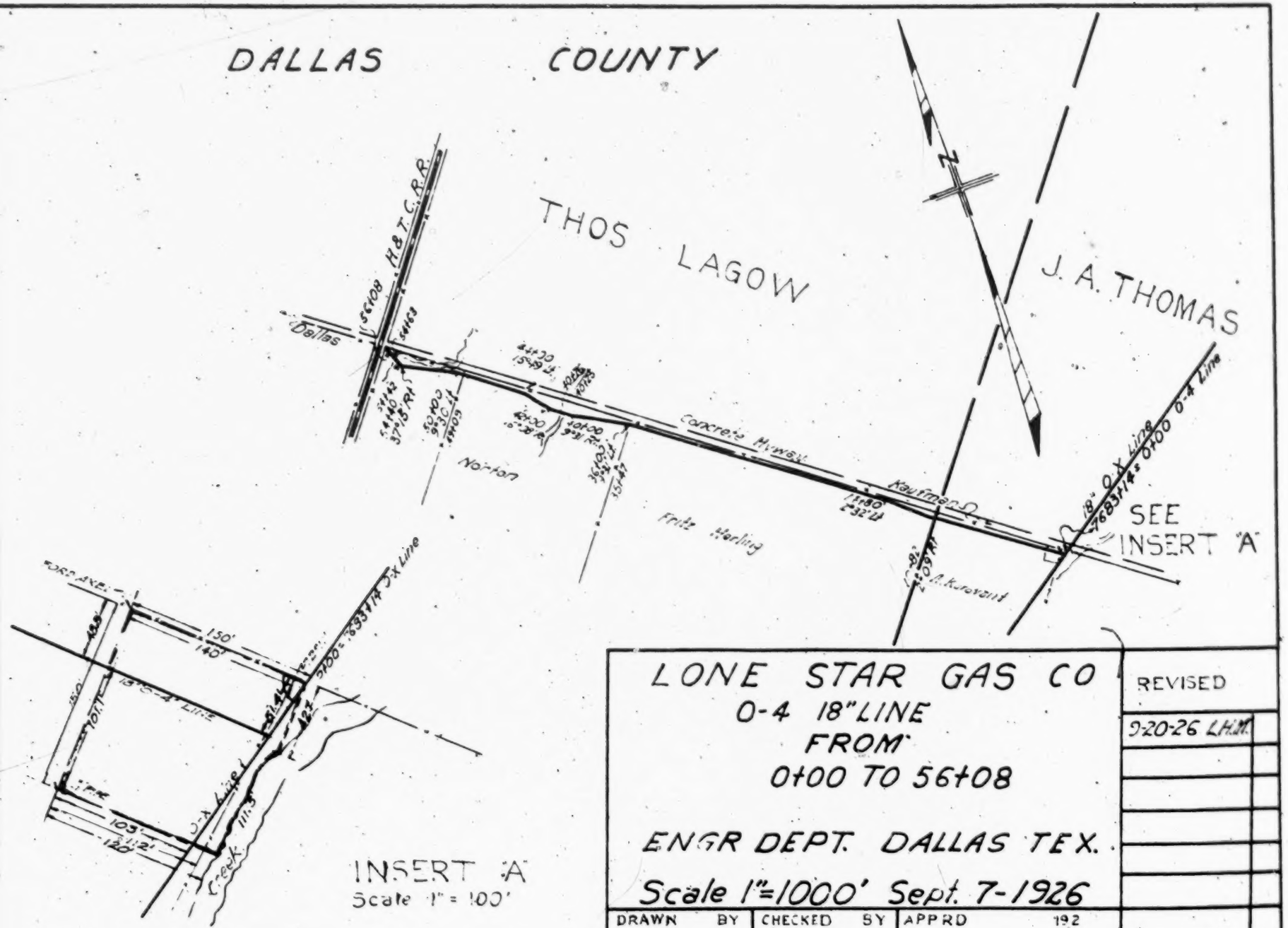
(Here follows 1 photolithograph, side folio 4093)

BLANK

PAGE

2356A

4093


DALLAS COUNTY
THOS LAGOW
J. A. THOMAS
H & T.C.R.R.
Dallas
Norton
Fritz Harling
Concrete Hiway
Kaufman
18" O.X Line
SEE INSERT "A"
INSERT "A"
Scale 1" = 100'
Creek
O.X Line
LONE STAR GAS CO
0-4 18" LINE
FROM
0+00 TO 56+08
ENGR DEPT. DALLAS TEX.
Scale 1"=1000' Sept. 7-1926
REVISED
9-20-26 L.H.M.
DRAWN BY
S McKAY
CHECKED BY
APPRD 192

BLANK

PAGE

[fols. 4094-4096] DEFENDANT'S EXHIBIT No. 26

THE STATE OF TEXAS,
County of Dallas:

The existing contract between Lone Star Gas Company and County Gas Company for the sale by the former and purchase by the latter of natural gas for domestic consumption in the City of Dallas and elsewhere in the counties of Dallas and Tarrant, Texas, which contract by its terms will terminate on June 9, 1930, by mutual agreement, is hereby renewed and extended for a period of five (5) years, beginning on June 9, 1930, and ending on June 9, 1935, upon all and singular the same terms, conditions and price specified and provided in said existing contract, and with the further provision that after June 9, 1935, such contract as hereby renewed and extended shall continue in full force and effect until the thirtieth day after either party shall give notice in writing to the other of termination.

Witness the Execution Hereof in Duplicate, each copy being hereby declared an original, on this 7th day of June, 1930.

Lone Star Gas Company, by (signed) Karl F. Griffith, Vice-President.

Attest: (Signed) T. J. Uhl, Asst. Secretary. (Corporate Seal, Lone Star Gas Company, Dallas, Texas.)

County Gas Company, by (signed) H. C. Morris, President.

Attest: (Signed) R. G. Soper, Secretary. (Corporate Seal, County Gas Company.)

[fol. 4097] DEFENDANT'S EXHIBIT No. 27

This Agreement, made and entered into by and between Lone Star Gas Company, a Texas corporation, hereinafter styled Vendor, and Texas Cities Gas Company, a Texas Corporation hereinafter styled Vendee,

Witnesseth:

I

The Vendor has agreed to sell and deliver to the Vendee, and the Vendee has agreed to purchase and receive from

the Vendor, subject to the terms, conditions and limitations hereinafter set out, all of the natural gas necessary to meet the requirements of the domestic consumers supplied by the distributing plants of Vendee in Waco and Paris, Texas, and any other distributing plants which may be added to Vendee's system by mutual agreement of the parties hereto, for a term of five (5) years, commencing September 16, 1933, and thereafter until terminated by either party giving to the other party ninety (90) days written notice of termination.

II

The delivery point of the natural gas sold by the Vendor hereunder shall be the measuring stations of Vendor located at or near the corporate limits of the towns served by it.

III

Natural gas to be sold by Vendor and purchased by Vendee hereunder shall be measured at the delivery points above named, by orifice meters of standard type, which shall be installed, operated and maintained by Vendor.

Gas may be delivered and measured by Vendor to Vendee at such pressures as may exist by virtue of operating conditions, but for purposes of payment therefor by Vendee to Vendor, it shall be computed on a pressure basis of eight ounces above 14.4 pounds absolute pressure, at sixty degrees Fahrenheit temperature, and without allowance for variations in atmospheric or barometric pressure. The flowing and storage temperature of the gas shall be considered as sixty degrees Fahrenheit in all measurement computations. Variations in specific gravity of the gas shall be allowed for by determining their monthly mean or average values, and which values shall be applied to the computation of deliveries.

The Vendee shall have access to the meters of the Vendor which measure the gas sold hereunder, at any time upon demand, for the purpose of inspection, and Vendee at all reasonable times may have tests or calibrations made of Vendor's meters, at Vendee's own expense and in the presence of Vendor's representatives. In the event that Vendee shall install meters to check Vendor's meters, then Vendor shall have the same rights of access to and inspection of Vendee's check meters as Vendee enjoys with reference to Vendor's meters.

[fol. 4098] IV

In the event that any of the Vendor's meters become inoperative or manifestly in error, then the quantity of gas delivered during the period that Vendor's meter was inoperative or manifestly in error shall be determined:

(a) By correcting for the error, if such error is ascertainable, during the time of the error;

(b) By computing the deliveries from Vendee's corresponding check meter during the period of error or nonoperation of Vendor's meter, if Vendee shall have installed meters of its own as check meters at the several delivery points;

(c) By estimating as nearly as may be possible the quantity of delivery from the delivery during the proportionate periods under similar conditions, when such meter was registering accurately.

In the event that Vendor and Vendee shall be unable to agree upon any adjustment for any period when Vendor's meters shall have been inoperative or in error, then the matter shall be determined by three disinterested arbitrators, one to be appointed by the Vendor, one to be appointed by the Vendee, and the two so appointed to select a third. The decision of such arbitrators, or any two of them, shall be final, and the cost of such arbitration shall be paid one-half by Vendor and one-half by Vendee.

V

The Vendor may make deliveries of gas to the Vendee at the maximum pressures carried in its pipe lines at the various delivery points. The Vendee shall install, operate and maintain such regulators and regulator stations as it may require to regulate the pressure of the gas after delivery thereof by Vendor to Vendee. It is expressly agreed that the Vendor shall in no event be liable for any pressure fluctuation at the said delivery points, or for the control of gas pressures after delivery of gas to the Vendee.

The Vendor will endeavor, subject to all of the limitations hereinafter set out, to deliver gas at the delivery point at a pressure of not less than twenty (20) pounds per square inch.

VI

The Vendee expressly recognizes that the production and transportation of natural gas by pipe line is subject to accidents and interruptions, and diminutions of pressure and supply. The Vendor undertakes no obligation toward Ven- [fol. 4099] dee other than to deliver to Vendee such gas as Vendor is able to secure from its present source of supply and such other sources of supply to which it may extend its pipe line system. It is expressly agreed between Vendor and Vendee that Vendor shall not be liable to the Vendee for any failure to deliver gas hereunder, when such failure is occasioned by accidents to or breakage of pipe lines or machinery, diminution or failure of supply occasioned by the failure, depletion or destruction of gas wells or fields, fires, floods, strikes, riots, explosions, act of God or the public enemy, or, and without limitation by enumeration, any other cause beyond the control of the Vendor.

VII

It is expressly covenanted and agreed by and between the parties hereto that if either party shall fail to perform any of the covenants or obligations imposed upon it under and by virtue of this contract, then the party offended shall have the right and option to cancel and terminate this contract upon giving the offending party written notice of the violation of such covenant or obligation, and such notice having been given, if the violation complained of is not remedied within ten days, then the termination of this contract shall be deemed complete. The failure of the Vendee to make payments to the Vendor for gas purchased in accordance with the provisions of this contract shall, among other things, be considered a failure to perform a covenant or obligation of this contract and entitling the Vendor to cancel and terminate the contract.

VIII

It is further covenanted and agreed that if any court, Governmental regulatory body, or Governmental agency shall subject to review the price to be paid by Vendee for gas purchased from Vendor hereunder, and shall lawfully fix or establish another and different price for such gas, then if said price shall be fixed at any figure less than the price herein provided for, the Vendor shall have the right

and option to cancel and terminate this agreement by giving written notice to the Vendee; and if said price shall be fixed at any figure more than the price herein provided for, then the Vendee shall have the right and option to cancel and terminate this agreement by giving written notice to the Vendor. Such written notice when given by either party shall make the termination of this contract complete.

IX

The price to be paid by Vendee to Vendor for the gas sold and purchased hereunder shall be at the rate of forty (40¢) cents per thousand cubic feet.

The Vendor will submit to the Vendee by the fifteenth day of each calendar month a statement showing the amount of gas delivered to Vendee during the preceding calendar month, together with charts from Vendor's meters, and the computation of deliveries for such period. These charts and computations shall be returned to Vendor at the time of or previously to the making of the payment for such monthly period.

[fol. 4100] On or before the twentieth day of each calendar month Vendee shall pay to the Vendor at Dallas, Texas, for all gas delivered by Vendor to Vendee during the preceding calendar month according to the gas measurements and computations hereinbefore provided for.

X

By domestic consumers, as used in this contract, is meant all those consumers using gas in domestic service, and is defined as including the reasonable use of natural gas for heating, lighting and cooking in private homes, boarding houses, apartment houses, hospitals and charitable institutions; and this classification shall further extend to those using natural gas for lighting and cooking only in hotels, restaurants, bakeries and stores, and for heating in hotels and buildings where separate rooms are dependent upon natural gas for heating purposes in grates and stoves.

XI

It is understood that, in addition to the gas which Vendor shall deliver to Vendee hereunder to meet the requirements of Vendee's domestic consumers, the Vendor will sell and

deliver to the Vendee and the Vendee will purchase and receive from the Vendor gas for manufacturing and industrial purposes, under such terms and conditions as may hereafter be agreed to in writing by the Vendor and the Vendee; provided that in the judgment of the Vendor sufficient gas is available to warrant its sale for such purposes.

Vendee shall be entitled to receive industrial gas from Vendor at such times as Vendor is selling to other distributing companies who are receiving industrial gas from Vendor under substantially similar operating conditions.

XII

It is understood that during the term of this contract Vendor will supply gas to various other communities and cities, and Vendor agrees that it will not wilfully discriminate in favor of such other communities or cities or against Vendee or Vendee's domestic or industrial consumers in the matter of the apportioning of the supply of gas which Vendor has available. In times of extreme or peak demand, Vendor will endeavor, insofar as operating conditions will permit, to apportion the supply of available gas among the various communities and cities which it serves in proportion to the number of domestic consumers served in each community or city.

XIII

It is agreed and understood that this contract supersedes any and all agreements for the sale of domestic gas which have heretofore been in effect between the parties hereto.

XIV

All of the covenants, terms, stipulations and provisions of this contract shall extend to and be binding upon the respective successors and assigns of the parties hereto. [fols. 4101-4102] Notice as provided to be given hereunder shall be deemed sufficiently given and served when and if deposited in the United States mail, postage prepaid and registered, addressed to Vendor at Dallas, Texas, and to the Vendee at Dallas, Texas.

Witness the execution hereof, in duplicate, each copy being hereby declared an original, on this 15 day of Sept., 1933.

Lone Star Gas Company, by (signed) R. A. Crawford, Vice-President.

Attest: (Signed) T. J. Uhl, Asst. Secretary. (Corporate Seal, Lone Star Gas Company, Dallas, Texas.)

Texas Cities Gas Company, by (signed) L. B. Denning, President.

Attest: (Signed) D. L. Cobb, Secretary. (Corporate Seal, Texas Cities Gas Company, Texas.)

[fols. 4103-4105] DEFENDANT'S EXHIBIT No. 28

[fols. 4106-4115] Lone Star Gas Company

Appraisal

Cost of Reproduction New

January 1, 1933

Public Service Plant, Property and Business

Exclusive of Fort Worth Division

Volume I

E. A. Steinberger, P. McDonald Biddison, Ed. C. Connor, Engineers, Dallas, Texas

[fol. 4116] Summary

Physical Property Including Undistributed General Costs:	
Production System Property	$9,141,858.05
Gathering System Property	1,785,390.34
Transmission System Property	40,297,559.90
Compressing System Property	5,899,838.50
General System Property	2,929,942.78
Total	$60,054,589.57
Non Physical Values:	
Preliminary and Organization	$4,434,328.00
Working Capital	1,701,600.00
Going Concern Value	7,792,888.00
Total	$13,928,816.00
Grand Total	$73,983,405.57

This appraisal is based upon an inventory of the property as of January 1, 1933, to which have been applied market prices of materials of construction and prevailing labor rates as of the same date.

P. McDonald Biddison, Consulting Engineer. E. A. Steinberger, Valuation Engineer. Ed. C. Connor, Consulting Engineer.

[fol. 4117] Lone Star Gas Company

Cost of Reproduction New

January 1, 1933

Public Service Plant and Property

Recapitulation

Account	Amount
Production System Property:	
Leaseholds—Developed	$2,681,689.00
Leaseholds—Undeveloped	893,291.28
Gas Wells	3,908,424.15
Other Production System Structures	9,450.29
Other Production System Equipment	95,764.08
General Supervision—Allocated	148,596.00
Undistributed General Costs	1,404,643.25
Total	$9,141,858.05
Gathering System Property:	
Rights of Way	$11,184.07
Field Measuring Station Structures	37,304.09
Field Measuring Station Equipment	130,222.96
Field Line Equipment	1,324,159.00
General Supervision—Allocated	5,288.00
Undistributed General Costs	277,232.22
Total	$1,785,390.34
[fol. 4118] Transmission System Property:	
Transmission System Measuring Station Land including Improvements	$90,898.48
Transmission System Measuring Station Leaseholds including Improvements	9,270.32
Other Transmission System Land including Improvements	26,485.54

Defendant's Exhibit No. 28—Continued

Account	Amount
Other Transmission System Leaseholds including Improvements	$2,267.21
Rights of Way	1,242,000.69
Transmission System Measuring Station Structures	148,572.34
Other Transmission System Structures	145,016.29
Transmission System Measuring Station Equipment	410,606.98
Transmission Line Equipment	31,894,439.40
General Supervision—Allocated	127,242.00
Undistributed General Costs	6,200,760.65
Total	$40,297,559.90
Compressing System Property:	
Land including Improvements	$96,549.09
Leaseholds including Improvements	29,985.13
Structures	718,056.31
Equipment	4,065,351.72
General Supervision—Allocated	84,271.00
Undistributed General Costs	905,625.25
Total	$5,899,838.50
[fol. 4119] General System Property:	
General Office Land	$44,545.00
Other General Land	49,273.87
General Office Structure	321,437.63
Other General Structures	46,789.56
General Office Furniture and Fixtures	207,601.84
Other General Furniture and Fixtures	12,059.97
General Shop Equipment	104,000.27
General Tools	131,549.72
Automotive and Construction Equipment	423,717.82
General Telephone System	370,464.12
Final Engineering Records	765,690.35
Undistributed General Costs	452,812.63
Total	$2,929,942.78
Grand Total	$60,054,589.57

Defendant's Exhibit No. 28—Continued

[fol. 4120]

Lone Star Gas Company

Allocation of Undistributed General Costs to System Property

Account	Direct Cost	Per Cent of Total	Undistributed General Costs	Total
Production System Property	$7,737,214.80	15.2	$1,404,643.25	$9,141,858.05
Gathering System Property	1,508,158.12	3.0	277,232.22	1,785,390.34
Transmission System Property	34,096,799.25	67.1	6,200,760.65	40,297,559.90
Compressing System Property	4,994,213.25	9.8	905,625.25	5,899,838.50
General System Property	2,477,130.15	4.9	452,812.63	2,929,942.78
Total	$50,813,515.57	100.0	$9,241,074.00	$60,054,589.57

Defendant's Exhibit No. 28—Continued

[fol. 4121] Recapitulation

Undistributed General Costs:	
Executive Section	$503,487
Legal Section	490,576
Accounting Section	192,320
Treasury Section	97,509
Land Section	277,138
Geological Section	255,929
Purchasing Section	530,636
Other General Cost	201,574
Engineering Cost	1,127,661
Supervision Cost	414,493
Taxes During Construction	173,818
Interest During Construction	4,975,933
Total	$9,241,074
Non-Physical Values:	
Preliminary and Organization	$4,474,272*
Working Capital	1,701,600
Going Concern Value	7,792,888
Total	$13,968,760

*Of this amount $39,944.00 has been included in "Production System Property" on Page 1, Volume I, and "Preliminary and Organization" reduced in like amount.

Defendant's Exhibit No. 28—Continued

[fol. 4122]

Lone Star Gas Company

Supervision Costs Allocated to Specific Property Accounts

Period	Pipe Line Construction	Compressor Sta. Construction	Telephone Line Construction	Drilling & Production
Pre-Construction	$7,403.00	$9,111.00	$3,855.00	$21,228.00
First Year	42,209.00	37,580.00	18,794.00	42,456.00
Second Year	42,209.00	37,580.00	18,794.00	42,456.00
Third Year	40,709.00	.....	18,794.00	42,456.00
Total	$132,530.00	$84,271.00	$60,237.00	$148,596.00

For Detailed Estimate see Pages 532 to 574 inclusive, Volume VII.

Defendant's Exhibit No. 28—Continued

[fols. 4123-4124] Lone Star Gas Company

Leaseholds—Developed

As per Report and Findings of Gas Reserves Prepared by J. H. Dunn and F. E. Kendrick and Report and Findings of Present Value of Gas Reserves Prepared by D. A. Hulcy

Total Leaseholds—Developed $2,681,689.00

[fols. 4125-4126] Lone Star Gas Company

Leaseholds—Undeveloped

As per Report and Findings of Gas Reserves Prepared by J. H. Dunn and F. E. Kendrick and Determination of Present Value by E. A. Steinberger

Total Leaseholds—Undeveloped $893,291.28

[fol. 4127] Gas Wells

[fols. 4128-4390] Lone Star Gas Company

Gas Well Equipment

Summary

	Reproduction Cost—New		
	Fee Wells	Other Owned Wells	Total
Chickasha Field	$576,871.00	$1,277.78	$578,148.78
Duncan Field	94,780.29	1,648.40	96,428.69
Fox Field	43,910.28	4,083.14	47,993.42
Panhandle Field	962,222.78	3,214.30	965,437.08
Petrolia Field	424,398.03	67.14	424,465.17
West Texas Field	1,792,134.78	3,816.23	1,795,951.01
Grand Total	$3,894,317.16	$14,106.99	$3,908,424.15

* * * * * * *

[fols. 4391-4395] Lone Star Gas Company

Other Production System Structures

Summary

Location	Reproduction Cost—New
Brooks Lease:	
Stephens County, Texas, Pressure Man's Cabin	$83.74
S. J. Brown (McKinney) Lease:	
Stephens County, Oklahoma, Bunk House	381.68

Defendant's Exhibit No. 28—Continued

	Reproduction Cost—New
Cheaney Field:	
Eastland County, Texas, Cottage No. 216	$907.21
Clarkson Warehouse Site:	
Stephens County, Oklahoma, Cottage No. 58	1,625.83
Hatcher Lease:	
Wheeler County, Texas:	
Pump House	137.70
Water Wells	757.52
Water Handling Equipment	2,220.16
Dam	416.36
Petrolia:	
Clay County, Texas, Cottage No. 42	1,741.53
Robberson Lease:	
Garvin County, Oklahoma, Cottage No. 80	1,178.56
Total Other Production System Structures	$9,450.29

* * * * * * *

[fols. 4396-4416] Lone Star Gas Company

Other Production System Equipment

Drill, Repair and Clean Out Tools

Recapitulation

Field	Reproduction Cost—New
West Texas	$23,555.94
Petrolia	41,429.21
Oklahoma	11,552.79
Shamrock	19,226.14
Grand Total	$95,764.08

* * * * * * *

Defendant's Exhibit No. 28—Continued

[fols. 4417-4421] Lone Star Gas Company

Gathering System Rights of Way

Summary

Field	Reproduction Cost—New
Duncan	$365.94
Fox	259.50
Pottsboro	132.60
Petrolia	677.02
Panhandle	2,778.00
West Texas	6,269.01
Chickasha	702.00
Total	$11,184.07

* * * * * * *

[fol. 4422] Lone Star Gas Company

Field Measuring Station Structures

Summary

	Reproduction Cost—New
Chickasha Field:	
Group No. 1	$3,473.48
Total Chickasha Field	$3,473.48
Duncan Field:	
Group No. 1	$1,576.45
Group No. 2	1,333.08
Total Duncan Field	$2,909.53
Fox Field:	
Group No. 1	$2,999.14
Group No. 2	11.40
Total Fox Field	$3,010.54

Defendant's Exhibit No. 28—Continued

	Reproduction Cost—New
Panhandle Field:	
Group No. 1	$6,570.56
Group No. 2	2,175.40
Total Panhandle Field	$8,745.96
Petrolia Field:	
Group No. 1	$204.70
Group No. 2	97.64
Group No. 3	68.01
Group No. 4	146.79
Group No. 5	73.62
Total Petrolia Field	$590.76
Pottsboro Field:	
Group No. 1	$51.52
Total Pottsboro Field	$51.52
West Texas Field:	
Group No. 1	$12,524.80
Group No. 2	1,372.03
Group No. 3	468.03

[fol. 4423]

Group No. 4	80.17
Group No. 5	161.60
Group No. 6	70.99
Group No. 7	555.03
Group No. 8	103.04
Group No. 9	10.79
Total West Texas Field	$15,346.48

Defendant's Exhibit No. 28—Continued

	Reproduction Cost—New
Gas Purchasing Stations:	
Line A-A	$63.01
Line K-C-F	164.37
Line K-C-G	117.59
Line K-C-G	84.97
Line K-C-H-A	116.41
Line K-C-H-B	110.94
Line K-C-J-A	174.70
Line K-D	179.12
Line K-G	247.82
Line O-A	52.73
Line O-B	85.50
Line O-B-A	75.27
Line O-B-B	60.57
Line O-C	67.40
Line O-C	48.09
Line O-D	201.12
Line O-D-A	74.13
Line O-D-A-A	69.57
Line O-D-B	82.25
Line O-D-C	81.40
Line O-E-B	50.95
Line O-E-C and O-E-B	303.94
Line O-G	80.03
Line O-L-A-A	62.55
Line 26	4.21
Line 30-A	69.01
Line 51-A	63.67
Line 51-B	61.69
Line 68	50.78
Line 110	62.55
Line 153	44.03
Line 224	7.22
[fols. 4424-4470]	
Line 234	49.91
Miller Lease	67.29
Holloway Lease	41.03
Total Gas Purchasing Stations	$3,175.82
Total Field Measuring Station Structures	$37,304.09

* * * * * * *

Defendant's Exhibit No. 28—Continued

[fol. 4471] Lone Star Gas Company

Field Measuring Station Equipment

Summary

	Reproduction Cost—New
Chickasha Field:	
Group No. 1	$10,711.24
Group No. 2	1,487.26
Group No. 3	676.70
Group No. 4	30.72
Total Chickasha Field	$12,905.92
Duncan Field:	
Group No. 1	$8,614.02
Group No. 2	227.75
Group No. 3	191.09
Total Duncan Field	$9,032.86
Fox Field:	
Group No. 1	$9,132.18
Group No. 2	2,074.95
Group No. 3	1,400.84
Group No. 4	61.36
Total Fox Field	$12,669.33
Panhandle Field:	
Group No. 1	$23,683.65
Group No. 2	9,879.13
Group No. 3	2,930.33
Total Panhandle Field	$36,493.11

Defendant's Exhibit No. 28—Continued

	Reproduction Cost—New
Petrolia Field:	
Group No. 1	$218.03
Group No. 2	404.94
Group No. 3	440.68
Group No. 4	163.43
Group No. 5	199.21
Group No. 6	245.54
Total Petrolia Field	$1,671.83
[fol. 4472] Pottsboro Field:	
Group No. 1	$206.23
Total Pottsboro Field	$206.23
West Texas Field:	
Group No. 1	$17,857.39
Group No. 2	4,081.57
Group No. 3	6,151.49
Group No. 4	1,426.71
Group No. 5	4,040.22
Group No. 6	465.86
Group No. 7	240.00
Group No. 8	216.29
Group No. 9	2,602.43
Group No. 10	838.45
Group No. 11	791.95
Group No. 12	220.15
Group No. 13	226.06
Group No. 14	418.75
Group No. 15	205.62
Group No. 16	339.05
Group No. 17	5,229.55
Group No. 18	2,680.96
Group No. 19	1,433.70
Total West Texas Field	$49,466.20

Defendant's Exhibit No. 28—Continued

	Reproduction Cost—New
Gas Purchasing Stations:	
Line A-A	$231.98
Line K-C-F	45.09
Line K-C-G	639.75
Line K-C-H-A	207.06
Line K-C-H-B	240.29
Line K-C-J-A	426.50
Line K-D	709.65
Line K-G	732.77
Line O-A	215.27
Line O-B	339.22
Line O-B-A	211.57
Line O-B-B	224.77
Line O-C	226.68
Line O-D	48.32
Line O-D-A	32.74
Line O-D-A-A	305.42
[fols. 4473-4526] Line O-D-B	$290.89
Line O-D-C	30.41
Line O-E-B	23.51
Line O-E-B	252.24
Line O-E-B	232.30
Line O-E-C	38.53
Line O-E-C	336.01
Line O-G	19.75
Line O-L-A-A	17.42
Line 26	22.34
Line 30-A	14.57
Line 51-A	226.00
Line 51-B	227.60
Line 68	217.81
Line 110	298.31
Line 224	25.32
Line 234	221.48
Miller Lease	226.59
Holloway Lease	219.32
Total Gas Purchasing Stations	$7,777.48
Total Field Measuring Station Equipment	$130,222.96

Defendant's Exhibit No. 28—Continued

[fols. 4527-5106] Lone Star Gas Company

Field Line Equipment

Summary

	Reproduction Cost—New
Chickasha Field	$63,691.04
Duncan Field	100,072.50
Fox Field	187,115.67
Panhandle Field	205,731.85
Petrolia Field	183,951.69
Pottsboro Field	444.36
West Texas Field	583,151.89
Total Field Line Equipment	$1,324,159.00

• • • • • • • •

[fols. 5107-5188] Lone Star Gas Company

Transmission System Measuring Station Land

Summary

System	Land	Improvements	Total
City Gate Stations			
A	$1,811.25	$2,122.73	$3,933.98
B	1,355.00	2,730.25	4,085.25
C	916.25	624.58	1,540.83
E	4,163.00	5,480.75	9,643.75
F	1,573.75	1,627.62	3,201.37
G	1,777.23	2,861.08	4,638.31
H	665.00	915.30	1,580.30
J	4,582.63	1,479.59	6,062.22
K	4,191.87	4,125.19	8,317.06
L	6,790.35	8,265.94	15,056.29
M	4,177.26	4,264.21	8,441.47
O	10,964.80	8,684.77	19,649.57
R	817.50	609.49	1,426.99
Numbered	1,016.25	832.30	1,848.55
Total City Gate Stations	$44,802.14	$44,623.80	$89,425.94
Maine Line Sales Stations			
C	$.....	$49.86	$49.86
K	345.00	35.79	380.79
O	125.00	.....	125.00
Total Main Line Sales Stations	$470.00	$85.65	$555.65
Main Line Check Meter Stations			
B	$287.50	$140.59	$428.09
E	50.00	.....	50.00
L	287.50	151.30	438.80
Total Maine Line Check Meter Stations	$625.00	$291.89	$916.89
Total	$45,897.14	$45,001.34	$90,898.48

• • • • • • •

Defendant's Exhibit No. 28—Continued

[fols. 5189–5224] Lone Star Gas Company

Transmission System Measuring Station Leaseholds

Summary

System	Land	Improvements	Total
City Gate Stations			
A	$1,209.51	$332.49	$1,535.00
B	31.52	380.62	412.14
E	394.56	1,122.45	1,517.01
F	85.19	54.94	140.13
G	59.25	69.80	129.05
J	64.47	104.29	168.76
K	173.34	275.59	448.93
L	343.75	971.25	1,315.00
M	294.89	513.51	808.40
O	728.80	1,328.04	2,056.84
R	39.34	194.34	233.68
Numbered	.....	209.96	209.96
Total City Gate Stations	$3,442.62	$5,557.28	$8,999.90
Main Line Sales Stations			
F	$16.87	$.....	$16.87
J	.....	1.41	1.41
L	.....	24.13	24.13
M	141.66	.....	141.66
Total Main Line Sales Stations	$158.53	$25.54	$184.07
Main Line Check Meter Stations			
E	$48.14	$36.20	$84.34
F	27.01	.....	27.01
Total Main Line Check Meter Stations	$75.15	$36.20	$111.35
Total	$3,651.30	$5,619.02	$9,270.32

* * * * * * *

Defendant's Exhibit No. 28—Continued

[fol. 5225]

Lone Star Gas Company

Other Transmission System Land

Summary

Line	Location	Land	Improvements	Total
A	Shamrock Warehouse Site	$575.00	$970.32	$1,545.32
A	North Pease River Crossing Site	105.00	.....	105.00
A	South Pease River Crossing Site	50.00	.....	50.00
A	Salt Fork of Red River Bridge Site	50.00	.....	50.00
A	Vernon Camp Site	2,760.00	427.90	3,187.90
A & A-2	Gate Valve Site, Iowa Park	575.00	.....	575.00
B	Cottage Site, Clay County	287.50	.....	287.50
B-7	North Fort Worth Warehouse Site	125.00	1,444.62	1,569.62
C	Old Irving Compressing Station Site	460.00	.....	460.00
C	Irving Warehouse Site	125.00	.....	125.00
C	Irving Warehouse Site	50.00	1,948.65	1,998.65
G	Gate Valve Site, Stephens County, Oklahoma	2,415.00	.....	2,415.00
G	Red River Bridge Site, Texas	100.00	.....	100.00
G	Red River Bridge Site, Oklahoma	125.00	.....	125.00
H & 2nd H	Red River Bridge Site, Oklahoma	230.00	.....	230.00
H & 2nd H	Red River Bridge Site, Texas	230.00	.....	230.00
2nd H	Farwell Warehouse Site	230.00	2,052.95	2,282.95
K & KA	Lipan Warehouse Site	128.00	891.19	1,019.19
K & KC	Ranger Warehouse Site	460.00	.....	460.00
K-B-A	Foreman's Cottage, Cheaney District	75.00	.....	75.00
K-C	Abilene Warehouse Site	431.25	568.35	999.60
K-P	Field Foreman's Cottage, X-Ray District	175.00	.....	175.00
K-D	Lot Adjoining X-Ray Warehouse Site	258.75	.....	258.75
[fols. 5226-5237]				
L	Waco Warehouse Site	$805.00	$1,122.58	$1,927.58
L	Brazos River Bridge Site	345.00	.....	345.00
L	Brazos River Bridge Site	230.00	.....	230.00

Defendant's Exhibit No. 28—Continued

Line	Location	Land	Improvements	Total
M	Junction L & M Site	$351.90	.....	$351.90
M	Richland Warehouse Site	690.00	$1,258.70	1,948.70
M	Richland Cottage Site	345.00	.....	345.00
O	West Suspension Bridge Approach, Brazos River, Hood County	230.00	.....	230.00
O	Joshua Warehouse Site	402.50	290.65	693.15
18	Moran Warehouse Site	175.00	788.42	963.42
18	Moran Cottage Site	100.00	.....	100.00
18 & K-C	Cleaner Site	150.00	193.89	343.89
33	Eastland Warehouse Site	287.50	394.92	682.42
	Total Other Transmission System Land	$14,132.40	$12,353.14	$26,485.54

* * * * * * *

Defendant's Exhibit No. 28—Continued

[fols. 5238-5241]

Lone Star Gas Company

Other Transmission System Leaseholds

Summary

Line	Location	Land	Improvements	Total
A	Line Walkers Shack, Hardeman County	$21.25	$.....	$21.25
A	Line Walkers Shack, Wheeler County	35.00	.....	35.00
B	Bowie Junction	.....	277.88	277.88
E	Gas Cleaners—Fannin County	44.84	.....	44.84
E	Gainesville Junction Storage Lot	47.47	.....	47.47
F	Line Walkers Shack, Denton County	23.30	.....	23.30
H	Clarkson Warehouse Site	.....	1,403.47	1,403.47
O & K	Brazos River Bridge Site	414.00	.....	414.00
	Total Other Transmission System Leaseholds	$585.86	$1,681.35	$2,267.21

• • • • • • •

Defendant's Exhibit No. 28—Continued

[fols. 5242-5254]

Lone Star Gas Company

Transmission System Rights of Way

Summary

System	Quantity	Unit	Amount
A	89,225.9	Rods	$125,808.51
B	39,171.9	Rods	43,567.00
2nd B	31,289.9	Rods	34,800.63
C	12,846.9	Rods	14,288.34
E	94,581.3	Rods	104,717.33
F	42,476.7	Rods	47,242.59
G	72,367.7	Rods	78,729.94
H	53,899.8	Rods	58,879.58
J	14,470.3	Rods	16,093.88
K	163,889.1	Rods	177,724.83
L	129,221.9	Rods	143,548.82
M	76,113.4	Rods	84,653.33
O	170,887.1	Rods	188,191.96
R	27,798.3	Rods	30,197.76
Numbered	72,940.7	Rods	72,853.16
T. P. U.	20,728.4	Rods	20,703.53
Grand Total Rights of Way	1,111,909.3	Rods	$1,242,000.69

* * * * * * *

[fol. 5255] Lone Star Gas Company

Transmission System Measuring Station Structures

Summary

System	Reproduction Cost—New
City Gate Stations:	
A	$8,072.49
B	4,519.46
C	3,275.95
E	14,574.31
F	3,699.73
G	6,495.77
H	2,194.30
J	4,931.47
K	12,623.34
L	23,820.89
M	9,170.18
O	27,173.21
R	1,901.92
Numbered	3,265.98
Total City Gate Stations	$125,719.00

Defendant's Exhibit No. 28—Continued

System	Reproduction Cost—New
Main Line Sales Stations:	
A	$50.11
B	497.27
C	164.73
E	192.04
F	171.92
G	248.20
H	481.38
J	260.84
K	176.95
L	104.89
M	1,337.24
O	897.79
R	130.09
Numbered	442.30
T. P. U.	1,045.65
Total Main Line Sales Stations	$6,201.40
[fols. 5256-5467] Main Line Check Meter Stations:	
A	$1,173.85
B	830.44
C	2,925.91
E	970.40
F	457.55
G	666.69
H	1,545.17
J	269.97
K	3,144.40
L	706.61
M	423.70
O	2,463.57
R	58.41
Numbered	673.47
U. S. Government 10 in. Line	205.73
T. P. U.	136.07
Total Main Line Check Meter Stations	$16,651.94
Total	$148,572.34

• • • • • • •

Defendant's Exhibit No. 28—Continued

[fols. 5468-5541] Lone Star Gas Company

Other Transmission System Structures

Summary

	Reproduction Cost—New
A System	$17,813.67
B System	14,036.43
C System	8,995.92
E System	4,369.43
G System	1,185.94
H System	54,889.73
J System	12,638.99
K System	16,454.55
L System	6,059.79
M System	8,174.19
O System	397.65
Total Other Transmission System Structures	$145,016.29

* * * * * * *

[fol. 5542] Lone Star Gas Company

Transmission System Measuring Station Equipment

Summary

City Gate Stations:

System	Reproduction Cost—New
A	$20,880.55
B	16,276.25
C	8,764.83
E	37,280.70
F	14,487.65
G	14,346.87
H & 2nd H	6,089.25
J	21,041.96
K	23,869.47
L	55,943.06
M	32,817.44
O	63,404.32
R	3,130.96
Numbered	11,304.51
Total City Gate Stations	$329,637.82

Defendant's Exhibit No. 28—Continued

Main Line Sales Stations:

	Reproduction Cost—New
A	$709.03
B	2,774.40
C	867.47
E	825.39
F	884.32
G	650.90
H & 2nd H	946.53
J	1,609.55
K	1,540.09
L	724.88
M	9,414.38
O	1,761.64
R	1,102.50
Numbered	4,193.03
T. P. U.	5,354.72
Total Main Line Sales Stations	$33,358.83

[fols. 5543-5561] Main Line Check Meter Stations:

A	$1,955.86
B	3,635.07
C	9,768.92
E	2,716.50
F	1,774.53
G	3,084.47
H & 2nd H	5,179.06
J	717.28
K	4,889.56
L	3,119.79
M	1,522.33
O	3,447.90
R	418.36
Numbered	2,213.21
U. S. Government 10 Inch Line	830.64
T. P. U.	2,336.85
Total Main Line Check Meter Stations	47,610.33
Total All Systems	$410,606.98

* * * * * * *

BLANK

PAGE

Form 854 1000 7-41

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"A" System 5562

M e	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	HARROLD, WILBARGER COUNTY, TEXAS, LINE A-3				
	METERS				
	Kmco No. 4 500 lbs. T Serial No. 4788 with Wylie PW&T Recording Gauge Serial No. 2416 0-76 lbs. static	1	Each	329.5450	$ 329.55
	REGULATORS				
	Fulton 1 in. HP with 5-1/2 in. diaphragm case 4 bolts screwed	1	Each	18.0550	18.06
	Fulton 1-1/4 in. HP 11-3/4 in. diaphragm case 4 bolts screwed	1	Each	22.1000	22.10
	GAUGES				
	Indicating Pressure				
	Crosby IBBR with 5 in. dial Range 0-500 lbs.	1	Each	3.7586	3.76
	Foxboro IBBR with 5 in. dial Range 0-250 lbs.	1	Each	4.3114	4.31
	GATE VALVES Flanged				
	Crane IBBR ID OS&Y 2 in. 700 lb.T with RH CI 4 bolts CFBO	1	Each	17.2449	17.24
	NEEDLE VALVES Screwed				
	Lunkenheimer 1/4 in. Brass RS Std.	1	Each	.6293	.63
	PLUG VALVES Flanged				
	Nordstrom				
	2 in. 250 lb.WP with RH CI 4 bolts CFBO	8	Each	15.4336	123.47
	2 in. 250 lb. WP with RH CI 4 bolts CFBO (50% Ownership)	1	Each	15.4336	7.72
	2 in. 250 lb. WP	2	Each	13.5868	27.01
	SAFETY VALVES Screwed				
	Crane 2 in. 125 lb. WP No. 12687 L & W Type	1	Each	5.6714	5.67
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		.76
	PIPE Plain End (Random Lengths)	1	Lot		3.74

Form 314—10M—7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"A" System 5563-5572

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
HARROLD, WILBARGER COUNTY, TEXAS, LINE A-3 (Cont'd)				
CUSHIONS 16 x 27 in. with baseball welded ends with 3 2 in. welded openings and 1 1/4 in. collar welded	1	Each	39.3100	$ 39.31
FITTINGS	1	Lot		23.78
WELDS	1	Lot		18.51
Material Cost				$ 645.62
Installation				178.09
TOTAL COST INSTALLED				$ 823.71
VERNON, WILBARGER COUNTY, TEXAS, LINE A-4				
METERS Foxboro Type 207 Orifice Range 0-100 in. differential 250 lbs. static 24 hour clock Chart No.858049 Serial No. A-8299 Company No. 1113	1	Each	143.1046	$ 143.10
Foxboro Type 105 Differential Recorder Range 20 in. differential only 24 hour clock Chart No. 858050 Serial No. A-8286 Company No. 1113-A	1	Each	119.9348	119.93
METER PIPING Wide range screwed installation with steel needle valves	1	Set	25.1700	25.17
REGULATORS Fulton 2 in. HP with 7-1/2 in. diaphragm case No bolts Screwed	1	Each	54.9600	54.96
Fulton 4 in. HP with 7-1/2 in. diaphragm case 4 bolts with 4 x 10 in. HX CI 8 bolts CVBO	1	Each	122.5890	122.59

Form 884 5M 7-31

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"A" System

5573

e	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	EAST WICHITA FALLS, WICHITA COUNTY, TEXAS, LINE A-12				
	METERS				
	Foxboro Type 207 Orifice Range 100 in. differential 250 lbs. static with 24 hour clock Chart No. 858049 Serial No. A-69121 Company No. 8	1	Each	143.1046	$ 143.10
	Foxboro Type 105 Differential Recorder Range 20 in. differential only with 24 hour clock Chart No. 858050 Serial No. 56067 Company No. 8-A	1	Each	119.9348	119.93
	METER PIPING				
	Wide range screwed installation with steel needle valves	1	Set	25.1700	25.17
	REGULATORS				
	Fulton 4 in. HP L & W Type with 7-1/2 in. diaphragm case 4 bolts CFBO	1	Each	122.5890	122.59
	Fulton 6 in. HP L & W Type with 10-3/4 in. diaphragm case 8 bolts CFBO	1	Each	206.1370	206.14
	GAUGES				
	Indicating Pressure				
	Crosby IRER with 5 in. dial Range 0-500 lbs.	1	Each	3.7586	3.76
	Foxboro IRER with 5 in. dial Range 0-500 lbs.	1	Each	4.3114	4.31
	GATE VALVES Flanged				
	Darling 4 in. 1000 lbs. T No.102 NRS CFBO	2	Each	30.8316	61.66
	Kennedy				
	6 in. NRS KH	1	Each	61.1558	61.16
	6 in. NRS KH CFBO	1	Each	66.2800	66.28
	Westcott 8 in. 500 lbs. WP NRS CFBO	4	Each	73.7908	295.16
	GATE VALVES Screwed				
	Lunkenheimer 1/4 in. 150 lbs. WP RS Brass	1	Each	1.0941	1.09
	PLUG VALVES Flanged				
	Nordstrom 4 in. 250 lbs.WP CFBO	1	Each	45.8848	45.88
	PIPE Plain End (Random Lengths)	1	Lot		43.57

Form 284 1938M 7 33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"A" System

5574-5582

a e ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
EAST WICHITA FALLS, WICHITA COUNTY, TEXAS, LINE A-12 (Cont'd)				
CUSHIONS				
18 in. x 9 ft. 10-3/4 in. with baseball welded ends 1 6 in., 1 4 in., and 1 1/2 in. collar welds	1	Each	68.5700	$ 68.57
HEADERS				
10 in. x 4 ft. 10 in. baseball welded end with 1 4 in., 1 6 in., and 1 10 in. openings	1	Each	41.3900	41.39
12 in. x 4 ft. 10 in. baseball welded ends with 2 8 in., 1 6 in., and 1 4 in. openings	1	Each	49.6200	49.62
12 in. x 7 ft. 10 in., one end flat welded, other end with orange peel welded bull plug with 1 12 in. collar and 2 8 in. and 1 10 in. openings	1	Each	84.4300	84.43
FITTINGS	1	Lot		124.07
WELDS	1	Lot		87.78
Material Cost				$ 1,655.66
Installation				445.28
TOTAL COST INSTALLED				$ 2,100.94
BURCHBURNETT TAP, NORTH WICHITA FALLS, WICHITA COUNTY, TEXAS LINE A-13				
METERS				
Foxboro Type C Orifice Range 100 in. differential 500 lbs. static with 24 hour clock Chart No. 85828 Serial No. 39169 Company No. 93	1	Each	141.2682	$ 141.27
METER PIPING				
Single screwed installation with steel needle valves throughout	1	Set	23.1700	23.17

Form 964 10kM 7-61

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT
"B" System

5583

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
BELLEVUE, CLAY COUNTY, TEXAS, LINE B-1 (Cont'd)				
FITTINGS	1	Lot		$ 23.54
WELDS	1	Lot		24.72
Material Cost				$ 813.61
Installation				224.05
TOTAL COST INSTALLED				$ 1,037.66
BOWIE, MONTAGUE COUNTY, TEXAS, LINE B-2				
METERS				
Foxboro Type C Orifice range 100 in. differential 100 lbs. static 24 hour clock Chart No. 89870 Serial No. 18801 Company No. 1245	1	Each	129.6258	$ 129.63
Foxboro Type T differential recorder range 20 in. differential only with 24 hour clock Chart No. 89863 Serial No. 18804 Company No. 1245-A	1	Each	106.1254	106.13
METER PIPING				
Wide range screwed installation with steel needle valves	1	Set	25.1700	25.17
REGULATORS Flanged				
Fulton 2 in. HP with 7-1/2 in. diaphragm case no bolts	2	Each	67.5040	135.01
GAUGES				
Indicating Pressure				
Foxboro IBBR 5-1/2 in. dial Range 0 - 250 lbs.	1	Each	4.3114	4.31
Crosby IBBR 5-1/2 in. dial Range 0 - 500 lbs.	1	Each	3.7586	3.76
THERMOMETER				
Tagliabue Recording range 0 - 150 degrees F Chart Nos. 150-0-9 IBMR 9-3/4 in. diameter 7 day clock with 1 5 ft. 1 14 ft. 1 15 ft. 1/4 in. OD copper tube				

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT 5584

"B" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
BOWIE, MONTAGUE COUNTY, TEXAS, LINE B-2 (Cont'd)				
THERMOMETER (Cont'd) flexible with 8 in. of 3/8 in. OD outlet cooper mach on each end of tubes	3	Each	83.2175	$ 249.65
GATE VALVES Flanged Walworth IRRM DD OSAY 2 in. 700 lbs. T with 2 x 6-1/2 in. RH CI 4 bolts CRBO	4	Each	17.2655	69.06
4 in. 700 lbs. T with 4 x 10 in. RH CI 8 bolts CRBO	5	Each	32.2646	161.32
NEEDLE VALVES Screwed Lunkenheimer 1/4 in. brass Std. R5	6	Each	.6293	3.78
PLUG VALVES Nordstrom 2 in. 250 lbs. WP with CI Std. CRBO	2	Each	15.4336	30.87
SAFETY VALVES Screwed Crane 4 in. 125 lbs. WP LAW type No. 12635	1	Each	15.7096	15.71
PIPE Threaded and Coupled (Random Lengths)	1	Lot		14.50
PIPE Plain End (Random Lengths)	1	Lot		2.62
CUSHIONS With baseball welded ends 12 x 72 in. with 4 2 in. welded openings and 1 1/4 in. collar welded	1	Each	38.0200	38.02
12 x 72 in. with 3 4 in. and 1 2 in. welded openings	1	Each	42.3800	42.38
3 x 8-1/4 in. with 2 2 in. welded openings and 1 1/4 in. and 1 1-1/4 in. collar welded on	2	Each	9.7300	19.46
3 x 8-1/4 in. with 2 2 in. welded openings and 2 1/4 in. and 1 1-1/4 in. collar welded on	2	Each	10.0300	20.06
FITTINGS	1	Lot		48.16

FORM 864 1934 6-32

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System

5585-5586

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
BOWIE, MONTAGUE COUNTY, TEXAS, LINE B-2 (Cont'd)				
WELDS	1	Lot		$ 27.18
Material Cost				$ 1,146.78
Installation				317.96
TOTAL COST INSTALLED				$ 1,464.74
SUNSET, MONTAGUE COUNTY, TEXAS, LINE B-3				
METERS				
Emco No. 4 500 lbs. T Serial No. 5374 with Wylie PV&T recording gauge Serial No.2756 0-76 lbs. static with 7 day Foxboro clock	1	Each	471.9596	$ 471.96
REGULATORS				
Fulton 1 in. HP with 5-1/2 in. diaphragm case 4 bolts screwed	1	Each	18.0550	18.06
Fulton 1-1/4 in. HP with 7 in. diaphragm case 4 bolts screwed	1	Each	22.1000	22.10
GAUGES				
Indicating Pressure				
Foxboro IBBR 5 in. dial Range 0-250 lbs.	1	Each	4.3114	4.31
Crosby IBBR 5 in. dial Range 0-500 lbs.	1	Each	3.7586	3.76
GATE VALVES Flanged				
Walworth IBBM DD OS&Y				
2 in. 125 lbs. WP with 2 x 6-1/2 in. CI Std. CFBO	4	Each	10.1093	40.44
2 in. 700 lbs. T with 2 x 6-1/2 in. EH CI CFBO	5	Each	17.2655	86.33
2 in. 700 lbs. T with 2 x 6-1/2 in. EH CI CFBO (50% Ownership)	1	Each	17.2655	8.63
2 in. 700 lbs. T	2	Each	15.3387	30.68
NEEDLE VALVES Screwed				
1/4 in. brass Std. RS	2	Each	.4838	.97

Form 354—1M—7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System

5587

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
ALVORD, WISE COUNTY, TEXAS, LINE B-4 (Cont'd)				
GATE VALVES Flanged				
Walworth IRRM DD OS&Y				
2 in. 125 lbs. WP 2 x 6-1/2 in. CI Std. CVBO	3	Each	10.1093	$ 30.33
2 in. 700 lbs. T with 2 x 6-1/2 in. RH CI CVBO	8	Each	17.2655	138.12
2 in. 700 lbs. T with 2 x 6-1/2 in. RH CI CVBO (50% Ownership)	1	Each	17.2655	8.63
SAFETY VALVES Screwed				
Crane 2 in. 125 lbs. WP LAW Type	1	Each	5.6714	5.67
PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.67
PIPE Plain End (Random Lengths)	1	Lot		2.75
CUSHIONS				
12 x 60 in. with baseball ends, with one 2 in. welded opening	1	Each	32.2400	32.24
FITTINGS	1	Lot		31.26
WELDS	1	Lot		24.72
Material Cost				$ 795.58
Installation				218.92
TOTAL COST INSTALLED				$ 1,014.50
MAGNOLIA PIPE LINE COMPANY, ALVORD, TEXAS, LINE B-4				
REGULATORS				
Hercules 1 in. HP Screwed	1	Each	8.3400	$ 8.34
Emco 1 in. Type B Service Screwed	1	Each	4.8600	4.86
GATE VALVES Screwed				
Darling 2 in. No. 101 IRRM DD NRS	1	Each	13.1367	13.14
PIPE Threaded and Coupled (Random Lengths)	1	Lot		.42

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System 5588

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
MAGNOLIA PIPE LINE COMPANY, ALVORD TEXAS, LINE B-4 (Cont'd)				
FITTINGS	1	Lot		$ 2.32
Total material				$ 29.08
Installation				8.26
TOTAL COST INSTALLED				$ 37.34
DECATUR, WISE COUNTY, TEXAS, LINE B-5				
METERS				
Foxboro Type C Orifice Meter, range 100 in. differential 100 lbs. static 24 hour clock Chart No. [illegible]70 Serial No. 59877 Company No. 1242	1	Each	129.6258	$ 129.63
Foxboro Type T Differential Recorder range 20 in. differential only with 24 hour clock Chart No. 89863 Serial No. 58097 Company No. 1242-A	1	Each	106.1254	106.13
METER PIPING				
Wide range screwed installation with Lunkenheimer brass needle valves	1	Set	16.8500	16.85
REGULATORS				
Fulton 1-1/2 in. HP with 5-1/2 in. diaphragm case 4 bolts screwed	1	Each	26.2700	26.27
Emco 2 in. HP Balanced Valve with 11 in. diaphragm case 6 bolts Serial No. 1371	1	Each	87.7250	87.73
GAUGES				
Indicating Pressure				
Foxboro IBBR 5 in. dial Range 0-250 lbs.	1	Each	4.3114	4.31
Foxboro IBBR 5 in. dial Range 0-500 lbs.	1	Each	4.3114	4.31
GATE VALVES Flanged				
Walworth IBBM ID OS&Y 2 in. 700 lbs. T with 2 x 6-1/2 in. EH CI CYBO	3	Each	17.2655	51.80

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System 5589-5590

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
DECATUR, WISE COUNTY, TEXAS, LINE B-5 (Cont'd)				
GATE VALVES Flanged (Cont'd) Walworth 1BBM DD OS&Y				
2 in. 700 lbs. T	1	Each	15.3387	$ 15.34
4 in. 700 lbs. T with 4 x 10 in. EH CI CFBO	5	Each	32.2646	161.32
GLOBE VALVES Screwed				
Crane 1/4 in. brass Std. RS	2	Each	.4067	.81
PLUG VALVES				
Nordstrom				
2 in. 250 lbs. WP with 2 x 6-1/2 in. EH CI CFBO	2	Each	15.4336	30.87
SAFETY VALVE Screwed				
Crane 4 in. 125 lbs. WP L&W Type	1	Each	15.7096	15.71
PIPE Threaded and Coupled (Random Lengths)	1	Lot		13.50
PIPE Plain End (Random Lengths)	1	Lot		2.55
CUSHIONS				
12 x 72 in. baseball welded ends with 4 2 in. welded openings and 1 1/4 in. collar welded	1	Each	38.0200	38.02
12 x 72 in. with baseball welded ends with 3 4 in. and 1 2 in. welded openings	1	Each	42.3800	42.38
FITTINGS	1	Lot		57.24
WELDS	1	Lot		23.75
Total Material				$ 828.52
Installation				228.55
TOTAL COST INSTALLED				$ 1,057.07

Form 354 100M 7-40

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System

5591

eg ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
RHOME, WISE COUNTY, TEXAS, LINE B-6 (Cont'd)				
FITTINGS	1	Lot		$ 19.28
WELDS	1	Lot		24.72
Material Cost				$ 849.01
Installation				234.10
TOTAL COST INSTALLED				$ 1,083.11
NORTH FT. WORTH, TARRANT COUNTY, TEXAS, LINE B-7				
INTERMEDIATE PRESSURE REGULATOR HOUSE				
REGULATORS				
Fulton 1 in. HP with 11-3/4 in. diaphragm case 4 bolts screwed	1	Each	18.0550	$ 18.06
Fulton 12 in. HP with 11 in. diaphragm case 12 bolts flanged	1	Each	614.5130	614.51
GAUGES				
Indicating Pressure				
Ashcroft IBBR with 7 in. dial Range 0-400 lbs.	1	Each	7.9121	7.91
GATE VALVES Flanged				
Atwood IBBM DD NRS 12 in. Steel Stem No. 4 P	3	Each	165.1806	495.54
Darling IBBM DD NRS 4 in. No. 72 with 4 x 10 in. EH CI CFBO	1	Each	27.8978	27.90
GLOBE VALVES Screwed				
Jenkins 3/8 in. brass Std. RS	3	Each	.9044	2.71
Lunkenheimer 3/8 in. brass Std. RS	1	Each	.8043	.80
SAFETY VALVES Screwed				
Atwood 4 in. L&W Type	1	Each	15.7096	15.71
PIPE Threaded and Coupled (Random Lengths)	1	Lot		2.41

Form 354 10M 7-44

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System

5592

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
NORTH FT. WORTH; TARRANT COUNTY, TEXAS, LINE B-7 (Cont'd)				
INTERMEDIATE PRESSURE REGULATOR HOUSE (Cont'd)				
FITTINGS	1	Lot		$ 252.84
Material Cost				$ 1,438.39
Installation				408.51
TOTAL COST INSTALLED				$ 1,846.90
LONE STAR GAS CO. OWNERSHIP 50%				$ 923.45
HIGH PRESSURE REGULATOR HOUSE				
REGULATORS				
Emco 10 in. HP with 9-1/2 in. diaphragm case 6 bolts 600 lbs. inlet pressure 80 lbs. outlet pressure No. 2814 flanged	1	Each	459.4250	$ 459.43
GAUGES				
Indicating Pressure				
Foxboro IBBR with 5 in. dial Range 0-250 lbs.	1	Each	4.3114	4.31
GATE VALVES Flanged				
Darling IBBM DD NRS				
6 in. 700 lbs. T with 6 x 12-1/2 in. EH CI LE 12 bolts CFBO	1	Each	43.8687	43.87
10 in. 700 lbs. T with 10 x 17-1/2 in. EH CI LE 16 bolts CFBO	2	Each	107.7687	215.54
GLOBE VALVES Screwed				
Crane 1/4 in. 125 lbs. WP brass	1	Each	.4067	.41
Lunkenheimer 1/4 in. brass Std. RS	1	Each	.6643	.66
NEEDLE VALVE				
Metric 1/4 in.	1	Each	1.2588	1.26
PIPE Threaded and Coupled (Random Lengths)	1	Lot		29.30

Form 354—10M—7-49

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System

5593

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
NORTH FT. WORTH, TARRANT COUNTY, TEXAS, LINE B-7 (Cont'd)				
HIGH PRESSURE REGULATOR HOUSE				
FITTINGS	1	Lot		$ 129.75
Material Cost				$ 884.53
Installation				251.21
TOTAL COST INSTALLED				$ 1,135.74
LONE STAR GAS CO. OWNERSHIP 50%				$ 567.87
BY PASS INSTALLATION FROM HIGH PRESSURE REGULATOR HOUSE TO INTERMEDIATE PRESSURE REGULATOR HOUSE				
REGULATORS				
Fulton 4 in. HP with 7-1/2 in. diaphragm case 4 bolts with 4 x 10 in. EH CI 8 bolts CFBO	1	Each	122.5890	$ 122.59
GAUGES				
Indicating Pressure				
Foxboro IBBR with 5 in. dial Range 0-500 lbs.	1	Each	4.3114	4.31
GATE VALVES Screwed				
Darling IRBM DD NRS				
4 in. 700 lbs. T No. 71	1	Each	23.1346	23.13
4 in.1000 lbs. T No.101	1	Each	26.2319	26.23
GLOBE VALVES Screwed				
Lunkenheimer				
1/4 in. 200 lbs. WP RS	1	Each	.6643	.66
PLUG VALVES Flanged				
Nordstrom 2 in. 250 lbs. WP with 2 x 6-1/2 in. EH CI 8 bolts CFBO	1	Each	15.4336	15.43
PIPE Threaded and Coupled (Random Lengths)	1	Lot		2.59

Form 214—100M—7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System 5594

LW B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	NORTH FT. WORTH, TARRANT COUNTY, TEXAS, LINE B-7 (Cont'd)				
	BY-PASS INSTALLATION (Cont'd)				
	PIPE Plain End (Random Lengths)	1	Lot		$ 12.96
	FITTINGS	1	Lot		3.62
	WELDS	1	Lot		21.35
	Material Cost				$ 232.87
	Installation				60.07
	TOTAL COST INSTALLED				$ 292.94
	LONE STAR GAS CO. OWNERSHIP 50%				$ 146.47
	REGULATOR HOUSE				
	REGULATORS				
	Fulton 10 in. HP with 13 in. diaphragm case 9 bolts Serial No. A-10923 with 10 x 17-1/2 in. MH CI LE 16 bolts CWBO	1	Each	445.8270	$ 445.83
	GAUGES				
	Indicating Pressure				
	U.S. Company brass with 2-1/2 in. dial Range 0-200 lbs.	1	Each	1.6548	1.65
	GATE VALVES Flanged				
	Crane 10 in. 175 lbs. WP Wedge Steel Stem OS&Y with 10 x 17-1/2 in. MH CI 16 bolts CWBO	2	Each	105.9510	211.90
	Darling 12 in. 700 lbs. T ID IREM No. 72 with 10 x 17-1/2 in. MH CI LE 16 bolts CWBO MRR	1	Each	145.1893	145.19
	GLOBE VALVES Screwed				
	Walworth 1/4 in. Brass Std. RB	1	Each	.4067	.41
	PLUG VALVES Screwed				
	1 in. CI	1	Each	4.9850	4.99

Form 354—100M- 7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

5595

"B" System

LN B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	NORTH FT. WORTH, TARRANT COUNTY, TEXAS, LINE B-7 (Cont'd)				
	REGULATOR HOUSE (Cont'd)				
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		$ 17.53
	PIPE Plain End (Random Lengths)	1	Lot		7.00
	FITTINGS	1	Lot		63.02
	WELDS	1	Lot		52.07
	Material Cost				$ 949.59
	Installation				254.89
	TOTAL COST INSTALLED				$ 1,204.48
	LONE STAR GAS CO. OWNERSHIP 50%				$ 602.24
	REGULATOR HOUSE				
	REGULATORS Emco 12 in. HP with 11 in. diaphragm case 6 bolts No. 3520 with 12 x 20-1/2 in. RH CI 16 bolts CFBO	1	Each	706.1604	$ 706.16
	GATE VALVES Flanged NRS Westcott 12 in. 200 lbs. WP RD IRSM with 12 x 20-1/2 in. RH CI 16 bolts CFBO	3	Each	82.6091	247.83
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		43.83
	FITTINGS	1	Lot		46.82
	WELDS	1	Lot		53.89
	Material Cost				$ 1,098.53
	Installation				296.68
	TOTAL COST INSTALLED				$ 1,395.21
	LONE STAR GAS CO. OWNERSHIP 50%				$ 697.61

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System

5596

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
NORTH FT. WORTH, TARRANT COUNTY, TEXAS, LINE B-7 (Cont'd)				
PITOT TUBE HOUSE				
METERS				
Westcott Orifice Bristol Case 100 in. differential static with 24 hour clock				
Serial No. 11831 Company No. 1006	1	Each	130.3262	$ 130.33
Serial No. 11166 Company No. 1007	1	Each	130.3262	130.33
Serial No. 9703 Company No. 1008	1	Each	130.3262	130.33
METER PIPING				
Single screwed installation with steel needle valves throughout	3	Sets	23.1700	69.51
THERMOMETER				
(No name) brass body 0-120 degrees F 10 in. long 2-1/2 in. wide scale and tube 8-1/2 in. long	1	Each	1.6563	1.66
GAUGES				
Indicating Pressure				
Ashcroft brass trimmed CI case No. 858437A with 5 in. dial range 0-200 lbs.	1	Each	2.1692	2.17
Ashcroft brass case with 8 in. dial No. 24537 range 0-400 lbs.	1	Each	8.5966	8.60
Recording Pressure				
Foxboro 10 in. with 24 hour clock Serial No. A-10923 Chart No. 79870 CI case range 0-100 lbs.	1	Each	35.1092	35.11
Foxboro 10 in. with 24 hour clock Serial No. 47020 Chart No. 79877 Company No. R-57 range 0-500 lbs.	1	Each	35.1092	35.11
GATE VALVES Flanged				
Darling IRBM DD NRS 6 in. 700 lbs. T with 6 x 12-1/2 in. EH CI 12 bolts CFBO	2	Each	43.8687	87.74

FORM 554 SOM 6-52

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System

5597

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
NORTH FT. WORTH, TARRANT COUNTY, TEXAS, LINE B-7 (Cont'd)				
PITOT TUBE HOUSE (Cont'd)				
GATE VALVES Flanged (Cont'd)				
Darling IBBM DD NRS				
6 in. 700 lbs. T with 6 x 12-1/2 in. EH CI 12 bolts CFBO No. 72	1	Each	43.8687	$ 43.87
12 in. 700 lbs. T with 12 x 20-1/2 in. EH CI LE 16 bolts CFBO	2	Each	145.1893	290.38
Ludlow IBBM DD NRS				
6 in. No. 5 with 6 x 12-1/2 in. EH CI 12 bolts CFBO	2	Each	26.2896	52.58
6 in. No. 5-1/2 with 6 x 12-1/2 in. EH CI 12 bolts CFBO	1	Each	44.8487	44.85
GATE VALVES Screwed				
Crane 3/8 in. brass Std.	2	Each	.5851	1.17
GLOBE VALVES Screwed				
Crane 3/8 in. 125 lbs. WP brass	1	Each	.4364	.44
Lunkenheimer 1/2 in. 200 lbs. WP brass	1	Each	1.0909	1.09
Lunkenheimer Renewo 1/2 in. 200 lbs. WP brass	5	Each	1.0909	5.45
Walworth 1/4 in. 125 lbs. WP brass	1	Each	.4067	.41
(No name) 1/2 in. brass Std.	1	Each	.5689	.57
NEEDLE VALVES Screwed				
Lunkenheimer 1/4 in. brass Std.	1	Each	.6293	.63
HEADERS				
18 in. x 8 ft. 5 in. with one end 18 in. flanged and other swedged to 8 x 15 in. flange with 6 10 x 6 in. flanged end nipples welded. Made by Pittsburgh VF&C Co. for 500 lbs. GWP	1	Each	340.3600	340.36
PIPE Threaded and Coupled (Random Lengths)	1	Lot		295.73
FITTINGS	1	Lot		237.42

2403

FORM 204 SOM 4-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System

5598

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
NORTH FT. WORTH, TARRANT COUNTY, TEXAS, LINE B-7 (Cont'd)				
PITOT TUBE HOUSE (Cont'd)				
WELDS	1	Lot		$ .85
Material Cost				$ 1,946.69
Installation				552.61
TOTAL COST INSTALLED				$ 2,499.30
LONE STAR GAS CO. OWNERSHIP 50%				$ 1,249.65
NORTH PITOT TUBE HOUSE				
GATE VALVES Flanged Darling IBBM DD NRS 6 in. 700 lbs. T No. 72 with RH CI CFBO	3	Each	43.8687	$ 131.61
12 in. 700 lbs. T No. 72 with RH CI CFBO	1	Each	145.1893	145.19
Ludlow IRBM DD NRS 6 in. No. 5-1/2 with RH CI CFBO	3	Each	44.8487	134.55
HEADER 18 in. x 8 ft. 5 in. one end 18 in. flanged and other swedged to 8 x 15 in. flange with 6 10 x 6 in. flanged end nipples welded on made by Pittsburgh VF&C Co. for 500 lbs. CWP	1	Each	340.3600	340.36
PIPE Threaded and Coupled (Random Lengths)	1	Lot		26.70
FITTINGS	1	Lot		92.57
WELDS	1	Lot		53.23
Material Cost				$ 924.21
Installation				247.36
TOTAL COST INSTALLED				$ 1,171.57
LONE STAR GAS CO. OWNERSHIP 50%				$ 585.79

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System

5599-5602

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
NORTH FT. WORTH, TARRANT COUNTY, TEXAS, LINE B-7 (Cont'd)				
GRAVITOMETER HOUSE				
GRAVITOMETER Acme Recording Serial No. 156 Range 0 to 1.0	1	Each	333.8910	$ 333.89
REGULATOR Emco 1 in. Type D Service	1	Each	4.8600	4.86
ANGLE VALVES Screwed Lunkenheimer 1/8 in. brass	1	Each	.6565	.66
GATE VALVES Screwed Crane 1/4 in. 125 lbs. WP brass	1	Each	.5848	.58
GLOBE VALVES Screwed (No name) 1/8 in. brass	1	Each	.4037	.40
PIPE Threaded and Coupled (Random Lengths)	1	Lot		.17
FITTINGS	1	Lot		1.46
WELDS	1	Lot		.42
Material Cost				$ 342.44
Installation				97.13
TOTAL COST INSTALLED				$ 439.57
LONE STAR GAS CO. OWNERSHIP 50%				$ 219.79
BRIDGEPORT, WISE COUNTY, TEXAS LINE B-8				
METERS Foxboro Type C Orifice Meter Range 100 in. differential 100 lbs. static 24 hour clock Chart No. 89870 Serial No. 60090 Company No. 1243 Foxboro Type T Differential Recorder Range 20 in. differential only with 24 hour clock Chart No. 89863 Serial No. A-77894 Company No. 1243A	1 1	Each Each	129.6258 106.1254	$ 129.63 106.13

2404

2405

Form 354—100M—7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System 5603-5606

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
STATION 0 PLUS 06, JUNCTION OF LINES B AND B-9, CLAY COUNTY, TEXAS, LINE B-9				
REGULATORS				
Fulton 1-1/2 in. HP with 5-1/2 in. diaphragm case 4 bolts screwed	1	Each	26.2700	$ 26.27
Emco 2 in. No. 4250 Balanced Valve with 9-1/2 in.diaphragm case 6 bolts with 2 x 6-1/2 in. EH CI 4 bolts CVBO	1	Each	89.6518	89.65
GAUGES				
Recording Pressure				
Foxboro 10 in. IB & Rim Serial No. 18953 with 7 day clock Range 0-100 lbs.	1	Each	46.5752	46.58
Indicating Pressure				
Foxboro IBBR with 5 in. dial Range 0-250 lbs.	1	Each	4.3114	4.31
Ashcroft with 8 in. dial Range 0-600 lbs.	1	Each	13.1926	13.19
GATE VALVES Screwed				
Lunkenheimer 1 in. 150 lbs. WP brass	1	Each	5.4061	5.41
Darling IBBM DD NRS				
2 in. 1000 lbs. T No. 101	1	Each	13.1367	13.14
4 in. 1600 lbs. T	3	Each	34.3870	103.16
GATE VALVES Flanged				
Westcott 4 in. 500 lbs. WP DD OS&Y with 4 x 10 in. 8 bolts CVBO	4	Each	35.4451	141.78
NEEDLE VALVES				
Walworth 1/4 in. brass Std.	1	Each	.4838	.48
PIPE Threaded and Coupled (Random Lengths)	1	Lot		14.69
FITTINGS	1	Lot		84.68
Material Cost				$ 543.34
Installation				154.30
TOTAL COST INSTALLED				$ 697.64

100M 7-51

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System

5607

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
CHICO, WISE COUNTY, TEXAS, LINE B-13 (Cont'd)				
PLUG VALVES Flanged				
Barco				
2 in. 250 lb. WP with 2 x 6-1/2 in. EH CI 4 bolts CFBO	9	Each	14.2677	$ 128.41
2 in. 250 lb. WP with 2 x 6-1/2 in. EH CI 4 bolts CFBO (50% Ownership)	1	Each	14.2677	7.13
2 in. 250 lb. WP	2	Each	12.3409	24.68
PIPE Threaded and Coupled (Random Lengths)	1	Lot		2.16
PIPE Plain End (Random Lengths)	1	Lot		2.83
CUSHIONS				
16 x 35 in. with baseball welded ends with 3 2 in. welded openings and 1 1/4 in. collar welded	1	Each	42.2300	42.23
FITTINGS	1	Lot		18.55
WELDS	1	Lot		22.29
Material Cost				$ 543.30
Installation				147.97
TOTAL COST INSTALLED				$ 691.27
HOLLOWAY FUEL LINE, CLAY COUNTY, TEXAS, LINE B				
REGULATORS				
Fulton 1-1/4 in. HP Screwed	1	Each	22.1000	$ 22.10
GAUGES				
Indicating Pressure				
Shaeffer & Budenberg with 7 in. dial				
Range 0-300 lbs.	1	Each	18.3990	18.40
GATE VALVES Screwed				
Darling 2 in. 1000 lbs. T No. 221 NRS	1	Each	13.1367	13.14
Westcott 2 in. 500 lbs. WP NRS	3	Each	12.7711	38.31

Form 554—100M—7-35

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System

5608

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
HOLLOWAY FUEL LINE, CLAY COUNTY, TEXAS, LINE B (Cont'd)				
GLOBE VALVES Screwed Lunkenheimer 1/4 in. 200 lbs. WP brass	1	Each	.6643	$ .66
PIPE Threaded and Coupled (Random Lengths)	1	Lot		.48
FITTINGS	1	Lot		6.42
WELDS	1	Lot		.23
Material Cost				$ 99.74
Installation				28.26
TOTAL COST INSTALLED				$ 128.00
SAXET OIL COMPANY, CLAY COUNTY, TEXAS, LINE B				
METERS Foxboro Type C Orifice range 100 in. differential 500 lbs. static with 24 hour clock Chart No. 85828 Serial No. 18807 Company No. 1101	1	Each	141.2682	$ 141.27
METER PIPING Single screwed installation with steel needle valves throughout	1	Set	23.1700	23.17
GATE VALVES Screwed Westcott				
4 in. 500 lbs. WP NRS	4	Each	24.8107	99.24
2 in. 500 lbs. WP NRS	1	Each	12.7711	12.77
GATE VALVES Flanged Crane				
4 in. 1000 lbs. T NRS CFBO	1	Each	29.5063	29.51
PIPE Threaded and Coupled (Random Lengths)	1	Lot		29.29
FITTINGS	1	Lot		42.01

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

5609

"B" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
SAXET OIL COMPANY, CLAY COUNTY, TEXAS, LINE B (Cont'd)				
WELDS	1	Lot		$ 3.43
Material Cost				$ 380.69
Installation				107.14
TOTAL COST INSTALLED				$ 487.83
TAP TO U.S. GOVERNMENT HELIUM PLANT MEASURING STATION - STATION 1 PLUS 13.9 - NORTH FT. WORTH, TARRANT COUNTY, TEXAS, LINE B-7				
METERS Metric No. 35-B Serial No. 07107 100 lbs. WP with Metric PV&T recording gauge 0-100 lbs. static with 7 day Westcott clock	1	Each	123.6600	$ 123.66
REGULATORS Fulton 1 in. HP with 5-1/2 in. diaphragm case 4 bolts screwed	1	Each	18.0550	18.06
GAUGES Indicating Pressure Foxboro IBRR with 3-1/2 in. dial Range 0-60 lbs.	1	Each	4.3114	4.31
GATE VALVES Flanged Walworth IRBM DD OS&Y 2 in. 125 lbs. WP with 2 x 6 in. CI Std. CFBO	4	Each	10.1093	40.44
GLOBE VALVES Lunkenheimer 1/4 in. brass Std. BS	2	Each	.6643	1.33
SAFETY VALVES Crane 1 in. 125 lbs. screwed	1	Each	5.6714	5.67
PIPE Threaded and Coupled (Random Lengths	1	Lot		3.24

Form 814—10KM—7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System

5610

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
TAP TO U.S. GOVERNMENT HELIUM PLANT MEASURING STATION - STATION 1 PLUS 13.9 - NORTH FT. WORTH, TARRANT COUNTY, TEXAS, LINE B-7 (Cont'd)				
FITTINGS	1	Lot		$ 14.12
WELDS	1	Lot		3.72
Material Cost				$ 214.55
Installation				59.87
TOTAL COST INSTALLED				$ 274.42
TRINITY PORTLAND CEMENT COMPANY, NORTH FT. WORTH, TARRANT COUNTY, TEXAS, LINE B-12				
REGULATORS Fulton 1 in. HP with 7-1/4 in. diaphragm case 4 bolts	1	Each	18.0550	$ 18.06
GAUGES Indicating Pressure Foxboro IBBR with 5 in. dial				
Range 0-500 lbs.	1	Each	4.3114	4.31
Range 0-250 lbs.	1	Each	4.3114	4.31
GATE VALVES Screwed Westcott IRBM BD NBS 6 in. 500 lbs. WP	2	Each	42.0782	84.16
GLOBE VALVES Screwed Powell 1/4 in. 125 lbs. brass BS	2	Each	1.4430	2.89
PIPE Threaded and Coupled (Random Lengths)	1	Lot		5.09
FITTINGS	1	Lot		55.10
WELDS	1	Lot		9.51
Material Cost				$ 183.43
Installation				49.40
TOTAL COST INSTALLED				$ 232.83

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT 5611

"B" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
TRINITY PORTLAND CEMENT COMPANY - NORTH FT. WORTH, TARRANT COUNTY, TEXAS, LINE B-12				
METER HOUSE				
METERS				
Foxboro Type 207 Orifice range 100 in. differential 250 lbs. static 24 hour clock Chart No. 858049 Serial No. A62975 Company No. 1261	1	Each	143.1046	$ 143.10
Foxboro Type 105 Differential Recorder range 20 in. differential only 24 hour clock Chart No. 858050 Serial No. A57289 Company No. 1261	1	Each	119.9348	119.93
METER PIPING				
Wide range screwed installation with steel needle valves	2	Sets	25.1700	50.34
GAUGES				
Indicating Pressure				
Foxboro IBBR with 5 in. dial Range 0-500 lbs.	1	Each	4.3114	4.31
REGULATORS				
Fulton 6 in. HP with 10-1/2 in. diaphragm case 8 bolts flanged	1	Each	206.1370	206.14
Emco 1 in. Type B LP with 8 in. diaphragm case	1	Each	4.8600	4.86
Hercules 1 in. HP with 4-1/2 in. diaphragm case screwed	1	Each	8.3400	8.34
GRAVITOMETER				
Acme Serial No. 107 range .5 - 1.0	1	Each	333.8910	333.89
GATE VALVES Flanged				
Westcott IBBM DD NRS				
6 in. 200 lbs. WP with 6 x 12-1/2 in. EH CI 8 bolts CFBO	2	Each	24.7470	49.49
6 in. 300 lbs. T with 6 x 12-1/2 in. wedge EH CI 8 bolts CFBO	5	Each	23.0891	115.45
6 in. 350 lbs. T with 6 x 12-1/2 in. EH CI 8 bolts CFBO	1	Each	24.7470	24.75
GATE VALVES Screwed				
Powell 1/4 in. brass Std.	1	Each	1.1109	1.11

Form 304—10M—7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"B" System

5612-5618

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
TRINITY PORTLAND CEMENT COMPANY - NORTH FT. WORTH, TARRANT COUNTY, TEXAS, LINE B-12 (Cont'd)				
PIPE Threaded and Coupled (Random Lengths)	1	Lot		$ 29.99
PIPE Plain End (Random Lengths)	1	Lot		7.06
HEADERS				
With baseball welded ends				
8 x 78 in. with 2 6 in. welded openings and 1 8 in. welded opening and with 1 1/4 in. collar welded	1	Each	36.7800	36.78
8 x 78 in. with 4 6 in. welded openings	1	Each	37.7400	37.74
8 x 78 in. with 2 6 in. and 1 8 in. welded opening	1	Each	36.4900	36.49
FITTINGS	1	Lot		66.47
WELDS	1	Lot		12.63
Material Cost				$ 1,288.87
Installation				362.45
TOTAL COST INSTALLED				$ 1,651.32
PETROLIA COMPRESSING STATION LOT, CLAY COUNTY, TEXAS LINE B				
METERS				
Foxboro Type C Orifice range 100 in. differential 500 lbs. static with 24 hour clock Chart No. 85828 Serial No. 70977 Company No. 12	1	Each	141.2682	$ 141.27
Foxboro Type T Differential Recording range 20 in. differential only with 24 hour clock Chart No. 89863 Serial No. 71848 Company No. 12	1	Each	106.1254	106.13
METER PIPING				
Wide range screwed installation with steel needle valves throughout	1	Set	25.1700	25.17

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"C" System

5619-5620

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
IRVING, DALLAS COUNTY, TEXAS, LINE C-1				
METERS				
Emco No. 4 500 lb. T Serial No. 4614 with Wylie PV&T Recording Gauge Serial No. 2624 0-76 lbs. Static with 7 day Foxboro clock	1	Each	322.2910	$ 322.29
REGULATORS				
Fulton 1-1/4 in. HP 5-1/2 in. Diaphragm Case 4 Bolts Screwed	1	Each	22.1000	22.10
Fulton 1-1/4 in. HP 9-1/2 in. Diaphragm Case 4 Bolts Screwed	1	Each	22.1000	22.10
GAUGES				
Indicating Pressure Foxboro Brass Rim CI Case 5 in. Dial				
Range 0-250 lbs.	1	Each	4.3114	4.31
Range 0-500 lbs.	1	Each	4.3114	4.31
GATE VALVES Flanged				
Crane 2 in. 1000 lb. T Brass Stem DD OS&Y with RH CI CFBO	4	Each	19.3618	77.45
Walworth Brass Stem DD OS&Y				
2 in. 175 lb. WP with CI Std. CFBO	4	Each	10.1093	40.44
2 in. 700 lb. T with CI Std. CFBO (50% Ownership)	1	Each	17.2655	8.63
2 in. 700 lb. T with RH CI CFBO	1	Each	17.2655	17.27
2 in. 700 lb. T with RH CI LE	2	Each	17.2655	34.53
NEEDLE VALVES Screwed				
Crane 1/4 in. 125 lb. WP Brass	2	Each	.4838	.97
SAFETY VALVES Screwed				
BCH-1 2 in. 125 lb. WP LAW Type	1	Each	5.6714	5.67
PIPE Threaded and Coupled (Random Lengths)	1	Lot		2.00
PIPE Plain End (Random Lengths)	1	Lot		3.39

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT 5621

"C" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
OAKLAWN, DALLAS, DALLAS COUNTY, TEXAS, LINE 28D-C				
REGULATORS				
Emco Service 1 in. 8 in. diaphragm case screwed	1	Each	4.8600	$ 4.86
Hercules 1 or 1/2 in. HP Screwed	1	Each	8.3400	8.34
GRAVITOMETER				
Precision Instrument Company Serial No. 243 Company No. G-7 range .5 to 1.0 with 7 day clock	1	Each	333.8910	333.89
AUTOMATIC CONTROL VALVES Flanged				
Fulton 12 in. differential with 16-1/2 in. diaphragm case 10 bolts	1	Each	925.3170	925.32
GATE VALVES Flanged				
Crane 12 in. 700 lbs. T. OS&Y Brass Stem with EH C I LE CFBO	3	Each	168.9144	506.74
GATE VALVES Screwed				
Lunkenheimer 3/8 in. 150 lbs. WP RS Brass	1	Each	.5851	.59
GLOBE VALVES				
Crane Angle 12 in. 250 lbs. WP OS&Y Steel Stem CFBO	3	Each	205.4897	616.47
Crescent 1/8 in. Brass Std. Screwed	2	Each	.5325	1.07
Lunkenheimer Screwed Brass				
3/8 in. 200 lbs. WP	2	Each	.8043	1.61
1/2 in. 200 lbs. WP	1	Each	1.0909	1.09
Powell 1/8 in. 125 lbs. WP Brass Screwed	1	Each	.5325	.53
NEEDLE VALVES Screwed				
Lunkenheimer 1/4 in. 200 lbs. WP Brass	2	Each	.6293	1.26
Metric 1/4 in. Std.	1	Each	1.2588	1.26
PIPE Threaded and Coupled (Random Lengths)	1	Lot		165.83
HEADERS				
16 in. x 12 ft. with orange peel welded ends 1 16 in. and 3 12 in. welded openings	1	Each	121.4300	121.43

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"C" System

5622

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
OAKLAWN, DALLAS, DALLAS COUNTY, TEXAS, LINE 2ND-C (Cont'd)				
FITTINGS	1	Lot		$ 203.65
WELDS	1	Lot		2.55
Material Cost				$ 2,896.49
Installation				821.88
TOTAL COST INSTALLED				$ 3,718.37
MARATHON OIL COMPANY, NORTH FORT WORTH, TARRANT COUNTY, TEXAS, LINE C-5				
METERS				
Foxboro Type C Orifice range 100 in. differential 250 lbs. static 24 hour clock Chart No. 85840 Serial No. A-36210 Company No. 1098	1	Each	133.5948	$ 133.59
Foxboro Type T Differential Recorder range 20 in. differential only 24 hour clock Chart No. 89863 Serial No. L-1011 Company No. 1098A	1	Each	106.1254	106.13
METER PIPING				
Wide range screwed installation with steel needle valves	1	Set	25.1700	25.17
GATE VALVES Flanged				
Crane 1D OS&Y				
2 in. 700 lbs. T with RH CI CFBO	2	Each	17.2449	34.49
4 in. 700 lbs. T with RH CI CFBO	2	Each	32.3367	64.67
PIPE Threaded and Coupled (Random Lengths	1	Lot		8.13

Form 214 100M 7-33

FORM 214

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"C" System

5623-5624

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
MARATHON OIL COMPANY, NORTH FORT WORTH, TARRANT COUNTY, TEXAS, LINE C-5 (Cont'd)				
FITTINGS	1	Lot		$ 66.81
WELDS	1	Lot		.45
Material Cost				$ 439.44
Installation				124.67
TOTAL COST INSTALLED				$ 564.11
TARRANT COUNTY POOR FARM, TARRANT COUNTY, TEXAS, LINE C-5-1				
METERS				
Emco No. 2-1/2 50 lb. T Serial No. 5289 with Foxboro PV&T Recording Gauge Serial No. F-181 with 7 day Foxboro clock	1	Each	153.8788	$ 153.88
PIPE Threaded and Coupled (Random Lengths)	1	Lot		.95
FITTINGS	1	Lot		19.54
Material Cost				$ 174.37
Installation				49.52
TOTAL COST INSTALLED				$ 223.89
TARRANT COUNTY POOR FARM, TARRANT COUNTY, TEXAS (REGULATOR HOUSE) LINE C-5-1				
REGULATORS				
Fulton 2 in. HP 19 in. diaphragm case	1	Each	54.9600	$ 54.96

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"C" System

5625-5634

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
STATION 1303 PLUS 21.5, NEAR IRVING, DALLAS COUNTY, TEXAS, LINE C				
GLOBE VALVES Screwed				
Lunkenheimer 1/2 in. 200 lb. WP brass	2	Each	1.0909	$ 2.18
FITTINGS	1	Lot		53.08
Material Cost				$ 55.26
Installation				15.69
TOTAL COST INSTALLED				$ 70.95
STATION 1314 PLUS 39, IRVING COMPRESSING STATION SITE REGULATOR HOUSE, DALLAS COUNTY, TEXAS, LINE C				
REGULATORS				
Emco 12 in. HP Balanced Valve Serial No. 2099 8 in. diaphragm case 6 bolts flanged	1	Each	688.6250	$ 688.63
GAUGES				
Indicating Pressure				
Foxboro Brass Rim Cast Iron Case				
5 in. dial				
Range 0-250 lbs.	1	Each	4.3114	4.31
GATE VALVES Flanged				
Atwood 16 in. EH NRS ribbed	3	Each	146.9238	440.77
Crane 6 in. 125 lb. WP DD OS&Y with CI Std. CFBO	1	Each	30.0276	30.03
Darling 6 in. 700 lb. T No. 72 NRS with EH CI CFBO	1	Each	43.8687	43.87
GATE VALVES Screwed				
Atwood 3 in. 800 lb. T Type 4P NRS DD No. 63104 LE	1	Each	19.8715	19.87

2417

FORM 154 9000 6-31

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"E" System

5635

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
CLARKSVILLE, RED RIVER COUNTY, TEXAS, LINE E				
METERS				
Foxboro Type 207 Orifice Range 100 in. Differential, 100 lb. Static, Serial No. 69823, Company No. 1272 with 24 hour clock, Chart No. 898039	1	Each	139.0256	$ 139.03
Foxboro Type 105 Differential Recorder, Range 20 in. Differential only, Serial No. A-8280 Company No. 1272-A, with 24 hour clock, Chart No. 858050	1	Each	119.9348	119.93
METER PIPING				
Wide Range Screwed Installation with steel needle valves	1	Each	25.1700	25.17
REGULATORS				
Fulton, 2 in. HP 7-1/2 diaphragm case screw	1	Each	54.9600	54.96
Emco, 4 in. HP balanced valve Serial No. 7487 with 11 in. diaphragm case, 6 bolts, with CI LE EH CFBO	1	Each	158.7412	158.74
GAUGES				
Indicating Pressure				
Crosby HR CI Case				
5 in. dial				
Range 0-250 lbs.	1	Each	3.7586	3.76
Recording Pressure				
Foxboro CI Case and Rim, 10 in. 7 day clock				
Range 0-300 lbs.	1	Each	46.5752	46.58
GATE VALVES Flanged				
Walworth OS&Y				
4 in. 700 lbs. T with EH CI LE CFBO	1	Each	32.2646	32.26
6 in. 700 lbs. with EH CI LE CFBO	4	Each	50.9057	203.62
6 in. 700 lbs. T	4	Each	45.7815	183.13
GLOBE VALVES Screwed				
Lunkenheimer, 1/4 in. 200 lbs. WP Brass	2	Each	.6643	1.33
NEEDLE VALVES Screwed				
Metric, 1/4 in.	1	Each	1.2588	1.26

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT 5636

"E" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
CLARKSVILLE, RED RIVER COUNTY, TEXAS, LINE E (Cont'd)				
PLUG VALVES Flanged Nordstrom, 6 in. 250 lbs. WP with RH CI LE CFBO	2	Each	93.4849	$ 186.97
SAFETY VALVES Crane, Lever and Weight Type 4 in. 125 lbs. WP	1	Each	15.7096	15.71
HEADERS 18 x 78 in. with baseball welded ends and 4 6 in. openings	2	Each	69.8900	139.78
PIPE Plain End (Random Lengths)	1	Lot		33.36
FITTINGS	1	Lot		100.33
WELDS	1	Lot		46.49
Material Cost				$ 1,492.41
Installation				410.64
TOTAL COST INSTALLED				$ 1,903.05
DENISON, GRAYSON COUNTY, TEXAS, LINE E-1				
METERS Foxboro Type 207 Orifice Range 100 in. Differential, 250 lbs. Static, Serial No. A-69122, Company No. 28 with 24 hour clock, Chart No. 858049	1	Each	143.1046	143.10
Foxboro Type 105 Differential Recorder, Range 20 in. Differential only, Serial No. A-69579 Company No. 28-A with 24 hour clock, Chart No. 858050	1	Each	119.9348	119.93
METER PIPING Wide Range screwed installation with steel needle valves	1	Each	25.1700	25.17
REGULATORS Fulton, 2 in. HP CFBO 7-1/4 in. diaphragm	1	Each	67.5040	67.50

FORM 254 SOM 6-52

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT 5637

"E" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
DENISON, GRAYSON COUNTY, TEXAS, LINE E-1 (Cont'd)				
REGULATORS (Cont'd)				
Emco, Flanged balanced valve				
8 in. No. 2908, 8 in. diaphragm case, 6 bolts, 600 lbs. inlet, 50 to 100 lbs. outlet HP	1	Each	379.5000	$ 379.50
2 in. No. 1393, high pressure 12-1/2 in. diaphragm case, 6 bolts 600 lbs. inlet pressure; 250 lbs. outlet pressure	1	Each	87.7250	87.73
GAUGES				
Indicating Pressure				
Foxboro scale 0-500 lbs. Brass Rim, 5 in. dial steel tube, CI case, Model A	1	Each	4.3114	4.31
GATE VALVES Flanged				
Atwood, 8 in. No. 2-P OS&Y Std. CFBO	1	Each	45.7933	45.79
Atwood, 8 in. No. 4-P No. 20105 NRS with EH LE CFBO	1	Each	75.6047	75.60
Crane, 2 in. DD 1000 lb. T OS&Y	1	Each	17.4350	17.44
Ludlow, 6 in. 600 lbs. T No. 5-1/2 EH LE NRS CFBO	1	Each	44.8447	44.84
Walworth,				
6 in. DD 700 lbs. T OS&Y	2	Each	45.7815	91.56
6 in. DD 1000 lbs. T EH LE OS&Y CFBO	1	Each	59.4583	59.46
GATE VALVES Screwed				
Guaranteed, 6 in. 600 lbs. T LE NRS	4	Each	35.5111	142.04
Ludlow, 2 in. 600 lbs. T LE NRS	1	Each	11.6372	11.64
GLOBE VALVE Screwed				
Lunkenheimer, 1/2 in. 200 lbs. WP Brass Screw	2	Each	1.0909	2.18
NEEDLE VALVE Screwed				
Lunkenheimer, 1/4 in. 125 lbs. WP Brass	1	Each	.6293	.63
SAFETY VALVES Flanged				
Lunkenheimer, 4 in. 250 lbs. WP Non-Return OS&Y EH CFBO	1	Each	95.7188	95.72

FORM 254 SOM 6-32

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"E" System

5638

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
DENISON, GRAYSON COUNTY, TEXAS, LINE E-1 (Cont'd)				
PIPE Threaded and Coupled (Random lengths)	1	Lot		$ 83.42
HEADERS				
10 x 60 in. flat end welded with 2 6 in. openings and 1 10 in. opening	1	Each	38.5100	38.51
10 x 67 in. orange peel welded 3 6 in. openings and 1 8 in. opening	1	Each	52.9500	52.95
FITTINGS	1	Lot		133.24
WELDS	1	Lot		144.50
Material Cost				$ 1,866.76
Installation				489.12
TOTAL COST INSTALLED				$ 2,355.88
SHERMAN, GRAYSON COUNTY, TEXAS, LINE E-2				
METERS				
Foxboro Type 207 Orifice Range 100 in. Differential, 250 lbs. Static Serial No. A-062982, Company No. 30 with 24 hour clock, Chart No. 858049	1	Each	143.1046	$ 143.10
Foxboro Type 105 Differential Recorder, Range Type 20 in. Differential only, Serial No. A-56072 Company No. 30-A, with 24 hour clock, Chart No. 858050	1	Each	119.9348	119.93
METER PIPING				
Wide Range Screwed Installation with steel needle valves	1	Each	25.1700	25.17

2421

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"E" System

5639

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
SHERMAN, GRAYSON COUNTY, TEXAS, LINE K-2 (Cont'd)				
REGULATORS				
Fmco, Balanced valve flanged				
6 in. 600 lbs. No. 1993, 8 in. diaphragm HP 6 bolts	1	Each	241.0000	$ 241.00
8 in. No. 2900, 9-1/2 in. diaphragm, HP 6 bolts	1	Each	379.5000	379.50
GAUGES				
Indicating Pressure				
Ashcroft scale 0-200 lbs. BR 5 in. dial CI case, 1/4 in.	1	Each	2.1692	2.17
GATE VALVES				
Walworth DD OS&Y				
6 in. 700 lbs. T LE EH CFBO	2	Each	50.9057	101.81
6 in. 700 lbs. T Flanged	1	Each	45.7815	45.78
Atwood NRS				
8 in. Style 4-P LE EH CFBO	1	Each	75.6047	75.60
Atwood OS&Y				
8 in. 250 lbs. Style 2-P Std. CFBO	1	Each	45.7933	45.79
Darling NRS				
6 in. 700 lbs. T No. 72 LE EH CFBO	1	Each	43.8687	43.87
Guaranteed NRS				
6 in. 600 lbs. T Std. Screw LE	4	Each	35.5111	142.04
NEEDLE VALVES Screwed				
Lunkenheimer, BR 1/4 in.	1	Each	.6293	.63
GLOBE VALVES Screwed				
Lunkenheimer, Br. 1/2 in. 125 lbs. WP	1	Each	1.3145	1.31
1/2 in. 200 lbs. WP	1	Each	1.0909	1.09
Crane Brass				
3/8 in. 125 lbs. WP	1	Each	.7223	.72
1/2 in. 125 lbs. WP	2	Each	.9270	1.85
PIPE Plain End (Random Lengths)	1	Lot		29.25
HEADERS				
10 x 60 in. flat end welded, with 2 6 in. openings; 1 10 in. openings	1	Each	38.5100	38.51
10 x 68 in., orange peel welded, with 3 6 in., and 1 8 in. opening	1	Each	53.0500	53.05

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"E" System 5640-5648

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
SHERMAN, GRAYSON COUNTY, TEXAS, LINE E-2 (Cont'd)				
HEADERS (Cont'd)				
18 x 65 in., baseball welded with 3- 6 in. and 1 - 8 in. opening cushion and 1/4 in. welded collar	1	Each	69.6200	$ 69.62
8 x 66 in., baseball welded with 3 -6 in. openings	1	Each	33.3300	33.33
FITTINGS	1	Lot		74.91
WELDS	1	Lot		8.22
Material Cost				$ 1,678.25
Installation				474.29
TOTAL COST INSTALLED				$ 2,152.54
WHITESBORO, GRAYSON COUNTY, TEXAS, LINE E-3				
METERS				
Foxboro Type C Orifice Range 100 in. Differential 100 lbs. Static, Serial No. 16153, Company No. 1260 with 24 hour clock, Chart No. 89870	1	Each	129.6258	$ 129.63
Foxboro Type T Differential Recorder, Range 20 in. Differential only, Serial No. 78325, Company No. 1260-A, with 24 hour clock, Chart No. 89863	1	Each	106.1254	106.13
METER PIPING				
Wide Range Screwed Installation with steel needle valves	1	Set	25.1700	25.17
REGULATORS				
High Pressure, Fulton Screw 5-1/2 in. diaphragm 1-1/4 in. 4 bolts	1	Each	22.1000	22.10
Emco flanged 2 in. 11 in. diaphragm, 6 bolts	1	Each	87.7250	87.73

2423

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"E" System

5649

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
DODD CITY, FANNIN COUNTY, TEXAS LINE E-8 (Cont'd)				
WELDS	1	Lot		$ 29.87
Material Cost				$ 642.16
Installation				173.89
TOTAL COST INSTALLED				$ 816.05
GAINESVILLE, COOKE COUNTY, TEXAS, LINE E-9				
METERS				
Foxboro Type 207 Orifice Range 100 in. Differential, 250 lbs. Static Serial No. A-29729 Company No. 1182 with 24 hour clock, Chart No. 858049	1	Each	143.1046	$ 143.10
Foxboro Type 105 Differential Recorder, Range 20 in. Differential only, Serial No. 25168 Company No. 1182-A with 24 hour clock, Chart No.858050	1	Each	119.9348	119.93
METER PIPING				
Wide Range Screwed Installation with steel needle valves	1	Set	25.1700	25.17
REGULATORS				
Rmco high pressure, 4 in. balanced valve flanged with 8-1/2 in. diaphragm case No. 2135	1	Each	155.2250	155.23
GAUGE				
Foxboro indicating pressure with 5 in. dial HR, CI case 0-500 lbs.	1	Each	4.3114	4.31
GATE VALVES Flanged				
Crane OS&Y				
4 in. 1000 lbs. T	2	Each	32.2173	64.43
4 in. 1000 lbs. T. CFBO	5	Each	37.7335	188.67
(Flanges are 4 x 10 x 1-1/4 in. 8 bolts)				

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"E" System

5650

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
GAINESVILLE, COOKE COUNTY, TEXAS, LINE E-9 (Cont'd)				
GATE VALVES Flanged (Cont'd)				
Crane OS&Y				
6 in. 1000 lbs. T. CFBO (Flanges are 6 x 12 x 1-3/8 in. 12 bolts)	1	Each	59.1287	$ 59.13
GATE VALVES Screwed				
O.I.C. 2 in. 250 lbs. WP OS&Y	1	Each	17.3723	17.37
NEEDLE VALVES Screwed				
Lunkenheimer 1/4 in. Brass 125 lbs. WP	1	Each	.6293	.63
GLOBE VALVES Screwed				
Lunkenheimer 1/2 in. 125 lbs. WP Brass	4	Each	.6176	2.47
PIPE Plain End (Random Lengths)	1	Lot		17.70
HEADERS				
6 x 68 in. baseball welded 4 - 4 in. openings	1	Each	26.9200	26.92
6 x 68 in. baseball welded 2 - 4 in. and 1 - 6 in. openings, 1 - 2 in. opening	1	Each	27.5000	27.50
6 x 72 in. Flat end welded, 2 - 4 in. and 1 - 6 in. opening	1	Each	22.8800	22.88
FITTINGS	1	Lot		64.69
WELDS	1	Lot		54.36
Material Cost				$ 994.49
Installation				267.00
TOTAL COST INSTALLED				$ 1,261.49

Form 994 1940M 1-40

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"E" System

5651-5671

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
GAINESVILLE, COOKE COUNTY, TEXAS LINE E-9				
REGULATOR Fulton 6 in. high pressure balanced valve with 11 in. diaphragm case 6 bolts (less flanges and bolts) flanged	1	Each	201.0128	$ 201.01
GAUGE Foxboro indicating pressure HR CI case, 5 in. dial scale 0-50 lbs.	1	Each	4.3114	4.31
GATE VALVES Flanged Atwood 6 in. No. 4-P NRS	3	Each	44.6019	133.81
GATE VALVES Screwed (No Name) 1/4 in. Br. Std.	1	Each	.5848	.58
GATE VALVES Screwed Lunkenheimer clip valve 2 in. 100 lbs. WP NRS	1	Each	3.5032	3.50
PIPE Threaded and Coupled (Random lengths)	1	Lot		.19
FITTINGS	1	Lot		139.29
WELDS	1	Lot		.23
Material Cost				$ 482.92
Installation				137.09
TOTAL COST INSTALLED				$ 620.01
MELISSA, COLLIN COUNTY, TEXAS, LINE E-10				
METER Rmco No. 3, 100 lb. T. Serial No. D-1394 with Rmco Combined PVaT. Recording gauge Serial No. 155273, 0 - 100 lbs. Static with 7 day Rmco clock	1	Each	239.7850	$ 239.79

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"E" System

5672

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
RAVENNA, FANNIN COUNTY, TEXAS, LINE E-17 (Cont'd)				
NEEDLE VALVES Screwed				
Lunkenheimer 1/4 in. 125 lb. WP Brass	2	Each	.6293	$ 1.26
PLUG VALVES Flanged				
Nordstrom				
2 in. 250 lb. CFBO	1	Each	15.4336	15.43
2 in. 250 lb. (50% Ownership)	1	Each	13.5068	6.75
2 in. 250 lb. with CI EH CFBO	2	Each	15.4336	30.87
SAFETY VALVE				
Crane Angle 2 in. L & W Type	1	Each	5.6714	5.67
PIPE Plain End (Random Lengths)	1	Lot		4.74
HEADER CUSHION				
16 x 36 in. with baseball welded ends and 3 - 2 in. openings	1	Each	42.1000	42.10
FITTINGS	1	Lot		31.68
WELDS	1	Lot		19.90
Material Cost				$ 571.48
Installation				156.65
TOTAL COST INSTALLED				$ 728.13
PARIS, LAMAR COUNTY, TEXAS, LINE E-18				
METERS				
Foxboro Type 207 Orifice Range 100 in. Differential, 250 lb. Static Serial No. A-69824 Company No. 1077 with 24 hour clock, Chart No. 858049	1	Each	143.1046	$ 143.10
Foxboro Type 105 Differential Recorder, Range 20 in. Differential only, Serial No. A-69567 Company No. 1077-A with 24 hour clock, Chart No. 858050	1	Each	119.9348	119.93
METER PIPING				
Wide Range Screwed Installation with steel needle valves	1	Set	25.1700	25.17

Form 584 1948M 7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"E" System

5673-5679

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
PARIS, LAMAR COUNTY, TEXAS LINE E-18 (Cont'd)				
REGULATORS Emco 8 in. balanced valve No.2811 with 9-1/2 in. diaphragm case 6 bolts flanged	1	Each	379.5000	$ 379.50
GAUGES Indicating Pressure Steel Tube Foxboro BR With 5 in. dial Range 0-500 lbs.	1	Each	4.3114	4.31
GATE VALVES Flanged Walworth 084Y 8 in. 700 lb. T with CI EH CFBO	2	Each	77.0178	154.04
Darling NRS 6 in. 700 lb. No. 72 with CI EH CFBO	4	Each	43.8687	175.47
Chapman 084Y DD IBBM 8 in. 125 lb. WSP No. 59-1/2 with CI EH CFBO	1	Each	45.7228	45.72
GLOBE VALVES Screwed Walworth 1/2 in. 125 lb. WP Br	4	Each	.5689	2.28
NEEDLE VALVES Screwed Metric 1/4 in.	1	Each	1.2588	1.26
PIPE Plain End (Random Lengths)	1	Lot		100.88
FITTINGS	1	Lot		102.72
WELDS	1	Lot		124.32
Material Cost				$ 1,378.70
Installation				356.25
TOTAL COST INSTALLED				$ 1,734.95

Form 554 1M5M 7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"E" System

5680

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
FULBRIGHT, RED RIVER COUNTY, TEXAS, LINE E-22-2 (Cont'd)				
PIPE Plain End (Random Lengths)	1	Lot		$ 4.70
CUSHION 16 x 33 in. baseball welded ends with 3 - 2 in. Tee Welds	1	Each	41.6500	41.65
FITTINGS	1	Lot		19.65
WELDS	1	Lot		20.53
Material Cost				$ 537.29
Installation				146.76
TOTAL COST INSTALLED				$ 684.05
GIRLS' STATE TRAINING SCHOOL, GAINESVILLE, COOKE COUNTY, TEXAS, REGULATOR STATION NO. 1, LINE E-4				
REGULATORS Fulton 1 in. HP balanced valve 5-1/2 in. diaphragm, 4 bolts screwed	1	Each	18.0550	$ 18.06
GAUGES Indicating Pressure Crosby HR CI Case With 5 in. dial Range 0-500 lbs.	1	Each	3.7586	3.76
Ashcroft With 5 in. dial Range 0-200 lbs.	1	Each	2.1692	2.17
GATE VALVES Flanged Westcott NRS 2 in. 500 lb. WP with CI EH CWBO	1	Each	15.1383	15.14
2 in. 500 lb. WP	2	Each	13.2115	26.42
NEEDLE VALVES Screwed Lunkenheimer 1/4 in. 125 lb. WP brass	1	Each	.6293	.63

Form 364 1948 7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"E" System

5681

b a	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	GIRLS' STATE TRAINING SCHOOL, GAINESVILLE, COOKE COUNTY, TEXAS, REGULATOR STATION NO. 1, LINE E-4 (Cont'd)				
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		$ .98
	FITTINGS	1	Lot		17.04
	Material Cost				$ 84.20
	Installation				23.91
	TOTAL COST INSTALLED				$ 108.11
	GIRLS' STATE TRAINING SCHOOL, GAINESVILLE, COOKE COUNTY, TEXAS, REGULATOR STATION NO. 2, LINE E-4				
	REGULATOR Fulton 2 in. HP balanced valve with 9-1/2 in. diaphragm case, screwed	1	Each	54.9600	$ 54.96
	GAUGE Indicating Pressure Crosby Br. case With 5 in. dial Range 0-60 lbs.	1	Each	7.0676	7.07
	GATE VALVES Screwed Darling 4 in. 1000 lb. T No. 101 LE NRS	3	Each	26.2319	78.70
	GLOBE VALVES Screwed Lunkenheimer 1/4 in. Br.	1	Each	.6643	.66
	SAFETY VALVES Crane, 2 in. 125 lb. WP L.& W. Type	1	Each	5.6714	5.67
	PIPE Plain End (Random Lengths)	1	Lot		2.80
	FITTINGS	1	Lot		60.33

Form 954 1968M 7-68

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"E" System

5682-5687

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
GIRLS' STATE TRAINING SCHOOL, GAINESVILLE, COOKE COUNTY, TEXAS, REGULATOR STATION NO. 2, LINE E-4 (Cont'd)				
WELDS	1	Lot		$ 5.98
Material Cost				$ 216.17
Installation				59.70
TOTAL COST INSTALLED				$ 275.87
GIRLS' STATE TRAINING SCHOOL, GAINESVILLE, COOKE COUNTY, TEXAS, LINE E-4				
METERS				
Emco No. 4 50 lb. T, Serial No. 5289 with Foxboro PV&T Recording Gauge Serial No.F-138, 0-50 lb. Static with 7 day Foxboro clock	1	Each	257.0814	$ 257.08
GATE VALVES Flanged				
Kennedy NRS				
4 in. 125 lb. with CI Std.CFBO	3	Each	15.2188	45.66
Crane OS&Y Wedged				
2 in. 125 lb. with CI Std.CFBO	2	Each	11.0394	22.08
PIPE Threaded and Coupled (Random Lengths)	1	Lot		3.86
FITTINGS	1	Lot		15.10
Material Cost				$ 343.78
Installation				97.63
TOTAL COST INSTALLED				$ 441.41
GAINESVILLE JUNCTION, COOKE COUNTY, TEXAS, LINE E				
GRAVITOMETERS				
Acme Recording, Serial No. 111 Range 0.5 to 1.0	1	Each	333.8910	$ 333.89

2431

Form 284—100M 7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"F" System

5688

LN B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	DENTON, DENTON COUNTY, TEXAS LINE F-1				
	METERS				
	Foxboro Type 207, Orifice Range 100 in. Differential 100 lb. static Serial No. 45601 Company No. 1042 with 24 hour clock Chart 898039	1	Each	139.0256	$ 139.03
	Foxboro Type 105 Differential Recorder Range 20 in. Differential only, Serial No. A-81940 Company No.1042-A with 24 hour clock Chart No.858050	1	Each	119.9348	119.93
	METER PIPING				
	Wide Range screwed installation with steel needle valves	1	Set	25.1700	25.17
	REGULATORS				
	Fulton 4 in. HP with 7-1/2 in. diaphragm case 4 bolts CFBO	1	Each	122.5890	122.59
	Fulton 6 in. HP with 11 in. diaphragm case Flanged	1	Each	206.1370	206.14
	GAUGES				
	Indicating Pressure				
	Foxboro HR with 5 in. dial CI case Range 0-500 lbs.	1	Each	4.3114	4.31
	Ashcroft HR with 5 in dial CI case				
	Range 0-500 lbs.				
	Range 0-100 lbs.	2	Each	5.7999	11.60
	GATE VALVES Flanged				
	Atwood 6 in. DD NRS 4-P	3	Each	44.6019	133.81
	Crane Wedge OS&Y				
	6 in. 125 lbs. CFBO	2	Each	30.0874	60.17
	2 in. 125 lbs. CFBO	2	Each	11.0394	22.08
	Ludlow 6 in. No. 30 DD NRS CFBO	3	Each	52.2782	156.83
	GATE VALVES Screwed				
	Ludlow 4 in. 185 lb. OW & GMP No. 5 NRS LE DD	1	Each	13.1838	13.18
	NEEDLE VALVES Screwed				
	Lunkenheimer 1/4 in. 125 lbs. WP Brass	1	Each	.6293	.63

100M 7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"y" System

5689-5694

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
DENTON, DENTON COUNTY, TEXAS, LINE F-1 (Cont'd)				
SAFETY VALVES				
Walworth 4 in. 125 lbs. CI L&W type	1	Each	15.7096	$ 15.71
PIPE (Random Lengths)	1	Lot		53.25
HEADERS				
10 x 54 in. with 2 10 in. flat end welds and 2 6 in. openings	2	Each	29.3200	58.64
FITTINGS	1	Lot		181.27
WELDS	1	Lot		45.09
Material Cost				$ 1,369.43
Installation				376.11
TOTAL COST INSTALLED				$ 1,745.54
McKINNEY, COLLIN COUNTY, TEXAS, LINE F-2				
METERS				
Foxboro Type C Orifice Range 100 in. Differential 100 lbs. static Serial No. 70752 Company No. 1031 with 24 hour clock Chart No. 89870	1	Each	129.6258	$ 129.63
Foxboro Type T Differential Recorder Range 20 in. Differential only Serial No. 78320 Company No. 1031-A with 24 hour clock Chart No. 89863	1	Each	106.1254	106.13
METER PIPING				
Wide Range screwed installation with steel needle valves	1	Set	25.1700	25.17
REGULATORS				
Emco 4 in. HP Balanced Valve No. 1053 with 9 in. diaphragm case CFBO	1	Each	158.7412	158.74
Fulton 2 in. HP Balanced Valve with 7-1/4 in. diaphragm case CFBO	1	Each	67.5040	67.50

Form 354—1958—7-58

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"F" System

5695

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
VALLEY VIEW, COOKE COUNTY, TEXAS, LINE F-5 (Cont'd)				
GATE VALVES Flanged				
Walworth 2 in. 700 lbs. T OS&Y DD CFBO	1	Each	17.2655	$ 17.27
GATE VALVES Screwed				
Kennedy 2 in. 125 lbs. WP DD NRS	1	Each	5.1335	5.13
Oil Well Supply 2 in. Wedge EH LE NRS	1	Each	19.0037	19.00
Westcott 2 in. 500 lbs. DD LE NRS	2	Each	12.7711	25.54
NEEDLE VALVES Screwed				
Lunkenheimer 1/4 in. brass	2	Each	.6293	1.26
Metric 1/4 in.	1	Each	1.2588	1.26
SAFETY VALVES				
No name 2 in. LAW type	1	Each	5.6714	5.67
PIPE Threaded and Coupled (Random Lengths)	1	Lot		6.24
CUSHIONS				
12 x 50 in. with 2 baseball welded ends 2 1-1/4 in. openings and 1 1/4 in. welded collar	1	Each	31.9800	31.98
FITTINGS	1	Lot		19.48
WELDS	1	Lot		6.19
Material Cost				$ 294.64
Installation				81.92
TOTAL COST INSTALLED				$ 376.56
VALLEY VIEW, COOKE COUNTY, TEXAS, LINE F-5				
METERS				
Emco No. 4 500 lb. T Serial No. 9264 with Foxboro combined PV&T recording gauge Serial No. F-240 0-100 lbs. static with 7 day Foxboro clock	1	Each	406.7500	$ 406.75

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"F" System

5696-5704

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
VALLEY VIEW, COOKE COUNTY, TEXAS, LINE F-5 (Cont'd)				
GATE VALVES Flanged				
Crane DD OS&Y				
2 in. 1000 lbs. T CFBO	4	Each	19.3618	$ 77.45
2 in. 1000 lbs. T CFBO (50% Ownership)	1	Each	19.3618	9.68
PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.59
FITTINGS	1	Lot		16.51
WELDS	1	Lot		1.43
Material Cost				$ 513.41
Installation				145.40
TOTAL COST INSTALLED				$ 658.81
LEWISVILLE, DENTON COUNTY, TEXAS, LINE F-6				
METERS				
Emco No. 4 500 lb. T Serial No. 7511 with Wylie combined PV&T recording gauge, Serial No. 1904 0-76 lbs. static with Foxboro 7 day clock	1	Each	471.9596	$ 471.96
REGULATORS				
Fulton 1-1/4 in. HP Balanced Valve with 5-1/4 in. diaphragm, 4 bolt case Screwed	1	Each	22.1000	22.10
Emco 2 in. HP Balanced Valve with 12 in. diaphragm case 6 bolt No. 4589 Flanged	1	Each	87.7250	87.73
GAUGES				
Indicating Pressure				
Crosby BR with 5 in. dial CI case				
Range 0-250 lbs.	1	Each	3.7586	3.76
Range 0-500 lbs.	1	Each	3.7586	3.76
GATE VALVES Flanged				
Walworth ID OS&Y				
2 in. 125 lbs.	3	Each	8.9703	26.91
2 in. 700 lbs. T	4	Each	15.3387	61.35
2 in. 700 lbs. T (50% Ownership)	1	Each	15.3387	7.67
2 in. 700 lbs. T	3	Each	15.3387	46.01

Form 554—100M—7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"F" System

5705

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
GRAPEVINE, TARRANT COUNTY, TEXAS, LINE F-11 (Cont'd)				
FITTINGS	1	Lot		$ 30.72
WELDS	1	Lot		30.52
Material Cost				$ 1,073.64
Installation				296.24
TOTAL COST INSTALLED				$ 1,369.88
ACME BRICK COMPANY, 1 MILE SOUTH DENTON, DENTON COUNTY, TEXAS, LINE F-8				
METERS Foxboro Type C Orifice Range 100 in. Differential 250 lb. static Serial No. 60285 Company No. 1047 with 24 hour clock Chart No. 85840	1	Each	133.5948	$ 133.59
METER PIPING Single Welded installation for Flange connection meter	1	Set	27.5400	27.54
GATE VALVES Flanged Crane 4 in. 125 lbs. WP Wedge OS&Y CFBO	4	Each	32.3367	129.35
PIPE Plain End (Random Lengths)	1	Lot		18.15
HEADERS 6 in. x 4 ft. 2 in. with Orange Peel welded ends, 3 4 in. welded openings	2	Each	23.2900	46.58
FITTINGS	1	Lot		19.01
WELDS	1	Lot		5.98
Material Cost				$ 380.20
Installation				106.28
TOTAL COST INSTALLED				$ 486.48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"F" System

5706-5713

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
ACME BRICK COMPANY, 5 MILES EAST DENTON, DENTON COUNTY, TEXAS, LINE F-8				
REGULATORS				
Fulton 2 in. HP Balanced Valve with 7-1/4 in. diaphragm case Screwed	1	Each	54.9600	$ 54.96
Hercules 1 in. HP Service Screwed	1	Each	8.3400	8.34
GAUGES				
Indicating Pressure				
Foxboro 1/4 in. HR with 5 in. dial				
Range 0-500 lbs.	1	Each	4.3114	4.31
GATE VALVES Flanged				
Ludlow 4 in. No. 8 NRS	3	Each	35.2632	105.79
Westcott 4 in. 250 lbs. WP	1	Each	21.8994	21.90
GATE VALVES Screwed				
Darling 6 in. 700 lbs. T DD NRS	1	Each	36.9966	37.00
NEEDLE VALVES Screwed				
Crane 1/4 in. 125 lbs. WP Brass	1	Each	.4838	.48
SAFETY VALVES Screwed				
Crane 4 in. 125 lbs. WP LSW type CI	1	Each	15.7096	15.71
PIPE (Random Lengths)	1	Lot		7.69
FITTINGS	1	Lot		48.32
WELDS	1	Lot		6.86
Material Cost				$ 311.36
Installation				86.48
TOTAL COST INSTALLED				$ 397.84
IRVING COMPRESSING STATION, DALLAS COUNTY, TEXAS, LINE F				
REGULATORS				
Rmco 8 in. HP Balanced Valve No. 1047 with 8 in. diaphragm case 6 bolts Flanged CWEO	1	Each	387.2906	$ 387.29

Form 514 - 10M - 7-32

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"G" System 5714-5732

eg	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	ST. JOE, MONTAGUE COUNTY, TEXAS LINE G-3				
	METERS				
	Emco No. 4, 500 lbs. T Serial No. 4593, with Foxboro combined PV&T recording gauge, Serial No. F-270, 0-100 lbs. Static, 7-day Foxboro clock	1	Each	406.7500	$ 406.75
	REGULATORS				
	Fulton 1-1/4 in. high pressure with 5 in. diaphragm, 4 bolts, screw	1	Each	22.1000	22.10
	Emco 4 in. high pressure balanced, Valve No. 5095, with 11 in. diaphragm, 6 bolts Flanged	1	Each	155.2250	155.23
	GAUGES				
	Indicating Pressure				
	Crosby Brass Rim, 5 in. Dial				
	0-250 lbs.	1	Each	3.7586	3.76
	0-500 lbs.	1	Each	3.7586	3.76
	GATE VALVES Flanged				
	Crane No. 22 DD OS&Y				
	4 in. 250 lbs. WP	1	Each	28.8205	28.82
	Crane OS&Y				
	2 in. 250 lbs. WP	1	Each	15.3181	15.32
	P & C Co. Wedge OS&Y				
	4 in. 250 lbs. WP	5	Each	41.1230	205.62
	Walworth OS&Y				
	4 in. 250 lbs. WP	1	Each	42.8234	42.82
	GATE VALVES Screwed				
	Lunkenheimer 1/4 in. Brass	1	Each	1.0941	1.09
	NEEDLE VALVES Screwed				
	Walworth 1/4 in. 125 lbs. WP Brass	1	Each	.4838	.48
	PLUG VALVES Flanged				
	Nordstrom Straightway				
	4 in. 250 lbs. WP	3	Each	42.3686	127.11
	4 in. 250 lbs. WP (50% Ownership)	1	Each	42.3686	21.18
	SAFETY VALVES				
	Crane 2 in. No. 27, 125 lbs. WP L&W	1	Each	5.6714	5.67

Form 154—1939—7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"G" System 5733-5741

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
EMPIRE OIL AND REFINING COMPANY GAINESVILLE, COOKE COUNTY, TEXAS, LINE G-1				
METERS				
Foxboro Type 207 Orifice Range 100 in. differential 500 lbs. Static, Serial No. A-39588 Company No. 1045 with 24 hour Clock Chart No. 898040	1	Each	150.7780	$ 150.78
Foxboro Type 105 differential recorder range 20 in. differential only, Serial No. A-81924 Company No. 1045-A with 24 hour clock Chart No. 858050	1	Each	119.9348	119.93
METER PIPING				
Wide Range welded Installation with Steel Valves	1	Set	30.5400	30.54
GATE VALVES Flanged				
Kennedy 4 in. No. 76 NRS NH CIBO	4	Each	40.1951	160.78
PIPE Plain End (Random Lengths)	1	Lot		13.32
FITTINGS	1	Lot		20.89
WELDS	1	Lot		13.73
Material Cost				$ 509.97
Installation				140.93
TOTAL COST INSTALLED				$ 650.90
DIXIE JUNCTION, STEPHENS COUNTY, OKLAHOMA LINE G4				
METERS				
Foxboro Type C Orifice Range 100 in. differential 500 lbs. Static Serial No. 71323 Company No. 25 with 24 hour clock Chart No. 85828	1	Each	141.2682	$ 141.27
Foxboro Type T Differential Recorder range 20 in. differential only Serial No. 60267 Company No. 25-A with 24 hour clock Chart No. 89863	1	Each	106.1254	106.13

Form 554 1000M 7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"H" System 5742-5749

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
BYERS, CLAY COUNTY, TEXAS, LINE H-1				
METERS				
Rmco No. 4 500 lb. T Serial No. 4602 with Wylie Combined PVMT Recording Gauge Serial No. 2890 0-350 lbs. static with 7 day Foxboro clock	1	Each	471.9596	$ 471.96
GATE VALVES Flanged				
Crane 2 in. 1000 lb. T DD OS&Y with NH CI CFBO	5	Each	19.3618	96.81
PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.85
FITTINGS	1	Lot		22.91
Material Cost				$ 592.63
Installation				168.31
TOTAL COST INSTALLED				$ 760.94
BYERS, CLAY COUNTY, TEXAS, LINE H-1				
REGULATORS				
Fulton 1 in. HP 3-1/2 in. diaphragm case 4 bolts No. B-81 screwed	1	Each	18.0550	$ 18.06
GATE VALVES Flanged				
Crane DD OS&Y				
2 in. 1000 lb. T	1	Each	17.4350	17.44
2 in. 1000 lb. T with NH CI CFBO	3	Each	19.3618	58.09
PIPE Threaded and Coupled (Random Lengths)	1	Lot		.72
FITTINGS	1	Lot		5.91
Material Cost				$ 100.22
Installation				28.46
TOTAL COST INSTALLED				$ 128.68

Form 354 5000 7-49

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"H" System

5750-5758

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
STATION 0 PLUS 04.5, COTTON COUNTY, OKLAHOMA, LINE - 2ND H SERVICE				
REGULATORS				
Fulton 1-1/4 in. HP 7-1/2 in. diaphragm case 4 bolts screwed	1	Each	22.1000	$ 22.10
GATE VALVES Screwed				
Westcott 2 in. 800 lb. WP DD NRS	4	Each	19.4032	77.61
FITTINGS	1	Lot		3.66
Material Cost				$ 103.37
Installation				28.94
TOTAL COST INSTALLED				$ 132.31
MERRICK AND GOLDSMITH, NEAR PETROLIA, CLAY COUNTY, TEXAS, LINE H AND H-2				
METERS				
Tobey No. 2 Serial No. 397649	1	Each	25.0060	$ 25.01
REGULATORS				
Emco 1 in. LP Service Screwed	1	Each	4.8600	4.86
Hercules 1 in. HP Screwed	1	Each	8.3400	8.34
GATE VALVES Screwed				
Darling 2 in. 1000 lb. T No. 101 IBBM DD NRS	1	Each	13.1367	13.14
Walworth 1 in. 250 lb. WP NRS brass	1	Each	4.1410	4.14
FITTINGS	1	Lot		2.19
Material Cost				$ 57.68
Installation				16.38
TOTAL COST INSTALLED				$ 74.06

2441

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"J" System

5759

d r	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	AVENUE E, TARRANT COUNTY, TEXAS **LINE J**				
	REGULATORS				
	Emco 1-1/4 in. Type B Service screwed	2	Each	13.6000	$ 27.20
	Fulton 1-1/4 in. HP with 7-1/4 in. diaphragm case screwed	1	Each	22.1000	22.10
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		.89
	FITTINGS	1	Lot		3.00
	WELDS	1	Lot		8.14
	Material Cost				$ 61.33
	Installation				15.11
	TOTAL COST INSTALLED				$ 76.44
	FOREST HILL, TARRANT COUNTY, TEXAS **LINE J**				
	METERS				
	Emco No. 2-1/2 500 lb. T Serial No. 2711 with Foxboro PVaT Recording Gauge Serial No. F-363 0-100 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
	REGULATORS				
	Fulton 1-1/2 in. HP with 12 in. diaphragm case 4 bolts screwed	1	Each	26.2700	26.27
	GAUGES				
	Indicating Pressure				
	Foxboro Brass Rim CI Case Model J Steel Tube with 5 in. dial Range 0-500 lbs.	1	Each	12.2788	12.28
	GATE VALVES Flanged				
	Crane OS&Y				
	2 in. 125 lb. WP Wedge with CI Std. CFBO	3	Each	10.3895	31.17
	2 in. 700 lb. T DD	1	Each	15.3181	15.32
	2 in. 700 lb. T DD with EH CI CFBO	3	Each	17.2449	51.73

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"J" System 5760

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
FOREST HILL, TARRANT COUNTY, TEXAS LINE J (Cont'd)				
GATE VALVES Flanged (Cont'd) Darling 2 in. 700 lb. T No. 72 DD NRS with EH CI CFBO	1	Each	14.0514	$ 14.05
GATE VALVES Screwed Walworth 2 in. 700 lb. T DD 08&Y	1	Each	14.9086	14.91
GLOBE VALVES Screwed Crane 3/8 in. 125 lb. WP brass	1	Each	.4364	.44
PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.94
FITTINGS	1	Lot		34.15
WELDS	1	Lot		.80
Material Cost				$ 412.61
Installation				116.95
TOTAL COST INSTALLED				$ 529.56
HAINES, TARRANT COUNTY, TEXAS LINE J AND J-2				
METERS				
Westcott Orifice Taylor Case range 100 in. differential and static with 24 hour clock Serial No. 28169 Company No.42	1	Each	130.3262	$ 130.33
Westcott Orifice Taylor Case range 100 in. differential and static with 24 hour clock Serial No. 25519 Company No.43	1	Each	130.3262	130.33
Foxboro Type C Orifice range 100 in. differential 500 lbs. static with 24 hour clock Chart No. 85828 Serial No. 60156 Company No. 83	1	Each	141.2682	141.27
METER PIPING Single screwed installation with steel needle valves throughout	3	Sets	23.1700	69.51

Form 384 1943M 7-43

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"J" System

5761

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
HAINES, TARRANT COUNTY, TEXAS LINE J AND J-2				
REGULATORS				
Rego 1 in. Service screwed	1	Each	4.8600	$ 4.86
Fulton 8 in. MP with 11 in. diaphragm case 8 bolts with EM CI CFBO	1	Each	307.4100	307.41
Fulton 12 in. MP with 11 in. diaphragm case 12 bolts flanged	1	Each	614.5130	614.51
GAUGES				
Indicating Pressure				
Foxboro HR with 5 in. dial				
Range 0-500 lbs.	1	Each	4.3114	4.31
Range 0-250 lbs.	1	Each	4.3114	4.31
Recording Pressure				
Bristol 9 in. Serial No.B-6279 Chart No. 2035 Company No. 166 with 24 hour clock Range 0-60 lbs.	1	Each	34.9232	34.92
AUTOMATIC RELIEF VALVES Flanged				
Fulton MP 8 in. differential 18 in. diaphragm head 8 bolts with EM CI CFBO	1	Each	494.4900	494.49
GATE VALVES Flanged				
Atwood 12 in. 1600 lb. T No. 5-P NRS Brass Stem	3	Each	339.2820	1,017.85
Crane 8 in. 250 lb. WP RD NRS Brass Stem with EM CI CFBO	1	Each	63.7342	63.73
Darling NRS Brass Stem				
8 in. 1000 lb. T No. 102 RD with EM CI CFBO	3	Each	76.3652	229.10
3 in. 700 lb. T No. 72 with EM CI CFBO	1	Each	21.4376	21.44
Kennedy 8 in. 125 lb. WP NRS Brass Stem with CI Std. CFBO	4	Each	37.3656	149.46
Ludlow NRS Brass Stem				
8 in. 1000 lb. T No. 30 RD with EM CI. CFBO	1	Each	79.8068	79.81
6 in. No. 8 with EM CI CFBO	1	Each	86.2998	86.30
GATE VALVES Screwed				
Darling 4 in. 1000 lb. T No. 101 NRS Brass Stem	1	Each	26.2319	26.23

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"J" System

5762

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
HAINES, TARRANT COUNTY, TEXAS LINE J AND J-2				
GLOBE VALVES Screwed				
Crescent Brass Std.				
3/8 in.	1	Each	.7013	$ .70
1/4 in.	1	Each	.6178	.62
SAFETY VALVES Screwed				
Crane 3 in. 125 lb. WP LAW Type	1	Each	14.9831	14.98
PIPE Threaded and Coupled				
(Random Lengths)	1	Lot		139.35
HEADERS				
12 in. x 5 ft. 7 in. with 2 - 8 in. openings and 1 - 10 in. opening and flat welded ends	2	Each	43.1400	86.28
FITTINGS	1	Lot		466.31
WELDS	1	Each	4.3880	4.39
Material Cost				$ 4,322.80
Installation				1,226.43
TOTAL COST INSTALLED				$ 5,549.23
LONE STAR GAS COMPANY - 50% OWNERSHIP				$ 2,774.62
BOUNDARY NO. 2, DALLAS COUNTY, TEXAS, LINE J-2				
METERS				
Westcott Orifice Bristol Case 100 in. differential and static with 24 hour clock Serial No. 10415 Company No. 1211	1	Each	130.3262	$ 130.33
Westcott Orifice Bristol Case 100 in. differential and static with 24 hour clock Serial No. 10418 Company No. 1212	1	Each	130.3262	130.33

Form 354 1968 7-66

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"J" System

5763

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
BOUNDARY NO. 2, DALLAS COUNTY, TEXAS, LINE J-2 (Cont'd)				
METERS (Cont'd)				
Westcott Orifice Bristol Case 100 in. differential and statie with 24 hour clock Serial No. 10416 Company No. 1213	1	Each	130.3262	$ 130.33
Foxboro Type 105 Differential Recorder range 20 in. differential only with 24 hour clock Chart No. 858050 Serial No. 10427 Company No. 1211-A	1	Each	119.9348	119.93
Foxboro Type 105 Differential Recorder range 20 in. differential only with 24 hour clock Chart No. 858050 Serial No. 10423 Company No. 1212-A	1	Each	119.9348	119.93
Foxboro Type 105 Differential Recorder range 20 in. differential only with 24 hour clock Chart No. 858050 Serial No. 10422 Company No. 1213-A	1	Each	119.9348	119.93
METER PIPING				
Wide range screwed installation with steel needle valves	3	Sets	25.1700	75.51
GRAVITOMETERS				
Acme 52 x 30 x 22 in. range 15 to 1.0 Serial No. 137 Chart No. 110	1	Each	333.8910	333.89
REGULATORS				
Emco 1 in. Type B Service screwed	1	Each	4.8600	4.86
Fulton 8 in. HP with 10-1/2 in. diaphragm case 8 bolts with CI Std. CFBO	1	Each	307.4100	307.41
Hercules 1 in. HP screwed	1	Each	8.3400	8.34
GAUGES				
Recording Pressure				
Bristol 12 in. Aluminum Rim CI Case Chart No. 2083 with 7 day clock	1	Each	44.9105	44.91
Foxboro CI Rim and Case 10 in. with 7 day clock Serial No. 858792 Chart No. 79977 Range 0-500 lbs.	1	Each	46.5752	46.58

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

5764

"J" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
BOUNDARY NO. 2, DALLAS COUNTY, TEXAS, LINE J-2 (Cont'd)				
AUTOMATIC RELIEF VALVES Flanged				
Fulton 8 in. differential with 11 in. diaphragm head 8 bolts	1	Each	494.4900	$ 494.49
GATE VALVES Flanged				
Westcott 8 in. 500 lb. WP Brass Stem OS&Y with RH CI LE CWBO	9	Each	89.3948	804.55
GATE VALVES Screwed				
Crane 4 in. 125 lb. WP Brass Stem Wedge NRS	1	Each	9.8847	9.88
GLOBE VALVES Screwed				
Walworth 3/8 in. 125 lb. WP Brass	6	Each	.4364	2.62
NEEDLE VALVES Screwed				
Lunkenheimer Brass				
1/4 in. 200 lb. WP	1	Each	.6293	.63
1/8 in. 200 lb. WP	2	Each	.5922	1.18
Metric Angle 1/4 in. Std.	1	Each	1.2588	1.26
PIPE Threaded and Coupled (Random Lengths)	1	Lot		68.75
PIPE Plain End (Random Lengths)	1	Lot		9.04
HEADERS				
10 in. x 8 ft. 11 in. with one end pointed end welded and one end threaded with 10 x 17-1/2 in. blind flange CI RH; 4 - 8 in. welded openings	1	Each	60.8100	60.81
10 in. x 8 ft. 11 in. with one end orange peel welded and one end threaded with 10 x 17-1/2 in. blind flange CI RH, 10 in. skinner pipe joint clamp, 5 - 8 in. 1 - 4 in. and 1 - 3/8 in. welded openings and 1 - 1 in. welded collar	1	Each	86.1100	86.11
FITTINGS	1	Lot		286.22

Form 354 1948 7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"J" System 5765-5770

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
BOUNDARY NO. 2, DALLAS COUNTY, TEXAS, LINE J-2 (Cont'd)				
WELDS	1	Lot		$ 40.74
Material Cost				$ 3,438.56
Installation				964.98
TOTAL COST INSTALLED				$ 4,403.54
MASONIC HOME, ARLINGTON, TARRANT COUNTY, TEXAS, LINE J-2				
METERS				
Emco No. 2-1/2 500 lb. T Serial No. 2705 with Foxboro PVMT Recording Gauge 0-250 lbs. static Serial No. F-357 with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
GATE VALVES Flanged				
Crane OS&Y				
4 in. 250 lb. WP with RH CI LE CFBO	1	Each	32.3367	32.34
2 in. 125 lb. WP Wedge with CI Std. CFBO	5	Each	11.0394	55.20
PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.20
FITTINGS	1	Lot		25.22
WELDS	1	Lot		2.27
Material Cost				$ 325.78
Installation				91.88
TOTAL COST				$ 417.66
WEST HANDLEY, TARRANT COUNTY, TEXAS LINE J-2-1				
METERS				
Emco No. 3 100 lb. T Serial No. 6420 with Foxboro PVMT Recording Gauge Serial No. F-324 0-50 lbs. static with 7 day Foxboro clock	1	Each	229.700	229.70

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"J" System

5771-5778

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
FISHBURN, DALLAS COUNTY, TEXAS LINE J-2-5				
FITTINGS	1	Lot		$ 16.02
Material Cost				$ 324.88
Installation				92.27
TOTAL COST INSTALLED				$ 417.15
ARCADIA PARK, DALLAS COUNTY, TEXAS LINE J-2-6				
METERS				
Emco No. 2-1/2 500 lb. T Serial No. 2770 with Foxboro PV&T Recording Gauge Serial No.F-375 0-250 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
GATE VALVES Flanged				
Crane 2 in. 1000 lb. T ID OS&Y with RH CI CFBO	5	Each	19.3618	96.81
PIPE Threaded and Coupled (Random Lengths)	1	Lot		2.94
FITTINGS	1	Lot		22.85
Material Cost				$ 332.15
Installation				94.33
TOTAL COST INSTALLED				$ 426.48
CENTRAL HANDLEY, TARRANT COUNTY, TEXAS, LINE J-2-7				
METERS				
Emco No. 4 500 lb. T Serial No. 5890 with Wylie PV&T Recording Gauge Serial No. 1501 0-76 lbs. static with 7 day Foxboro clock	1	Each	471.9596	$ 471.96

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"J" System

5779

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
BIRDVILLE, TARRANT COUNTY, TEXAS LINE J-7 (Cont'd)				
PIPE Threaded and Coupled (Random Lengths)	1	Lot		$ .88
PIPE Plain End (Random Lengths)	1	Lot		1.41
FITTINGS	1	Lot		21.29
WELDS	1	Lot		15.33
Material Cost				$ 189.04
Installation				49.34
TOTAL COST INSTALLED				$ 238.38
SOUTH FORT WORTH, TARRANT COUNTY, TEXAS, LINE J-8				
METERS				
Foxboro Type 207 Orifice range 100 in. differential 100 lbs. static with 24 hour clock Chart No. 899039 Serial No. A-8297 Company No. 1131	1	Each	139.0256	$ 139.03
Foxboro Type 207 Orifice range 100 in. differential 100 lbs. static with 24 hour clock Chart No. 898039 Serial No. A-8292 Company No. 1132	1	Each	139.0256	139.03
Foxboro Type 105 Differential Recorder range 20 in. differential only with 24 hour clock Chart No. 858050 Serial No. A-8285 Company No. 1131-A	1	Each	119.9348	119.93
Foxboro Type 105 Differential Recorder range 20 in. differential only with 24 hour clock Chart No. 858050 Serial No. A-8283 Company No. 1132-A	1	Each	119.9348	119.93
METER PIPING				
Wide Range screwed installation with steel needle valves	2	Sets	25.1700	50.34

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"J" System

5780

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
SOUTH FORT WORTH, TARRANT COUNTY, TEXAS, LINE J-8 (Cont'd)				
REGULATORS				
Rmco 8 in. HP Balanced Valve Serial No. 3519 with 9-3/4 in. diaphragm case 6 bolts flanged	1	Each	379.5000	$ 379.50
Rmco 8 in. HP Balanced Valve Serial No. 3539 with 11 in. diaphragm case 6 bolts flanged	1	Each	379.5000	379.50
GAUGES				
Indicating Pressure				
American S&B Co. HR CI Case with 2-1/2 in. dial				
Range 0-15 lbs.	1	Each	1.6548	1.65
Foxboro HR CI Case with 5 in. dial				
Range 0-500 lbs.	1	Each	4.3114	4.31
Range 0-100 lbs. Model A	1	Each	4.3114	4.31
Recording Pressure				
Bristol 8 in. Model 11 Aluminum Case Serial No. 136280 Chart No. 2035 with 24 hour clock				
Range 0-60 lbs.	1	Each	34.9232	34.92
AUTOMATIC RELIEF VALVES Flanged				
Fulton 10 in. Differential HP Rolling Weight Type with 18 in. diaphragm case 10 bolts	1	Each	711.1700	711.17
GATE VALVES Flanged				
Crane OS&Y				
10 in. 175 lb. WP Wedge Steel Stem with RH CI LE CFBO	1	Each	100.8140	100.81
10 in. 175 lb. WP Wedge Bronze Stem with RH CI LE CFBO	1	Each	109.9469	109.95
10 in. 175 lb. WP Wedge Bronze Stem	1	Each	97.8889	97.89
8 in. 700 lb. T DD	2	Each	69.0212	138.04
8 in. 700 lb. T DD with RH CI LE CFBO	7	Each	76.8118	537.68
GATE VALVES Screwed				
Lunkenheimer 1/4 in. 150 lb.WP Brass	1	Each	1.0941	1.09
Ohio Brass 1/4 in. 125 lb. WP Brass RB	1	Each	.5701	.57

Form 251—1003M—7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"J" System

5781

d k	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	SOUTH FORT WORTH, TARRANT COUNTY, TEXAS, LINE J-8 (Cont'd)				
	GLOBE VALVES Flanged Crane Angle 10 in. 175 lb. WP OS&Y Steel Stem with RH CI LE CFBO	3	Each	120.6410	$ 361.92
	GLOBE VALVES Screwed Jenkins 3/8 in. Std. Brass	2	Each	.9044	1.81
	Walworth 3/8 in. Std. Brass	3	Each	.4364	1.31
	NEEDLE VALVES Screwed Lunkenheimer 1/4 in. 200 lb. WP Brass	2	Each	.6293	1.26
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		169.11
	PIPE Plain End (Random Lengths)	1	Lot		16.40
	CUSHIONS 16 in. x 68 ft. with one end orange peel welded and one end baseball welded with 1 - 12 in. welded opening	1	Each	65.1200	65.12
	HEADERS 12 in. x 10 ft. 4 in. with baseball welded ends with 5 - 8 in. welded openings and 1 - 1/4 in. collar welded on	1	Each	67.3200	67.32
	12 in. x 10 ft. 4 in. with baseball welded ends with 3 - 10 in. and 2 - 8 in. welded openings and 1 - 1 in. and 1 - 1/4 in. collars welded on	1	Each	73.6900	73.69
	12 in. x 10 ft. 4 in. with baseball welded ends with 3 - 10 in. and 1 - 12 in. welded openings	1	Each	71.5400	71.54
	WATER COLUMN Acme 100 in. Complete with Regulator	1	Each	154.1760	154.18
	FITTINGS	1	Lot		267.41

Form 264—100M—9-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"J" System

5782-5791

d k	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	SOUTH FORT WORTH, TARRANT COUNTY, TEXAS, LINE J-8 (Cont'd)				
	WELDS	1	Lot		$ 51.37
	Material Cost				$ 4,372.09
	Installation				1,227.09
	TOTAL COST INSTALLED				$ 5,599.18
	LONE STAR GAS COMPANY - 50% OWNERSHIP				$ 2,799.59
	GIFFORD HILL GRAVEL COMPANY, DALLAS COUNTY, TEXAS, LINE J-2				
	METERS				
	Emco No. 4 500 lb. T Serial No. 5700 with Wylie PV&T Recording Gauge Serial No. 1696 0-350 lbs. static with 7 day Foxboro clock	1	Each	471.9596	$ 471.96
	Emco No. 4 500 lb. T Serial No. 5097 with Wylie PV&T Recording Gauge Serial No. 2605 0-350 lbs. static with 7 day Foxboro clock	1	Each	471.9596	471.96
	GAUGES				
	Indicating Pressure Ashcroft BR CI Case with 4-1/2 in. dial Range 0-200 lbs.	1	Each	1.8740	1.87
	REGULATORS				
	Fulton 1 in. HP with 5-1/2 in. diaphragm case 4 bolts screwed	1	Each	18.0550	18.06
	GATE VALVES Flanged				
	Kennedy Brass Stem OS&Y 2 in. 125 lb. WP	1	Each	10.0615	10.06
	2 in. 125 lb. WP with CI Std. CVBO	17	Each	11.2005	190.41
	SAFETY VALVES Screwed				
	Crane 2 in. 125 lb. WP L&W Type	1	Each	5.6714	5.67

2453

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"K" System 5792

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
SIKES AND LAUDERDALE, WAYLAND, STEPHENS COUNTY, TEXAS-LINE K-4				
METERS				
Emco No. 2, 50 lbs. T. Serial No. 2567 with Foxboro PV&T Recording Gauge, Serial No. F-253, 0-50 lbs. Static; with 7 day Foxboro Clock.	1	Each	106.7748	$ 106.77
REGULATORS				
Emco 2 in. HP Balanced Valve, Serial No. 1574 with 11 in. Diaphragm case; 600 lbs. inlet pressure and 50 lbs. outlet pressure; 6 bolts in head Flanged	1	Each	87.7250	87.73
Fulton 1 in. HP with 5 in. Diaphragm case 4 bolts in head Screwed.	1	Each	18.0550	18.06
GATE VALVES Flanged				
Crane DD O&Y				
2 in. 1000 lbs. T. with 2 x 6-1/2 in. EH CI 8 bolts CFBO.	1	Each	19.3618	19.36
Kelly Jones NRS				
2 in. 125 lbs. WP with 2 x 6 in. Std. CI 4 bolts CFBO.	1	Each	7.6441	7.64
O. I. C. NRS				
2 in. 125 lbs. WP with 2 x 6 in. Std. CI 4 Bolts CFBO	1	Each	7.5801	7.58
Walworth NRS				
2 in. 125 lbs. WP with 2 x 6 in. Std. CI 4 bolts CFBO.	1	Each	7.6441	7.64
GATE VALVES Screwed				
Crane 1/2 in. 125 lbs. WP Brass	1	Each	.6687	.67
Darling DD NRS				
2 in. 1000 lbs. T. No. 101	3	Each	13.1367	39.41
Westcott 2 in. 500 lbs. WP NRS	1	Each	12.7711	12.77
GLOBE VALVES Screwed				
Powell Brass				
2 in. 300 lbs. SWP RS	1	Each	15.5365	15.54

Form 854—100M—7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"K" System

5793-5811

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
SIKES AND LAUDERDALE, WAYLAND, STEPHENS COUNTY, TEXAS LINE K-4 (Cont'd)				
PLUG VALVES Flanged Nordstrom 2 in. 250 lbs. WP with 2 x 6-1/2 in. EH CI 8 bolts CFBO	1	Each	15.4336	$ 15.43
PIPE Threaded and Coupled (Random Lengths)	1	Lot		3.43
CUSHIONS 8 in. x 7 ft. 10 in. Baseball Welded Ends; 1/2 in. welded drip Connection 10-1/2 in. long with 1- 2 in. opening	1	Each	23.6900	23.69
FITTINGS	1	Lot		14.25
WELDS	1	Lot		.37
Material Cost				$ 380.34
Installation				107.91
TOTAL COST INSTALLED				$ 488.25
VALLEY MILLS, BOSQUE COUNTY, TEXAS, LINE K-5				
METERS Metric No. 250 B, 250 lbs. T. Serial No. 02235 with Metric PV&T Recording Gauge, Serial No. 3382 0-100 lbs. Static with 7 day Westcott Clock	1	Each	333.5080	$ 333.51
REGULATORS Emco 2 in. HP Balanced Valve No. 1063 with 11 in. Diaphragm Case, 6 Bolts CFBO	1	Each	87.7250	87.73
Fulton 1-1/4 in. HP with 5-1/2 in. Diaphragm Case, 4 Bolts Screwed	1	Each	22.1000	22.10

2455

Form 284 - 100M - 7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT 5812

"K" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
SWEETWATER, NOLAN COUNTY, TEXAS, LINE KC-3				
METERS				
Westcott Orifice Bristol case 100 in. Differential and Static with 24 hour clock Serial No. 14646 Company No. 1199	1	Each	130.3262	$ 130.33
Westcott Differential Recorder Bristol case 20 in. differential with 24 hour clock Serial No. 14788 Company No. 1199A	1	Each	113.7437	113.74
METER PIPING				
Wide Range screwed installation with Steel Needle Valves	1	Set	25.1700	25.17
REGULATORS				
Emco 4 in. HP Balanced Valve No. 3028 with 8 in. diaphragm case 6 bolts with 4 x 10 in. EH CI 8 bolts CFBO	1	Each	158.7412	158.74
Fulton 2 in. HP with 5 in. diaphragm case no bolts screwed	1	Each	54.9600	54.96
GAUGES				
Indicating Pressure				
Foxboro ER Flanged case with 5 in. dial Range 0-500 lbs.	2	Each	4.3114	8.62
GATE VALVES Flanged				
Walworth DD 08&Y				
6 in. 175 lbs. WP with 6 x 11 in. CI Std. 8 bolts CFBO	4	Each	30.0070	120.03
4 in. 175 lbs. WP with 4 x 9 in. CI Std. 8 bolts CFBO	1	Each	19.1291	19.13
4 in. 1000 lbs. T. with 4 x 10 in. EH CI 8 bolts CFBO	1	Each	35.7850	35.79
4 in. 1000 lbs. T.	3	Each	32.2688	96.81
GLOBE VALVES Screwed				
Lunkenheimer Brass				
1/4 in. 200 lbs. WP	2	Each	.6643	1.33
PLUG VALVES Flanged				
Nordstrom				
4 in. 250 lbs. WP with 4 x 10 in. EH CI 8 bolts CFBO	2	Each	45.8848	91.77

Form 284--100M - 7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"K" System

5813-5824

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
SWEETWATER, NOLAN COUNTY, TEXAS, LINE KC-3 (Cont'd)				
SAFETY VALVES Screwed				
Crane 4 in. 125 lbs. WP L&W type No. 12635	1	Each	5.6714	$ 5.67
PIPE Plain End (Random Lengths)	1	Lot		39.85
CUSHIONS				
6 in. x 60 ft. Orange Peel welded ends with 1- 4 in. opening	1	Each	54.3900	54.39
6 in. x 60 ft. Orange Peel other end welded 90 degree to Riser	1	Each	50.4900	50.49
FITTINGS	1	Lot		76.06
WELDS	1	Lot		74.60
Material Cost				$ 1,157.48
Installation				307.53
TOTAL COST INSTALLED				$ 1,465.01
ROSCOE, NOLAN COUNTY, TEXAS, LINE KC-4				
METERS				
Emco No. 4 500 lbs. T. Serial No. 5377 with Wylie PV&T Recording Gauge Serial No.2035 0-76 lbs. Static with 7 day Foxboro clock	1	Each	471.9596	$ 471.96
REGULATORS				
Emco 2 in. HP Balanced Valve with 5-1/2 in. diaphragm case 6 bolts with 2 x 6-1/2 in. EH CI 8 bolts CFBO	1	Each	89.6518	89.65
Fulton 1-1/4 in. HP with 3-1/2 in. diaphragm case 4 bolts screwed	1	Each	22.1000	22.10

2457

Form 254—100M—7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"K" System 5825

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
MORAN COMPRESSING STATION LOT, SHACKELFORD COUNTY, TEXAS, LINE KC-A (Cont'd)				
GAUGES				
Recording Pressure				
Foxboro 9-1/2 in. Iron Rim Iron Back Serial No.A-69524 Chart No. 79980 with 7 day clock				
Range 0-1000 lbs.	1	Each	57.4238	$ 57.42
GATE VALVES Flanged				
Westcott				
4 in. 500 lbs. WP No. 452 DD NRS with 4 x 10 in. RH CI 8 bolts CFBO	3	Each	29.2900	87.87
GLOBE VALVES Screwed				
Lunkenheimer Brass				
1/4 in. 150 lbs. WP	4	Each	.9841	3.94
CUSHIONS				
10 x 59 in. baseball welded ends with 2- 1/4 in. 1- 2 in. and 1- 4 in. openings	1	Each	30.2900	30.29
FITTINGS	1	Lot		8.25
WELDS	1	Lot		14.99
Material Cost				$ 380.31
Installation				103.75
TOTAL COST INSTALLED				$ 484.06
RANGER CREAMERIES, ABILENE, TAYLOR COUNTY, TEXAS, LINE KC				
METERS				
Emco No. 4 500 lbs. T. Serial No. 5683 with Wylie PV&T Recording Gauge Serial No. 291 0-76 lbs. Static with 7 day Foxboro clock	1	Each	471.9596	$ 471.96

Form 354—1943—7-52

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"K" System 5826

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
BANNER CREAMERIES, ABILENE, TAYLOR COUNTY, TEXAS, LINE KC (Cont'd)				
REGULATORS				
Fulton 1 in. HP with 3-3/4 in. diaphragm case 4 bolts screwed	1	Each	18.0550	$ 18.06
Fulton 1-1/4 in. HP with 5 in. diaphragm case 4 bolts screwed	1	Each	22.1000	22.10
GAUGES				
Indicating Pressure				
Foxboro Model A. Brass Flare Rim, Iron case with 5 in. dial				
Range 0-100 lbs.	1	Each	4.3114	4.31
Range 0-300 lbs.	2	Each	4.3114	8.62
GATE VALVES Flanged				
Walworth DD 08&Y				
2 in. 700 lbs. T. with 2 x 6-1/2 in. EH CI 8 bolts CFBO	7	Each	17.2655	120.86
2 in. 700 lbs. T.	4	Each	15.3387	61.35
Walworth 08&Y				
2 in. 175 lbs. WP with 2 x 6 in. CI Std. 4 bolts CFBO	1	Each	10.1093	10.11
GLOBE VALVES Screwed				
Lunkenheimer Brass RS				
1/4 in. 200 lbs. WP	1	Each	.6643	.66
SAFETY VALVES Screwed				
Crane 2 in. 125 lbs. WP No.12687 L&W type	1	Each	5.6714	5.67
PIPE Threaded and Coupled (Random Lengths)	1	Lot		2.20
PIPE Plain End (Random Lengths)	1	Lot		19.39
FITTINGS	1	Lot		23.94
WELDS	1	Lot		31.89
Material Cost				$ 801.12
Installation				218.46
TOTAL COST INSTALLED				$ 1,019.58

2459

Form 884 100M 7-49

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"K" System 5827

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
D. M. ODOM, BRAZOS, PALO PINTO COUNTY, TEXAS, LINE KN				
METERS				
Emco No. 3, 500 lbs. T. Serial No. 6973 with Foxboro PV&T Recording Gauge, Serial No. F-173, 0-100 lbs. Static with 7 day Foxboro clock.	1	Each	260.4350	$ 260.44
REGULATORS				
Emco 2 in. HP Balanced Valve type No. 1072 with 7-1/2 in. diaphragm case 250 lbs. inlet and 50 lbs. outlet pressure 6 bolts CFBO	1	Each	89.6518	89.65
GATE VALVES Screwed				
Westcott DD NRS				
2 in. 500 lbs. WP	2	Each	12.7711	25.54
White Star Powell Brass				
2 in. 200 lbs. WP	2	Each	9.4773	18.95
PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.06
FITTINGS	1	Lot		9.02
WELDS	1	Lot		.92
Material Cost				$ 405.58
Installation				114.93
TOTAL COST INSTALLED				$ 520.51
STATION 2989 PLUS 60 NEAR TAP TO GORDON GASOLINE PLANT, PALO PINTO COUNTY, TEXAS, LINE K				
METERS				
Foxboro Type C Orifice Range 100 in. differential 500 lbs. Static with 24 hour clock, Chart No. 85828 Serial No. 49097 Company No. 1011.	1	Each	141.2682	$ 141.27

Form 284—100M 7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"K" System

5828-5843

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
STATION 2989 PLUS 60 NEAR TAP TO GORDON GASOLINE PLANT, PALO PINTO COUNTY, TEXAS, LINE K (Cont'd)				
METER PIPING Single Screwed Installation with Steel Needle Valves throughout	1	Each	23.1700	$ 23.17
FITTINGS	1	Lot		89.18
Material Cost				$ 253.62
Installation				72.02
TOTAL COST INSTALLED				$ 325.64
STATION 4038 PLUS 1½ JUNCTION OF LINES K AND KC, EASTLAND COUNTY, TEXAS, LINE K				
METERS Westcott Orifice Taylor case 100 in. differential and Static with 24 hour clock Serial No. 31951 Company No. 1024	1	Each	130.3262	$ 130.33
METER PIPING Single Screwed Installation with Steel Needle Valves throughout	1	Set	23.1700	23.17
FITTINGS	1	Lot		46.11
Material Cost				$ 199.61
Installation				56.68
TOTAL COST INSTALLED				$ 256.29

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5844-5850

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
ROUND ROCK, WILLIAMSON COUNTY, TEXAS, LINE L				
METERS				
Emco No. 4 100 lb. T Serial No. B-5885 Emco combined PWT Gauge Serial No. 134139 0-100 lbs. Static with Emco 7 day clock	1	Each	302.3408	$ 302.34
REGULATORS				
Fulton 1 in. HP with 5-1/2 in. diaphragm case 4 bolts screwed	1	Each	18.0550	18.06
Fulton 1-1/4 in. HP with 7-1/2 in. diaphragm case 4 bolts screwed	1	Each	22.1000	22.10
GAUGES				
Indicating Pressure				
Foxboro 5 in. dial Model A CI Case Brass Trimmed Range 0-250 lbs.	1	Each	4.3114	4.31
Recording Pressure				
Foxboro 10 in. Recorder P&T 7 day clock Serial No. 52892 Chart No. 79977 CI Case Range 0-500 lbs.	1	Each	35.1092	35.11
GATE VALVES Flanged				
Walworth BD Brass Stem OS&Y 4 in. 175 lb. WP	1	Each	16.8539	16.85
4 in. 175 lb. WP with 4 x 9 in. CI Std. CFBO	3	Each	19.1291	57.39
4 in. 700 lb. T	3	Each	28.7484	86.25
4 in. 700 lb. T (50% Ownership)	1	Each	28.7484	14.37
Walworth Brass Stem OS&Y 4 in. 700 lb. T	2	Each	28.7484	57.50
GLOBE VALVES Screwed				
Lunkenheimer Renewo 1/4 in. 200 lb. WP Brass	2	Each	.6643	1.33
SAFETY VALVES Screwed				
Crane 2 in. 125 lb. WP No. 27 L&W Type	1	Each	5.6714	5.67

Form 864 10M 7-40

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System 5851

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
HILLSBORO, HILL COUNTY, TEXAS, LINE L-4				
METERS				
Foxboro Type 207 Orifice Meter Range 100 in. differential 100 lbs. static with 24 hour clock Chart No. 898039 Serial No. A-74998 Company no. 55	1	Each	139.0256	$ 139.03
Foxboro Type T Differential Recorder Range 20 in. differential only with 24 hour Clock Chart No. 89863 Serial No. 78106 Company No. 55	1	Each	106.1254	106.13
METER PIPING				
Wide Range Screwed Installation with Steel Needle Valves	1	Set	25.1700	25.17
REGULATORS				
Fulton 2 in. HP with 7-1/2 in. diaphragm case screwed	1	Each	54.9600	54.96
Fulton 4 in. HP with 7-1/2 in. diaphragm case 4 bolts LE CFBO	1	Each	122.5890	122.59
GAUGES				
Indicating Pressure				
Crosby CI Case Brass Trim 5 in. Dial Range 0-500 lbs.	1	Each	3.7586	3.76
Foxboro CI Case Brass Trim 5 in. Dial Range 0-500 lbs.	1	Each	4.3114	4.31
GATE VALVES Flanged				
Kennedy NRS				
4 in. RH With CI RH CFBO	2	Each	40.1951	80.39
4 in. RH	2	Each	36.6789	73.36
Westcott NRS				
4 in. 125 lbs. WP No. 412 Brass Stem with CI Std. CFBO	4	Each	15.7192	62.88

2462

Form 344 (10M) 7-41

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System 5852-5857

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
HILLSBORO, HILL COUNTY, TEXAS, LINE L-4 (Cont'd)				
GATE VALVES Screwed				
Crane NRS				
2 in. 250 lb. WP	1	Each	11.4937	$ 11.49
NEEDLE VALVES Screwed				
Metric 1/4 in.	2	Each	1.2588	2.52
PLUG VALVES Flanged				
Nordstrom				
4 in. 250 lb. WP with CI EH CFBO	1	Each	45.8848	45.88
4 in. 250 lb. WP	1	Each	42.3686	42.37
SAFETY VALVES Screwed				
Crane 2 in. 125 lb. WP Lever Type No. 31	1	Each	5.6714	5.67
PIPE (Random Lengths)	1	Lot		13.43
HEADERS				
Orange Peel Welded Ends				
12-1/2 in. x 7 ft. with 4 4 in. openings and 1 1/4 in. opening	1	Each	68.9900	68.99
12-1/2 in. x 7 ft. with 4 4 in. openings	1	Each	68.7600	68.76
6 in. x 7 ft. with 2 6 in. and 2 4 in. openings (50% Ownership)	1	Each	32.5000	16.25
FITTINGS	1	Lot		64.30
WELDS	1	Lot		30.12
Material Cost				$ 1,042.36
Installation				287.48
TOTAL COST INSTALLED				$ 1,329.84

Form 284—1968M—7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5858

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
COLLEGE STATION, BRAZOS COUNTY, TEXAS, LINE L-8 (Cont'd)				
SAFETY VALVES				
Crane 6 in. 125 lb. WP L&W Type No. 26	1	Each	32.6161	$ 32.62
PIPE Plain End (Random Lengths)	1	Lot		38.68
CUSHIONS				
6 in. x 52 ft. 5 in. with orange peel welded end with 1 45 degree weld other end 90 degree welded to Riser	1	Each	49.1500	49.15
6 in. x 63 ft. 3 in. with orange peel welded end with 1 45 degree weld other end 90 degree welded to Riser	1	Each	55.6900	55.69
FITTINGS	1	Lot		104.69
WELDS	1	Lot		67.26
Material Cost				$ 1,453.25
Installation				393.62
TOTAL COST INSTALLED				$ 1,846.87
TAP TO PERRY GIN, FALLS COUNTY, TEXAS, OFF LINE L-8				
METERS				
Emco No. 3 Serial No. 8035 0-100 T with Foxboro PVMT Gauge No. F-182 0-100 lbs. Static 7 day Emco clock	1	Each	229.7000	$ 229.70
REGULATORS				
Fulton 1-1/4 in. IP with 7-1/4 in. diaphragm case 4 bolts screwed	1	Each	22.1000	22.10
Fulton 1 in. HP with 5-1/2 in. diaphragm case 4 bolts screwed	1	Each	18.0550	18.06

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5859

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
COLLEGE STATION, BRAZOS COUNTY, TEXAS, LINE L-8				
METERS				
Emco No. 4 500 lb. T Serial No. 5791 with Foxboro PV&T Recording Gauge Serial No. F-276 0-100 lbs. Static with 7 day Foxboro clock	1	Each	406.7500	$ 406.75
REGULATORS				
Fulton 1-1/4 in. with 5 in. diaphragm case 4 bolts screwed	1	Each	22.1000	22.10
Emco 4 in. HP Balanced Valve No. 4035 with 11 in. diaphragm case 6 bolts flanged	1	Each	155.2250	155.23
GAUGES				
Indicating Pressure				
Foxboro CI Case Brass Trimmed 5 in. dial				
Range 0-250 lbs.	1	Each	4.3114	4.31
Range 0-500 lbs.	1	Each	4.3114	4.31
ANGLE VALVES Screwed				
Metric 1/4 in.	2	Each	1.2588	2.52
GATE VALVES Flanged				
Walworth DD Brass Stem OS&Y				
4 in. 175 lb. WP CFBO	1	Each	19.1291	19.13
6 in. 175 lb. WP CFBO	3	Each	30.0070	90.02
6 in. 175 lb. WP	2	Each	26.8972	53.79
6 in. 700 lb. T	3	Each	45.7815	137.34
Kennedy Brass Stem OS&Y				
6 in. 150 lb. WP CFBO	1	Each	30.8727	30.87
GLOBE VALVES Screwed				
Walworth Brass				
1/4 in. 125 lb. WP	2	Each	.4067	.81
NEEDLE VALVES Screwed				
Metric 1/4 in.	1	Each	1.2588	1.26
PLUG VALVES Flanged				
Nordstrom 6 in. 250 lb. WP	2	Each	88.3607	176.72

Form 284—100M—7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5860-5869

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
TAP TO PERRY GIN, FALLS COUNTY, TEXAS, OFF LINE L-8 (Cont'd)				
GATE VALVES Flanged				
Walworth DD O8&Y				
2 in. 700 lb. T Brass Stems	7	Each	15.3387	$ 107.37
2 in. 700 lb. T Brass Stem (50% Ownership)	1	Each	15.3387	7.67
2 in. 175 lb. WP CFBO	4	Each	10.1093	40.44
NEEDLE VALVES Screwed				
Lunkenheimer 1/4 in. Brass Std.	1	Each	.6293	.63
SAFETY VALVES Screwed				
Crane Brass				
2 in. 125 lb. WP L&W Type	1	Each	5.6714	5.67
PIPE Plain End (Random Lengths)	1	Lot		5.95
CUSHIONS				
4 in. x 39 ft. 10 in. orange peel welded ends 1 2 in. opening	2	Each	24.1100	48.22
FITTINGS	1	Lot		31.22
WELDS	1	Lot		21.98
Material Cost				$ 539.01
Installation				146.84
TOTAL COST INSTALLED				$ 685.85
MART, McLENNAN COUNTY, TEXAS, LINE L-8-1				
METERS				
Westcott Orifice Bristol Case 100 in. Differential Static Serial No. 14974 Company No. 1186 with 24 hour clock	1	Each	130.3262	$ 130.33
Westcott Differential Recorder Bristol Case without Static 20 in. Differential Serial No. 14979 Company No. 1186 with 24 hour clock	1	Each	113.7437	113.74

Form 964 100M 7-63

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5870-5872

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
BRYAN, BRAZOS COUNTY, TEXAS LINE L-8-6				
METERS				
Foxboro Type C Orifice Meter Range 100 in. differential 100 lbs. Static with 24 hour clock Chart No. 89870 Serial No. 46295 Company No. 1208	1	Each	129.6258	$ 129.63
Foxboro Type T Differential Recorder Range 20 in. Differential only with 24 hour clock Chart No. 89863 Serial No. 78322 Company No. 1208	1	Each	106.1254	106.13
METER PIPING				
Wide Range Screwed Installation with Steel Needle Valves	1	Set	25.1700	25.17
REGULATORS				
Fulton 2 in. HP with 7-1/2 in. diaphragm case no bolts screwed	1	Each	54.9600	54.96
Emco 2 in. HP Balanced Valve flanged No. 10200 with 9-1/2 in. diaphragm case 6 bolts CFBO	1	Each	89.6518	89.65
GAUGES				
Indicating Pressure				
Foxboro Model A CI Case Brass Trimmed 5 in. dial Range 0-60 lbs.	1	Each	4.3114	4.31
Recording Pressure				
Foxboro 10 in. P&T 7 day clock Serial No. 20048 Chart No. 79877 CI Case Range 0-500 lbs.	1	Each	46.5752	46.58
GATE VALVES Flanged				
Walworth DD Brass Stem OS&Y				
4 in. 175 lbs. WP CFBO	5	Each	19.1291	95.65
4 in. 700 lbs. T	4	Each	28.7484	114.99
GLOBE VALVES Screwed				
Walworth 1/4 in. 125 lb. WP Brass	2	Each	.4067	.81

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5873

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
CALVERT, ROBERTSON COUNTY, TEXAS, LINE L-8-7 (Cont'd)				
WELDS	1	Lot		$ 29.55
Material Cost				$ 736.10
Installation				200.66
TOTAL COST INSTALLED				$ 936.76
NORTH WACO, MCLENNAN COUNTY, TEXAS, LINE L-9				
METERS				
Foxboro Type 207 Orifice Meter Range 100 in. Differential 250 lbs. Static with 24 hour clock Chart No. 858049 Serial No. A-29728 Company No. 58	1	Each	143.1046	$ 143.10
Foxboro Type 207 Orifice Meter Range 100 in. Differential 250 lbs. Static with 24 hour clock Chart No. 858049 Serial No. A-8293 Company No. 59	1	Each	143.1046	143.10
Foxboro Type 207 Orifice Meter Range 100 in. Differential 250 lbs. Static with 24 hour clock Chart No. 858049 Serial No. A-29731 Company No. 96	1	Each	143.1046	143.10
Foxboro Type 105 Differential Recorder Range 20 in. Differential only with 24 hour clock Chart No. 858050 Serial No. 25170 Company No. 58	1	Each	119.9348	119.93
METER PIPING				
Wide Range Screwed Installation with Steel Needle Valves	1	Set	25.1700	25.17
Single Screwed Installation with Steel Needle Valves	2	Set	23.1700	46.34

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5874

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
NORTH WACO, McLENNAN COUNTY, TEXAS, LINE L-9 (Cont'd)				
REGULATORS				
Emco 10 in. HP Balanced Valve No. 8102 with 8 in. diaphragm Case Maximum Inlet Pressure 600 lbs. 6 bolts CFBO	1	Each	471.4830	$ 471.48
Goldbug 1/2 in. HP Screwed	1	Each	12.1757	12.18
Goldbug Jefferson 1/2 in. HP Screwed	1	Each	12.1757	12.18
GAUGES				
Indicating Pressure				
Foxboro Steel Tube Model A CI Case Brass Trimmed 5 in. dial				
Range 0-500 lbs.	1	Each	4.3114	4.31
CONTROLLERS				
Foxboro Differential Scale 0-100 in. 8 in. dial No. A-47873 CI Case Complete with Brass Relief Valve Drip Well 1/8 in. Brass Regulator with Piping or Connections	1	Each	160.6620	160.66
Foxboro Intermittent No.A-27026 Scale 0-100 in. 8 in. dial Complete with 1/4 in. Brass Relief Valve and 2 in. Drip Well and 1/8 in. Brass Regulator without Piping or Connections	1	Each	160.6620	160.66
ANGLE VALVES Screwed				
Metric 1/4 in.	6	Each	1.2588	7.55
AUTOMATIC RELIEF VALVES Flanged				
Emco (Fulton Case) 8 in. with 12 in. diaphragm case CFBO	2	Each	736.5000	1,473.00
GATE VALVES Flanged				
Crane OS&Y				
8 in. 700 lb. T	3	Each	69.0212	207.06
10 in. 700 lb. T DD	2	Each	113.3689	226.74

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5875-5876

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
NORTH WACO, McLENNAN COUNTY, TEXAS, LINE L-9 (Cont'd)				
GATE VALVES Flanged (Cont'd)				
Walworth DD OS&Y				
8 in. 700 lb. T	3	Each	69.2272	$ 207.68
NEEDLE VALVES Screwed				
Walworth 1/4 in. 125 lb. WP				
Brass	1	Each	.4838	.48
Metric 1/4 in.	6	Each	1.2588	7.55
PLUG VALVES Screwed				
Nordstrom 2 in. 150 lb. WP	1	Each	7.3739	7.37
SPUR GEARED VALVES Flanged				
Nordstrom 12 in. 150 lb. WP CFBO	1	Each	383.6908	383.69
PIPE Threaded and Coupled (Random Lengths)	1	Lot		2.29
PIPE Plain End (Random Lengths)	1	Lot		74.65
HEADERS				
Baseball Welded Ends				
16 x 84 in. with 2 12 in. openings and 1 10 in. opening and 1 1/4 in. opening	1	Each	71.4700	71.47
18 x 144 in. with 3 8 in. openings 1 10 in. opening and 1 12 in. opening	1	Each	99.2500	99.25
18 x 144 in. with 3 8 in. openings and 2 12 in. openings (50% Ownership)	1	Each	101.0700	50.54
FITTINGS	1	Lot		248.52
WELDS	1	Lot		16.04
Material Cost				$ 4,526.09
Installation				1,280.85
TOTAL COST INSTALLED				$ 5,806.94

Form 814 1906 7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5877

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
BELTON, BELL COUNTY, TEXAS, LINE L-10 (Cont'd)				
PIPE Plain End (Random Lengths)	1	Lot		$ 19.38
CUSHIONS				
4 in. x 56 ft. 11 in. orange peel welded end other end 90 degree welded to Riser	1	Each	28.3400	28.34
4 in. x 57 ft. 7 in. orange peel welded ends 1 2 in. opening	1	Each	31.1300	31.13
HEADERS				
6 in. x 5 ft. 7 in. baseball welded ends 1 1/4 in. opening and 1 2 in. opening	1	Each	16.4300	16.43
FITTINGS	1	Lot		72.18
WELDS	1	Lot		45.67
Material Cost				$ 863.37
Installation				232.23
TOTAL COST INSTALLED				$ 1,095.60
TEMPLE, BELL COUNTY, TEXAS, LINE L-11				
METERS				
Foxboro Type 207 Orifice Meter Range 100 in. Differential 250 lbs. Static with 24 hour clock Chart No. 858049 Serial No. A-8298 Company No. 1194	1	Each	143.1046	$ 143.10
Foxboro Type 105 Differential Recorder Range 20 in. Differential only 24 hour clock Chart No. 858050 Serial No. A-8289 Company No. 1194	1	Each	119.9348	119.93
METER PIPING				
Wide Range Screwed Installation with Steel Needle Valves	1	Set	25.1700	25.17

Form 251 100M 7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System 5878-5911

Y R	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	TEMPLE, BELL COUNTY, TEXAS, LINE L-11 (Cont'd)				
	REGULATORS Emco 4 in. HP Balanced Valve 8 in. diaphragm case 6 bolts No. 1323 flanged	1	Each	155.2250	$ 155.23
	Emco 4 in. HP Balanced Valve with 9-1/2 in. diaphragm case 6 bolts number plate missing flanged	1	Each	155.2250	155.23
	GAUGES Indicating Pressure Foxboro Model A CI Case Brass Trimmed 5 in. dial Range 0-100 lbs.	1	Each	4.3114	4.31
	Foxboro CI Case Brass Trimmed 5 in. dial Range 0-250 lbs.	1	Each	4.3114	4.31
	Recording Pressure Foxboro 10 in. Recorder PAT Serial No. 48866 Chart No. 79977 Company No. R-32 CI Case 7 day clock Range 0-500 lbs.	1	Each	46.5752	46.58
	GATE VALVES Flanged Walworth DD Brass Stem OS&Y 6 in. 700 lbs. T	9	Each	45.7815	412.03
	NEEDLE VALVES Screwed Metric 1/4 in. Std.	2	Each	1.2588	2.52
	PLUG VALVES Flanged Nordstrom 6 in. 250 lbs. WP	2	Each	88.3607	176.72
	SAFETY VALVES Screwed Crane 6 in. 125 lbs. WP CI LW	1	Each	32.6161	32.61
	PIPE Plain End (Random Lengths)	1	Lot		49.14
	CUSHIONS 6 in. x 46 ft. 4 in. orange peel welded end other end 90 degree welded to Riser	1	Each	41.3900	41.39
	6 in. x 42 ft. 9 in. orange peel welded end other end 90 degree welded to Riser	1	Each	39.0100	39.01

Form 234—100M—7-48

TREANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5912

98 ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
CHILTON, FALLS COUNTY, TEXAS, LINE L-26-2 (Cont'd)				
FITTINGS	1	Lot		$ 30.08
WELDS	1	Lot		24.37
Material Cost				$ 550.25
Installation				149.35
TOTAL COST INSTALLED				$ 699.60
SOUTH WACO, MCLENNAN COUNTY, TEXAS, LINE L-27				
METERS				
Foxboro Type 207 Orifice Meter Range 100 in. Differential 250 lbs. Static with 24 hour clock Chart No. 858049 Serial No. A-80540 Company No. 1293	1	Each	143.1046	$ 143.10
Foxboro Type 105 Differential Recorder Range 20 in. Differential only with 24 hour clock Chart No. 858050 Serial No. A-81935 Company No. 1293	1	Each	119.9348	119.93
Foxboro Type 207 Orifice Meter Range 100 in. Differential 250 lbs. Static 24 hour clock Chart No. 858049 Serial No. A-80539 Company No. 1294	1	Each	143.1046	143.10
METER PIPING				
Wide Range Screwed Installation with Steel Needle Valves	1	Set	25.1700	25.17
Single Screwed Installation with Steel Needle Valves throughout	1	Set	23.1700	23.17
REGULATORS				
Emco 8 in. HP Balanced Valve No. 1049 with 9-1/2 in. diaphragm case 6 bolts flanged	1	Each	379.5000	379.50

Form 284 -100M—7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5913

eg	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	SOUTH WACO, McLENNAN COUNTY, TEXAS, LINE L-27 (Cont'd)				
	REGULATORS (Cont'd)				
	Goldbug 1/2 in. HP Screwed	1	Each	12.1757	$ 12.18
	GAUGES				
	Indicating Pressure				
	Foxboro Model J Steel Tube CI Case Brass Trimmed 5 in. dial				
	Range 0-500 lbs.	1	Each	12.2788	12.28
	AUTOMATIC RELIEF VALVES Flanged				
	Emco 6 in. with 9-1/2 in. Fulton diaphragm case 4 bolts	1	Each	399.2500	399.25
	GATE VALVES Flanged				
	Walworth DD Brass Stem OS&Y				
	6 in. 700 lb. T	6	Each	45.7815	274.69
	NEEDLE VALVES Screwed				
	Lunkenheimer 1/4 in. Brass				
	Std.	1	Each	.6293	.63
	Metric 1/4 in.	3	Each	1.2588	3.78
	Metric Angle 1/4 in.	3	Each	1.2588	3.78
	PLUG VALVES Flanged				
	Nordstrom				
	8 in. 250 lb. WP	2	Each	88.3607	176.72
	10 in. 250 lb. WP Venturi Type	1	Each	147.2747	147.27
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.06
	PIPE Plain End (Random lengths)	1	Lot		45.44
	HEADERS				
	12 in. x 6 ft. 8 in. with baseball welded ends and 1 1/4 in. opening 1 8 in. opening 1 10 in. opening 1 12 in. opening	1	Each	57.3200	57.32
	12 in. x 12 ft. with baseball welded ends with 3 6 in. openings 1 8 in. opening 1 10 in. opening	1	Each	66.8600	66.86

Form 234—100M—7-51

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5914-5915

eg	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	SOUTH WACO, McLENNAN COUNTY, TEXAS, LINE L-27 (Cont'd)				
	HEADERS (Cont'd) 12 in. x 12 ft. with baseball welded ends and 3 6 in. openings and 2 10 in. openings (50% Ownership)	1	Each	68.7600	$ 34.38
	CONTROLLERS Foxboro 8 in. Differential Limit No. A-46742 CI Case Complete with 1/8 in. Brass Relief Valve and 1/8 in. Brass Regulator and Foxboro No. 1-A Drip Well without piping or connections	1	Each	160.6620	$ 160.66
	FITTINGS	1	Lot		188.64
	WELDS	1	Lot		23.00
	Material Cost				$ 2,441.91
	Installation				686.97
	TOTAL COST INSTALLED				$ 3,128.88
	OSCEOLA, HILL COUNTY, TEXAS, LINE L-28				
	METERS Emco No. 3 100 lb. T Serial No. D-1395 with Emco Combined PV&T Recording Gauge Serial No. 155284 0-100 lbs. Static with 7 day Emco clock	1	Each	239.7850	$ 239.79
	REGULATORS Fulton 1 in. HP with 5-1/2 in. diaphragm case 4 bolts screwed	1	Each	18.0550	18.06
	Fulton 1-1/4 in. HP with 7 in. diaphragm case 4 bolts screwed	1	Each	22.1000	22.10

Form 154—100M—7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5916

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
W. J. NEAL, ALFALFA DRIER, NO. 1, McLENNAN COUNTY, TEXAS, LINE L-8				
METERS				
Emco No. 4 0-500 lbs. Serial No. 9241 Foxboro PVAT Gauge Serial No. F-129 0-80 lbs. Static with 7 day Foxboro Clock	1	Each	406.7500	$ 406.75
GATE VALVES Flanged				
Crane Brass Stem NRS 2 in. 125 lb. WP CI Std. 4 bolts CFBO	1	Each	8.0836	8.08
Walworth DD Brass Stem OS&Y 2 in. 700 lb. T LE 4 bolts CFBO	1	Each	17.2655	17.27
GATE VALVES Screwed				
Crane DD Brass Stem OS&Y 2 in. 1000 lb. T No. 25	3	Each	17.0461	51.14
PIPE Threaded and Coupled (Random Lengths)	1	Lot		2.38
FITTINGS	1	Lot		10.64
Material Cost				$ 496.26
Installation				140.94
TOTAL COST INSTALLED				$ 637.20
W. J. NEAL, ALFALFA DRIER, NO. 2, McLENNAN COUNTY, TEXAS, LINE L-8				
METERS				
Emco No. E-2 1 in. Serial No. 1016887	1	Each	29.5698	$ 29.57
REGULATORS				
Fulton 1 in. with 11-1/2 in. diaphragm case screwed	1	Each	18.0550	18.06
Hercules Little Giant 1 in. HP screwed	1	Each	8.3400	8.34

Form 284—100M—7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5917-5919

Y S	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	W. J. NEAL, ALFALFA DRIER, NO. 2, McLENNAN COUNTY, TEXAS, LINE L-8 (Cont'd)				
	PLUG VALVES Screwed Nordstrom 2 in. 250 lb. WP	1	Each	9.1458	$ 9.15
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.17
	FITTINGS	1	Lot		2.00
	Material Cost				$ 68.29
	Installation				19.39
	TOTAL COST INSTALLED				$ 87.68
	L & M JUNCTION, JOSHUA, JOHNSON COUNTY, TEXAS, LINE L				
	METERS Foxboro Type C Orifice Meter Range 100 in. Differential 500 lbs. Static. 24 hour clock Chart No. 85828 Serial No. 70743 Company No. 54	1	Each	141.2682	$ 141.27
	METER PIPING Single Screwed Installation with Steel Needle Valves throughout	1	Set	23.1700	23.17
	FITTINGS	1	Lot		46.09
	Material Cost				$ 210.53
	Installation				59.79
	TOTAL COST INSTALLED				$ 270.32

Form 251 - 100M 7-55

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"L" System

5920-5926

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
JOSHUA WAREHOUSE YARD, JOHNSON COUNTY, TEXAS, LINE L (Cont'd)				
FITTINGS	1	Lot		$ 53.00
Material Cost				$ 217.44
Installation				61.76
TOTAL COST INSTALLED				$ 279.20
NEAR JUNCTION LINES L AND L-8, McLENNAN COUNTY, TEXAS, LINE L-8				
METERS				
Foxboro Type C Orifice Meter Range 100 in. Differential 500 lbs. Static with Foxboro 7 day Jeweled clock Chart No. 85928 Serial No. 59819 Company No. 1295	1	Each	152.7382	$ 152.74
METER PIPING Single Screwed Installation with Steel Needle Valves throughout	1	Set	23.1700	23.17
GLOBE VALVES Screwed No Name 1/2 in. 125 lbs. WP	2	Each	.4067	.81
FITTINGS	1	Lot		32.94
Material Cost				$ 209.66
Installation				59.55
TOTAL COST INSTALLED				$ 269.21

Form 51-10MM-7-55

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5927

LW B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	MEXIA, LIMESTONE COUNTY, TEXAS, LINE M (Cont'd)				
	GATE VALVES Screwed Crane 2 in. 250 lbs. WP N RS Brass	1	Each	11.9953	$ 12.00
	NEEDLE VALVES Screwed Lunkenheimer 1/4 in. Brass Std.	1	Each	.6293	.63
	SAFETY VALVES Screwed Crane 2 in. 125 lbs. WP L&W type	1	Each	5.6714	5.67
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		28.94
	PIPE Plain End (Random Lengths)	1	Lot		27.64
	FITTINGS	1	Lot		181.62
	WELDS	1	Lot		11.04
	Material Cost				$ 1,055.79
	Installation				296.71
	TOTAL COST INSTALLED				$ 1,352.50
	NORTH CORSICANA, NAVARRO COUNTY, TEXAS, LINE M-1				
	METERS Foxboro Type 207 Orifice Range 100 in. Differential 100 lbs. static with 24 hour clock Chart No. 898039 Serial No. A-79367 Company No. 52	1	Each	139.0256	$ 139.03
	Foxboro Type 105 Differential recorder Range 20 in. Differential only with 24 hour clock Chart No. 858050 Serial No. A-77958 Company No. 52-A	1	Each	106.1254	106.13
	METER PIPING Wide range screwed installation with steel Needle Valves	1	Set	25.1700	25.17

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"F" System - 5928

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
NORTH CORSICANA, NAVARRO COUNTY, TEXAS, LINE M-1 (Cont'd)				
REGULATORS				
Emco 4 in. HP Balanced Valve Serial No. 3845 with 8 in. diaphragm case 6 bolts CFBO	1	Each	158.7412	$ 158.74
Emco 4 in. HP Balanced Valve Serial No. 4034 with 11 in. diaphragm case 6 bolts CFBO	1	Each	158.7412	158.74
GAUGES				
Indicating Pressure				
Foxboro Model A Brass trimmed CI case with 5 in. dial Range 0-250 lbs.	1	Each	4.3114	4.31
Recording Pressure				
Foxboro 10 in. with CI Case Serial No. 49825 Chart No. 79877 Company No. R-13 with 7 day clock	1	Each	46.5752	46.58
GATE VALVES Flanged				
Walworth ID OS&Y				
4 in. 700 lbs. T with EH CI CFBO	1	Each	32.2646	32.26
4 in. 700 lbs. T with EH CI LE CFBO	4	Each	32.2646	129.06
6 in. 175 lbs. WP with EH CI CFBO	4	Each	30.0070	120.03
NEEDLE VALVES Screwed				
Metric 1/4 in. EH	2	Each	1.2588	2.52
Lunkenheimer 1/4 in. Brass Std.	1	Each	.6293	.63
PLUG VALVES Flanged				
Nordstrom				
4 in. 250 lbs. WP with EH CI CFBO	1	Each	45.8848	45.88
4 in. 250 lbs. WP with EH CI LE CFBO	1	Each	45.8848	45.88
SAFETY VALVES Screwed				
Walworth 4 in. 125 lbs. WP L&W type	1	Each	15.7096	15.71
PIPE Threaded and Coupled (Random Lengths)	1	Lot		37.71
PIPE Plain End (Random Lengths)	1	Lot		1.26

Form 204—10M—7-31

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5929

LNE	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	NORTH CORSICANA, NAVARRO COUNTY, TEXAS, LINE M-1 (Cont'd)				
	HEADERS				
	8 x 72 in. with baseball welded ends with 2 6 in. and 2 8 in. welded openings (50% Ownership)	1	Each	42.8100	$ 21.41
	18 x 72 in. with baseball welded ends with 4 4 in. welded openings	1	Each	63.5200	63.52
	18 x 72 in. with baseball welded ends with 2 4 in. and 2 6 in. welded openings	1	Each	66.3400	66.34
	FITTINGS	1	Lot		89.21
	WELDS	1	Lot		29.66
	Material Cost				$ 1,339.78
	Installation				372.07
	TOTAL COST INSTALLED				$ 1,711.85
	ENNIS, ELLIS COUNTY, TEXAS, LINE M-2				
	METERS				
	Foxboro Type 207 Orifice Range 100 in. Differential, 100 lbs. static with 24 hour clock Chart No. 898039 Serial No. A-82033 Company No. 50	1	Each	139.0256	$ 139.03
	Foxboro Type T Differential Recorder Range 20 in. Differential only with 24 hour clock Chart No. 89863 Serial No. A-85446 Company No. 50-A	1	Each	106.1254	106.13
	METER PIPING				
	Wide Range screwed installation with steel Needle Valves	1	Set	25.1700	25.17
	REGULATORS				
	Emco 6 in. HP Balanced Valve Serial No. 1036 with 11 in. diaphragm case 6 bolts Flanged	1	Each	241.0000	241.00
	Fulton 4 in. HP with 7-1/2 in. diaphragm case 4 bolts with EH CI CIBO	1	Each	122.5890	122.59

Form 284 -100M—7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5930

LW B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	ENNIS, ELLIS COUNTY, TEXAS, LINE M-2				
	GAUGES				
	Indicating Pressure				
	Foxboro Model 5 Brass trimmed CI case steel tube with 5 in. dial				
	Range 0-500 lbs.	1	Each	4.3114	$ 4.31
	Ashcroft Brass trimmed CI case No. 7524- B 779 with 5 in. dial				
	Range 0-200 lbs.	1	Each	2.1692	2.17
	GATE VALVES Flanged				
	Darling IRBM DD NRS				
	4 in. 700 lbs. T No. 72 with EH CI CFBO	4	Each	27.8978	111.59
	6 in. 700 lbs. T No. 72 with EH CI CFBO	1	Each	43.8687	43.87
	Lunkenheimer 6 in. 250 lbs. WP IRBM Wedged NRS with EH CI CFBO	1	Each	72.3205	72.32
	Westcott IRBM DD NRS				
	4 in. 500 lbs. WP with EH CI CFBO	1	Each	29.2900	29.29
	4 in. 500 lbs. WP with EH CI LE CFBO	2	Each	29.2900	58.58
	GATE VALVES Screwed				
	Darling 6 in. 700 lbs. T IRBM DD NRS No. 71	1	Each	36.9966	37.00
	Walworth-Kewanee 3 in. 125 lbs. WP IRBM Wedge NRS	1	Each	7.2293	7.23
	GLOBE VALVES Screwed				
	Lunkenheimer 1/2 in. 200 lbs. WP Brass	2	Each	1.0909	2.18
	Lunkenheimer Renewo 1/2 in. 200 lbs. WP Brass	2	Each	1.0909	2.18
	NEEDLE VALVES Screwed				
	Lunkenheimer 1/4 in. Brass Std.	1	Each	.6293	.63
	SAFETY VALVES Screwed				
	National Tool Company 3 in. CI Std. L&W type	1	Each	9.2404	9.24

Form 154—1908—5-31

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5931

LW R	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	ENNIS, ELLIS COUNTY, TEXAS, LINE M-2 (Cont'd)				
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		$ 26.68
	HEADERS 6 in. x 5 ft. 4 in. one end flat and welded and other end threaded with 2 4 in. and 1 6 in. welded openings, 1 6 in. welded bull plug and 1 6 in. coupling	2	Each	27.98	55.96
	FITTINGS	1	Lot		134.27
	WELDS	1	Lot		5.66
	Material Cost				$ 1,237.08
	Installation				349.73
	TOTAL COST INSTALLED				$ 1,586.81
	STATION 0 PLUS 14.5 ENNIS, ELLIS COUNTY, TEXAS, LINE M-2				
	REGULATORS Emco 2 in. HP Balanced Valve with 8 in. diaphragm case 6 bolts No. 4387 Flanged	1	Each	87.7250	$ 87.73
	GAUGES Indicating Pressure Foxboro Iron Body HR with 5 in. dial Range 0-250 lbs.	1	Each	4.3114	4.31
	GATE VALVES Flanged Crane 4 in. 1000 lbs. T ED I BBW 084Y	2	Each	32.2173	64.43
	PIPE Plain End (Random Lengths)	1	Lot		2.45
	FITTINGS	1	Lot		17.02

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"F" System

5932

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
STATION 0 PLUS 14.5 ENNIS, ELLIS COUNTY, TEXAS, LINE M-2 (Cont'd)				
WELDS				$ 12.05
Material Cost				$ 187.99
Installation				49.97
TOTAL COST INSTALLED				$ 237.96
MUNICIPAL GAS COMPANY, WAXAHACHIE, ELLIS COUNTY, TEXAS, LINE M-3				
METERS				
Foxboro Type 207 Orifice Range 100 in. Differential,100 lbs. static with 24 hour clock Chart No. 898039 Serial No. A-82058 Company No. 67	1	Each	139.0256	$ 139.03
Foxboro Type T Differential Recorder Range 20 in. Differential only with 24 hour clock Chart No. 89863 Serial No. L-1019 Company No. 67-A	1	Each	106.1254	106.13
METER PIPING				
Wide range screwed installation with steel Needle Valves	1	Set	25.1700	25.17
REGULATORS				
Emco 4 in. HP Balanced Valve Serial No. 1324 with 8 in. diaphragm case 6 bolts Flanged	1	Each	155.2250	155.23
Emco 6 in. HP Balanced Valve Serial No. 1039 with 11 in. diaphragm case 6 bolts Flanged	1	Each	241.0000	241.00
GAUGES				
Indicating Pressure				
Foxboro Model J Steel Tube Brass trimmed CI case with 5 in. dial Range 0-500 lbs.	1	Each	12.2788	12.28
Jarecki Brass trimmed CI Case with 5 in. dial Range 0-200 lbs.	1	Each	5.7999	5.80

2485

Form 251 100M 7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5933

LW B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	MUNICIPAL GAS COMPANY, WAXAHACHIE, ELLIS COUNTY, TEXAS, LINE M-3 (Cont'd)				
	GATE VALVES Flanged				
	Atwood 6 in. Style 4-P IBBM DD NRS with EH CI CWBO	1	Each	49.7261	$ 49.73
	Ludlow 4 in. No. 8 IBBM DD NRS	2	Each	35.2632	70.53
	Westcott DD Semi-Steel Bronze Mounted NRS				
	4 in. 500 lbs. WP with EH CI LE CWBO	2	Each	29.2900	58.58
	4 in. 500 lbs. WP	1	Each	25.7738	25.77
	GATE VALVES Screwed				
	Darling IBBM DD NRS				
	4 in. 700 lbs. T No. 71	4	Each	23.1346	92.54
	6 in. 700 lbs. T No. 71	1	Each	36.9966	37.00
	Walworth-Kewanee 3 in. 125 lbs. WP IBBM Wedge NRS	1	Each	7.2293	7.23
	GLOBE VALVES Screwed				
	Crane 1/4 in. 200 lbs. WP Brass	1	Each	.4067	.41
	Lunkenheimer 1/2 in. Brass Std.	2	Each	1.0909	2.18
	NEEDLE VALVES Screwed				
	Lunkenheimer 1/4 in. Brass Std.	1	Each	.6293	.63
	PLUG VALVES Flanged				
	Nordstrom 6 in. 250 lbs. WP with EH CI CWBO	1	Each	93.4849	93.48
	SAFETY VALVES Screwed				
	National Tool Company 3 in. L&W type Std.	1	Each	9.2404	9.24
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		25.54
	PIPE Plair End (Random Lengths)	1	Lot		2.10
	HEADERS				
	6 in. x 5 ft. 4 in. with one end flat end welded and other end threaded and with 2 4 in. and 1 6 in. welded openings	2	Each	20.3200	40.64

2486

Form 234—1000M—7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5934

LN B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT *
	MUNICIPAL GAS COMPANY, WAXAHACHIE, ELLIS COUNTY, TEXAS, LINE M-3 (Cont'd)				
	FITTINGS	1	Lot		$ 169.75
	WELDS	1	Lot		10.17
	Material Cost				$ 1,380.16
	Installation				389.08
	TOTAL COST INSTALLED				$ 1,769.24
	WAXAHACHIE GAS COMPANY, WAXAHACHIE, ELLIS COUNTY, TEXAS, LINE M-3				
	METERS				
	Foxboro Type 207 Orifice Range 100 in. Differential 100 lbs. static with 24 hour clock Chart No. 898039 Serial No. A-82040 Company No. 88	1	Each	139.0256	$ 139.03
	Foxboro Type T Differential Recorder Range 20 in. Differential only with 24 hour clock Chart No. 89863 Serial No. 78110 Company No. 88-A	1	Each	106.1254	106.13
	METER PIPING				
	Wide Range screwed installation with Lunkenheimer Brass Needle Valves	1	Set	16.8500	16.85
	REGULATORS				
	Emco 4 in. HP Balanced Valve Serial No. 1383 6 bolts Flanged	1	Each	155.2250	155.23
	Fulton 2 in. HP with 7-1/2 in. diaphragm case Screwed	1	Each	54.9600	54.96
	GAUGES				
	Indicating Pressure Foxboro Model A Brass trimmed CI case with 5 in. dial Range 0-250 lbs.	1	Each	4.3114	4.31

2487

Form 354 10-M 7-55

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5935

LNE	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	WAXAHACHIE GAS COMPANY, WAXAHACHIE, ELLIS COUNTY, TEXAS, LINE M-3 (Cont'd)				
	GAUGES (cont'd)				
	Recording Pressure				
	Foxboro 10 in. with CI case Serial No. A-69515 Chart No. 79980 with Foxboro 24 hour clock				
	Range 0-1000 lbs.	1	Each	35.1092	$ 35.11
	GATE VALVES Flanged				
	Atwood Style 4-P 2 in. 500 lbs. WP OS&Y with RH CI LE CFBO	2	Each	19.5378	39.08
	Kennedy 4 in. 250 lbs. WSP IBBM DD NRS with RH CI CFBO	4	Each	40.1951	160.78
	Pratt & Cady IBBM Wedged OS&Y				
	4 in. 250 lbs. WP No. 162-A-4 with RH CI CFBO	1	Each	44.6392	44.64
	4 in. 250 lbs. WP No. 162-A-4 with RH CI LE CFBO	1	Each	44.6392	44.64
	GATE VALVES Screwed				
	Westcott 2 in. 1200 lbs. WP LE IBBM DD NRS	2	Each	19.4032	38.81
	NEEDLE VALVES Screwed				
	Metric 1/4 in. RH	2	Each	1.2588	2.52
	Metric Angle 1/4 in. RH	1	Each	1.2588	1.26
	Lunkenheimer 1/2 in. Brass Std.	2	Each	.9069	1.81
	SAFETY POP VALVES Screwed				
	American 2 in. Female Threaded RH CI	1	Each	10.6218	10.62
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		27.31
	CUSHIONS				
	6 in. x 37 ft. with one end orange peel welded and other end 6 x 2 in. swedge welded and threaded, 1 2 x 4-1/2 in. TOE nipple, 1 2 in. circle weld	1	Each	47.1300	47.13
	FITTINGS	1	Lot		113.15

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System 5936-5962

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
WAXAHACHIE GAS COMPANY, WAXAHACHIE, ELLIS COUNTY, TEXAS, LINE M-3 (Cont'd)				
WELDS	1	Lot		$ .45
Material Cost				$ 1,043.82
Installation				296.31
TOTAL COST INSTALLED				$ 1,340.13
WAXAHACHIE, ELLIS COUNTY, TEXAS, LINE M-3				
REGULATORS				
Fulton 2 in. HP with 7-1/2 in. diaphragm case no bolts Screwed	1	Each	54.9600	$ 54.96
GAUGES				
Indicating Pressure				
Foxboro Brass trimmed CI case with 5 in. dial				
Range 0-250 lbs.	1	Each	4.3114	4.31
Range 0-500 lbs.	1	Each	4.3114	4.31
GATE VALVES Flanged				
Crane 6 in. 1000 lbs. T OS&Y with EH CI CFBO	1	Each	59.1287	59.13
Pratt & Cady IBBM Wedged OS&Y 4 in. 250 lbs. WP No. 162-A-4-6	1	Each	41.1230	41.12
4 in. 250 lbs. WP No. 162-A-4-6 with EH CI CFBO	1	Each	44.6392	44.64
PIPE Plain End (Random Lengths)	1	Lot		2.81
FITTINGS	1	Lot		6.74
WELDS	1	Lot		12.78
Material Cost				$ 230.80
Installation				61.92
TOTAL COST INSTALLED				$ 292.72

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5963

LW B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	TERRACANA, LIMESTONE COUNTY, TEXAS, LINE M-11-S (Cont'd)				
	PLUG VALVES Flanged (cont'd)				
	Barco				
	2 in. Type MC-1 250 lbs. WP with 2 x 6-1/2 in. EH CI 4 bolts CVEO (50% Ownership)	1	Each	14.2677	$ 7.13
	2 in. Type MC-1 250 lbs. WP	2	Each	12.3409	24.68
	SAFETY VALVES Screwed				
	Crane 2 in. 125 lbs. WP L&W type	1	Each	5.6714	5.67
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		2.01
	PIPE Plain End (Random Lengths)	1	Lot		2.83
	HEADERS				
	16 x 36 in. with baseball welded ends with 3 2 in. welded openings and 1 1/4 in. welded collar	1	Each	42.3900	42.39
	FITTINGS	1	Lot		21.95
	WELDS	1	Lot		22.29
	Material Cost				$ 532.35
	Installation				144.85
	TOTAL COST INSTALLED				$ 677.20
	SOUTH CORSICANA, NAVARRO COUNTY, TEXAS, LINE M-13				
	METERS				
	Westcott Orifice Bristol case 100 in. Differential and static with 24 hour clock Serial No. 14645 Company No. 1204	1	Each	130.3262	$ 130.33
	Westcott Differential Recorder Bristol case 20 in. differential only with 24 hour clock Serial No. 16147 Company No. 1204-A	1	Each	113.7437	113.74

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5964

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
SOUTH CORSICANA, NAVARRO COUNTY, TEXAS, LINE M-13 (Cont'd)				
METER PIPING				
Wide Range screwed installation with steel Needle Valves	1	Set	25.1700	$ 25.17
FITTINGS	1	Lot		36.68
WELDS	1	Lot		.45
Material Cost				$ 306.37
Installation				86.88
TOTAL COST INSTALLED				$ 393.25
SOUTH CORSICANA, NAVARRO COUNTY, TEXAS, LINE M-13				
REGULATORS				
Fulton 2 in. HP with 7-1/2 in. diaphragm case no bolts Screwed	1	Each	54.9600	$ 54.96
Fulton 4 in. HP with 9-1/2 in. diaphragm case 4 bolts Flanged	1	Each	122.5890	122.59
GAUGES				
Indicating Pressure				
Crosby Iron Body BR with 5 in. dial Range 0-250 lbs.	1	Each	3.7586	3.76
Foxboro Iron Body BR with 5 in. dial Range 0-500 lbs.	1	Each	4.3114	4.31
GATE VALVES Flanged				
Crane 8 in. 250 lbs. WP IHBM Wedge OS&Y with 8 x 15 in. EH CI 12 bolts CFBO	1	Each	112.2924	112.29
Pratt & Cady 8 in. 250 lbs. WP IHBM Steel Stem Wedge OS&Y with 8 x 15 in. EH CI LE 12 bolts CFBO	2	Each	105.1313	210.26
GATE VALVES Screwed				
Crane RS Brass				
3/8 in. 125 lbs. WP	1	Each	.5851	.59
1/2 in. 125 lbs. WP	1	Each	.6687	.67

Form 284—100M—7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5965-5976

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
SOUTH CORSICANA, NAVARRO COUNTY, TEXAS, LINE M-13 (Cont'd)				
GLOBE VALVES Screwed Walworth 1/4 in. 125 lbs. WP Brass	1	Each	.4067	$ .41
PIPE Threaded and Coupled (Random Lengths)	1	Lot		20.48
PIPE Plain End (Random Lengths)	1	Lot		7.32
CUSHIONS 18 x 132 in. with baseball welded ends with 2 4 in. welded openings and 1 1/4 in. welded collar	1	Each	69.2800	69.28
FITTINGS	1	Lot		35.95
WELDS	1	Lot		62.14
Material Cost				$ 705.01
Installation				182.57
TOTAL COST INSTALLED				$ 887.58
MILFORD, ELLIS COUNTY, TEXAS, LINE M-14				
METERS Emco No. 4 50 lbs. T Serial No. B-5961 with Emco combined PV&T Recording Gauge Serial No. 134086 0-50 lbs. static with 7 day Emco clock	1	Each	267.1664	$ 267.17
REGULATORS Fulton 1 in. HP with 5-1/2 in. diaphragm case 4 bolts Screwed	1	Each	18.0550	18.06
Fulton 1-1/4 in. HP with 7-1/4 in. diaphragm case 4 bolts Screwed	1	Each	22.1000	22.10

Form 954—100M—7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"N" System

5977

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
CORSICANA CLUB, NAVARRO COUNTY, TEXAS, LINE M				
METERS				
Emco No. 2 50 lbs. T Serial No. 731875 with Foxboro combined P W&T Recording Gauge Serial No. P-851 0-50 lbs. static with 7 day Foxboro clock	1	Each	153.8788	$ 153.88
REGULATORS				
Emco 1 in. HP with 7 in. diaphragm case Field type Screwed	1	Each	12.7500	12.75
Fulton 1-1/4 in. HP with 11-1/2 in. diaphragm case 4 bolts Screwed	1	Each	22.1000	22.10
GAUGES				
Indicating Pressure				
Foxboro Iron Body HR with 5 in. dial Range 0-60 lbs.	1	Each	4.3114	4.31
GLOBE VALVES Screwed				
Crane 1/4 in. 125 lbs. WP Brass	1	Each	.4067	.41
NEEDLE VALVES Screwed				
Lunkenheimer 1/4 in. 125 lbs. WP Brass	1	Each	.6293	.63
SAFETY VALVES Screwed				
Crane 1 in. Set 40 Brass Std.	1	Each	1.0325	1.03
PIPE Threaded and Coupled (Random Lengths)	1	Lot		.38
FITTINGS	1	Lot		20.73
Material Cost				$ 216.22
Installation				61.41
TOTAL COST INSTALLED				$ 277.63

2493

Form 214—100M—7-32

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5978

L B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	HOMA OKLA TEXAS COMPANY, McGRAW LEASE, NAVARRO COUNTY, TEXAS, LINE M				
	METERS Emco No. 4 500 lbs. T Serial No. 7382 with Foxboro combined PV&T Recording Gauge No. F-277 0-500 lbs. static with 7 day Foxboro clock	1	Each	406.7500	$ 406.75
	GATE VALVES Screwed Crane 2 in. 125 lbs. WP IRRM Wedged NRS	6	Each	5.0534	30.32
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.72
	FITTINGS	1	Lot		21.67
	Material Cost				$ 460.46
	Installation				130.77
	TOTAL COST INSTALLED				$ 591.23
	G. C. KENT, ANGUS LEASE, NAVARRO COUNTY, TEXAS, LINE M				
	METERS Emco No. 2-1/2 500 lbs. T Serial No. 2642 with Foxboro combined PV&T Recording Gauge No. F-315 0-80 lbs. static with Foxboro 7 day clock	1	Each	209.5530	$ 209.55
	REGULATORS Emco 1 in. HP with 7 in diaphragm case Field type Screwed	1	Each	12.7500	12.75
	GATE VALVES Screwed Crane 2 in. 125 lbs. WP	3	Each	5.0534	15.16
	SAFETY POP VALVES Screwed Crane 1 in. Set 50 for Air No. 3-1148 Brass Std.	1	Each	5.6714	5.67
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		2.29

Form 554—100M—7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5979

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
G. C. KENT, ANGUS LEASE, NAVARRO COUNTY, TEXAS, LINE M				
FITTINGS	1	Lot		$ 43.45
Material Cost				$ 288.87
Installation				82.03
TOTAL COST INSTALLED				$ 370.90
PURE OIL COMPANY, COLE AND McGRAW LEASE, LIMESTONE COUNTY, TEXAS, LINE M				
METERS Emco No. 2-1/2 500 lbs. T Serial No. 2630 with Foxboro combined PV&T Recording Gauge No. F-332 0-500 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
GATE VALVES Screwed Crane 2 in. 125 lbs. WP Wedge NRS	6	Each	5.0534	30.32
PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.41
FITTINGS	1	Lot		19.01
Material Cost				$ 260.29
Installation				73.92
TOTAL COST INSTALLED				$ 334.21
E. L. SMITH OIL CORPORATION, McGRAW LEASE, NAVARRO COUNTY, TEXAS, LINE M				
METERS Emco No. 2-1/2 500 lbs. T Serial No. 2589 with Foxboro combined PV&T Recording Gauge No. F-254 0-500 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55

Form 354—10M—7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System 5980

L R	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	E. L. SMITH OIL CORPORATION, McGRAW LEASE, NAVARRO COUNTY, TEXAS, LINE M (Cont'd)				
	GATE VALVES Screwed Crane 2 in. 125 lbs. WP IRON Wedge NRS	6	Each	5.0534	$ 30.32
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.38
	FITTINGS	1	Lot		27.14
	Material Cost				$ 268.39
	Installation				76.23
	TOTAL COST INSTALLED				$ 344.62
	SWOMDEN AND McSHERRY, LONGBOTHAM LEASE, FREESTONE COUNTY, TEXAS, LINE M				
	METERS Runco No. 2-1/2 500 lbs. T Serial No. 2582 with Foxboro combined PW&T Recording Gauge No.F-249 0-500 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
	GATE VALVES Screwed Crane 2 in. 125 lbs. WP IRON Wedge NRS	6	Each	5.0534	30.32
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.41
	FITTINGS	1	Lot		19.69
	Material Cost				$ 260.97
	Installation				73.12
	TOTAL COST INSTALLED				$ 334.09

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System 5981

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
MOSS & URSCHEL, FREEMAN LEASE, LIMESTONE COUNTY, TEXAS, LINE M-11				
METERS Emco No. 3 100 lbs. T Serial No. 8029 with Foxboro combined PV&T Recording Gauge No. F-171 0-50 lbs. static with 7 day Foxboro clock	1	Each	229.7000	$ 229.70
REGULATORS Emco 1 in. HP with 7 in. diaphragm case Field type Screwed	1	Each	12.7500	12.75
GATE VALVES Screwed Crane 2 in. 125 lbs. WP 1HBM	6	Each	5.0534	30.32
SAFETY VALVES Screwed Crane 1 in. 125 lbs. WP L&W type Brass	1	Each	2.0637	2.06
PIPE Threaded and Coupled (Random Lengths)	1	Lot		.92
FITTINGS	1	Lot		28.99
Material Cost				$ 304.74
Installation				86.55
TOTAL COST INSTALLED				$ 391.29
STATION 353 PLUS 73, MID-KANSAS OIL & REFINING COMPANY, LIMESTONE COUNTY, TEXAS, LINE M-11				
GLOBE VALVES Screwed Lunkenheimer 1/2 in. Brass Std.	2	Each	1.4353	$ 2.87
PIPE Threaded and Coupled (Random Lengths)	1	Lot		.33
FITTINGS	1	Lot		30.28
Material Cost				$ 33.48
Installation				9.51
TOTAL COST INSTALLED				$ 42.99

2497

Form 664 1948 7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5982

LN B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	CONTINENTAL OIL COMPANY, HARWELL LEASE, NAVARRO COUNTY, TEXAS, LINE M-15				
	METERS				
	Emco No. 2-1/2 500 lbs. T Serial No. 2581 with Foxboro combined PV&T Recording Gauge No.F-250 0-500 lbs. with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
	REGULATORS				
	Emco 1-1/2 in. HP Field type Inlet pressure 300 lbs. Delivery pressure 30 lbs. Screwed	1	Each	12.7500	12.75
	GATE VALVES Screwed				
	Crane 2 in. 125 lbs. WP IRBM Wedge NRS	6	Each	5.0534	30.32
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		.92
	FITTINGS	1	Lot		20.91
	Material Cost				$ 274.45
	Installation				77.95
	TOTAL COST INSTALLED				$ 352.40
	J. F. JACKSON TRACT, NAVARRO COUNTY, TEXAS, LINE M-15				
	REGULATORS				
	Fulton 2 in. HP with 7-1/2 in. diaphragm case no bolts Screwed	1	Each	54.9600	$ 54.96
	GAUGES				
	Indicating Pressure				
	Ashcroft Iron Body BR with 5 in. dial Range 0-200 lbs. No.7590B022	1	Each	2.1692	2.17
	GATE VALVES Screwed				
	Crane 2 in. 125 lbs. WP IRBM Wedge NRS	2	Each	5.0534	10.11
	Ludlow 2 in. No. 8 IRBM DD LE NRS	2	Each	19.5904	39.18

Form 284—100M—7-58

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System 5983

L B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	J. F. JACKSON TRACT, NAVARRO COUNTY, TEXAS, LINE M-15 (Cont'd)				
	GLOBE VALVES Screwed Jenkins 1/4 in. 300 lbs. WP Brass	1	Each	.7965	$ .80
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		3.88
	FITTINGS	1	Lot		9.76
	Material Cost				$ 120.86
	Installation				34.32
	TOTAL COST INSTALLED				$ 155.18
	SIMMS OIL COMPANY, ROSE LEASE, NAVARRO COUNTY, TEXAS, LINE M-15				
	METERS Emco No. 4 500 lbs. T Serial No. 5220 with Foxboro combined PV&T Recording Gauge No.F-279 0-500 lbs. static with 7 day Foxboro clock	1	Each	406.7500	$ 406.75
	GATE VALVES Screwed Crane 2 in. 125 lbs. WP IBBM Wedge NRS	6	Each	5.0534	30.32
	Lunkenheimer Clip 1-1/4 in. 100 lbs. WP IBBM Wedge RS	1	Each	1.6841	1.68
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		2.69
	FITTINGS	1	Lot		25.59
	Material Cost				$ 467.03
	Installation				132.64
	TOTAL COST INSTALLED				$ 599.67

2433

Form 234—100M—7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5984

L B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	SKELLY OIL COMPANY, CARRILL LEASE, NAVARRO COUNTY, TEXAS, LINE M-15				
	METERS				
	Emco No. 2-1/2 500 lbs. T Serial No. 2569 with Foxboro combined PV&T Recording Gauge No. F-274 0-250 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
	GATE VALVES Screwed				
	Crane 2 in. 125 lbs. WP IBBM Wedge NRS	6	Each	5.0534	30.32
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		.99
	FITTINGS	1	Lot		21.40
	Material Cost				$ 262.26
	Installation				74.48
	TOTAL COST INSTALLED				$ 336.74
	STATION 117 PLUS 10, GARARD CORPORATION, NAVARRO COUNTY, TEXAS, LINE M-15-2				
	METERS				
	Foxboro type 207 Orifice Range 100 in. Differential 100 lbs. static with 7 day Jeweled clock Chart No. 899039 Serial No. A-82056 Company No. 1284	1	Each	150.4956	$ 150.50
	METER PIPING				
	Single screwed installation with steel Needle Valves throughout	1	Each	23.1700	23.17
	REGULATORS				
	Fulton 2 in. HP with 7-1/2 in. diaphragm case no bolts Screwed	1	Each	54.9600	54.96
	GAUGES				
	Indicating Pressure				
	Foxboro Iron Body BR with 5 in. dial Range 0-500 lbs.	1	Each	4.3114	4.31

2500

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5985

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
STATION 117 PLUS 10, GARARD CORPORATION, NAVARRO COUNTY, TEXAS, LINE M-15-2 (Cont'd)				
GATE VALVES Flanged Walworth IHBM DD 084Y ¾ in. 700 lbs. T with 4 x 10 in. EH CI LE 8 bolts CFBO	3	Each	32.2646	$ 96.79
4 in. 700 lbs. T with 2 x 10 in. EH CI 8 bolts CFBO	1	Each	32.2646	32.26
NEEDLE VALVES Screwed Lunkenheimer 1/4 in. Brass Std.	1	Each	.6293	.63
PLUG VALVES Flanged Barco 2 in. 250 lbs. WP Type MC-1 with 2 x 6-1/2 in. EH CI 4 bolts CFBO	2	Each	14.2677	28.54
PIPE Threaded and Coupled (Random Lengths)	1	Lot		9.10
PIPE Plain End (Random Lengths)	1	Lot		4.25
FITTINGS	1	Lot		23.37
WELDS	1	Lot		18.34
Material Cost				$ 446.22
Installation				121.52
TOTAL COST INSTALLED				$ 567.74
GULF PRODUCTION COMPANY, J. B. BUSH LEASE, NAVARRO COUNTY, TEXAS, LINE M-15-2				
METERS Emco No. 2-1/2 500 lbs. T Serial No. A-3080 with Emco combined PV&T Recording Gauge Serial No. 147624 0-500 lbs. static with 7 day Emco clock	1	Each	219.6380	$ 219.64
GATE VALVES Screwed Crane 2 in. 125 lbs. WP IHBM Wedge NRS	4	Each	5.0534	20.21
Walworth 2 in. 125 lbs. WP IHBM Wedge NRS	2	Each	5.1255	10.25

2501

Form 284—10636—7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5986

L B-	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	STATION 70 PLUS 39, MDSS & URSCHEL, I.N. CERF LEASE, NAVARRO COUNTY, TEXAS, LINE M-15-2 (Cont'd)				
	GATE VALVES Screwed Crane 2 in. 125 lbs. WP IBBM Wedge NRS	6	Each	5.0534	$ 30.32
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.32
	FITTINGS	1	Lot		21.83
	Material Cost				$ 263.02
	Installation				74.70
	TOTAL COST INSTALLED				$ 337.72
	STATION 47 PLUS 39, STROUBE & STROUBE, HILL LEASE, NAVARRO COUNTY, TEXAS, LINE M-15-2				
	METERS Emco No. 2-1/2 500 lbs. T Serial No. 2570 with Foxboro PV&T Recording Gauge Serial No. F-334 0-500 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
	GATE VALVES Screwed Crane 2 in. 125 lbs. WP IBBM Wedge NRS	6	Each	5.0534	30.32
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.29
	FITTINGS	1	Lot		23.20
	Material Cost				$ 264.36
	Installation				75.07
	TOTAL COST INSTALLED				$ 339.43

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System 5987

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
GULF PRODUCTION COMPANY, J. B. BUSH LEASE, NAVARRO COUNTY, TEXAS, LINE M-15-2 (Cont'd)				
PIPE Threaded and Coupled (Random Lengths)	1	Lot		$ 1.36
FITTINGS	1	Lot		21.50
Material Cost				$ 272.96
Installation				77.51
TOTAL COST INSTALLED				$ 350.47
STATION 116 PLUS 67, MAGNOLIA PETROLEUM COMPANY, NAVARRO COUNTY, TEXAS, LINE M-15-2				
METERS				
Emco No. 2-1/2 500 lbs. T Serial No. 2544 with Foxboro PV&T Recording Gauge Serial No. F-227 0-500 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
GATE VALVES Screwed				
Crane 2 in. 125 lbs. WP IBBM Wedge NRS	6	Each	5.0534	30.32
PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.41
FITTINGS	1	Lot		17.37
Material Cost				$ 258.65
Installation				73.46
TOTAL COST INSTALLED				$ 332.11
STATION 70 PLUS 39, MOSS & URSCHEL, I. N. CERF LEASE, NAVARRO COUNTY, TEXAS, LINE M-15-2				
METERS				
Emco No. 2-1/2 500 lbs. T Serial No. 2551 with Foxboro PV&T Recording Gauge Serial No. F-234 0-500 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55

2503

Form 354—10M—7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5988

L B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	STATION 116 PLUS 55.5, PURE OIL COMPANY, McKIE LEASE, NAVARRO COUNTY, TEXAS, LINE M-15-2				
	METERS				
	Emco No. 4 500 lbs. T Serial No. 9455 with Foxboro PV&T Recording Gauge Serial No. F-274 0-500 lbs. static with 7 day Foxboro clock	1	Each	406.7500	$ 406.75
	GATE VALVES Screwed				
	Crane 2 in. 125 lbs. WP IRRM Wedge NRS	6	Each	5.0534	30.32
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.99
	FITTINGS	1	Lot		38.64
	Material Cost				$ 477.70
	Installation				135.67
	TOTAL COST INSTALLED				$ 613.37
	STATION 116 PLUS 78, SPANSCO OIL AND ROYALTY COMPANY, NAVARRO COUNTY, TEXAS, LINE M-15-2				
	METERS				
	Emco No. 2-1/2 500 lbs. T Serial No.2583 with Foxboro PV&T Recording Gauge Serial No. F-229 0-500 lbs. static with Foxboro 7 day clock	1	Each	209.5530	$ 209.55
	GATE VALVES Screwed				
	Crane 2 in. 125 lbs. WP IRRM Wedge NRS	6	Each	5.0534	30.32
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.38
	FITTINGS	1	Lot		15.13
	Material Cost				$ 256.38
	Installation				72.82
	TOTAL COST INSTALLED				$ 329.20

Form 284—100M—7-38

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5989

LF B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	STATION 108 PLUS 05, SIMMS OIL COMPANY, BOYD LEASE, NAVARRO COUNTY, TEXAS, LINE M-15-4				
	METERS				
	Emco No. 2-1/2 500 lbs. T Serial No. 2547 with Foxboro combined PV&T Recording Gauge No. F-230 0-500 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
	GATE VALVES Screwed				
	Crane 2 in. 125 lbs. WP IEBM Wedge NRS	5	Each	5.0534	25.27
	Walworth 2 in. 125 lbs. WP IEBM Wedge NRS	1	Each	5.1255	5.13
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		.92
	FITTINGS	1	Lot		33.08
	Material Cost				$ 273.95
	Installation				77.80
	TOTAL COST INSTALLED				$ 351.75
	STATION 54 PLUS 35, DON S. FOSTER, MILLS LEASE, LIMESTONE COUNTY, TEXAS, LINE M-21				
	METERS				
	Emco No. 2-1/2 500 lbs. T Serial No. 2542 with Foxboro PV&T Recording Gauge Serial No. F-335 0-80 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
	REGULATORS				
	Emco 1-1/2 in. HP Inlet Pressure 600 lbs. Delivery Pressure 10-75 lbs. with 8 in. diaphragm case Screwed	1	Each	12.7500	12.75
	GATE VALVES Screwed				
	Crane 2 in. 125 lbs. WP IEBM Wedge NRS	6	Each	5.0534	30.32
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		.97

2505

Form ...1 —100M— 7-51

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5990

LN B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	STATION 54 PLUS 35, DON S. FOSTER, MILLS LEASE, LIMESTONE COUNTY, TEXAS, LINE M-21 (Cont'd)				
	FITTINGS	1	Lot		$ 25.52
	Material Cost				$ 279.11
	Installation				79.26
	TOTAL COST INSTALLED				$ 358.37
	STATION 49 PLUS 79, SIMMS OIL COMPANY, REID LEASE, LIMESTONE COUNTY, TEXAS, LINE M-21				
	METERS Emco No. 2-1/2 500 lbs. T Serial No. 2591 with Foxboro PV&T Recording Gauge Serial No. F-261 0500 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
	GATE VALVES Screwed Crane 2 in. 125 lbs. WP IBBM Wedge NRS	6	Each	5.0534	30.32
	Lunkenheimer Clip 1-1/4 in. 100 lbs. WP	1	Each	1.6841	1.68
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.00
	FITTINGS	1	Lot		18.71
	Material Cost				$ 261.26
	Installation				74.20
	TOTAL COST INSTALLED				$ 335.46

Form 264—100M—7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5991

L B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	STATION 55 PLUS 26, STANDARD PIPE AND SUPPLY COMPANY, ROLLER LEASE, LIMESTONE COUNTY, TEXAS, LINE M-21				
	METERS				
	Emco No. 2-1/2 500 lbs. T Serial No. 2634 with Foxboro PV&T Recording Gauge Serial No. F-251 0-500 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
	GATE VALVES Screwed				
	Crane 2 in. 125 lbs. WP IBBM Wedge NRS	6	Each	5.0534	30.32
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.06
	FITTINGS	1	Lot		22.74
	Material Cost				$ 263.67
	Installation				74.89
	TOTAL COST INSTALLED				$ 338.56
	STATION 36 PLUS 62, TEXAS COMPANY, LEWIS LEASE, LIMESTONE COUNTY, TEXAS, LINE M-21				
	METERS				
	Emco No. 2-1/2 500 lbs. T Serial No. 2592 with Foxboro PV&T Recording Gauge Serial No. F-260 0-500 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
	GATE VALVES Screwed				
	Crane 2 in. 125 lbs. WP IBBM Wedge NRS	6	Each	5.0534	30.32
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		.88
	FITTINGS	1	Lot		24.14
	Material Cost				$ 264.89
	Installation				75.23
	TOTAL COST INSTALLED				$ 340.12

2507

Form 524—100M—7-48

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System

5992

LN B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	MOSS & URSCHEEL, THOMPSON LEASE, LIMESTONE COUNTY, TEXAS, LINE M-21-4				
	METERS				
	Emco No. 2-1/2 500 lbs. T Serial No. 2546 with Foxboro combined PV&T Recording Gauge No. P-225 0-500 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
	GATE VALVES Screwed				
	Crane 2 in. 125 lbs. WP IBBM Wedge NRS	6	Each	5.0534	30.32
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		2.29
	FITTINGS	1	Lot		18.03
	Material Cost				$ 260.19
	Installation				73.90
	TOTAL COST INSTALLED				$ 334.09
	STATION 43 PLUS 99, SIMMS OIL COMPANY, GORDON LEASE, NAVARRO COUNTY, TEXAS, LINE M-22				
	METERS				
	Emco No. 2-1/2 500 lbs. T Serial No. 2547 with Foxboro PV&T Recording Gauge Serial No. P-230 0-500 lbs. static with Foxboro 7 day clock	1	Each	209.5530	$ 209.55
	GATE VALVES Screwed				
	Crane 2 in. 125 lbs. WP IBBM Wedge NRS	4	Each	5.0534	20.21
	Westcott 2 in. 500 lbs. T IBBM ID NRS LK	2	Each	8.7736	17.55
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.23

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"M" System 5993-6011

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
STATION 43 PLUS 99, SIMMS OIL COMPANY, GORDON LEASE, NAVARRO COUNTY, TEXAS, LINE M-22 (Cont'd)				
FITTINGS	1	Lot		$ 27.97
Material Cost				$ 276.51
Installation				78.53
TOTAL COST INSTALLED				$ 355.04
STATION 0 PLUS 71, JUNCTION LINES L AND M, CLEBURNE, JOHNSON COUNTY, TEXAS, LINE M				
METERS Foxboro Type C Orifice Range 100 in. Differential 500 lbs. static with 24 hour clock Chart No. 85828 Serial No. 60067 Company No. 49	1	Each	141.2682	$ 141.27
METER PIPING Single screwed installation with steel Needle Valves throughout	1	Set	23.1700	23.17
FITTINGS	1	Lot		33.74
Material Cost				$ 198.18
Installation				56.29
TOTAL COST INSTALLED				$ 254.47
JUNCTION LINES L AND M, CLEBURNE, JOHNSON COUNTY, TEXAS, LINE M				
REGULATORS Fulton 6 in. HP with 10-1/2 in. diaphragm case 8 bolts with 6 x 11 in. EH CI LE CVBO	1	Each	206.1370	$ 206.14
GATE VALVES Flanged Darling 6 in. 1000 lbs. T No. 102 IBRM DD NRS with EH CI CVBO	2	Each	51.1676	102.34
Westcott 10 in. 800 lbs. WP IBRM DD NRS with EH CI LE CVBO	1	Each	231.7833	231.78

2503

Form 554—100M—7-58

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"O" System

6012-6025

LW R	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	LISBON, DALLAS COUNTY, TEXAS, LINE O-01				
	REGULATORS				
	Emco 8 in. HP Balanced Valve L-X63B Serial No. 2775 with 8-1/4 in. diaphragm case, 6 bolts Flanged	1	Each	379.5000	$ 379.50
	GAUGES				
	Foxboro Test Aluminum Case with 4-1/2 in. Dial Range 0-500 lbs.	1	Each	16.4144	16.41
	GATE VALVES Flanged				
	Chapman 8 in. 150 lbs. CWG OS&Y Brass Stem CFBO	6	Each	45.7228	274.34
	Crane OS&Y				
	4 in. 700 lbs. T BD CFBO	1	Each	32.3367	32.34
	6 in. 1000 lbs. T BD Steel Stem CFBO	2	Each	59.1287	118.26
	8 in. 175 lbs. WP Steel Stem	1	Each	62.0047	62.05
	8 in. 175 lbs. WP Steel Stem with 8 x 15 x 1-5/8 in. EH CI CFBO	3	Each	69.7953	209.39
	GLOBE VALVES Screwed				
	Crane 1/2 in. 125 lbs. WP Brass	2	Each	.5689	1.14
	NEEDLE VALVES Screwed				
	Lunkenheimer Brass				
	1/4 in. Std.	1	Each	.6293	.63
	1/2 in. Std.	1	Each	.9069	.91
	Metric 1/4 in. Std.	1	Each	1.2588	1.26
	RELIEF VALVES Flanged				
	Emco Differential Automatic 8 in. No. 156 Rolling Weight Type	1	Each	736.5000	736.50
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.34
	PIPE Plain End (Random Lengths)	1	Lot		96.38
	HEADERS				
	10 in. x 10 ft. 7 in. with pointed welded ends with 1-10 in. welded openings, 3- 8 in. welded openings	1	Each	65.9000	65.90

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"O" System 6026-6031

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
TERRELL, KAUFMAN COUNTY, TEXAS LINE O-3				
METERS				
Foxboro Type C Orifice Meter, Range 100 in. Differential 250 lbs. Static with 24 hour clock Chart No. 85840, Serial No. 59124, Company No. 1120	1	Each	133.5948	$ 133.59
Foxboro Type T Differential Recorder Range 20 in. Differential only with 24 hour clock, Chart No. 89863, Serial No. 48339 Company No. 1120-A	1	Each	106.1254	106.13
METER PIPING				
Wide Range Screwed Installation with Steel Needle Valves	1	Set	25.1700	25.17
REGULATORS				
Fulton 2 in. HP with 7-1/2 in. Diaphragm Case Screwed	2	Each	54.9600	109.92
GAUGES				
Indicating Pressure				
Foxboro HR CI Case, 5 in. Dial Range 0-250 lbs.	1	Each	4.3114	4.31
Recording Pressure				
Foxboro CI Case and Rim, 10 in. Chart No. 79877, Serial No. 128636, 7 day clock Range 0-500 lbs.	1	Each	46.5752	46.58
GATE VALVES Flanged				
Crane Brass Stem OS&Y				
6 in. 700 lbs. T.	2	Each	45.5755	91.15
6 in. 700 lbs. T. EH CI LE CFBO	4	Each	50.6997	202.80
Walworth DD Brass Stem OS&Y				
6 in. 700 lbs. T. EH CI CFBO	1	Each	50.9057	50.91
6 in. 700 lbs. T. EH CI LE CFBO	1	Each	50.9057	50.91
NEEDLE VALVES Screwed				
Lunkenheimer 1/4 in. Brass Std.	2	Each	.6293	1.26
PLUG VALVES Flanged				
Nordstrom				
6 in. 250 lbs. WP EH CI LE CFBO	2	Each	93.4849	186.97
PIPE Plain End (Random Lengths)	1	Lot		73.39

Form 224—100M—7-38

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

6032

"O" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
SECOND AVENUE, DALLAS, DALLAS COUNTY, TEXAS, LINE O-4				
REGULATORS				
Emco 8 in. HP Balanced Valve with 8 in. Diaphragm Case, 6 Bolts Flanged	2	Each	379.5000	$ 759.00
Emco 8 in. HP Balanced Valve with 11 in. Diaphragm Case, Serial No. 3296 and 3909, 6 Bolts Flanged	2	Each	379.5000	759.00
Emco 1 in. Type B L.P. Service Screwed	1	Each	4.8600	4.86
Hercules 1/2 or 1 in. HP Screwed	1	Each	8.3400	8.34
GAUGES				
Indicating Pressure				
Foxboro Brass Rim CI Case 5 in. Dial				
Range 0-250 lbs.	1	Each	4.3114	4.31
Range 0-500 lbs.	1	Each	4.3114	4.31
Foxboro Test Aluminum Case 4-1/2 in. Dial, Range 0-250 lbs.	1	Each	16.4144	16.41
GATE VALVES Flanged				
Crane DD OS&Y				
8 in. 700 lbs. T. Brass Stem	3	Each	69.0212	207.06
8 in. 700 lbs. T. Brass Stem with EH CI LE CFBO	7	Each	76.8118	537.68
8 in. 1000 lbs. T. Steel Stem	1	Each	81.9338	81.93
GATE VALVES Screwed				
Lunkenheimer Brass RS				
1/2 in. 125 lbs. WP	2	Each	1.1573	2.31
1/2 in. 150 lbs. WP	3	Each	1.1573	3.47
GLOBE VALVES Screwed				
Crane Brass				
3/8 in. 125 lbs. WP	3	Each	.4364	1.31
1/2 in. 125 lbs. WP	1	Each	.5689	.57
Lunkenheimer Brass				
1/4 in. 125 lbs. WP	1	Each	.6643	.66
NEEDLE VALVES Screwed				
Metric 1/4 in. Std.	2	Each	1.2588	2.52
PIPE Threaded and Coupled (Random Lengths)	1	Lot		104.32

Form 354—100M—7-59

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"O" System

6033

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
SECOND AVENUE, DALLAS, DALLAS COUNTY, TEXAS, LINE O-4 (Cont'd)				
PIPE Plain End (Random Lengths)	1	Lot		$ 172.81
HEADERS				
16 in. x 13 ft. with baseball welded ends and 3 - 12 in., 2 - 8 in. 1 - 1 in. and 1-1/4 in. welded openings	1	Each	96.4500	96.45
12 in. x 13 ft. with baseball welded ends and 5 - 8 in. welded openings	1	Each	70.5700	70.57
16 in. x 13 ft. with baseball welded ends and 4 - 12 in. welded openings	1	Each	93.2300	93.23
FITTINGS	1	Lot		338.43
WELDS	1	Lot		135.82
Material Cost				$ 3,405.37
Installation				928.55
TOTAL COST INSTALLED				$ 4,333.92
LEE STREET, WEST GREENVILLE, HUNT COUNTY, TEXAS, LINE O-6				
METERS				
Foxboro Type 207 Orifice Meter Range 100 in. Differential 250 lbs. Static with 24 Hour Clock Chart No. 858049, Serial No. A-8296, Company No. 1110	1	Each	143.1046	$ 143.10
Foxboro Type 105 Differential Recorder Range 20 in. Differential Only 24 Hour Clock, Chart No. 858050, Serial No. A-8284 Company No. 1110-A	1	Each	119.9348	119.93
METER PIPING				
Wide Range Screwed Installation with Steel Needle Valves	1	Set	25.1700	25.17
REGULATORS				
Fulton 2 in. HP with 7-1/2 in. Diaphragm Case No Bolts Screwed	1	Each	54.9600	54.96

Form 384—1M—7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT 6034

"O" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LEE STREET, WEST GREENVILLE, HUNT COUNTY, TEXAS, LINE O-6 (Cont'd)				
REGULATORS (Cont'd)				
Fulton 3 in. HP Balanced Valve with 7-1/2 in. Diaphragm Case 4 Bolts with EH CI LE CFBO	1	Each	94.8420	$ 94.84
GAUGES				
Indicating Pressure				
Foxboro Brass Rim CI Case, 5 in. Dial Range 0-250 lbs.	1	Each	4.3114	4.31
Recording Pressure				
Foxboro CI Case and Rim 10 in. Chart No. 79877, Serial No. 128842 7 day clock Range 0-500 lbs.	1	Each	46.5752	46.58
GATE VALVES Flanged				
Crane DD Brass Stem OS&Y				
6 in. 700 lbs. T.	2	Each	45.5755	91.15
6 in. 700 lbs. T. EH CI LE CFBO	4	Each	50.6997	202.80
GLOBE VALVES Screwed				
Jenkins Brass				
1/4 in. 150 lbs. WP	1	Each	.7583	.76
NEEDLE VALVES Screwed				
Lunkenheimer Brass				
1/4 in. 200 lbs. WP	1	Each	.6643	.66
PLUG VALVES Flanged				
Nordstrom				
6 in. 250 lbs. WP EH CI LE CFBO	1	Each	93.4849	93.48
PIPE Threaded and Coupled (Random Lengths)	1	Lot		50.23
PIPE Plain End (Random Lengths)	1	Lot		46.07
HEADERS				
8 in. x 5 ft. 11 in. with orange peel welded ends and 5 - 6 in. welded openings	1	Each	45.9300	45.93
8 in. x 5 ft. 11 in. with orange peel welded ends and 4 - 6 in. welded openings (50% Ownership)	1	Each	41.4200	20.71

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"O" System 6035-6061

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LEE STREET, WEST GREENVILLE, HUNT COUNTY, TEXAS, LINE O-6 (Cont'd)				
FITTINGS	1	Lot		$ 101.67
WELDS	1	Lot		31.95
Material Cost				$ 1,174.30
Installation				324.42
TOTAL COST INSTALLED				$ 1,498.72
MANSFIELD, TARRANT COUNTY, TEXAS LINE O-7 MEASURING STATION				
METERS				
Emco No. 4 500 lbs. T. Serial No. 5068 with Wylie Combined PV&T Recording Gauge, Serial No. 2085 0-76 lbs. Static, 7 day Foxboro Clock	1	Each	471.9596	$ 471.96
REGULATORS				
Emco 2 in. Balanced Valve HP with 11 in. Diaphragm Case, Serial No. 1193, 6 bolts with EH CI CFBO	1	Each	89.6518	89.65
GAUGES				
Indicating Pressure				
Foxboro CI Case Brass Rim 5 in. Dial Range 0-250 lbs.	1	Each	4.3114	4.31
GATE VALVES Flanged				
Crane DD Brass Stem OS&Y				
2 in. 700 lbs. T. with EH CI CFBO	1	Each	17.2449	17.24
4 in. 1000 lbs. T.	1	Each	32.2173	32.22
4 in. 1000 lbs. T. EH CI LE CFBO	6	Each	35.7335	214.40
4 in. 1000 lbs. T. EH CI LE CFBO (50% Ownership)	1	Each	35.7335	17.87
GLOBE VALVES Screwed				
Walworth Kay Brass RS				
1/4 in. 125 lbs. WP	1	Each	.4067	.41

Form 354 100M 7-43

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

6062

"O" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
CUMBY, HOPKINS COUNTY, TEXAS LINE O-19 (Cont'd)				
NEEDLE VALVES Screwed				
Crane 1/4 in. 125 lbs. WP Brass (50% Ownership	1	Each	.4838	$ .24
Walworth 1/4 in. 125 lbs. WP Brass	2	Each	.4838	.97
PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.10
PIPE Plain End (Random Lengths)	1	Lot		10.36
FITTINGS	1	Lot		19.99
WELDS	1	Lot		22.05
Material Cost				$ 755.01
Installation				208.16
TOTAL COST INSTALLED				$ 963.17
SULPHUR SPRINGS, HOPKINS COUNTY, TEXAS, LINE O-20				
METERS				
Foxboro Type 207 Orifice Range 100 in. Differential 250 lbs. Static with 24 Hour Clock, Chart No. 858049 Serial No. A-8291, Company No. 1178	1	Each	143.1046	$ 143.10
Foxboro Type 105 Differential Recorder Range 20 in. Differential Only with 24 Hour Clock Chart No. 858050, Serial No. A-69569, Company No. 1178-A	1	Each	119.9348	119.93
REGULATORS				
Enco 2 in. HP Balanced Valve with 9-1/2 in. diaphragm Case Serial No. 1340 with EH CI 4 Bolts CFBO	1	Each	89.6518	89.65
Fulton 1-1/4 in. HP Balanced Valve with 5-1/2 in. Diaphragm Case 4 Bolts Screwed	1	Each	22.1000	22.10

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"O" System

6063-6074

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
SULPHUR SPRINGS, HOPKINS COUNTY, TEXAS, LINE O-20 (Cont'd)				
METER PIPING				
Wide Range Screwed Installation with Steel Needle Valves	1	Set	25.1700	$ 25.17
GAUGES				
Indicating Pressure				
Foxboro Brass Rim CI Case 5 in. Dial Range 0-250 lbs.	1	Each	4.3114	4.31
Recording Pressure				
Foxboro 10 in. CI Case and Rim Chart No. 79877, Serial No. A-23656 with 7 day Foxboro Clock, 0-500 lbs.	1	Each	46.5752	46.58
GATE VALVES Flanged				
Crane DD Brass Stem OS&Y				
4 in. 700 lbs. T.	2	Each	28.8205	57.64
4 in. 700 lbs. T. with EH CI LE CFBO	3	Each	32.3367	97.01
6 in. 700 lbs. T. EH CI LE CFBO	4	Each	50.6997	202.80
GLOBE VALVES Screwed				
Crane 1/4 in. 125 lbs. WP Brass	1	Each	.4067	.41
Scott 1/4 in. Brass Std.	2	Each	.5865	1.17
PLUG VALVES Flanged				
Nordstrom				
4 in. 250 lbs. WP EH CI CFBO	2	Each	45.8848	91.77
SAFETY VALVES Screwed				
Crane 4 in. 125 lbs. WP L&W Type	1	Each	15.7096	15.71
PIPE Threaded and Coupled (Random Lengths)	1	Lot		31.99
PIPE Plain End (Random Lengths)	1	Lot		89.12
FITTINGS	1	Lot		83.66
WELDS	1	Lot		69.32
Material Cost				$ 1,191.44
Installation				318.68
TOTAL COST INSTALLED				$ 1,510.12

BLANK

PAGE

Form 284—100M—7-43

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"O" System

6075

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
WYLIE TAP, COLLIN COUNTY, TEXAS LINE O-28 (Cont'd)				
FITTINGS	1	Lot		$ 37.00
WELDS	1	Lot		49.75
Material Cost				$ 1,272.02
Installation				347.12
TOTAL COST INSTALLED				$ 1,619.14
ATHENS, HENDERSON COUNTY, TEXAS LINE O-29				
METERS				
Foxboro Type 207 Orifice Meter Range 100 in. Differential, 100 lbs. Static with 24 Hour Clock, Chart No. 898039, Serial No. A-69829, Company No. 1279	1	Each	139.0256	$ 139.03
Foxboro Type 105 Differential Recorder Range 20 in. Differential only with 24 hour Clock Chart No. 858050, Serial No. 69580, Company No. 1279-A	1	Each	119.9348	119.93
METER PIPING				
Wide Range Screwed Installation with Steel Needle Valves	1	Set	25.1700	25.17
REGULATORS				
Emco 4 in. HP Balanced Valve with 9-1/2 in. Diaphragm Case Serial No. 7588, 6 Bolts with EH CI LE CFBO	1	Each	158.7412	158.74
Fulton 2 in. HP with 7-1/2 in. Diaphragm Case, No Bolts Screwed	1	Each	54.9600	54.96
GAUGES				
Indicating Pressure Crosby Brass Rim CI Case 5 in. Dial Range 0-250 lbs.	1	Each	3.7586	3.76
Recording Pressure Foxboro 10 in. CI Case and Rim, Serial No. A-79676, Chart No. 79977 with 7 day Foxboro Clock-Range 0-500 lbs.	1	Each	46.5752	46.58

Form 24--100M--7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"O" System

6076-6086

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
ATHENS, HENDERSON COUNTY, TEXAS LINE O-29 (Cont'd)				
GATE VALVES Flanged				
Walworth DD Brass Stem OS&Y				
4 in. 700 lbs. T. with EH CI CFBO	1	Each	32.2646	$ 32.26
6 in. 700 lbs. T. EH CI LE CFBO	6	Each	50.9057	305.43
6 in. 700 lbs. T.	2	Each	45.7815	91.56
GLOBE VALVES Screwed				
Crane 1/4 in. 300 lbs. WP Brass	2	Each	.4067	.81
Metric 1/4 in. Std.	1	Each	1.2588	1.26
PLUG VALVES Flanged				
Nordstrom Venturi Type				
6 in. 250 lbs. WP EH CI LE CFBO	2	Each	62.9837	125.97
SAFETY VALVES Screwed				
Crane 4 in. 125 lbs. WP L&W Type	1	Each	15.7096	15.71
PIPE Threaded and Coupled (Random Lengths)	1	Lot		42.27
PIPE Plain End (Random Lengths)	1	Lot		6.99
CUSHIONS				
18 in. x 6 ft. 6 in. with base-ball welded ends with 4 - 6 in. welded openings and 1- 1/4 in. collar welded	1	Each	70.5600	70.56
18 in. x 6 ft. 6 in. with base-ball welded ends and 4 - 6 in. welded openings	1	Each	70.2700	70.27
FITTINGS	1	Lot	-	113.44
WELDS	1	Lot		34.52
Material Cost				$ 1,459.22
Installation				404.62
TOTAL COST INSTALLED				$ 1,863.84

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"O" System 6087-6088

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
STATION 96 PLUS 17 LINE O-29-11				
REGULATORS				
Emco 1-1/4 in. Type B Service Screwed	<1	Each	4.8600	$ 4.86
Hercules 1 in. HP Service Screwed	2	Each	8.3400	16.68
PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.15
FITTINGS	1	Lot		12.06
WELDS	1	Lot		.79
Material Cost				$ 35.54
Installation				9.87
TOTAL COST INSTALLED				$ 45.41
GORDON, PALO PINTO COUNTY, TEXAS LINE O-30				
METERS				
Emco No. 3, 100 lbs. T. Serial No. D-1233 with Emco Combined PV&T Recording Gauge, Serial No. 140642, 0-100 lbs. Static with Emco 7 Day Clock	1	Each	239.7850	$ 239.79
REGULATORS				
Fulton 1 in. HP with 5-5/8 in. Diaphragm Case 4 Bolts Screwed	1	Each	18.0550	18.06
Fulton 1-1/2 in. HP with 7-1/8 in. Diaphragm Case, 4 bolts Screwed	1	Each	22.1000	22.10
GAUGES				
Indicating Pressure Crosby Brass Rim CI Case 5 in. Dial Range 0-500 lbs.	1	Each	3.7586	3.76
PLUG VALVES Flanged				
Barco				
2 in. 250 lbs. WP	2	Each	12.3409	24.68
2 in. 250 lbs. WP EH CI CFBO	9	Each	14.2677	128.41
2 in. 250 lbs. WP EH CI CFBO (50% Ownership)	1	Each	14.2677	7.14

2519

2520

Form 254—100M—7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"O" System

6089

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
STRAWN, PALO PINTO COUNTY, TEXAS LINE O-A-1 (Cont'd)				
GATE VALVES Flanged				
Walworth DD Brass Stem OS&Y				
2 in. 700 lbs. T. with EH CI CFBO	1	Each	17.2655	$ 17.27
4 in. 700 lbs. T.	2	Each	28.7484	57.50
4 in. 700 lbs. T. with EH CI CFBO	8	Each	32.2646	258.12
4 in. 700 lbs. T. with EH CI CFBO (50% Ownership)	1	Each	32.2646	16.13
GATE VALVES Screwed				
Walworth NRS Brass				
1/4 in. 250 lbs. WP	1	Each	2.0566	2.06
SAFETY VALVES Screwed				
Crane No. 12687 L&W Type				
2 in. 125 lbs. WP	1	Each	5.6714	5.67
PIPE Threaded and Coupled (Random Lengths)	1	Lot		4.47
PIPE Plain End (Random Lengths)	1	Lot		.7.13
CUSHIONS				
20 x 36 in. with baseball welded ends with 3 - 4 in. welded openings and 2 - 1/4 in. collars welded	1	Each	63.2400	63.24
FITTINGS	1	Lot		55.07
WELDS	1	Lot		32.27
Material Cost				$ 1,075.47
Installation				296.27
TOTAL COST INSTALLED				$ 1,371.74
THERMO FIRE BRICK COMPANY, NEAR CRUSH, HOPKINS COUNTY, TEXAS LINE O				
METERS				
Emco No. 4, 50 lbs. T. Serial No. B-5639 with Emco Combined PV&T Recording Gauge, Serial				

Form 284-100M-7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"O" System

6090

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
THERMO FIRE BRICK COMPANY, NEAR CRUSH, HOPKINS COUNTY, TEXAS LINE O				
METERS				
Emco No. 4 (Cont'd)				
No. 128086, 0-100 lbs. Static with 7 day Emco Clock	1	Each	267.1664	$ 267.17
Foxboro Type 207 Orifice Meter Range 100 in. Differential 100 lbs. Static with 24 Hour Clock, Chart No. 898039, Serial No. A-79368, Company No. 1283	1	Each	139.0256	139.03
METER PIPING				
Single Welded Installation for Flange Connection Meter	1	Set	23.1700	23.17
REGULATORS				
Fulton 1-1/2 in. HP with 5 in. Diaphragm Case 4 Bolts Screwed	1	Each	26.2700	26.27
Fulton 2 in. HP with 7-1/2 in. Diaphragm Case No Bolts Screwed	1	Each	54.9600	54.96
Emco 2 in. HP Balanced Valve, Serial No. 6072 with 11 in. Diaphragm Case 6 Bolts with EH CI LE 4 Bolts CFBO	1	Each	89.6518	89.65
Emco 2 in. HP Balanced Valve Serial No. 7311 with 12-1/2 in. Diaphragm Case 6 Bolts with EH CI LE 4 Bolts CFBO	1	Each	89.6518	89.65
GAUGES				
Indicating Pressure				
Crosby Brass Rim CI Case 5 in. Dial				
Range 0 - 60 lbs.	1	Each	3.7586	3.76
Range 0- 250 lbs.	1	Each	3.7586	3.76
Range 0- 500 lbs.	1	Each	3.7586	3.76
GATE VALVES Flanged				
Walworth DD Brass Stem OS&Y				
4 in. 700 lbs. T.	1	Each	28.7484	28.75
4 in. 700 lbs. T. EH CI CFBO	2	Each	32.2646	64.53
4 in. 700 lbs. T. EH CI LE CFBO	3	Each	32.2646	96.79

2322

Form 254 100M 7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"O" System

6091-6102

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
THERMO FIRE BRICK COMPANY, NEAR CRUSH, HOPKINS COUNTY, TEXAS LINE O.				
GLOBE VALVES Screwed				
Crane 1/4 in. 300 lbs. WP Brass	2	Each	.9266	$ 1.85
NEEDLE VALVES Screwed				
Lunkenheimer 1/4 in. 200 lbs. WP Brass	1	Each	.6293	.63
PLUG VALVES Flanged				
Barco				
2 in. 250 lbs. WP with EH CI 4 Bolts CFBO	9	Each	14.2677	128.41
Nordstrom				
2 in. 250 lbs. WP with EH CI 4 Bolts CFBO	1	Each	15.4336	15.43
4 in. 250 lbs. WP with EH CI CFBO	1	Each	45.8848	45.88
4 in. 250 lbs. WP EH CI LE CFBO	1	Each	45.8848	45.88
SAFETY VALVES Screwed				
Crane 2 in. 125 lbs. WP L&W Type	1	Each	5.6714	5.67
PIPE Threaded and Coupled (Random Lengths)	1	Lot		13.91
PIPE Plain End (Random Lengths)	1	Lot		5.61
CUSHIONS				
12 x 72 in. with Baseball Welded ends with 4 - 4 in. welded openings and 1-1/4 in. collar welded	1	Each	44.2200	44.22
12 x 72 in. with baseball welded ends with 3 - 4 in. and 2 - 2 in. Welded Openings	1	Each	43.7700	43.77
12 x 47 in. with Orange Peel Welded ends with 2 - 2 in. and 1 - 1/4 in. Collar Welded	1	Each	32.4900	32.49
FITTINGS	1	Lot		59.04
WELDS	1	Lot		48.73
Material Cost				$ 1,382.77
Installation				378.87
TOTAL COST INSTALLED				$ 1,761.64

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"R" System

6103

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
WINTERS, RUNNELS COUNTY, TEXAS LINE R-1 (Cont'd)				
SAFETY VALVES Screwed Crane 4 in. 125 lb. WP No. 12635 BL&WT Type	1	Each	15.7096	$ 15.71
PIPE (Random Lengths)	1	Lot		45.90
FITTINGS	1	Lot		57.43
WELDS	1	Lot		61.75
Material Cost				$ 796.42
Installation				208.65
TOTAL COST INSTALLED				$ 1,005.07
BALLINGER, RUNNELS COUNTY, TEXAS LINE R-2				
METERS				
Westcott Orifice Meter with Bristol Case 100 in. Differential Static Serial No. 14975 Company No. 1187 with 24 hour clock	1	Each	130.3262	$ 130.33
Westcott Differential Recorder Bristol Case 20 in. Differential only Serial No. 14982 Company No. 1187-A	1	Each	113.7437	113.74
METER PIPING				
Wide range screwed installation with steel needle valves	1	Set	25.1700	25.17
REGULATORS				
Fulton 2 in. HP with 7 in. diaphragm case screwed	2	Each	54.9600	109.92
GAUGES				
Indicating Pressure Foxboro Brass Rim Iron Flange Back with 6 in. dial Range 0-500 lbs.	1	Each	4.3114	4.31

2324

Form 254—100M—7-39

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"R" System

6104-6106

eg	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	BALLINGER, RUNNELS COUNTY, TEXAS LINE R-2 (Cont'd)				
	GAUGES (Cont'd)				
	Recording Pressure				
	Foxboro 10 in. iron rim flange back serial no. 128844 chart no. 79877 with 7 day clock				
	Range 0-500 lbs.	1	Each	46.5752	$ 46.58
	GATE VALVES Flanged				
	Walworth DD OS&Y CFBO				
	4 in. 125 lb. WP	5	Each	19.1291	95.65
	2 in. 700 lb. T	4	Each	17.2655	69.06
	GLOBE VALVES Screwed				
	Walworth 1/4 in. 125 lb. WP Brass	2	Each	.4067	.81
	PLUG VALVES Flanged				
	Nordstrom 2 in. 250 lb. WP CFBO	2	Each	15.4336	30.87
	SAFETY VALVES Screwed				
	Crane 4 in. 125 lb. WP No. 12635	1	Each	15.7096	15.71
	PIPE (Random Lengths)	1	Lot		54.27
	FITTINGS	1	Lot		44.00
	WELDS	1	Lot		59.26
	Material Cost				$ 799.68
	Installation				210.28
	TOTAL COST INSTALLED				$ 1,009.96
	TALPA, COLEMAN COUNTY, TEXAS, LINE R-3				
	METERS				
	Emco No. 2-1/2 500 lb. T Serial No. 2549 with Foxboro combined PV&T Recording Gauge, Serial No. F-330 0-80 lbs. static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

"R" System

6107-6108

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
COLEMAN OIL & GAS COMPANY, COLEMAN COUNTY, TEXAS, LINE R				
METERS				
Foxboro Type C Orifice Range 100 in. Differential 500 lbs. static with 24 hour clock Chart No. 85828 Serial No. 59825 Company No. 1256	1	Each	141.2682	$ 141.27
Foxboro Type T Differential Recorder Range 20 in. Differential only with 24 hour clock Chart No. 89863 Serial No. A-11792 Company No. 1256-A	1	Each	106.1254	106.13
METER PIPING				
Wide range screwed installation with steel needle valves	1	Set	25.1700	25.17
FITTINGS	1	Lot		16.52
Material Cost				$ 289.09
Installation				82.10
TOTAL COST INSTALLED				$ 371.19
VACUUM OIL COMPANY, RUNNELS COUNTY, TEXAS, LINE R-1				
METERS				
Emco No. 4 500 lb. T Serial No. 5334 with Wylie combined PV&T Recording Gauge, Serial No. 2729 0-350 lbs. static with 7 day Foxboro clock	1	Each	471.9596	$ 471.96
GATE VALVES Flanged				
Walworth DD OS&Y				
2 in. 700 lb. T CFBO	1	Each	17.2655	17.27
GATE VALVES Screwed				
Walworth				
2 in. 700 lb. T OS&Y	4	Each	14.9086	59.63
1 in. 250 lb. WP Brass Wedge NRS	1	Each	4.1561	4.16

BLANK

PAGE

Defendant's Exhibit No. 28—Continued

[fols. 6109-6112]

Lone Star Gas Company

Transmission System Measuring Station Equipment

Recapitulation "Numbered" System

Line	Location	Reproduction Cost—New
City Gate Stations		
16	Albany	$1,341.41
17-1	Cisco	362.66
17-1	Cisco-Regulator Box	148.29
18	Abilene	1,672.69
18-1	Baird	
	Meter House	958.52
	Gravitometer House	449.09
18-2	Clyde	1,016.53
18-3	Moran	1,404.63
18-4	Putnam	1,084.44
33	Eastland	1,077.13
140	North Abilene	1,537.96
174	Eastland County, Station 5 plus 87	251.16
	Total City Gate Stations	$11,304.51
Main Line Sales Stations		
16	Station 241 plus 28, Sedwick Oil Company	$330.73
16	Station 277 plus 32, Putnam Oil Company	159.40
17	Station 23 plus 85, Texas Company	155.12
18	Station 555 plus 22, Cisco Oil Company	701.94
140	No. Abilene Brick Co.	
	Meter House	1,545.17
	Regulator House	674.80
153	Station 47 plus 92, Hickory Oil & Gas Co.	369.64
174	Station 8 plus 26, Chestnut & Smith Corp., Plant No. 109.	256.23
	Total Main Line Sales Stations	$4,193.03
Main Line Check Meter Stations		
16	Station O plus 17.7, Moran Compressing Station	$30.34
16	Station 665 plus 05, Near Albany, Shackelford Co.	140.46

BLANK

PAGE

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

Numbered System

6113

d k	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	CISCO, EASTLAND COUNTY, TEXAS, LINE 17-1 (Cont'd)				
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		$ .37
	FITTINGS	1	Lot		18.83
	Material Cost				$ 282.44
	Installation				80.22
	TOTAL COST INSTALLED				$ 362.66
	CISCO, EASTLAND COUNTY, TEXAS, LINE 17-1				
	REGULATORS Fulton 2 in. HP Balanced Valve with 7-1/2 in. diaphragm case screwed	1	Each	54.9600	$ 54.96
	GATE VALVES Flanged Westcott 4 in. 500 lb. WP NRS	1	Each	25.7738	25.77
	GATE VALVES Screwed Ludlow 2 in. 250 lb. S WP DD NRS	1	Each	14.0232	14.02
	FITTINGS	1	Lot		20.74
	Material Cost				$ 115.49
	Installation				32.80
	TOTAL COST INSTALLED				$ 148.29
	ABILENE, TAYLOR COUNTY, TEXAS, LINE 18				
	METERS Westcott Orifice Bristol Case 100 in. differential with 24 hour clock Serial No. 11835 Company No. 1176	1	Each	130.3262	$ 130.33

2330

Form 254 100M 7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT 6114

Numbered System

d k	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	ABILENE, TAYLOR COUNTY, TEXAS, LINE 18 (Cont'd)				
	METERS (Cont'd)				
	Westcott Differential Recorder Bristol Case 20 in. differential only with 24 hour clock Serial No. 15662 Company No. 1176-A	1	Each	113.7437	$ 113.74
	METER PIPING				
	Wide range screwed installation with steel needle valves	1	Set	25.1700	25.17
	REGULATORS				
	Fulton 4 in. HP with 7-1/2 in. diaphragm case 4 bolts with 4 x 10 in. EH CI 8 bolts CFBO	1	Each	122.5890	122.59
	GAUGES				
	Indicating Pressure				
	Foxboro Model A Brass Flare Rim Iron Case Flange Back with 5 in. dial Range 0-300 lbs.	1	Each	4.3114	4.31
	Foxboro Brass Flare Rim Iron Case Flange Back with 5 in. dial Range 0-500 lbs.	1	Each	4.3114	4.31
	GATE VALVES Flanged				
	Darling 6 in. 1000 lb. T No. 102 brass stem NRS with 6 x 12-1/2 in. EH CI 12 bolts CFBO	2	Each	51.1676	102.34
	Walworth DD Brass Stem OS&Y 8 in. 700 lb. T with 8 x 15 in. EH CI 12 bolts CFBO	4	Each	77.0178	308.07
	4 in. 700 lb. T with 4 x 10 in. EH CI 8 bolts CFBO	1	Each	32.2646	32.26
	GATE VALVES Screwed				
	Lunkenheimer 1/4 in. brass RS 150 lb. WP	2	Each	1.0941	2.19
	GLOBE VALVES Screwed				
	Lunkenheimer 1/2 in. 200 lb. WP brass	1	Each	1.0909	1.09
	Lunkenheimer Renewo 1/2 in. 200 lb. WP brass RS	1	Each	1.0909	1.09

Form 254 100M 7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

Numbered System 6115-6123

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
ABILENE, TAYLOR COUNTY, TEXAS, LINE 18 (Cont'd)				
NEEDLE VALVES Screwed Metric 1/4 in. steel	1	Each	1.2588	$ 1.26
PLUG VALVES Flanged Nordstrom 6 in. 250 lb. WP with 6 x 12-1/2 in. EH CI 12 bolts CFBO	1	Each	93.4849	93.48
SAFETY VALVES Screwed Crane 4 in. 125 lb. WP L&W Type	1	Each	15.7096	15.71
PIPE Threaded and Coupled (Random Lengths)	1	Lot		57.38
PIPE Plain End (Random Lengths)	1	Lot		6.17
HEADERS				
12 in. x 12 ft. baseball welded end with 2 4 in. openings and 1 1/2 in. opening	1	Each	46.3500	46.35
18 in. x 6 ft. baseball welded end with 1 1/4 in. opening and 2 6 in. and 2 8 in. openings	1	Each	72.3100	72.31
FITTINGS	1	Lot		122.68
WELDS	1	Lot		51.22
Material Cost				$ 1,314.05
Installation				358.64
TOTAL COST INSTALLED				$ 1,672.69
BAIRD, CALLAHAN COUNTY, TEXAS, LINE 18-1				
METERS Foxboro Type C Orifice range 100 in. differential 100 lbs. static with 24 hour clock Chart No. 89870 Serial No. 48052 Company No. 1171	1	Each	129.6258	$ 129.63

2532

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

Numbered System

6124

d k	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	EASTLAND, EASTLAND COUNTY, TEXAS, LINE 33 (Cont'd)				
	SAFETY VALVES Screwed Crane 2 in. 125 lb. WP No. 12687 L&W Type	1	Each	5.6714	$ 5.67
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		13.13
	PIPE Plain End (Random Lengths)	1	Lot		2.88
	HEADERS 12 x 66 in. with baseball welded ends and 1 1/4 in. opening; 1 1 in. opening and 4 2 in. openings	1	Each	38.0600	38.06
	12 x 66 in. with baseball welded ends and 1 1 in. opening; 2 2 in. openings and 2 4 in. openings	1	Each	40.9300	40.93
	FITTINGS	1	Lot		64.75
	WELDS	1	Lot		17.36
	Material Cost				$ 842.73
	Installation				234.40
	TOTAL COST INSTALLED				$ 1,077.13
	NORTH ABILENE, TAYLOR COUNTY, TEXAS, LINE 140				
	METERS Westcott Orifice Bristol Case 100 in. differential with 24 hour clock Serial No. 11119 Company No. 1222	1	Each	130.3262	$ 130.33
	Foxboro Type T Differential Recorder range 20 in. differential only with 24 hour clock Chart No. 89863 Serial No. 16858 Company No. 1222-A	1	Each	106.1254	106.13

Form 551 100M 7-55

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

Numbered System

6125

d k	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	NORTH ABILENE, TAYLOR COUNTY, TEXAS, LINE 140 (Cont'd)				
	METER PIPING				
	Wide range screwed installation with steel needle valves	1	Set	25.1700	$ 25.17
	REGULATORS				
	Emco 4 in. HP Balanced Valve No. 3042 with 10 in. diaphragm case 6 bolts with 4 x 10 in. EH CI 8 bolts CFBO	1	Each	158.7412	158.74
	Emco 4 in. HP Balanced Valve No. 5772 with 6 in. diaphragm case 6 bolts with 4 x 10 in. EH CI 8 bolts CFBO	1	Each	158.7412	158.74
	GAUGES				
	Indicating Pressure				
	Foxboro Model A Brass Flare Rim Iron Case Flange Back with 5 in. dial Range 0-300 lbs.	1	Each	4.3114	4.31
	Recording Pressure				
	Foxboro 10 in. Single Type Serial No. 48869 Chart No. 7997 with 7 day clock Range 0-500 lbs.	1	Each	46.5752	46.58
	GATE VALVES Flanged				
	Walworth ID Brass Stem OS&Y				
	4 in. 1000 lb. T	2	Each	32.2688	64.54
	4 in. 1000 lb. T with 4 x 10 in. EH CI 8 bolts CFBO	1	Each	35.7850	35.79
	4 in. 700 lb. T	2	Each	28.7484	57.50
	4 in. 700 lb. T with 4 x 10 in. EH CI 8 bolts CFBO	4	Each	32.4666	129.87
	GLOBE VALVES Screwed				
	Lunkenheimer 1/4 in. 150 lb. WP brass	2	Each	.6643	1.33
	PLUG VALVES Flanged				
	Nordstrom 4 in. 250 lb. WP with 4 x 10 in. EH CI 8 bolts CFBO	2	Each	45.8848	91.77
	SAFETY VALVES Screwed				
	Crane 4 in. 125 lb. WP No. 12635 L&W Type	1	Each	15.7096	15.71

2534

Form 254 100M 7-43

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

Numbered System

6126

d k	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	NORTH ABILENE, TAYLOR COUNTY, TEXAS LINE 140 (Cont'd)				
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		$ 14.57
	PIPE Plain End (Random Lengths)	1	Lot		8.43
	HEADERS 12 in. x 6 ft. with baseball welded ends 1 1/4 in. opening and 4 4 in. openings	1	Each	44.1600	44.16
	FITTINGS	1	Lot		67.21
	WELDS	1	Lot		47.39
	Material Cost				$ 1,208.27
	Installation				329.69
	TOTAL COST INSTALLED				$ 1,537.96
	STATION 5 PLUS 87, EASTLAND, EASTLAND COUNTY, TEXAS, LINE 174				
	REGULATORS Fulton 4 in. HP with 7-1/4 in. diaphragm case 4 bolts with 4 x 10 in. EH CI 8 bolts CFBO	1	Each	122.5890	$ 122.59
	GATE VALVES Flanged Crane 4 in. 700 lb. T DD OS&Y with 4 x 10 in. EH CI 8 bolts CFBO	1	Each	32.3367	32.34
	Walworth 4 in. 700 lb. T DD OS&Y with 4 x 10 in. EH CI 8 bolts CFBO	1	Each	32.2646	32.26
	GLOBE VALVES Screwed Lunkenheimer 1/4 in. 150 lb. WP brass RS	1	Each	.9841	.98
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		3.03

2535

Form 964 100M 7-55

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

Numbered System 6127

d k	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	STATION 5 PLUS 87, EASTLAND, EASTLAND COUNTY, TEXAS, LINE 174 (Cont'd)				
	FITTINGS	1	Lot		$ 4.41
	Material Cost				$ 195.61
	Installation				55.55
	TOTAL COST INSTALLED				$ 251.16
	STATION 241 PLUS 28, SEDWICK OIL COMPANY, SHACKELFORD COUNTY, TEXAS, LINE 16				
	METERS				
	Emco No. 2-1/2 500 lb. T Serial No. 2588 with Foxboro PV&T Recording Gauge Serial No. F-337 0-80 lbs. Static with 7 day Foxboro clock	1	Each	209.5530	$ 209.55
	GATE VALVES Screwed				
	Lunkenheimer Clip 2 in. 100 lb. WP. RS	4	Each	3.5032	14.01
	Westcott 2 in. 800 lb. WP DD NRS	1	Each	19.4032	19.40
	PIPE Threaded and Coupled (Random Lengths)	1	Lot		.88
	FITTINGS	1	Lot		13.74
	Material Cost				$ 257.58
	Installation				73.15
	TOTAL COST INSTALLED				$ 330.73

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

Numbered System

6128

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
STATION 277 PLUS 32, PUTNAM OIL COMPANY, SHACKELFORD COUNTY, TEXAS, LINE 16				
METERS				
Emco No. 2 50 lb. T Serial No. 190204 with Foxboro PV&T Recording Gauge Serial No. F-389 0-50 lbs. static with Foxboro 7 day clock	1	Each	106.7748	$ 106.77
REGULATORS				
Hercules 1 in. with 3-1/2 in. diaphragm case screwed	1	Each	8.3400	8.34
GATE VALVES Screwed				
Lunkenheimer 1/2 in. 150 lb. WP brass	1	Each	1.1573	1.16
Lunkenheimer Clip 1 in. 100 lb. WP	1	Each	1.2273	1.22
PIPE Threaded and Coupled (Random Lengths)	1	Lot		.21
FITTINGS	1	Lot		6.44
Material Cost				$ 124.14
Installation				35.26
TOTAL COST INSTALLED				$ 159.40
STATION 23 PLUS 85, TEXAS COMPANY, CALLAHAN COUNTY, TEXAS, LINE 17				
METERS				
Emco No. 2 50 lb. T Serial No. 185095 with Foxboro PV&T Recording Gauge Serial No. F-312 0-80 lbs. static with Foxboro 7 day clock	1	Each	106.7748	$ 106.77
GAUGES				
Indicating Pressure				
Ashcroft American with 6 in. dial				
Range 0-500 lbs.	1	Each	5.2744	5.27

2537

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

Numbered System 6129

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
STATION 23 PLUS 85, TEXAS COMPANY, CALLAHAN COUNTY, TEXAS, LINE 17, (Cont'd)				
GATE VALVES Screwed Lunkenheimer 1 in. 150 lb. WP brass	3	Each	2.2433	$ 6.73
PIPE Threaded and Coupled (Random Lengths)	1	Lot		.88
FITTINGS	1	Lot		1.16
Material Cost				$ 120.81
Installation				34.31
TOTAL COST INSTALLED				$ 155.12
STATION 555 PLUS 22, CISCO OIL COMPANY, EASTLAND COUNTY, TEXAS, LINE 18				
METERS Emco No. 4 500 lb. T Serial No. 5207 with Foxboro PV&T Recording Gauge Serial No. F-704 0-500 lbs. static with 7 day Foxboro clock	1	Each	406.7500	$ 406.75
GATE VALVES Flanged Westcott 2 in. 800 lb. WP brass stem DD OS&Y with 2 x 6-1/2 in. RH CI 8 bolts CFBO	2	Each	30.2805	60.56
GATE VALVES Screwed Crane 1 in. 125 lb. WP brass RS	1	Each	1.1434	1.14
Westcott 2 in. 800 lb. WP brass stem DD NRS	3	Each	19.4032	58.21
PIPE Threaded and Coupled (Random Lengths)	1	Lot		1.50

2538

Form 154 100M 7-43

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

Numbered System

6130

d k	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	STATION 555 PLUS 22, CISCO OIL COMPANY, EASTLAND COUNTY, TEXAS, LINE 18 (Cont'd)				
	FITTINGS	1	Lot		$ 18.52
	Material Cost				$ 546.68
	Installation				155.26
	TOTAL COST INSTALLED				$ 701.94
	NORTH ABILENE BRICK COMPANY, ABILENE, TAYLOR COUNTY, TEXAS, LINE 140				
	METERS				
	Emco No. 4 100 lb. T Serial No. 7471 Foxboro PV&T Recording Gauge Serial No. F-166 0-100 lbs. static with Foxboro 7 day clock	1	Each	292.2558	$ 292.26
	Emco No. 4 100 lb. T Serial No. 7468 Foxboro PV&T Recording Gauge Serial No. F-165 0-100 lbs. static with Foxboro 7 day clock	1	Each	292.2558	292.26
	Emco No. 4 100 lb. T Serial No. 7466 Foxboro PV&T Recording Gauge Serial No. F-167 0-100 lbs. static with Foxboro 7 day clock	1	Each	292.2558	292.26
	GATE VALVES Flanged Walworth 4 in. 125 lb. SWP 175 OWG DD OS&Y with 4 x 10 in. EH CI 8 bolts CFBO	11	Each	19.1291	210.42
	PIPE Plain End (Random Lengths)	1	Lot		4.59
	HEADERS 6 in. x 8 ft. 3 in. with orange peel welded ends with 5 4 in. openings	2	Each	32.0700	64.14

Form 984 100M 7-49

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT 6131

Numbered System

d k	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	NORTH ABILENE BRICK COMPANY, ABILENE, TAYLOR COUNTY, TEXAS, LINE 140 (Cont'd)				
	FITTINGS	1	Lot		$ 35.09
	WELDS	1	Lot		15.90
	Material Cost				$ 1,206.92
	Installation				338.25
	TOTAL COST INSTALLED				$ 1,545.17
	NORTH ABILENE BRICK COMPANY, ABILENE, TAYLOR COUNTY, TEXAS, LINE 140				
	REGULATORS Fulton Duplex 8 in. LP Sensitive Gas Governor Serial No. 1698 with 28 in. diaphragm case flanged	1	Each	374.1760	$ 374.18
	GATE VALVES Flanged Ludlow IREM DD NRS No. 5 8 in. 350 lb. Water Test 85 lbs. SWP 175 lb. WWP with 8 x 13-1/2 in. CI Std. 8 bolts CFB8	2	Each	39.2701	78.54
	6 in. 350 lb. Water Test 85 lb. SWP 175 lb. WWP with 6 x 11 in. CI Std. 8 Bolts CFB0	1	Each	26.2896	26.29
	GATE VALVES Screwed Crane 2 in. 125 lb. WP brass RS	1	Each	3.0077	3.01
	FITTINGS	1	Lot		43.53
	Material Cost				$ 525.55
	Installation				149.25
	TOTAL COST INSTALLED				$ 674.80

Form 034 100M 7-51

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

Numbered System 6132-6145

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
STATION 47 PLUS 92, HICKORY OIL AND GAS COMPANY, EASTLAND COUNTY, TEXAS, LINE 153				
METERS				
Emco No. 3 100 lb. T Serial No. 3883 with Emco Combined PV&T Recording Gauge Serial No. 128139 0-100 lbs. static with Emco 7 day clock	1	Each	239.7850	$ 239.79
GATE VALVES Screwed Lunkenheimer Brass				
2 in. 150 lb. WP	5	Each	6.7355	33.68
1 in. 150 lb. WP	2	Each	2.2433	4.49
PIPE Threaded and Coupled (Random Lengths)	1	Lot		.85
FITTINGS	1	Lot		9.07
Material Cost				$ 287.88
Installation				81.76
TOTAL COST INSTALLED				$ 369.64
STATION 8 PLUS 26, CHESTNUT & SMITH CORPORATION, PLANT NO. 109, EASTLAND COUNTY, TEXAS, LINE 174				
METERS				
Foxboro Type C Orifice range 100 in. differential 500 lbs. static with 7 day jeweled clock Chart No. 85828 Serial No. 72816 Company No. 1160	1	Each	152.7382	$ 152.74
METER PIPING				
Single screwed installation with Lunkenheimer brass needle valves	1	Set	14.8500	14.85
FITTINGS	1	Lot		31.97
Material Cost				$ 199.56
Installation				56.67
TOTAL COST INSTALLED				$ 256.23

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

T. P. U. System

6146

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
MAIN LINE SALES STATIONS				
TEXAS ELECTRIC SERVICE COMPANY				
METERS				
Foxboro, Type 207 Orifice Meter Serial No. A-81676 Company No. 1339 Chart No. 898039 Range 0-100 in. differential 0-100 lbs. Static 24 hour clock	1	Each	139.0256	$ 139.03
Foxboro Type 105 differential recorder Serial No. A-24050 Company No. 1339-A Chart No. 858050 Range 0-20 in. differential 24 hour clock	1	Each	119.9348	119.93
METER PIPING				
Wide range welded installation with steel needle valves	1	Set	30.5400	30.54
RECORDING CALORIMETER				
Thomas Serial No. A-651895-A Company No. C-5 Range 0-1500 BTU	1	Each	1972.6400	1,972.64
Pipe (Random Lengths)				
1/4 in. BM .430 lbs. per foot	13	Foot	.0310	.40
Globe Valves Screwed				
Lunkenheimer 1/4 in. 200 lbs. SWP Brass RS	3	Each	.9841	2.95
Fittings	1	Lot		.15
RECORDING GRAVITOMETERS				
Acme Serial No. 106 Company No. G-37 Range .5 to 1 Chart No. 710 - 7 day clock	1	Each	333.8910	333.89
Pipe (Random Lengths) T & C				
1/4 in. BM .430 lbs. per foot	37	Foot	.0310	1.15
Gate Valve Screwed				
Walworth 1/4 in. 125 lbs. SWP DD Brass RS	1	Each	.5848	.58
Globe Valve Screwed				
Lunkenheimer 1/4 in. 200 lbs. SWP Brass RS	1	Each	.9841	.98
Regulator Screwed				
Groble 1 in. HP No. 1	1	Each	18.0550	18.06
Fittings	1	Lot		.81
Welds	1	Lot		.50

2542

Form 554—100M—7-33

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

6147

T. P. U. System

M D	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	TEXAS ELECTRIC SERVICE COMPANY				
	RECORDING PSYCHROMETER				
	Foxboro Serial No. B-26288				
	Company No. P-1 Chart No.				
	89971 Range 0-120 degrees Fht.				
	with No. 6-A water box and				
	7-day clock	1	Each	178.3134	$ 178.31
	Pipe Threaded and Coupled				
	(Ramdom Lengths)				
	4 in. 11.000 lbs. per foot	2	Foot	.5885	1.18
	1/4 in. .430 lbs. per foot BM	6	Foot	.0310	.19
	Gate Valves Screwed				
	Walworth DD Brass RS				
	1 in. 125 lbs. SWP	3	Each	1.1434	3.43
	1/4 in. 125 lbs. SWP	2	Each	.5848	1.17
	Globe Valves Screwed				
	Lunkenheimer Brass RS				
	1/4 in. 200 lbs. SWP	1	Each	.9841	.98
	Fittings	1	Lot		3.83
	Welds	1	Lot		14.11
	WATER COLUMN				
	Acme 100 inch	1	Each	154.1760	154.18
	Gate Valve Screwed				
	Walworth Kay DD Brass				
	1/4 in. 125 lbs. SWP RS	1	Each	.5848	.58
	Regulators				
	Golebug 1/2 in. HP Screwed	1	Each	12.1757	12.18
	Fittings	1	Lot		.69
	GATE VALVES Flanged				
	With bolts and gaskets				
	Crane IRBM Wedge				
	12 in. 175 lbs. SWP OS&Y CFBO	2	Each	80.6886	161.38
	Walworth DD				
	4 in. 175 lbs. OW&G WP NRS CFBO	1	Each	15.9046	15.90
	BACK PRESSURE VALVES Flanged				
	With bolts and gaskets				
	Fisher Noiseless				
	4 in. Type 9-W No. 312174 CFBO	1	Each	33.4682	33.47
	PIPE Threaded and coupled (Random Lengths)	1	Lot		151.97
	PIPE Plain End (Random Lengths)	1	Lot		16.93

Form 284—100M—7-53

TRANSMISSION SYSTEM MEASURING STATION EQUIPMENT

T. P. U. System

6148-6154

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
TEXAS ELECTRIC SERVICE COMPANY				
FITTINGS	1	Lot		$ 181.33
WELDS	1	Lot		88.15
Material Cost				$ 3,641.57
Installation				1,005.02
TOTAL COST INSTALLED				$ 4,646.59
ARAB GASOLINE COMPANY				
METER Emco No. 4 Company No. 5584 500 lbs. WP with Wylie PV&T Recording Gauge No. 2099	1	Each	471.9596	$ 471.96
GATE VALVES Flanged Complete with bolts and gaskets Westcott 2 in. 500 lbs. OW&G WP IBBM DD RS CFBO	3	Each	15.1383	45.41
GATE VALVES Screwed Lunkenheimer 1/2 in. 150 lbs. SWP DD Brass RS	2	Each	1.1573	2.31
PLUG VALVES Flanged Nordstrom 2 in. 150 lbs. SWP Complete with bolts and gaskets CFBO	1	Each	10.0297	10.03
STOP COCKS Screwed Mueller 1 in. 125 lbs. WP IBBC	1	Each	.4312	.43
PIPE Threaded and Coupled (Random Lengths)	1	Lot		3.88
FITTINGS	1	Lot		17.48
Material Cost				$ 551.50
Installation				156.63
TOTAL COST INSTALLED				$ 708.13

BLANK

PAGE

Defendant's Exhibit No. 28—Continued

[fols. 6155-6174]

Lone Star Gas Company

Transmission Line Equipment

Summary

Line	Reproduction Cost—New
A	$3,806,446.39
B	3,250,794.92
C	585,900.29
E	1,781,320.58
F	1,068,427.82
G	1,848,791.83
H	1,685,720.90
J	523,829.27
K	5,153,684.18
L	2,962,144.38
M	1,449,864.48
O	5,089,344.08
R	640,531.76
Numbered	1,355,528.42
T. P. U.	692,110.10
Grand Total	$31,894,439.40

BLANK

PAGE

Form 254-1M-6-53

TRANSMISSION LINE EQUIPMENT

"A" System

6175

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE A-12 (Cont'd)				
FITTINGS	1	Lot		$ 37.69
GATE VALVE PITS Wood; with covers and locks 4 ft. x 4 ft. in plan x 4 ft. 5 in. deep	1	Each	24.8300	24.83
4 ft. x 4 ft. in plan x 4 ft. 4 in. deep	1	Each	24.3200	24.32
TOTAL LINE A-12				$ 3,881.60
LINE A-13				
FROM LINE A, WICHITA COUNTY, TO BURKBURNETT, WICHITA COUNTY, TEXAS				
PIPE Installed in Place Threaded and Coupled 6 in. 19.450 lbs. per foot	45	Foot	1.1549	$ 51.97
GATE VALVES Screwed Ludlow 6 in. 1500 lb. T No. 8 IBBM DD NRS	1	Each	64.9454	64.95
FITTINGS	1	Lot		23.07
TOTAL LINE A-13				$ 139.99
LINE A-14				
FROM LINE A, HARDEMAN COUNTY, TO WEST TEXAS UTILITIES COMPANY, LAKE PAULINE, HARDEMAN COUNTY, TEXAS				
PIPE Installed in Place Plain End 8 in. 25.062 lbs. per foot	18,355	Foot	1.1812	$ 21,680.93
COUPLINGS Dresser Complete 8 in.	918	Each	2.6876	2,467.22

Form 154-10M-6-38

TRANSMISSION LINE EQUIPMENT

"A" System

6176-6205

d k	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	LINE A-14 (Cont'd)				
	GATE VALVES Flanged CFBO				
	Crane 4 in. 1000 lb. T IBBM DD OS&Y	1	Each	35.7335	$ 35.73
	Walworth 8 in. 700 lb. T IBBM DD OS&Y	2	Each	77.0178	154.04
	GATE VALVES Screwed				
	Powell White Star 1 in. 300 lb. SWP Brass NRS	1	Each	6.1669	6.17
	SPECIAL CONSTRUCTION				
	Highway Crossing 8 in.	58	Foot	2.9908	173.47
	Railroad Crossing 8 in.	58	Foot	2.9908	173.47
	Line Blocking Concrete	1	Lot		65.01
	FITTINGS	1	Lot		145.74
	GATE VALVE PITS				
	Concrete; with cover and lock 5 ft. x 5 ft. 1-3/4 in. in plan x 5 ft. 8 in. deep	1	Each	135.3500	135.35
	5 ft. x 5 ft. in plan x 8 ft. 2 in. deep	1	Each	183.8000	183.80
	TOTAL LINE A-14				$ 25,220.93
	LINE A-15				
	FROM LINE A TO BARTEX PIPE LINE COMPANY, WILBARGER COUNTY, TEXAS				
	PIPE Installed in Place				
	Plain End 6 in. 18.970 lbs. per foot	91	Foot	1.0193	$ 92.76
	WELDS 6 in.	5	Each	2.2640	11.32
	GATE VALVES Flanged CFBO				
	Darling 6 in. 700 lb. T IBBM DD NRS	1	Each	43.8687	43.87
	FITTINGS	1	Lot		11.98

Form 554-1031-6-58

TRANSMISSION LINE EQUIPMENT

"B" System 6206

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE B-10 (Cont'd)				
GATE VALVE PIT Wood; complete with cover and lock 4 ft. x 4 ft. in plan x 2 ft. 10 in. deep; 2 in. walls	1	Each	13.9000	$ 13.90
TOTAL LINE B-10				$ 1,919.32
LINE B-11				
FROM LINE B, WISE COUNTY, TO NEWARK, WISE COUNTY, TEXAS				
PIPE Installed in Place Plain End 2 in. 3.652 lbs. per foot	6,509	Foot	.3335	$ 2,170.75
WELDS 2 in.	303	Each	.8006	242.58
GATE VALVES Flanged CFBO Westcott IBBM ND NRS 2 in. 500 lb. CWG WP	1	Each	15.7438	15.74
GATE VALVE PITS Wood; complete with covers and locks 4 ft. 4 in. x 4 ft. in plan x 3 ft. deep; 2 in. walls	1	Each	16.1900	16.19
TOTAL LINE B-11				$ 2,445.26
LINE B-12				
FROM LINE B TO TRINITY PORTLAND CEMENT COMPANY, TARRANT COUNTY, TEXAS				
PIPE Installed in Place Plain End 10 in. 31.445 lbs. per foot	1,517	Feet	1.5495	$ 2,350.59
8 in. 25.062 lbs. per foot	3,180	Foot	1.2263	3,899.63

2550

Form 254 -10M-6-38

TRANSMISSION LINE EQUIPMENT

"B" System

6207

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE B-12 (Cont'd)				
WELDS				
10 in.	77	Each	3.8661	$ 297.69
8 in.	159	Each	2.9779	473.49
GATE VALVES Flanged CFBO				
Crane IBBM DD OS&Y				
8 in. 1000 lb. T.	1	Each	89.7244	89.72
GATE VALVES Screwed				
Walworth IBBM DD OS&Y				
4 in. 700 lb. T.	1	Each	27.7646	27.76
Westcott IBBM DD NRS				
8 in. 800 lb. CWG WP	1	Each	102.6617	102.66
NEEDLE VALVES Screwed				
Lunkenheimer Brass				
1/4 in. 125 lb. SWP	1	Each	.6293	.63
SPECIAL CONSTRUCTION				
Railroad Crossing				
10 in.	46	Foot	3.8578	177.46
FITTINGS	1	Lot		95.49
GATE VALVE PITS				
Concrete; complete with cover and lock				
4 ft. x 4 ft. in plan x 5 ft. 2 in. deep; 6 in. walls	1	Each	101.2600	101.26
TOTAL LINE B-12				$ 7,616.38
LINE B-13				
FROM LINE B TO CHICO, WISE COUNTY, TEXAS				
PIPE Installed in Place				
Plain End				
4 in. 10.790 lbs. per foot (Double Length)	27,725	Foot	.5294	$ 14,677.62
WELDS				
4 in.	1,289	Each	1.5286	1,970.37

TRANSMISSION LINE EQUIPMENT

"B" System

6208-6221

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE B-13 (Cont'd)				
GATE VALVES Flanged CFBO Walworth IBBM DD OS&Y				
4 in. 700 lb. T.	1	Each	32.2646	$ 32.26
2 in. 700 lb. T.	1	Each	17.2655	17.27
BLOW-OFF				
2 in. complete with valves and fittings	1	Each	11.3400	11.34
FITTINGS	1	Lot		16.36
GATE VALVE PIT				
Concrete; complete with cover and lock				
4 ft. 6 in. x 4 ft. 6 in. in plan x 3 ft. 6 in. deep; 6 in. walls	1	Each	87.9000	87.90
TOTAL LINE B-13				$ 16,813.12
HOLLOWAY FUEL LINE				
FROM LINE B TO HOLLOWAY LEASE, CLAY COUNTY, TEXAS.				
PIPE Installed in Place Threaded and Coupled				
2 in. 3.750 lbs. per foot	10,726	Foot	.3206	$ 3,438.76
GATE VALVES Screwed Westcott IBBM DD NRS				
2 in. 1200 lb. CWG WP	1	Each	19.4032	19.40
2 in. 500 lb. CWG WP	1	Each	12.7711	12.77
FITTINGS	1	Lot		2.76
TOTAL HOLLOWAY FUEL LINE				$ 3,473.69

2332

Form 861 10M 7-31

TRANSMISSION LINE EQUIPMENT

"C" System

6222-6230

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE C-5-1				
FROM LINE C-5 TO TARRANT COUNTY POOR FARM, TARRANT COUNTY, TEXAS				
PIPE Installed in Place Threaded and Coupled 2 in. 3.750 lbs. per foot	1,414	Foot	.3664	$ 518.09
GATE VALVES Screwed P & M 2 in. 1000 lb. T IRBM NRS	1	Each	13.0389	13.04
FITTINGS	1	Lot		1.20
TOTAL LINE C-5-1				$ 532.33
LINE C-7				
FROM LINE C TO WILD BRIAR FARM, DALLAS COUNTY, TEXAS				
PIPE Installed in Place Plain End 2 in. 3.652 lbs. per foot	3,495	Foot	.3711	$ 1,296.99
WELDS 2 in.	163	Each	.8873	144.63
GATE VALVES Flanged Complete with bolts and gaskets Crane 2 in. 1000 lb. T IRBM DD OS&Y CFBO	1	Each	19.3618	19.36
CURB BOXES No. 0 CI Top	1	Each	5.3785	5.38
SPECIAL CONSTRUCTION Road Crossing 2 in.	22	Foot	1.7472	38.44
BLOW OFF 1 in. Complete with valve and fittings	1	Each	2.0800	2.08
FITTINGS	1	Lot		28.13
TOTAL LINE C-7				$ 1,535.01

Form 154—100M—1-48

TRANSMISSION LINE EQUIPMENT

"E" System

6231

m d	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	LINE E-2 (Cont'd)				
	GATE VALVE PITS				
	Concrete; With Cover and Lock				
	4 ft. 6 in. x 4 ft. 6 in. in plan x 4 ft. 6 in. deep	1	Each	105.33	$ 105.33
	TOTAL LINE E-2				$ 50,688.13
	LINE E-3				
	FROM LINE E TO WHITESBORO, GRAYSON COUNTY, TEXAS				
	PIPE Installed in Place				
	Plain End				
	4 in. 10.790 lbs. per foot	4,710	Foot	.5274	$ 2,484.05
	WELDS				
	4 in.	219	Each	1.5297	335.00
	GATE VALVES Flanged CFBO				
	Crane IHBM ID OS&Y				
	2 in. 700 lbs. T	2	Each	17.2449	34.49
	BLOW-OFFS				
	Complete with Valves and Fittings				
	2 in.	1	Each	16.22	16.22
	GAS CLEANER				
	Complete with Valves and Fittings				
	18 in. x 9 ft. 10 in.	1	Each	246.07	246.07
	FITTINGS	1	Lot		12.28
	TOTAL LINE E-3				$ 3,128.11
	LINE E-4				
	FROM LINE E TO GIRLS TRAINING SCHOOL, COOKE COUNTY, TEXAS				
	PIPE Installed in Place				
	Threaded and Coupled				
	4 in. 11.000 lbs. per foot	9,595	Foot	.6433	$ 6,172.46

2554

Form 251-1638-6-53

TRANSMISSION LINE EQUIPMENT

6232-6265

"E" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE E-4 (Cont'd)				
GATE VALVES Flanged CFBO				
Ludlow IBBM DD NRS				
4 in. 1000 lb. T	1	Each	30.6460	$ 30.65
Westcott IBBM DD NRS				
2 in. 250 lb. OWG WP	1	Each	11.0669	11.07
SPECIAL CONSTRUCTION				
Railroad Crossings				
4 in.	60	Foot	2.3402	140.41
FITTINGS	1	Lot		22.53
GATE VALVE PIT				
Wood, complete with cover and lock				
3 ft. 6 in. x 3 ft. 8 in. in plan x 4 ft. 3 in. deep	1	Each	18.1400	18.14
TOTAL LINE E-4				$ 6,395.26

TRANSMISSION LINE EQUIPMENT

6266-6274

"F" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE F-7 (Cont'd)				
GATE VALVES Flanged Complete with bolts and gaskets Crane 4 in. 125 lb. S&P IBBM Wedge O&Y CVBO	1	Each	19.7690	$ 19.77
BLOW OFF Complete with valve and fittings 2 in.	1	Each	6.3200	6.32
GAS CLEANER 18 in. x 10 ft. including valves fittings and foundation	1	Each	227.5800	227.58
FITTINGS	1	Lot		13.28
GATE VALVE PIT Pipe 16 in. in diameter x 14 in. deep	1	Each	2.2260	2.23
TOTAL LINE F-7				$ 9,061.44
LINE F-8				
FROM LINE F, DENTON COUNTY, TO ACME BRICK COMPANY, DENTON COUNTY, TEXAS				
PIPE Installed in Place Plain End 4 in. 10.790 lbs. per foot	23,277	Foot	.5829	$ 13,568.16
COUPLINGS Dresser 4 in.	1,083	Each	1.4129	1,530.17
FITTINGS	1	Lot		75.21
TOTAL LINE F-8				$ 15,173.54
LINE F-9				
FROM LINE F TO CARROLLTON, DALLAS COUNTY, TEXAS				
PIPE Installed in Place Plain End 3 in. 7.575 lbs. per foot	19,655	Foot	.4780	$ 9,395.09

Form 254 100M 7-33

TRANSMISSION LINE EQUIPMENT

"G" System

6275-6305

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE G (Cont'd)				
GATE VALVE PITS				
Concrete; complete with covers and locks (Cont'd)				
7 ft. x 7 ft. in plan x 7 ft. 7 in. deep	1	Each	244.4100	$ 244.41
7 ft. 1 in. x 7 ft. 2-1/2 in. in plan x 7 ft. 4 in. deep	1	Each	253.4400	253.44
7 ft. 2 in. x 7 ft. 2 in. in plan x 6 ft. 6 in. deep	1	Each	253.5900	253.59
14 ft. x 6 ft. in plan x 6 ft. 6 in. deep	1	Each	372.6100	372.61
7 ft. x 6 ft. 11 in. in plan x 6 ft. deep	1	Each	210.4700	210.47
Concrete; without covers and locks				
9 ft. 8 in. x 15 ft. 11-3/4 in. in plan x 6 ft. deep	1	Each	397.4800	397.48
TOTAL LINE G				$815,039.50
LINE G-1				
FROM LINE G, TO PRODUCERS REFINING COMPANY, COOKE COUNTY, TEXAS				
PIPE Installed in Place				
Plain End				
4 in. 10.790 lbs. per foot	6,068	Foot	.5183	$ 3,145.04
COUPLINGS Dresser				
Complete with bolts and rubbers				
4 in.	282	Each	1.4129	398.44
FITTINGS	1	Lot		20.68
TOTAL LINE G-1				$ 3,564.16
LINE G-2				
FROM LINE G, TO MARIETTA, LOVE COUNTY, OKLAHOMA				
PIPE Installed in Place				
Plain End				
4 in. 10.790 lbs. per foot	57,051	Foot	.5305	$30,265.56

2557

Form 554—100M—7-38

TRANSMISSION LINE EQUIPMENT

"H" System

6306-6336

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE H-2				
FROM LINE H, CLAY COUNTY, TO PETROLIA REGULATOR, CLAY COUNTY, TEXAS				
PIPE Installed in Place Threaded and Coupled				
2 in. 3.750 lbs. per foot	776	Foot	.3135	$ 243.28
GATE VALVES Screwed				
Darling IBBM DD NRS				
2 in. 1000 lb. T. No. 101	3	Each	13.1367	39.41
FITTINGS	1	Lot		9.49
GATE VALVE PITS				
Wood complete with cover and locks				
3 ft. x 3 ft. in plan x 2 ft. deep	1	Each	9.0900	9.09
TOTAL LINE H-2				$ 301.27
LINE H-3				
FROM LINE H, COTTON COUNTY, TO WAURIKA, JEFFERSON COUNTY, OKLAHOMA				
PIPE Installed in Place				
Plain End				
4 in. 10.790 lbs. per foot	63,551	Foot	.5358	$ 34,050.63
WELDS				
4 in.	2,955	Each	1.5073	4,454.07
GATE VALVES Flanged CFBO				
Walworth IBBM DD OS&Y				
4 in. 700 lb. T	1	Each	32.2646	32.26
Westcott IBBM DD NRS				
4 in. 800 lb. T	1	Each	43.1468	43.15
SAFETY VALVES Flanged CFBO				
Lunkenheimer Non-return				
4 in. 250 lb. WP, OS&Y	2	Each	92.2026	184.41

Form 214—100M—7-33

TRANSMISSION LINE EQUIPMENT

6337-6353

"J" System

LN B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	LINE J-2-6 (Cont'd)				
	FITTINGS	1	Lot		$ 3.28
	GATE VALVE PITS Wood; complete with covers and locks 4 ft. x 4 ft. in plan x 2 ft. 9 in. deep	1	Each	14.5400	14.54
	TOTAL LINE J-2-6				$ 145.37
	LINE J-2-7				
	FROM LINE J-2 TO CENTRAL HANDLEY MEASURING STATION, TARRANT COUNTY, TEXAS				
	FITTINGS	1	Lot		$ 2.06
	TOTAL LINE J-2-7				$ 2.06
	LINE J-2-8				
	FROM LINE J-2 TO GIFFORD HILL GRAVEL COMPANY, DALLAS COUNTY, TEXAS				
	PIPE Installed in Place Plain End 4 in. 10.790 lbs. per foot	5,894	Foot	.5030	$ 2,964.68
	2 in. 3.652 lbs. per foot	5	Foot	.2719	1.36
	WELDS 4 in.	298	Each	1.5350	457.43
	2 in.	1	Each	1.3597	1.36
	GATE VALVES Flanged Complete with bolts and gaskets Ludlow IBBM ED 4 in. 700 lb. T HRS CFBO	1	Each	27.7805	27.78
	FITTINGS	1	Lot		13.53
	GATE VALVE PITS Corrugated Galvanized Iron, with cover 2 ft. diameter x 2 ft. deep	1	Each	9.5700	9.57
	TOTAL LINE J-2-8				$ 3,475.71

Form 284 10M-6-53

TRANSMISSION LINE EQUIPMENT

"K" System

6354-6388

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE K-3 (Cont'd)				
GATE VALVE PITS				
Wood, complete with covers and locks				
4 ft. 3-1/2 in. x 4 ft. x 5 ft.	1	Each	40.7100	$ 40.71
Cast Iron, complete with cover and lock				
Curb box 24 x 36 in.	1	Each	15.4800	15.48
TOTAL LINE K-3				$ 3,878.14
LINE K-4				
FROM LINE K TO WAYLAND, STEPHENS COUNTY, TEXAS				
PIPE Installed in Place				
Threaded and Coupled				
2 in. 3.716 lbs. per foot	3	Foot	.3730	$ 1.12
FITTINGS	1	Lot		.54
TOTAL LINE K-4				$ 1.66
LINE K-5				
FROM LINE K, HOOD COUNTY TO VALLEY MILLS, BOSQUE COUNTY, TEXAS				
PIPE Installed in Place				
Plain End				
6 in. 18.974 lbs. per foot double lengths	20,944	Foot	.8985	$ 18,818.18
6 in. 18.974 lbs. per foot	101,078	Foot	.8821	89,160.90
4 in. 10.790 lbs. per foot	94,677	Foot	.5430	51,409.61
3 in. 7.575 lbs. per foot	43,553	Foot	.4855	21,144.98
2 in. 3.652 lbs. per foot	57	Foot	.3100	17.67
TUBING Seamless				
Plain End				
6 in. 23.000 lbs. per foot	71,913	Foot	1.5010	107,941.41

2560

TRANSMISSION LINE EQUIPMENT 6389-6430

"K" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
ABILENE AIRPORT TAP				
FROM LINE K-C AIRPORT, ABILENE, TAYLOR COUNTY, TEXAS				
PIPE Installed in Place				
Plain End				
2 in. 3.652 lbs. per foot	5,631	Foot	.3493	$ 1,966.91
WELDS				
2 in.	262	Each	.7986	209.23
FITTINGS	1	Lot	11.3200	11.32
TOTAL ABILENE AIRPORT TAP				$ 2,187.46
LINE K-C-S				
FROM LINE K-C TO MORAN, SHACKELFORD COUNTY, TEXAS				
PIPE Installed in Place				
Plain End				
4 in. 10.790 lbs. per foot	10	Foot	.5774	$ 5.77
6 in. 18.974 lbs. per foot	285	Foot	.8897	253.56
10 in. 31.445 lbs. per foot	4,611	Foot	1.5736	7,255.87
WELDS				
10 in.	235	Each	3.7352	877.77
6 in.	14	Each	2.2957	32.14
4 in.	1	Each	2.6473	2.65
GATE VALVES Flanged CFBO				
Complete with bolts and gaskets				
Ludlow IBBM DD				
6 in. 1500 lbs. T No. 8 NRS	1	Each	86.2998	86.30
Walworth IBBM DD				
10 in. 700 lbs. T OSWY	1	Each	125.8080	125.81
GATE VALVES Screwed				
Darling IBBM DD				
6 in. 1000 lbs. T NRS	1	Each	44.2138	44.21
Powell Brass Wedged				
1/4 in. 125 lbs. SWP	1	Each	.9531	.95
Walworth IBBM DD				
2 in. 1000 lbs. T OSWY	1	Each	17.1285	17.13
Westcott IBBM DD				
4 in. 500 lbs. OMS WP OSWY	2	Each	30.9658	61.93
FITTINGS	1	Lot		95.38

2561

Form 354 -10M-6-53

TRANSMISSION LINE EQUIPMENT

"L" System

6431

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE L-8-7				
FROM LINE L-8 TO CALVERT, ROBERTSON COUNTY, TEXAS				
PIPE Installed in Place				
Plain End				
3 in. 7.575 lbs. per foot	44	Foot	.6510	$ 28.64
WELDS				
3 in.	2	Each	1.5000	3.00
GATE VALVES Flanged CFBO				
Walworth OS&Y				
6 in. 700 lb. T.	1	Each	50.9057	50.91
3 in. 700 lb. T.	2	Each	25.2280	50.46
BLOW-OFFS				
3 in. complete with flanges, valves and fittings	2	Each	54.0900	108.18
FITTINGS	1	Lot		23.83
GATE VALVE PITS				
Concrete; complete with cover and lock				
5 ft. x 5 ft. in plan x 4 ft. 6 in. deep	1	Each	112.4100	112.41
TOTAL LINE L-8-7				$ 377.43
PERRY GIN TAP				
FROM LINE L-8 TO PERRY GIN, FALLS COUNTY, TEXAS.				
PIPE Installed in Place				
Plain End				
2 in. 3.652 lbs. per foot	875	Foot	.2925	$ 255.94
WELDS				
2 in.	41	Each	.7963	32.65
GATE VALVES Screwed				
Crane IBBM DD OS&Y				
2 in. 1000 lb. T	1	Each	17.0461	17.05

2502

Form 354-10M-4-38

TRANSMISSION LINE EQUIPMENT

"L" System

6432-6448

m &	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	PERRY GIN TAP (Cont'd)				
	SPECIAL CONSTRUCTION Railroad Crossing 2 in.	102	Foot	2.5237	$ 257.42
	FITTINGS	1	Lot		5.92
	GATE VALVE PITS Wood; complete with cover and lock 3 ft. 3 in. x 3 ft. 3 in. in plan x 4 ft. 1 in. deep; 2 in. walls	1	Each	27.9300	27.93
	TOTAL PERRY GIN TAP				$ 596.91
	LINE L-9				
	FROM LINE L TO WACO, McLENNAN COUNTY, TEXAS				
	PIPE Installed in Place Plain End 12 in. 33.375 lbs. per foot	12,980	Foot	1.6292	$ 21,147.02
	COUPLINGS Dresser Complete with bolts and rubbers 12 in.	662	Each	3.8496	2,548.44
	GATE VALVES Flanged Complete with bolts and gaskets Atwood 12 in. 400 lb. GWP IBBM DD NRS with 2 cast steel flanges with 12 in. x 5 ft. Vanstone Nipples	1	Each	200.9991	201.00
	GATE VALVES Flanged CFBO Crane IBBM DD OS&Y 4 in. 1000 lb. T.	1	Each	35.7335	35.73
	BLOW-OFF 6 in. complete with valves and fittings	1	Each	72.3200	72.32
	FITTINGS	1	Lot		159.91

Form 154 10M-6 53

TRANSMISSION LINE EQUIPMENT

"L" System

6449

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE L-23 (Cont'd)				
GATE VALVES Flanged CFBO (Cont'd) Walworth IRBM DD OS&Y				
6 in. 700 lb. T.	3	Each	50.9057	$ 152.72
PLUG VALVES Flanged CFBO Nordstrom				
2 in. 250 lb. WP	1	Each	15.4336	15.43
BLOW-OFFS Complete with valves and fittings	4	Each	42.5800	170.32
FITTINGS	1	Lot		41.44
GATE VALVE PITS Concrete; complete with covers and locks				
7 ft. 6 in. x 7 ft. 6 in. in plan x 7 ft. 6 in. deep	1	Each	280.9400	280.94
4 ft. 6 in. x 4 ft. 6 in. in plan x 7 ft. deep	1	Each	146.7500	146.75
4 ft. 6 in. x 4 ft. 6 in. in plan x 5 ft. deep	1	Each	96.7100	96.71
TOTAL LINE L-23				$ 1,091.85
LINE L-24				
FROM LINE L TO ATLAS PORTLAND CEMENT COMPANY, McLENNAN COUNTY, TEXAS				
PIPE Installed in Place Plain End				
8 in. 25.062 lbs. per foot	30,754	Foot	1.2561	$ 38,630.10
WELDS				
8 in.	2,538	Each	2.9750	4,575.55
PLUG VALVES Flanged CFBO Nordstrom				
8 in. 250 lb. WP	3	Each	149.1760	447.53
4 in. 250 lb. WP	1	Each	45.8848	45.88

TRANSMISSION LINE EQUIPMENT

"L" System

6450-6467

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE L-24 (Cont'd)				
PLUG VALVES Screwed				
Barco				
4 in. 250 lb. WP	1	Each	30.1840	$ 30.18
Nordstrom				
1 in. 250 lb. WP	2	Each	5.6640	11.33
SPECIAL CONSTRUCTION				
Highway Crossings				
8 in.	60	Foot	3.7539	225.23
Railroad Crossings				
8 in.	120	Foot	3.7539	450.47
BLOW-OFFS				
Complete with flanges, valves and fittings	2	Each	28.4900	56.98
FITTINGS	1	Lot		117.60
GATE VALVE PITS				
Concrete; complete with cover and lock				
5 ft. x 5 ft. in plan x 4 ft. 6 in. deep	1	Each	117.8600	117.86
TOTAL LINE L-24				$ 44,708.71
LINE L-24-1				
FROM LINE L-24 TO HEWITT, McLENNAN COUNTY, TEXAS				
PIPE Installed in Place				
Plain End				
2 in. 3.652 lbs. per foot	669	Feet	.4290	$ 287.00
WELDS				
2 in.	31	Each	1.3697	42.46
PLUG VALVES Screwed				
Nordstrom				
2 in. 150 lb. WP	1	Each	9.1458	9.15
FITTINGS	1	Lot		.75

Form 284--100M--7-48

TRANSMISSION LINE EQUIPMENT

"M" System

6468-6469

eg ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE M-6-2 (Cont'd)				
GATE VALVE PITS Wood; complete with cover and lock 5 ft. x 5 ft. 4 in. in plan x 4 ft. deep	1	Each	36.9600	$ 36.96
TOTAL LINE M-6-2				$ 143.34
LINE M-6-3				
FROM LINE M-6 TO BARRY, NAVARRO COUNTY, TEXAS				
PIPE Installed in Place Plain End 2 in. 3.652 lbs. per foot	10	Foot	.5042	$ 5.04
WELDS 2 in.	1	Each	1.3597	1.36
GATE VALVES Flanged CFBO Walworth IBRM DD OS&Y 2 in. 700 lbs. T	1	Each	17.2655	17.27
BLOW OFF Complete with valves and fittings 2 in.	1	Each	10.4200	10.42
FITTINGS	1	Lot		1.33
GATE VALVE PITS Wood; complete with cover and lock 3 ft. 6 in. x 3 ft. 6 in. in plan x 4 ft. 2 in. deep	1	Each	21.4500	21.45
TOTAL LINE M-6-3				$ 56.87
LINE M-7				
FROM LINE M TO FORRESTON (INCLUDING TAP TO GIN) ELLIS COUNTY, TEXAS				
PIPE Installed in Place Threaded and Coupled 2 in. 3.750 lbs. per foot	6,275	Foot	.2881	$ 1,807.83

Form 354—1500M—1-58

TRANSMISSION LINE EQUIPMENT

6470-6477

"M" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE M-10				
FROM LINE M TO HASH GIN COMPANY, ELLIS COUNTY, TEXAS				
PIPE Installed in Place				
Plain End				
2 in. 3.652 lbs. per foot	37	Foot	.4397	$ 16.27
WELDS				
2 in.	2	Each	1.0100	2.02
GATE VALVES Screwed				
Rensselaer IRBM DD NRS				
2 in. 600 lbs. T	1	Each	11.1188	11.12
FITTINGS	1	Lot		2.70
TOTAL LINE M-10				$ 32.11
LINE M-11				
FROM LINE M, LIMESTONE COUNTY, TEXAS TO LINE L, HILL COUNTY, TEXAS				
PIPE Installed in Place				
Plain End				
10 in. 31.445 lbs. per foot	197,351	Foot	1.4890	$293,855.64
8 in. 25.062 lbs. per foot	35,507	Foot	1.0957	38,905.02
WELDS				
10 in.	10,065	Each	3.7351	37,593.78
COUPLINGS Dresser				
Complete with bolts and rubbers				
8 in.	1,775	Each	2.6876	4,770.49
GATE VALVES Flanged CYBO				
Crane IRBM DD OS&Y				
4 in. 1000 lbs. T	1	Each	35.7335	35.73
Darling IRBM DD NRS				
8 in. 700 lbs. T	1	Each	66.1935	66.19
Walworth IRBM DD OS&Y				
10 in. 700 lbs. T	1	Each	125.8080	125.81
Walworth IRBM DD OS&Y				
8 in. 700 lbs. T	3	Each	77.0178	231.05

TRANSMISSION LINE EQUIPMENT 6478

"M" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE M-11-8 (Cont'd)				
PLUG VALVES Screwed Barco 2 in. 250 lbs. WP	1	Each	8.1920	$ 8.19
BLOW OFF Complete with valves and fittings 2 in.	1	Each	11.0900	11.09
FITTINGS	1	Lot		8.91
GATE VALVE PITS Concrete; complete with cover and lock 4 ft. 6 in. x 4 ft. 6 in. in plan x 4 ft. 6 in. deep	1	Each	100.3400	100.34
TOTAL LINE M-11-8				$ 6,223.44
LINE M-12				
FROM LINE [illegible] TO STATE ORPHAN'S HOME, NAVARRO COUNTY, TEXAS				
PIPE Installed in Place 4 in. 10.790 lbs. per foot	4,738	Foot	.5235	$ 2,480.34
WELDS 4 in.	220	Each	1.5282	336.20
GATE VALVES Flanged CFBO Ludlow IBBM DD NRS 2 in. 1000 lbs. T	1	Each	15.3685	15.37
GATE VALVES Screwed Crane IBBM DD OS&Y 4 in. 1000 lbs. T	1	Each	35.7335	35.73
SPECIAL CONSTRUCTION Railroad Crossing 4 in.	21.67	Foot	2.9245	63.37
FITTINGS	1	Lot		18.42

Form 254—100M—7-43

TRANSMISSION LINE EQUIPMENT

"M" System

6479

eg	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	LINE M-12 (Cont'd)				
	GATE VALVE PITS				
	Wood; complete with covers and locks				
	2 ft. 3-1/2 in. x 3 ft. in plan x 2 ft. deep	1	Each	7.8900	$ 7.89
	Concrete; complete with covers and locks				
	4 ft. 6 in. x 4 ft. 6 in. in plan x 5 ft. deep	1	Each	110.9000	110.90
	TOTAL LINE M-12				$ 3,068.22
	LINE M-13				
	FROM LINE M TO MAGNOLIA PETROLEUM COMPANY REFINERY, NAVARRO COUNTY, TEXAS				
	PIPE Installed in Place				
	Plain End				
	8 in. 25.062 lbs. per foot	2,758	Foot	1.1049	$ 3,047.31
	WELDS				
	8 in.	138	Each	2.9828	411.63
	GATE VALVES Flanged CFBO				
	Crane IBBM Wedge NRS				
	8 in. 250 lbs. SWP	1	Each	98.1513	98.15
	Walworth IBBM DD OS&Y				
	10 in. 700 lbs. T	1	Each	125.8080	125.81
	Walworth IBBM DD OS&Y				
	8 in. 700 lbs. T	2	Each	77.0178	154.04
	GATE VALVES Screwed				
	Crane IBBM Wedge NRS				
	2 in. 125 lbs. SWP	1	Each	5.0534	5.05
	SPECIAL CONSTRUCTION				
	Highway Crossing				
	8 in.	68	Foot	3.0455	207.09
	BLOW OFFS				
	Complete with valves and fittings				
	3 in.	2	Each	42.1500	84.30
	2 in.	1	Each	29.0700	29.07

Form 254-100M-7-33

TRANSMISSION LINE EQUIPMENT

"M" System

6480-6481

eg	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	LINE M-13 (Cont'd)				
	GAS CLEANERS				
	Complete with valves, fittings and concrete foundations				
	30 in. diameter x 12 ft.	1	Each	1081.0300	$ 1,081.03
	30 in. diamter x 11 ft. 6 in.	1	Each	1216.3300	1,216.33
	FITTINGS	1	Lot		37.11
	GATE VALVE PITS				
	Concrete; complete with covers and locks				
	5 ft. x 5 ft. in plan x 6 ft. 6 in. deep	1	Each	170.8700	170.87
	5 ft. 6 in. x 5 ft. 6 in. in plan x 6 ft. 3 in. deep	1	Each	170.3400	170.34
	TOTAL LINE M-13				$ 6,838.13
	LINE M-14				
	FROM LINE M TO MILFORD, ELLIS COUNTY, TEXAS				
	PIPE Installed in Place				
	Plain End				
	4 in. 10.790 lbs. per foot	33,654	Foot	.5844	$ 19,667.40
	3 in. 7.575 lbs. per foot	26,103	Foot	.5049	13,179.40
	WELDS				
	3 in.	1,214	Each	1.1821	1,435.07
	4 in.	1,565	Each	1.5195	2,378.02
	GATE VALVES Flanged CFBO				
	Pratt and Cady IBBM OS&Y				
	4 in. 250 lbs. SWP	1	Each	44.6392	44.64
	GATE VALVES Screwed				
	Crane IBBM DD NRS				
	2 in. 700 lbs. T	1	Each	11.4937	11.49
	PLUG VALVES Screwed				
	Nordstrom				
	3 in. 250 lbs. WP	1	Each	17.2295	17.23

eg ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE M-14-1 (Cont'd)				
GATE VALVE PITS				
Wood; complete with covers and locks				
3 ft. 3 in. x 3 ft. 6 in. in plan x 3 ft. deep	1	Each	15.9000	$ 15.90
3 ft. x 3 ft. 4 in. in plan x 3 ft. deep	1	Each	16.0800	16.08
TOTAL LINE M-14-1				$ 141.13
LINE M-15				
FROM LINE M TO POWELL FIELD, NAVARRO COUNTY, TEXAS				
PIPE Installed in Place				
Threaded and Coupled				
4 in. 11.000 lbs. per foot	10,246	Foot	.6307	$ 6,462.15
2 in. 3.750 lbs. per foot	12	Foot	.2833	3.40
GATE VALVES Flanged CFBO				
Westcott IBBM DD NRS				
4 in. 700 lbs. T	2	Each	26.8687	53.74
GATE VALVES Screwed				
Crane IBBM Wedge NRS				
2 in. 125 lbs. SWP	4	Each	5.0534	20.21
SPECIAL CONSTRUCTION				
Railroad Crossings				
4 in.	60	Foot	2.5346	152.08
FITTINGS	1	Lot		11.70
TOTAL LINE M-15				$ 6,703.28
LINE M-15-1				
FROM LINE M-15 TO KENT MIDDLETON REFINERY, NAVARRO COUNTY, TEXAS				
PIPE Installed in Place				
Plain End				
4 in. 10.790 lbs. per foot	1,778	Foot	.5102	$ 907.14

Form 234—100M—7-53

TRANSMISSION LINE EQUIPMENT

"M" System

6483

eg	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	LINE M-15-1 (Cont'd)				
	WELDS				
	4 in.	83	Each	1.5350	$ 127.41
	GATE VALVES Flanged CFBO				
	Westcott IBEM DD NRS				
	4 in. 1200 lbs. OWG WP	1	Each	61.2167	61.22
	FITTINGS	1	Lot		10.93
	GATE VALVE PITS				
	Concrete; complete with cover and lock				
	4 ft. 6 in. x 4 ft. 6 in. in plan x 4 ft. deep	1	Each	96.3500	96.35
	TOTAL LINE M-15-1				$ 1,203.05
	LINE M-15-2				
	FROM LINE M-15 TO HUMBLE OIL AND REFINING COMPANY, POWELL FIELD, NAVARRO COUNTY, TEXAS				
	PIPE Installed in Place				
	Plain End				
	6 in. 18.974 lbs. per foot	11,708	Foot	.8436	$ 9,876.87
	4 in. 10.790 lbs. per foot	2	Foot	.5347	1.07
	WELDS				
	4 in.	1	Each	2.6473	2.65
	COUPLINGS Dresser				
	Complete with bolts and rubbers				
	6 in.	557	Each	1.9175	1,068.05
	GATE VALVES Flanged CFBO				
	Walworth IBEM DD OS&Y				
	6 in. 700 lbs. T	2	Each	50.9057	101.81
	GATE VALVES Screwed				
	Walworth IBEM DD OS&Y				
	3 in. 700 lbs. T	1	Each	21.8581	21.86
	PLUG VALVES Screwed				
	Nordstrom				
	1 in. 250 lbs. WP	1	Each	5.6640	5.66

Form 254—100M—7-33

TRANSMISSION LINE EQUIPMENT

"L" System 6484-6489

eg	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	LINE M-15-2 (Cont'd)				
	SPECIAL CONSTRUCTION				
	Highway Crossings				
	6 in.	108	Foot	3.7235	$ 402.14
	Railroad Crossings				
	6 in.	80	Foot	3.7235	297.88
	FITTINGS	1	Lot		79.73
	GATE VALVE PITS				
	Concrete; complete with cover and lock				
	4 ft. 6 in. x 4 ft. 6 in. in plan x 5 ft. deep	1	Each	113.0300	113.03
	4 ft. 6 in. x 4 ft. 6 in. in plan x 5 ft. deep	1	Each	118.4900	118.49
	TOTAL LINE M-15-2				$ 12,089.24
	LINE M-16				
	FROM LINE M TO RICHLAND, TEXAS				
	PIPE Installed in Place				
	Threaded and Coupled				
	2 in. 3.750 lbs. per foot	318	Foot	.3462	$ 110.09
	GATE VALVES Flanged CFBO				
	Crane IBHM DD OS&Y				
	2 in. 700 lbs. T	1	Each	17.2449	17.24
	FITTINGS	1	Lot		5.26
	GATE VALVE PITS				
	Wood; complete with cover and lock				
	3 ft. 3 in. x 3 ft. 3 in. in plan x 4 ft. deep	1	Each	18.5800	18.58
	TOTAL LINE M-16				$ 151.17

Form 254 10M-4-38

TRANSMISSION LINE EQUIPMENT

"M" System

6490-6506

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
TAP TO HUMBLE OIL AND REFINERY COMPANY METERS, FROM LINE M AT STATION 4225 PLUS 50.5				
PIPE Installed in Place Threaded and Coupled 2 in. 3.750 lbs. per foot	60	Foot	.5698	$ 34.19
GATE VALVES Flanged CFBO Crane IBBM DD OS&Y 2 in. 700 lbs. T	2	Each	17.2449	34.49
FITTINGS	1	Lot		9.98
TOTAL TAP TO HUMBLE OIL AND REFINERY COMPANY				$ 78.66

Form 154 - 1M - 2-43

TRANSMISSION LINE EQUIPMENT

"O" System

6507-6509

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE O-1-5				
FROM LINE O-1 TO TRUMBULL, ELLIS COUNTY, TEXAS				
PIPE Installed in Place				
Plain End				
3 in. 7.575 lbs. per foot	1,576	Foot	.5912	$ 931.73
2 in. 3.652 lbs. per foot	2	Foot	.4175	.84
WELDS				
3 in.	73	Each	1.1878	86.71
2 in.	1	Each	1.3597	1.36
GATE VALVES Screwed				
Oil Well Supply Company				
2 in. 700 lbs. T. NRS	1	Each	11.5246	11.52
PLUG VALVES Flanged CFBQ				
Nerco-Nordstrom				
3 in. 250 lbs. SWP	1	Each	27.1326	27.13
BLOW-OFFS				
Complete with valve & fittings				
2 in.	1	Each	10.8200	10.82
FITTINGS	1	Lot		10.96
GATE VALVE PITS				
Cast Iron Curb Box complete with Cover and Lock.				
20-1/2 in. diameter x 18 in.	1	Each	6.0200	6.02
Wood complete with Cover & Lock				
4 ft. x 4 ft. in plan x 3 ft. deep.	1	Each	20.7800	20.78
TOTAL LINE O-1-5				$ 1,107.87
LINE BARRON BRICK COMPANY NO.1 TAP				
FROM LINE O-1 TO BARRON BRICK COMPANY, PLANT NO. 1, ELLIS COUNTY, TEXAS				
PIPE Installed in Place				
Plain End				
4 in. 10.790 lbs. per foot	458	Foot	.6126	$ 280.57

Form 254 10M-6-55

TRANSMISSION LINE EQUIPMENT

"O" System

6510-6514

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE O-2 (Cont'd)				
GATE VALVES Flanged CFBO				
Crane IBBM DD				
4 in. 700 lbs. T. OS&Y	3	Each	32.3367	$ 97.01
2 in. 700 lbs. T. OS&Y	1	Each	17.2449	17.24
GATE VALVES Screwed				
Darling IBBM DD				
4 in. 1000 lbs. T. NRS	1	Each	26.2319	26.23
SPECIAL CONSTRUCTION				
Highway Crossings				
4 in.	44	Foot	2.6622	117.14
Railroad Crossings				
4 in.	27	Foot	2.6622	71.88
BLOW-OFFS				
Complete with Valve & Fittings				
2 in.	1	Each	21.9000	21.90
GAS CLEANER				
18 in. x 10 ft. baseball welded ends, three 4 in., one 2 in., four 1 in. and two 3/4 in. openings, including valves and fittings	1	Each	233.8200	233.82
FITTINGS	1	Lot		60.80
GATE VALVE PITS				
With Cover and Lock				
Cast Iron	2	Each	7.3100	14.62
Concrete with Cover and Lock				
4 ft. 6 in. x 4 ft. 6 in. in plan x 6 ft. 2 in. deep.	1	Each	121.9600	121.96
TOTAL LINE O-2				$39,621.89
LINE O-2-1				
FROM LINE O-2 TO GARLAND, DALLAS COUNTY, TEXAS				
PIPE Installed in Place				
Plain End				
4 in. 10.790 lbs. per foot	1,577	Foot	.5292	$ 834.55

TRANSMISSION LINE EQUIPMENT

"O" System

6515-6522

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE O-3-3 (Cont'd)				
GATE VALVES Screwed				
Crane IBBM DD				
2 in. 1000 lbs. T. OS&Y	2	Each	17.0461	$ 34.09
Westcott IBBM DD				
4 in. 500 lbs. OWG WP NRS	1	Each	24.8107	24.81
SPECIAL CONSTRUCTION				
Highway Crossings				
4 in.	78.67	Foot	2.7089	213.11
Railroad Crossings				
4 in.	124.5	Foot	2.8182	350.87
BLOW-OFFS				
Complete with Valves & Fittings				
4 in.	1	Each	39.7000	39.70
FITTINGS	1	Lot		52.14
GATE VALVE PITS				
Concrete with Covers & Locks				
4 ft. 6 in. x 4 ft. 6 in. in plan x 3 ft. 10 in. deep	1	Each	91.8600	91.86
4 ft. 6 in. x 4 ft. 6 in. in plan x 4 ft. 6 in. deep	1	Each	105.6600	105.66
TOTAL LINE O-3-3				$33,745.99
LINE O-3-4				
FROM LINE O-3 DALLAS COUNTY TO LEWIS POULTRY COLONY MEASURING STATION, DALLAS COUNTY, TEXAS				
PIPE Installed in Place				
Threaded and Coupled				
2 in. 3.750 lbs. per foot	8	Foot	.5048	$ 4.04
FITTINGS	1	Lot		1.27
TOTAL LINE O-3-4				$ 5.31

TRANSMISSION LINE EQUIPMENT

6523-6610

"O" System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE O-13-2				
FROM LINE O-13 TO JOSEPHINE, COLLIN COUNTY, TEXAS				
PIPE Installed in Place Plain End 3 in. 7.575 lbs. per foot	76	Foot	.6602	$ 50.18
WELDS 3 in.	4	Each	1.2350	4.94
GATE VALVES Flanged CFBO Crane IBBM DD 3 in. 700 lbs. T. OS&Y	1	Each	26.1514	26.15
BLOW-OFFS Complete with valves & fittings 2 in.	1	Each	25.8900	25.89
TOTAL LINE O-13-2				$ 107.16
LINE O-14				
FROM LINE O TO BUCKNER ORPHANS' HOME, DALLAS COUNTY, TEXAS				
PIPE Installed in Place Plain End 4 in. 10.790 lbs. per foot	20	Foot	.7921	$ 15.84
FITTINGS	1	Lot		2.65
TOTAL LINE O-14				$ 18.49
LINE O-15				
FROM LINE O TO URBANDALE, DALLAS COUNTY, TEXAS				
PIPE Installed in Place Plain End 2 in. 3.652 lbs. per foot	120	Foot	.4487	$ 53.84
WELDS 2 in.	6	Each	.7767	4.66
TOTAL LINE O-15				$ 58.50

2577

254 10M-6 33

TRANSMISSION LINE EQUIPMENT

Numbered System

6611

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE 30-A (Cont'd)				
FITTINGS	1	Lot		$ 21.01
GATE VALVE PITS Wood; complete with covers and locks 4 ft. x 4 ft. 4 in. in plan x 4 ft. deep	1	Each	23.5400	23.54
4 ft. 2 in. x 4 ft. 4 in. in plan x 4 ft. deep	1	Each	22.5200	22.52
TOTAL LINE 30-A				$ 13,642.32
LINE 33				
FROM EASTLAND GAS & ELECTRIC COMPANY TO LINE 174, EASTLAND COUNTY, TEXAS				
PIPE Installed in Place Threaded and Coupled 6 in. 19.450 lbs. per foot	50	Foot	1.1572	$ 57.86
4 in. 11.000 lbs. per foot	28	Foot	.7266	20.34
GATE VALVES Screwed Walworth Wedge Brass N RB 1 in. 125 lbs. T	1	Each	1.2149	1.21
DRIPS Fullerton Type 10 in.	1	Each	224.3700	224.37
FITTINGS	1	Lot		27.95
TOTAL LINE 33				$ 331.73
LINE 34				
FROM LINE 26, STEPHENS COUNTY TO TEXAS COMPANY WAREHOUSE TAP, EASTLAND COUNTY, TEXAS				
PIPE Installed in Place Threaded and Coupled 2 in. 3.750 lbs. per foot	16,948	Foot	.2601	$ 4,408.17

TRANSMISSION LINE EQUIPMENT

Numbered System 6612-6620

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE 34 (Cont'd)				
GATE VALVES Screwed				
Lunkenheimer Wedge Brass NRS				
2 in. 300 lb. SWP	1	Each	13.2721	$ 13.27
Powell IRRM RB				
2 in. 150 lbs. WP	1	Each	3.7662	3.77
GLOBE VALVES Screwed				
Lunkenheimer				
2 in. 300 lb. SWP Brass	1	Each	10.7045	10.70
2 in. 100 lb. SWP IRRM Clip NRS	2	Each	3.5032	7.01
1 in. 200 lb. SWP Brass NRS	2	Each	2.5358	5.07
No Name				
1 in. 200 lb. Brass NRS Std.	1	Each	2.5358	2.54
SPECIAL CONSTRUCTION				
Railroad Crossings				
2 in.	86	Foot	2.2287	191.67
FITTINGS	1	Lot		29.73
TOTAL LINE 34				$ 4,671.93
LINE 39				
FROM LINE KCD TO LINE 234, EASTLAND COUNTY, TEXAS				
PIPE Installed in Place				
Threaded and Coupled				
4 in. 11.000 lbs. per foot	3,480	Foot	.6187	$ 2,153.08
GATE VALVES Flanged CFBO				
Darling IRRM DD NRS				
4 in. 1600 lbs. T	1	Each	44.1083	44.11
GATE VALVES Screwed				
Darling IRRM DD NRS				
4 in. 1000 lb. T	3	Each	26.2319	78.70
2 in. 1000 lb. T	1	Each	13.1367	13.14
Lunkenheimer Brass Wedge NRS				
2 in. 300 lb. SWP	1	Each	13.2721	13.27
FITTINGS	1	Lot		23.15

Form 254-10M-6-38

TRANSMISSION LINE EQUIPMENT

Numbered System

LN B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	LINE 110- A (Cont'd)				
	GATE VALVE PITS				
	Wood; complete with cover and lock				
	4 ft. 3 in. x 5 ft. in plan x 5 ft. 2 in. deep	1	Each	37.3700	$ 37.37
	TOTAL LINE 110-A				$ 13,545.18
	LINE 133				
	FROM LINE 45 TO BRECKENRIDGE COUNTRY CLUB, STEPHENS COUNTY, TEXAS				
	PIPE Installed in Place				
	Threaded and Coupled				
	3 in. 7.700 lbs. per foot	20	Foot	.5632	$ 11.26
	2 in. 3.750 lbs. per foot	20,445	Foot	.3794	7,756.83
	REGULATOR				
	Little Hercules 1 in. EH	1	Each	8.3400	8.34
	GATE VALVES Flanged CIFBO				
	Ludlow IRRM DD NRS				
	6 in. 1500 lb. T	1	Each	86.2998	86.30
	GATE VALVES Screwed				
	Lunkenheimer Brass Wedge NRS				
	2 in. 300 lb. SWP	4	Each	13.2721	53.09
	No Name Wedge NRS				
	1 in. 250 lb. WP EH	1	Each	4.1561	4.16
	PLUG VALVES Screwed				
	Nordstrom 2 in. 250 lb. WP	1	Each	9.1458	9.15
	SPECIAL CONSTRUCTION				
	Highway Crossings				
	2 in.	32	Foot	1.8728	59.93
	Railroad Crossings				
	2 in.	42	Foot	1.8728	78.66
	FITTINGS	1	Lot		36.06
	TOTAL LINE 133				$ 8,103.78

Form 284-10M-6-32

TRANSMISSION LINE EQUIPMENT

Numbered System 6622-6631

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
LINE 140				
FROM LINE 232, TAYLOR COUNTY, TO ABILENE BRICK PLANT, TAYLOR COUNTY, TEXAS				
PIPE Installed in Place Threaded and Coupled				
6 in. 19.450 lbs. per foot	147	Foot	1.0792	$ 158.64
4 in. 11.000 lbs. per foot	7,716	Foot	.6570	5,069.41
CASING Installed in Place				
5-3/16 in.13.000 lbs. per foot	18,864	Foot	.8181	15,432.64
GATE VALVES Flanged CFBO Darling IBBM DD NRS				
4 in. 1600 lb. T	1	Each	44.1083	44.11
GATE VALVES Screwed Darling IBBM DD NRS				
4 in. 1000 lb. T	3	Each	26.2319	78.70
4 in. 1600 lb. T	1	Each	34.3870	34.39
BLOW-OFFS Complete with valves, and fittings				
4 in.	1	Each	52.2700	52.27
FITTINGS	1	Lot		104.92
GATE VALVE PITS Concrete; complete with cover and lock				
7 ft. x 7 ft. in plan x 3 ft. deep	1	Each	148.8200	148.82
TOTAL LINE 140				$ 21,123.90
LINE 153				
FROM LINE 87, EASTLAND COUNTY TO C. OWENS WELL NO. 1, EASTLAND COUNTY, TEXAS				
PIPE Installed in Place Threaded and Coupled				
6 in. 19.450 lbs. per foot	107	Foot	1.1104	$ 118.81
4 in. 11.000 lbs. per foot	4,770	Foot	.6889	3,286.05
2 in. 3.750 lbs. per foot	123	Foot	.3394	41.75

Form 354—10M—7-31

TRANSMISSION LINE EQUIPMENT 6632

T.P.U. System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
TIFFIN LINE (Cont'd)				
GATE VALVE PITS				
Wood; Complete with covers				
4 ft. 10 in. x 6 ft. 2 in. in plan x 2 ft. deep	1	Each	17.72	$ 17.72
6 ft. 7 in. x 8 ft. 4 in. in plan x 5 ft. 10 in. deep	1	Each	79.75	79.75
Sheet Iron; without cover				
22 in. diam. x18 in. deep	1	Each	3.12	3.12
22 in. diam. x 17 in. deep	1	Each	3.30	3.30
Sheet Iron; Complete with cover				
22 in. diam. x 18 in. deep	1	Each	7.65	7.65
Steel; Complete with cover				
3 ft. x 3 ft. in plan x 3 ft. deep	1	Each	33.25	33.25
3 ft. x 3 ft. in plan x 3 ft. deep	1	Each	36.35	36.35
3 ft. x 3 ft. in plan x 3 ft. deep	1	Each	32.92	32.92
3 ft. x 3 ft. in plan x 3 ft. deep	1	Each	33.95	33.95
3 ft. x 3 ft. in plan x 3 ft. deep	1	Each	29.87	29.87
3 ft. x 3 ft. in plan x 2 ft. deep	1	Each	25.59	25.59
TOTAL TIFFIN LINE				$ 58,269.95
ARKANSAS LINE				
FROM CONSOLIDATED LINES TO THE TEXAS ELECTRIC SERVICE COMPANY POWER PLANT				
PIPE Installed in Place				
Plain End				
10 in. 31.445 lbs. per foot	12,417	Foot	1.5283	$ 18,976.90
Threaded and Coupled				
8-1/4 in. 29.350 lbs. per foot	86	Foot	1.7045	146.59
COUPLINGS Hammond				
Complete with bolts and rubbers				
10 in.	655	Each	3.2868	2,152.85

Form 554—10M—7-53

TRANSMISSION LINE EQUIPMENT

T. P. U. System

6633-6635

98 ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
ARKANSAS LINE (Cont'd)				
GATE VALVES Flanged CFBO				
Chapman IBBM DD NRS				
10 in. 125 lbs. SWP No. 59-1/2	1	Each	48.3382	$ 48.34
Crane IBBM Wedge				
10 in. 125 lbs. SWP NRS	1	Each	51.0823	51.08
8 in. 125 lbs. SWP OS&Y	1	Each	43.1506	43.15
6 in. 125 lbs. SWP NRS	1	Each	20.0617	20.06
Walworth IBBM				
8 in. 700 lbs. T. DD OS&Y	1	Each	69.2272	69.23
8 in. 125 lbs. SWP Wedge OS&Y	1	Each	43.3051	43.31
6 in. 175 lbs. SWP Wedge NRS	1	Each	20.1235	20.12
GATE VALVES Screwed				
Walworth Wedge NRS				
6 in. 125 lbs. SWP IBBM	1	Each	16.9792	16.98
1-1/2 in. 125 lbs. SWP Brass	1	Each	2.1923	2.19
Lunkenheimer King Clip IBBM RS				
2 in. 150 lbs. SWP	1	Each	3.5032	3.50
SPECIAL CONSTRUCTION				
Heater Installation	1	Each	192.2500	192.25
Dam Crossing - Texas Electric Service Company - Leon Power Plant	844	Foot	4.5187	3,813.78
GAS CLEANERS				
Acme 48 in. Serial No. 4866 500 lbs. Test Complete with settling tank valves and fittings	1	Each	2201.0300	2,201.03
FITTINGS	1	Lot		357.55
TOTAL ARKANSAS LINE				$ 28,158.91
CHESLEY 6 IN. LINE				
FROM CHESLEY 8 IN. LINE, EASTLAND COUNTY, TEXAS TO W.T. 305, EASTLAND COUNTY, TEXAS				
PIPE Installed in Place				
Threaded and Coupled				
6 in. 19.450 lbs. per foot	5,185	Foot	1.2496	$ 6,479.18

TRANSMISSION LINE EQUIPMENT

T.P.U. System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
CHESLEY 8 IN. LINE (Cont'd)				
GATE VALVE PITS (Cont'd)				
Steel; Complete with cover (Cont'd)				
3 ft. x 3 ft. in plan x 3 ft. deep	2	Each	21.79	$ 43.58
3 ft. x 4 ft. in plan x 3 ft. deep	1	Each	43.85	43.85
3 ft. x 4 ft. in plan x 3 ft. deep	1	Each	43.85	43.85
3 ft. x 4 ft. in plan x 3 ft. deep	1	Each	44.26	44.26
Wood; Complete with cover				
4 ft. 6 in. x 4 ft. 10 in. in plan x 4 ft. 11 in. deep	1	Each	29.83	29.83
TOTAL CHESLEY 8 IN. LINE				$121,504.11
C & S 107 LINE				
FROM LONE STAR GASOLINE COMPANY PLANT 107 TO TEXAS ELECTRIC SERVICE COMPANY POWER PLANT, EASTLAND COUNTY, TEXAS				
PIPE Installed in Place				
Threaded and Coupled				
8-1/4 in. 28.000 lbs. per foot	33,599	Foot	1.6705	$ 56,127.13
6 in. 19.450 lbs. per foot	11	Foot	1.0967	12.06
4 in. 11.000 lbs. per foot	24	Foot	.6817	16.36
Plain End				
16 in. 47.215 lbs. per foot	283	Foot	2.3430	663.07
8 in. 29.350 lbs. per foot	120	Foot	1.6553	198.64
8 in. 27.062 lbs. per foot	16	Foot	1.1465	18.34
6 in. 18.974 lbs. per foot	22	Foot	.8857	19.49
WELDS				
16 in.	15	Each	5.7234	85.85
8 in.	6	Each	2.8752	17.25
6 in.	1	Each	4.0092	4.01
GATE VALVES Flanged CFBO				
Chapman IBBM DD NRS				
8 in. 150 lbs. OWG WP No. 59-1/2	2	Each	34.6789	69.36
Crane IBBM				
6 in. 700 lbs. T. DD OS&Y	3	Each	50.6997	152.10
4 in. 125 lbs. SWP Wedge NRS	2	Each	14.9334	29.87
Darling IBBM DD NRS				
6 in. 1600 lbs. T. No. 162	1	Each	84.6795	84.68

Form 154-10M-6-30

TRANSMISSION LINE EQUIPMENT

T.P.U. System

6637

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
C & S 107 LINE (Cont'd)				
GATE VALVES Flanged CWBO (Cont'd)				
Ludlow IBBM DD NRS				
8 in. 1000 lbs. T No. 30	1	Each	79.8068	$ 79.81
Ohio Injector Co. IBBM Wedge NRS				
8 in. 125 lb. SWP	2	Each	36.5902	73.18
4 in. 125 lb. SWP	1	Each	15.0338	15.03
Walworth IBBM DD OS&Y				
8 in. 700 lbs. T	1	Each	77.0178	77.02
Westcott IBBM Wedge NRS				
8 in. 125 lbs. CWG WP	3	Each	36.1892	108.57
GATE VALVES Screwed				
Crane IBBM Wedge NRS				
8 in. 125 lbs. SWP	1	Each	28.1124	28.11
6 in. 125 lbs. SWP	1	Each	16.9257	16.93
2 in. 125 lbs. SWP	3	Each	5.0534	15.16
Hancock Brass Wedge RS				
1/4 in. Standard	1	Each	11.5866	11.59
Jarecki IBBM DD NRS				
2 in. Standard	1	Each	11.8084	11.81
Jarecki U Clamp IBBM Wedge RS				
2 in. 125 lbs. SWP	1	Each	2.8281	2.83
Lunkenheimer Clip IBBM Wedge RS				
2 in. 100 lbs. SWP	2	Each	3.5032	7.01
Walworth Wedge NRS				
8 in. 125 lbs. SWP IBBM	1	Each	28.3134	28.31
4 in. 125 lbs. SWP IBBM	1	Each	9.9362	9.94
1/4 in. 125 lbs. SWP Brass	2	Each	.5848	1.17
Powell Brass Wedge NRS				
1/4 in. 125 lbs. SWP	1	Each	.9531	.95
No Name IBBM Wedge NRS				
2 in. Standard	1	Each	5.0534	5.05
SPECIAL CONSTRUCTION				
Highway Crossing				
8-1/4 in.	25	Feet	3.1422	78.56
Railroad Crossing				
8-1/4 in.	60	Feet	3.0097	180.58
Pipe Heater				
Complete with valves, fittings and meter				
18 in. x 9 ft.	1	Each	129.9000	129.90
Colony Creek Crossing				
8-1/4 in.	135	Feet	3.0184	407.48
Regulator Pit (Open)				
8 ft. x 19 ft. 3 in. in plan x 3 ft. 3 in. deep	1	Each	39.5500	39.55

TRANSMISSION LINE EQUIPMENT

6638

T.P.U. System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
C & S 107 LINE (Cont'd)				
DRIPS				
Screw Type 8-1/4 in.	1	Each	161.04	$ 161.04
Welded Type 10 in.	1	Each	149.10	149.10
FITTINGS	1	Lot		938.29
GATE VALVE PITS				
Wood; Complete with cover				
4 ft. 6 in. x 4 ft. 7 in. in plan x 3 ft. 10 in. deep	1	Each	18.32	18.32
4 ft. 6 in. x 5 ft. in plan x 4 ft. 10 in. deep	1	Each	32.36	32.36
TOTAL C & S 107 LINE				$ 60,125.86
C & S 108 LINE				
FROM PLANT 108 TO C & S 107 LINE				
PIPE Installed in Place				
Threaded and Coupled				
8-1/4 in. 28.000 lbs. per foot	12,350	Foot	1.6393	$ 20,245.36
GATE VALVES Flanged CFBO				
Chapman IBRM DD NRS				
8 in. 150 lbs. OWG WP No. 59-1/2	1	Each	34.6789	34.68
Walworth IBRM Wedge NRS				
8 in. 125 lbs. SWP	1	Each	36.2304	36.23
4 in. 125 lbs. SWP	1	Each	15.0261	15.03
Westcott IBRM Wedge NRS				
8 in. 125 lbs. SWP	1	Each	36.1892	36.19
GATE VALVES Screwed				
Crane IBRM Wedge NRS				
8 in. 125 lbs. SWP	2	Each	28.1124	56.22
Powell White Star Brass DD RS				
1-1/2 in. 150 lbs. SWP	1	Each	4.5233	4.52
CHECK VALVES Screwed				
Beckwith Swing 8 in. CI EH	1	Each	52.8609	52.86
DRIPS				
Screw Type 12-1/2 in.	1	Each	282.87	282.87
12-1/2 in.	1	Each	375.56	375.56
12-1/2 in.	1	Each	244.64	244.64
12-1/2 in.	1	Each	273.31	273.31
Welded Type 20 in.	1	Each	145.69	145.69

TRANSMISSION LINE EQUIPMENT

6639

T.P.U. System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
C & S 108 LINE (Cont'd)				
FITTINGS	1	Lot		$ 85.06
TOTAL C & S 108 LINE				$ 21,888.22
C & S 109 LINE				
FROM LONE STAR GASOLINE COMPANY PLANT 109 TO TEXAS ELECTRIC SERVICE COMPANY LEON PLANT, EASTLAND COUNTY, TEXAS				
PIPE Installed in Place				
Threaded and Coupled				
12-1/2 in. 45.000 lbs. per foot	549	Foot	3.0496	$ 1,674.23
10 in. 37.750 lbs. per foot	10	Foot	2.3525	23.53
8-1/4 in. 36.000 lbs. per foot	28,747	Foot	2.4088	69,245.77
Plain End				
16 in. 47.215 lbs. per foot	218	Foot	2.6252	572.29
8 in. 25.062 lbs. per foot	5	Foot	1.4281	7.14
WELDS				
16 in.	12	Each	5.4955	65.95
8 in.	1	Each	5.3507	5.35
PIPE Above Ground				
Threaded and Coupled				
8-1/4 in. 28.000 lbs. per foot	645	Foot	1.3636	879.52
GATE VALVES Flanged CFBO				
Darling IRBM DD NRS				
8 in. 1000 lbs. T.	5	Each	76.3652	381.83
Westcott IRBM Wedge NRS				
4 in. 175 lbs. OWG WP	1	Each	14.7120	14.71
GATE VALVES Screwed				
Crane Brass Wedge NRS				
2 in. 125 lbs. SWP	2	Each	3.3369	6.67
Lunkenheimer Clip RS				
2 in. 100 lbs. SWP	1	Each	3.5032	3.50
Lunkenheimer Brass DD RS				
1 in. 150 lbs. SWP	1	Each	2.2433	2.24
Powell White Star Brass Wedge RS				
1/4 in. 200 lbs. SWP	1	Each	1.1109	1.11
Walworth Brass Wedge NRS				
2 in. 125 lbs. SWP	1	Each	3.1961	3.20

Form 354 -10M-7-35

TRANSMISSION LINE EQUIPMENT

T.P.U. System

6640-6641

LN B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	C & S 109 LINE (Cont'd)				
	SAFETY VALVES Flanged CYBO				
	Lunkenheimer Non-Return IBBM OS&Y				
	6 in. 250 lb. SWP	1	Each	144.5713	$ 144.57
	SPECIAL CONSTRUCTION				
	By-Pass to Scrubber at Plant 109				
	4 in.	1	Each	58.4900	58.49
	Highway Crossing				
	8-1/4 in.	70	Foot	3.1173	218.21
	Railroad Crossing				
	8-1/4 in.	373	Foot	3.3089	1,234.22
	Stream Crossing				
	8-1/4 in.	75	Foot	3.1589	236.92
	8-1/4 in.	128	Foot	3.0599	391.67
	Pipe Heater, Brick, complete				
	with cover and stack	1	Each	64.0500	64.05
	DRIPS				
	Screw Type				
	8-1/4 in.	1	Each	77.7000	77.70
	8-1/4 in.	1	Each	76.8900	76.89
	8-1/4 in.	1	Each	77.8100	77.81
	8-1/4 in.	1	Each	78.4600	78.46
	8-1/4 in.	1	Each	79.1700	79.17
	8-1/4 in.	1	Each	106.9300	106.93
	Welded Type				
	8-1/4 in.	1	Each	124.4500	124.45
	FITTINGS	1	Lot		258.02
	GATE VALVE PITS				
	Wood; with cover				
	5 ft. 3 in. x 5 ft. 3 in. in plan x 5 ft. deep	1	Each	43.1800	43.18
	Concrete; without cover				
	6 ft. x 6 ft. 3 in. in plan x 4 ft. 9 in. deep	1	Each	110.7300	110.73
	TOTAL C & S 109 LINE				$ 76,268.51
	CONSOLIDATED NO. 1 LINE				
	FROM CONSOLIDATED PLANT TO ARKANSAS 10 IN. LINE				
	PIPE Installed in Place				
	Threaded and Coupled				
	8-1/4 in. 28.00 lbs. per foot	12,070	Foot	1.7596	$ 21,238.37

Form 154 - 10M - 6-30

TRANSMISSION LINE EQUIPMENT

6642

T.P.U. System

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
CONSOLIDATED NO. 2 LINE (Cont'd)				
FITTINGS	1	Lot		$ 25.73
TOTAL CONSOLIDATED NO. 2 LINE				$ 22,403.54
OAKLAND 6 IN. LINE				
FROM STRAWN LINE TO OAKLAND FIELD				
PIPE Installed in Place				
Threaded and Coupled				
8 in. 29.350 lbs. per foot	5	Foot	1.6977	$ 8.49
6 in. 19.450 lbs. per foot	14,416	Foot	1.1410	16,448.66
3 in 7.700 lbs. per foot	727	Foot	.5271	383.20
GATE VALVES Screwed				
Westcott IRBM DD NRS				
8 in. 800 lb. OWG WP	1	Each	102.6617	102.66
Westcott IRBM DD NRS				
2 in. 1200 lb. OWG WP	1	Each	19.4032	19.40
CHECK VALVES Screwed				
Beckwith Swing				
3 in. 250 lb. WP	1	Each	6.9252	6.93
FITTINGS	1	Lot		68.45
GATE VALVE PITS				
Wood; with cover				
4 ft. x 4 ft. in plan x 3 ft. deep	1	Each	13.6700	13.67
2 ft. x 2 ft. in plan x 4 ft. deep	1	Each	8.3900	8.39
TOTAL OAKLAND 6 IN. LINE				$ 17,059.85
SIBLEY LINE				
FROM STRAWN LINE TO T.E.S.Co. POWER-PLANT, EASTLAND COUNTY, TEXAS				
PIPE Installed in Place				
Threaded and Coupled				
10 in. 40.000 lbs. per foot	26,185	Foot	2.5214	$ 66,022.86
8-1/4 in. 28.000 lbs. per foot	898	Foot	1.5408	1,383.64
8 in. 29.350 lbs. per foot	371	Foot	1.5244	565.55

Form 254 -10M-6-28

TRANSMISSION LINE EQUIPMENT

T.P.U. System

6643

LN B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	SIBLEY LINE (Cont'd)				
	PIPE (Above Ground)				
	Threaded and Coupled				
	8-1/4 in. 28.000 lbs.per foot	1,262	Foot	1,3636	$ 1,720.88
	GATE VALVES Flanged CPBO				
	Chapman IBBM Wedge OS&Y				
	10 in. 250 lb. OWG WP No. 42	1	Each	102.7431	102.74
	Chapman IBBM DD OS&Y				
	8 in. 150 lb. OWG WP				
	No. 59-1/2	1	Each	45.7228	45.72
	Crane IBBM Wedge OS&Y				
	10 in. 250 lb. SWP	1	Each	159.9515	159.95
	Westcott IBBM DD OS&Y				
	10 in. 800 lb. OWG WP	1	Each	276.9571	276.96
	Westcott IBBM Wedge N RS				
	8 in. 125 lb. SWP	1	Each	36.1892	36.19
	GATE VALVES Screwed				
	Fairbanks IBBM Wedge NRS				
	4 in. 125 lb. SWP	1	Each	9.1122	9.11
	Lunkenheimer Clip Wedge RS				
	2 in. 100 lb. SWP	2	Each	3.5032	7.01
	Walworth Kay DD RS				
	2 in. 125 lb. SWP	2	Each	3.0077	6.02
	Stop Cock Screwed				
	3/8 in. IBBC Std.	1	Each	.3332	.33
	SPECIAL CONSTRUCTION				
	Creek Crossing				
	10 in.	172	Foot	2.6286	452.12
	10 in.	75	Foot	2.6003	195.02
	Leon River Crossing No.1				
	10 in.	230	Foot	4.6281	1,064.46
	Leon River Crossing No. 2				
	10 in.	644	Foot	2.7532	1,773.06
	DRIPS				
	Welded Type				
	10 in.	1	Each	109.9300	109.93
	10 in.	1	Each	123.9900	123.99
	10 in.	1	Each	127.8600	127.86
	10 in.	1	Each	142.1100	142.11
	10 in.	1	Each	133.7900	133.79
	10 in.	1	Each	160.6600	160.66
	10 in.	1	Each	140.8600	140.86
	10 in.	1	Each	161.1900	161.19
	10 in.	1	Each	151.0000	151.00
	10 in.	1	Each	121.2900	121.29

TRANSMISSION LINE EQUIPMENT

T.P.U. System

6644-6659

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
SIBLEY LINE (Cont'd)				
DRIPS (Cont'd)				
Welded Type				
10 in.	1	Each	111.6900	$ 111.69
12-1/2 in.	1	Each	275.3000	275.30
12-1/2 in.	1	Each	148.2400	148.24
FITTINGS	1	Lot		562.77
GATE VALVE PITS				
Wood; with cover				
4 ft. x 4 ft. in plan x 3 ft. 2 in. deep	1	Each	14.7300	14.73
TOTAL SIBLEY LINE				$ 76,307.01
STRAWN LINE				
FROM SIBLEY LINE, EASTLAND COUNTY TEXAS TO STRAWN, PALO PINTO, COUNTY, TEXAS				
PIPE Installed in Place				
Threaded and Coupled				
10 in. 40.[illegible] lbs. per foot	8,638	Foot	2.5946	$ 22,412.15
8 in. 29.[illegible] lbs. per foot	86,705	Foot	1.7152	148,716.42
Plain End				
10 in. 31.445 lbs. per foot	267	Foot	1.6630	444.02
WELDS				
10 in.	14	Each	3.7906	53.07
GATE VALVES Flanged CFBO				
Chapman IRBM DD NRS				
8 in. 800 lb. OWG WP No.106	1	Each	127.4867	127.49
Westcott IRBM DD NRS				
10 in. 800 lb. OWG WP	1	Each	231.7833	231.78
Western Tube Company 10 in. 250 lb. WP NRS, with by-pass consisting of 1 2 in. Crane Flanged Gate Valve IRBM Wedge NRS 250 lb. SWP, and 2 2 in. 90 degree flanged Ells CI EH	1	Each	175.7888	175.79

BLANK

PAGE

Defendant's Exhibit No. 23—Continued

[fols. 6660–7713]

Lone Star Gas Company

Compressing System Property

Summary

Station	Reproduction Cost—New				
	Land	Leaseholds	Structures	Equipment	Total
Alvord	.....	$1,066.23	$868.59	$12,569.86	$14,504.68
Brad	.....	7,273.29	19,484.86	135,434.59	162,192.74
Brazos	$3,402.05	.....	15,578.18	70,642.09	89,622.32
Breckenridge	4,573.38	.....	29,986.67	255,539.23	290,099.28
Caddo	7,981.76	.....	32,290.31	221,714.18	261,986.25
Cheaney	3,419.24	.....	23,021.17	110,652.64	137,093.05
Desdemona	2,958.65	.....	14,341.27	59,929.93	77,229.85
Eastland	2,716.87	.....	15,956.49	112,320.95	130,994.31
Fox Central	.....	8,948.29	48,819.80	186,518.26	244,286.35
Fox East	3,808.26	.....	12,610.39	84,797.23	101,215.88
Gainesville	4,222.23	.....	10,733.15	61,339.90	76,295.28
Gas City	8,446.82	.....	32,234.15	240,942.37	281,623.34
Ibex	.....	9,625.81	33,488.78	206,016.13	249,130.72
Joshua No. 1	4,812.80	.....	34,138.62	402,109.51	441,055.93
Joshua No. 2	.....	.....	5,994.35	63,608.04	69,602.39
Loco	3,912.62	.....	17,543.50	115,248.99	136,705.11
Petrolia	17,146.10	3,071.51	199,051.76	837,369.04	1,056,638.41
Pueblo	2,482.47	.....	12,978.58	71,906.60	87,367.65
Ranger No. 1	4,181.83	.....	20,371.28	104,302.45	128,855.56
Ranger No. 2	2,903.45	.....	17,003.12	93,098.39	113,004.96
Ranger No. 3	5,642.76	.....	46,754.72	239,253.44	291,650.92
Ranger No. 4	4,894.89	.....	20,982.49	140,026.82	165,904.20
Sipe Springs	5,022.84	.....	31,728.47	145,824.89	182,576.20
Tiffin	1,967.80	.....	7,893.52	41,205.39	51,066.71
X-Ray	2,052.27	.....	14,207.09	52,980.80	69,240.16
Grand Total	$96,549.09	$29,985.13	$718,056.31	$4,065,351.72	$4,909,942.25

* * * * * * *

Defendant's Exhibit No. 28—Continued

[fols. 7714-7715] Lone Star Gas Company

General Office Land

Amount

General Office Building Site, Dallas, Texas:

80 x 90 ft. located at Wood and Harwood Streets, Dallas, Dallas County, Texas; being a part of Block 98½ according to official map of said city and described as follows:

Beginning at the intersection of the north line of Wood Street 90 feet; thence, in a northerly direction, parallel with the west line of Harwood Street 80 feet; thence, in an easterly direction parallel with the north line of Wood Street, 90 feet to a point in the west line of Harwood Street; thence, in a southerly direction along said line of Harwood Street 80 feet to the place of beginning; being a part of the same land conveyed to Harwood Realty Company by Lon Hudson and wife, Gladys W. Hudson, by deed dated May 3, 1913, recorded in Volume 583, Page 23, of the Deed Records of Dallas County, Texas $44,545.00

[fol. 7716] Lone Star Gas Company

Other General Land

Lot Adjoining General Office Building Site, Dallas, Dallas County, Texas:

Amount

Lot on Wood Street, 70 x 80 feet, out of Block 98½, City of Dallas, described as follows:

Beginning at a point in the north line of Wood Street, 90 feet in a westerly direction from the intersection of said north line of Wood Street with the west line of Harwood; thence, along said north line of Wood Street in a westerly direction 70 feet; thence, at right angles and parallel with said west line of Harwood Street

Defendant's Exhibit No. 28—Continued

		Amount
80 feet in a northerly direction; thence, at right angles, and parallel with said north line of Wood Street in an easterly direction 70 feet; thence, at right angles and parallel with said west line of Harwood Street 80 feet to the place of beginning		$18,052.00
General Shop, Logan Street, Dallas, Dallas County, Texas:		
Part of Block 866, being all of that part of two parcels conveyed to Peaslee-Gaulbert Company lying northwest of the northwest line of Logan Street extended to Myrtle Street, size 150 x 229 feet, more or less; containing approximately 34,350 sq. ft.		$11,500.00
All of Lots 1, 13 and 14 of J. B. Cranfill's second amended subdivision, Block 866 of City of Dallas, size 150 x 140 ft.; containing approximately 21,000 sq. ft.		5,355.00
All of Lot 2 of J. B. Cranfill's second subdivision, Block 866 of City of Dallas, size 50 x 140 ft.; containing approximately 7,000 sq. ft.		2,500.00
[fols. 7717-7718] All of Lot 3 of J. B. Cranfill's second subdivision, Block 866 of City of Dallas, size 50 x 140 ft.; containing approximately 7,000 sq. ft.		$4,000.00
All of Lot 15 of J. B. Cranfill's second amended subdivision, Block 866, of City of Dallas, size 140 x 50 ft.; containing approximately 7,000 sq. ft.		2,750.00
Total Original Cost		$26,105.00
Improvements:		
Spur Track	$896.73	
Sidewalks and driveways	2,598.85	
Paving	605.46	
Fence	1,015.83	5,116.87
Total General Shop		$31,221.87
Total Other General Land		$49,273.87

Defendant's Exhibit No. 28—Continued

[fol. 7719] Lone Star Gas Company

* * * * * * *

General Office Structure

	Amount
General Office Building, Dallas, Texas:	
Location: Northwest corner of Harwood and Wood Streets, Block 98½, Dallas, Texas	
Size: 81 ft. x 90 ft., 10 stories with full basement entire area	
Exterior Finish:	
Street Elevations: Leuder's cut stone first story, face brick and terra cotta facing above	
Rear Elevations: Common brick facing, painted	
Structural Frame:	
Foundation: 3000-lb. pre-casted concrete piling to rock, approximately 32 ft. 0 in. below street level	
General Structure: reinforced concrete, joist construction	
Interior Finish:	
Floors: ½ in. cement topping throughout; linoleum and rubber tile in offices and corridors over cement topping; tile in toilet rooms and ground floor elevator lobby	
Millwork: All doors, windows on street elevations, base and picture mould of quartered-sawed white oak	
Partitions: Masonry around all shafts and toilets; 2 in. metal lath and plaster elsewhere	
Ceilings: Metal lath and plaster attached to concrete joists	
Painting: Wood work, five coats, filler and varnish; walls and ceilings, four coat standard wall finish	
Marble: Wainscot on Ninth Floor corridors, wainscot toilets and elevator lobbys; base other corridors	

Defendant's Exhibit No. 28—Continued

	Amount
Hardware: Corbin hardware throughout	
[fols. 7720-7721] Toilets: Marble wainscot partitions, tile floor	
Metal Windows: On two rear elevations and in court	
Roofing and Sheet Metal: All sheet metal copper, twenty year guarantee; tar and gravel roof	
Elevators: Two high speed American type passenger elevators	
Glass: Plate glass on two street sides; wire glass on two rear sides; obscure glass in all interior doors, transoms and sidelights	
Plumbing: 134 enameled iron standard fixtures, flush valves, circulating ice water each floor above first floor	
Heating: 2 gas fired welded steel boilers, 1 high pressure steam boiler, 3,620 square feet Peerless cast iron radiators on first four floors, 5,621 square feet of Corto cast iron radiators on upper floors	
Total Reproduction Cost—New	$321,437.63

(Here follow four photolithographs, side folios 7722, 7723-7762, 7763-7769 and 7770-7771)

2598A

LONE STAR GAS COMPANY 7722

Other General Structures

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
GENERAL SHOP Logan Street, Dallas, Dallas County, Texas				
Warehouse, Garage and Machine Shop Building: 112 x 180 ft. in plan; concrete foundation, reinforced concrete and wood block on reinforced concrete floors, steel columns and roof trusses, 13 in. brick walls, composition roofing on wood sheathing, steel monitors and skylights. Building includes electric lighting and power wiring, plumbing and fixtures, Grinnell sprinkler system, interior firedoors, concrete loading platform 8 x 116 ft., air, gas, drainage and water lines and heating system	1	Bldg.	39,247.90	$39,247.90
Shop Addition: 30 x 100 ft. in plan; 4 - 10 ft. bays, 18 ft. to eaves and 23 ft. to peak; 6 - 10 ft. bays, 12 ft. to eaves and 17 ft. to peak; concrete foundation and floor, steel frame and roof trusses, galvanized iron siding and roof; painted inside and outside; electric wiring, plumbing and fixtures	1	Bldg.	6,726.89	6,726.89
Steel Storehouse: 12 x 24 ft. in plan; 8 ft. to eaves, 2 ft. 8 in. pitched roof; concrete foundation and floor, steel frame and trusses, galvanized iron siding and roof; painted inside and outside	1	Bldg.	513.99	513.99

25981

Form 354 1000 7-43

Other General Structures

7723-7762

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
GENERAL SHOP Logan Street, Dallas, Dallas County, Texas (Cont'd)				
Pipe Rack: Constructed of 6 in. pipe and set on concrete piers	1	Each	300.78	300.78
TOTAL REPRODUCTION COST - NEW				$46,789.56

25980

GENERAL OFFICE FURNITURE AND FIXTURES 7763-7769

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
MISCELLANEOUS (Cont'd)				
Scheaffer's Pen Medium Point No. TH-74-DH	1	Each	6.40	$ 6.40
Scheaffer's Fountain Pen	1	Each	8.00	8.00
Fountain Pen Set Fine Point No. 107	1	Each	24.00	24.00
Fountain Pen Set Medium Point No. 816	1	Each	10.20	10.20
Fountain Pen Set Fine Flexible Point No. 818	1	Each	12.00	12.00
Desk Pads				
No. 276-2	1	Each	28.13	28.13
No. 279	1	Each	15.00	15.00
No. 1113	1	Each	10.88	10.88
No. 1108	2	Each	13.50	27.00
No. 407	1	Each	4.88	4.88
No. 277	1	Each	13.50	13.50
Special	1	Each	4.13	4.13
Law Library	1	Lot	9,604.52	9,604.52
TOTAL REPRODUCTION COST - NEW -				$207,601.84

25981

Form 254--100M--7-33

OTHER GENERAL FURNITURE AND FIXTURES 7770-7771

D B	ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
	MISCELLANEOUS (Cont'd)				
	Typewriter Stand with folding leaf 27 x 14 in.	1	Each	12.50	12.50
	General Electric Oscillating Fans 12 in.	3	Each	18.00	54.00
	16 in.	1	Each	21.00	21.00
	No. A00 M-10294 12 in.	1	Each	18.00	18.00
	Westinghouse Electric Oscillating Fan 12 in.	1	Each	18.00	18.00
	Hunter Oscillating Fan 12 in.	2	Each	18.00	36.00
	Hunter Ceiling Fans	5	Each	30.00	150.00
	Columbian Postal Scales 2-1/2 lbs.	7	Each	2.30	16.10
	Hanson Postal Scales 5 lbs.	1	Each	4.60	4.60
	National Postal Scales 4 lbs.	1	Each	3.10	3.10
	Ceiling Fan DC	1	Each	30.00	30.00
	National Safety Chest No. S04	1	Each	63.75	63.75
	Bostitch Staplers	3	Each	3.05	9.15
	Costumers Home-made	2	Each	9.36	18.72
	Marvel No. 60 Punch	4	Each	1.65	6.60
	Jones Paper Punch	1	Each	2.00	2.00
	Letter Trays ,Wire, Single	29	Each	.30	8.70
	Letter Trays ,Wire, Double	5	Each	.30	1.50
	Cuspidors Enameled Steel	11	Each	1.04	11.44
	Waste Paper Baskets Wire	11	Each	.35	3.85
	Waste Paper Baskets Vul-Cot 8-12 x 14 in.	1	Each	2.00	2.00
	Wire 12-16 x 18 in.	1	Each	.97	.97
	Dexter Pencil Sharpeners	2	Each	3.86	7.72
	Junior Pencil Sharpeners	6	Each	2.79	16.74
	Boston Pencil Sharpeners	1	Each	1.50	1.50
	Economy Pencil Sharpeners	1	Each	1.50	1.50
	Giant Pencil Sharpeners	1	Each	1.50	1.50
	Leather Brief Cases 3-pocket	22	Each	7.50	165.00
	Ink Wells single	1	Each	2.14	2.14
	Ink Wells double	2	Each	3.44	6.88
	Puritan Drinking Cup Holder	1	Each	.96	.96
	Universal Desk Lamp Brass	2	Each	3.75	7.50
	Seth Thomas 8-day Clock Brass	1	Each	9.75	9.75
	Garbage Can C.G.I. 24 x 28 in.	1	Each	4.25	4.25
	TOTAL REPRODUCTION COST - NEW				$12,059.97

Defendant's Exhibit No. 28—Continued

[fols. 7772-7787] Lone Star Gas Company

General Shop Equipment

Recapitulation

Item	Reproduction Cost—New
Machinery and Equipment	$57,658.03
Meter Testing Equipment and Supplies	40,860.02
Other General Shop Equipment	5,482.22
Total	$104,000.27

* * * * * * *

[fols. 7788-7789] Lone Star Gas Company

General Tools

Department	Reproduction Cost—New
Compressing	$32,935.84
Gas Measurement	10,215.28
General Shop	26,992.72
Meter Shop	895.11
Pipe Line	58,558.42
Production	377.14
Storehouse	10.61
Telephone	1,564.60
Total	$131,549.72

[fols. 7790-7811] Lone Star Gas Company

Automotive and Construction Equipment

Recapitulation

Kind of Equipment	Reproduction Cost—New
Automobiles	$170,797.67
Trucks	106,021.97
Trailers	16,519.21
Tractors	59,935.00
Air Compressors	23,090.41
Ditching Machines	40,739.16
Backfillers	6,614.40
Grand Total	$423,717.82

* * * * * * *

Defendant's Exhibit No. 28—Continued

[fol. 7812] Lone Star Gas Company
General Telephone System
Summary

Line	Reproduction Cost—New
Petrolia to Shamrock	$64,545.43
Tap to Hollis Gasoline Plant	104.77
Tap to Shamrock	421.65
Tap from "A" Telephone Line to Vernon Warehouse	101.59
Petrolia to Fort Worth	29,670.09
B-2 to Bowie	1,287.34
B-5 to Decatur	802.13
Dallas to Fort Worth	12,797.15
North Ft. Worth to Fort Worth Office	470.18
Irving to Gainesville	19,995.83
Gainesville Junction to Gainesville	114.00
Dixie Junction to Loco Compressor Station	2,030.09
Tap to Loco	602.31
Dixie Junction to Pernell	6,642.01
From East to Central Compressor Station	247.10
Dixie Junction to Gainesville	18,062.98
Petrolia to Clarkson	13,038.58
Petrolia Tap	475.12
Tap to Petrolia Loading Rack	308.26
Local Clarkson to Temple	1,236.65
Clarkson to Farwell Warehouse	6,447.63
J. C. Junction to Joshua	9,531.16
Tap to South Fort Worth	366.47
Tap to H. C. Hogue	167.18
Tap to Handley	566.54
Gordon to Ibex and Plant No. 3	20,683.74
Tap to Tiffin Gasoline Plant	1,277.02
K. B. Junction to Sipe Springs	11,925.11
Tap to Ranger Plant No. 1	114.24
Tap to Ranger Plant No. 2	302.45
K. A. Junction to Mineral Wells Field	6,646.96
Tap to Cheaney Compressor Station	2,677.19
Ranger Plant No. 3 to Pueblo Gasoline Plant	5,989.26
Tap to Pueblo Loading Rack	625.95
Gordon to X-Ray	2,534.85
Plant 108 to Plant No. 3	115.79

Defendant's Exhibit No. 28—Continued

Line	Reproduction Cost—New
Line to Plant 101 and Offices	$1,221.98
Line to Plant 103	93.70
From Plant No. 3 to Ranger	316.42
Ranger Plant No. 3 to Eastland Compressor Sta.	1,039.66
Plant 109 to Plant 109-A	1,222.07
Gordon Gasoline Plant to Gordon	150.20
Dallas to Joshua and Gordon to K. & O. Junction	27,901.09
Tap to Second Avenue, Dallas	1,369.05
Joshua to Gordon	26,538.36
[fols. 7813-7852] Tap to Brad Compressor Station	2,206.14
Tap to Warren Lease	611.45
Tap to Caddo Compressor Station	764.76
Tap to Breckenridge Compressor Station	300.80
Joshua to L. & M. Junction	2,305.12
Tap to Strawn, Texas	1,261.52
Total	$310,227.12
General Supervision—Allocated	$60,237.00
Total General Telephone System	$370,464.12

* * * * * * *

[fols. 7853-7856] Lone Star Gas Company

Final Engineering Records

Second Year:		
General Payroll and Traveling Expenses	$136,320.00	
Office and Field Equipment, Supplies and Expenses	11,231.00	
Field Payroll and Expenses	198,751.15	
		$346,302.15
Third Year:		
General Payroll and Traveling Expenses	88,659.60	
Office and Field Equipment, Supplies and Expenses	7,991.59	
Field Payroll and Expenses	156,484.80	
		253,135.99
Fourth Year:		
General Payroll and Traveling Expenses	68,307.00	
Office and Field Equipment, Supplies and Expenses	9,389.71	
Field Payroll and Expenses	88,555.50	
		166,252.21
Total—Final Engineering Records		**$765,690.35**

[fols. 7857-7866] Lone Star Gas Company

Appraisal

Cost of Reproduction New

January 1, 1933

Public Service Plant, Property and Business

Exclusive of Fort Worth Division

P. McDonald Biddison, E. A. Steinberger, Ed. C. Connor, Engineers, Dallas, Texas

[fols. 7867-7868] Preliminary Development and Organization Costs, Undistributed General Costs, Going Value, and Cash Working Capital

General Summary

Preliminary Development and Organization Costs	$4,474,272
Undistributed General Costs	9,241,074
Going Value (Cost of Business Development)	7,792,888
Cash Working Capital	1,701,600
Total	$23,209,834

[fol. 7869] Scope of the Report

Any proper estimate of the reproduction cost of the property and business of Lone Star Gas Company must include all expenditures that would necessarily be incurred in the reproduction of an identical property and its attached business at the approximate date of the investigation. These expenditures, due in some measure to the sequence in which they would be incurred, but to a greater degree to certain inherent differences between them, logically fall into five general groups.

1. Preliminary development costs.
2. Organization and corporate costs.
3. Direct structural costs.
4. Undistributed general costs.
5. Cost of business development.

That portion of this appraisal that deals with direct structural costs, or the reproduction costs of the various units of physical property, is confined to the items of expense that can be definitely allocated to specific property accounts. All of the costs involved in this determination begin and end with the so-called construction period.

It is evident that no large natural gas enterprise, consisting, as does Lone Star Gas Company, of a highly complex and extensive system of natural gas production, transportation and marketing facilities, could be initiated by the digging of a ditch and the laying of pipe. Far in advance of any actual construction, the feasibility of the project would first be determined and the construction decided upon by a group of men experienced in the natural gas business, [fol. 7870] and capable of carrying through to successful completion a new enterprise that involved the expenditure of more than sixty millions of dollars. This preliminary step in itself would be the result of extensive investigations, and the acquisition of potential and producing natural gas reserves. A corporate organization would be perfected, and the necessary funds secured with which to construct the physical plant, provide for interest and taxes during construction, the cost of administrative, legal, engineering, supervisory and other general expenses during construction, as well as the funds that would be required for fixed charges during the period of business development.

An organization would be perfected that would function prior to and during the construction period. Additional leases and gas purchase contracts would be secured, detail market analyses and final engineering plans would be prepared, gas sales contracts would be negotiated, and negotiations for the purchase of materials and the letting of contracts would be entered upon.

This brief summary sets out in a general way some of the steps that would necessarily be taken, and some of the expenditures that would necessarily be made in advance of actual construction in connection with the reproduction of the property and business of Lone Star Gas Company.

As has been previously noted, that portion of this report that deals with the reproduction cost of the physical property of Lone Star Gas Company is confined to the cost of material, the cost of installation and such other costs as can be definitely allocated to specific property accounts. When an inventory has been prepared including every item of

physical property which enters into the construction of the [fol. 7871] system, and when a proper price has been applied to every item of inventory covering both the expense of acquiring the items of property and putting them in place as a part of the system, the result does not represent the entire cost of the physical property itself. This is true for the reason that in addition to these direct structural costs, charges would be incurred for expenses during construction so general in their nature as to prohibit a rational allocation of them to specific property items. These general or undistributed costs would consist of the salaries and expenses of the administrative and legal departments, the engineering and general construction supervisory departments, and other more or less subordinate groups. Money would be provided for all expenditures and the interest on the money represented by the expenditures for elements of property that had not passed into operation would be an outlay in addition to the capital expended, as would also be the taxes that would accrue on non-operative property during the construction period.

Upon the completion of a natural gas project of this character, the acquisition of the volume of sales now enjoyed by Lone Star Gas Company, by reason of business development that has extended over a period of more than twenty years, would be the result of a gradual process that would extend over a number of years subsequent to the construction of the physical elements of such a plant. During this period of business acquisition, a substantial portion of the completed plant would be idle in comparison with its capacity for service, measured by the actual deliveries of gas on the part of Lone Star Gas Company. The so-called fixed charges, or expenses for interest, taxes and depreciation, would accrue on this completed plant irrespective of [fol. 7872] the amount of business actually done. The difference between the earnings of the completed plant during this period of business development and the actual earnings of Lone Star Gas Company is a fair measure of the cost of reproducing the business of Lone Star Gas Company as distinguished from the cost of reproducing its physical property.

This portion of the appraisal is confined to an estimate of the expenses that would necessarily be incurred during the preliminary development and organization periods, to the

general and undistributed charges that would be incurred prior to, during and subsequent to the construction period, and to the cost of business acquisition during the development in the reproduction of the property and business of Lone Star Gas Company as of January 1, 1933.

These elements of expense cannot be inventoried with the same degree of precision as can the physical items of property, nor can they be priced from discount sheets or manufacturers' quotations. They are, nevertheless, an inescapable and substantial part of the costs that would be incurred in the reproduction of Lone Star Gas Company, and as such, they contribute proportionately to the present worth or value of the property. The necessity for an accurate determination of the amounts that would be involved in these factors is co-ordinate in importance with the necessity for an accurate determination of the amounts that would be involved in the reproduction of the physical property itself.

In order that the estimate of the preliminary general and development costs may have a rational basis, it will be necessary to determine the sequence of the various steps that would be taken and the time and the personnel that [fol. 7873] would be required for each step. It will also be necessary to determine the proportionate part of the total cost that would be made at specific dates as the reproduction program proceeded, and to fix the various undistributed charges with relation to the basis upon which the reproduction cost of the direct expenses is predicated.

In that portion of this appraisal that deals specifically with the direct costs of the physical property, it has been assumed that the company would organize its own construction forces, and build the plant without the services of a general engineering contractor. This assumption, which follows the general practice of Lone Star Gas Company in the historical development of its physical property, affects the general and undistributed charges in several particulars. The contractor's profit is eliminated from the structural costs, and the duties that would otherwise be absorbed by the engineering contractor are transferred to the administrative, engineering, and supervisory organization of the company. Throughout the preparation of these estimates, the actual experience of Lone Star Gas Company has been used as a basis whenever that experience has been applicable

to the phase of the estimate under consideration. In the matter of the preliminary development, organization and corporate costs, this method could not be applied on account of the discrepancy between the size of the project at the date of its historical inception and the size of the project at the date of this appraisal, and on account of the unique financial structure of Lone Star Gas Company which could not be used as the basis for financing at the present time.

In all other particulars, the personnel of the company actually engaged in the work that would be involved in the [fols 7874-7875] general undistributed costs in reproduction has been used in fixing the overhead costs, and the actual permanent engineering and geological records of the company, and the time and the personnel actually required to prepare these records have been used as the basis for the estimate of the reproduction cost of these records. By the use of these methods, the element of speculation that so frequently becomes predominant in estimates of this nature is practically eliminated.

[fol. 7876] Preliminary Development and Organization Costs

General Summary

Preliminary Geoligical Investigation	$114,444
Preliminary Engineering Investigation	49,695
Detailed Geological Work—One Year	78,420
Fiscal Agent's Geological Check	15,000
Fiscal Agent's Engineering Check	15,000
Fiscal Agent's Title Certification	25,000
Undistributed Production Expenses	39,944
Organization and Corporate Expenses	141,769
Marketing Cost First Mortgage Bonds	1,140,000
Marketing Cost Preferred Stock	855,000
Remuneration for the Originating Group	2,000,000
Total	$4,474,272

(Note.) The above summary does not include the fair market value of gas lands, gas leases, rights and options, nor the cost of producing gas wells transferred by the originating group to the corporation.

[fol. 7877] Preliminary Development and Organization Costs

General Definitions:

As used in this estimate of the reproduction cost of the property and business of Lone Star Gas Company, Preliminary Development and Organization Costs are intended to cover all expenditures that would necessarily be made by the originators of a natural gas production and transportation company identical with Lone Star Gas Company in connection with promoting the enterprise, interesting capital therein, and incorporating the company.

In the classification of investment (fixed capital account) in road and equipment of steam roads prescribed by the Interstate Commerce Commission, organization expense is defined as follows: "This account shall include all fees paid to governments for the privilege of incorporation, and office and other expenditures incident to organizing the corporation and putting it in readiness to do business; the cost of preparing and distributing prospectuses; cost of soliciting subscriptions for stock; cash fees paid to promoters, and the actual cash value (at the time of the organization) of securities paid to promoters for their services in organizing the enterprise; special fees; cost of preparing and issuing certificates of stock; cost of securing the necessary permits from State authorities and other like costs."

In Des Moines Gas Company V. Des Moines (238 U. S. 153) the United States Supreme Court gave a more general definition of this same element of cost and at the same time laid down the general rule to be followed in estimating this expense in connection with reproduction cost estimates. The definition and the rule are as follows: "A [fol. 7878] money expenditure in the promotion of an enterprise and in interesting capital therein including also legal expenses, obtaining the necessary franchise, as well as the cost of incorporating the company * * * It is not a question of what was actually expended therefor in the plant in question, but what it would cost to reproduce a similar plant at the present time."

Basic Assumptions:

Before proceeding to analyses of the preliminary development and organization costs that would be incurred in the

reproduction of Lone Star Gas Company, it will be necessary first to point out certain fundamental differences between the preliminary and development stages of a natural gas enterprise and those of any other public utility business; second, to outline the assumptions upon which this estimate is based; and third, to establish the chronological order in which the various initial steps would be taken.

A natural gas project is fundamentally a mining venture, and its successful completion and growth into a going concern is primarily dependent upon the result of a discovery of gas and upon the subsequent consolidation and development of sufficient gas reserves to justify the expenditure of large sums of money for transportation facilities. In conjunction with this discovery, there must be available within definite geographic limits a market for this gas. The size of this market, the possibilities for future growth, and the characteristics of the load, together with the probable volume of reserves, will determine the amount of the investment in pipe line and compressor station capacity.

The preliminary development of a project with these characteristics would be a much more complex and hazardous [fol. 7879] venture, for example, than the preliminary development of an electric power transmission system. In the case of the latter, a simple engineering determination of the proper location and capacity of a power plant in connection with a market survey would be the extent of the necessary preliminary work. There would be no necessity for the demonstration of the existence of a primary supply, nor would there be any necessity on the part of the originators for the acquisition, consolidation and development of a primary supply in order to secure the success of the venture.

For these and many other reasons that readily suggest themselves, the originating group of an enterprise identical with Lone Star Gas Company would be called upon to assume risks, and make intensive investigations and large investments far in advance of any permanent financing and corporate organization.

Insofar as the time that would be involved and the expense that would be incurred in preliminary development and corporate organization in reproducing Lone Star Gas Company, the history of Lone Star Gas Company affords no proper basis for estimate. The discrepancy between the extent of Lone Star Gas Company at the time of its incep-

tion and corporate organization, and the extent of the property at the date of this valuation, together with the dissimilar conditions in reference to financing that existed in 1909 compared with those existing in 1933, precludes the rational use of any historical date.

Certain assumptions must therefore be made that take into consideration the normal steps that would be taken, as of this date, in initiating the project and in creating the corporate entity. These basic assumptions are predicated [fol. 7880] upon an exact knowledge of the property itself, and upon the actual history of the various preliminary development and corporate organization of other large natural gas pipe line projects that have been promoted and constructed within the last few years.

It has been assumed:

1. That all natural gas development insofar as this development has been the result of direct exploration on the part of Lone Star Gas Company, or has been the result of the availability of Lone Star Gas Company as marketing agency, would be non-existent at the date of the initiation of the project.

2. That the market for the sale of natural gas, both domestic and industrial, insofar as this market has been created as the result of the construction of the pipe line system of Lone Star Gas Company, would be a potential market only at the date of the initiation of the project.

3. That all geological information secured by direct exploration on the part of Lone Star Gas Company, by the research of its geological department, or by the availability of Lone Star Gas Company as a marketing agency would be non-existent at the date of the initiation of the project.

4. That all engineering information in possession of Lone Star Gas Company, in reference to its markets, the rate of consumption and other factors affecting the sale of natural gas and the design and location of its pipe lines and compressor stations, would be non-existent at the date of the initiation of the project.

5. That the originating group capable of the successful promotion of a company identical with Lone Star Gas Com-

pany would consist of not less than four individuals, with substantial financial connections and wide experience in the natural gas business.

6. That the originating group would provide for all expenditures made prior to the date of permanent financing.

7. That the originating group would conduct all negotiations with the fiscal agents selected as underwriters; would perfect a corporate organization; and would furnish the equity provided by the financial structure agreed upon.

[fol. 7881] 8. That the financial structure would be based upon the issuance of 50% of the total sum required in first mortgage bonds, 25% in preferred stock, and 25% in common stock.

9. That the originating group would transfer to the corporation at the date of incorporation, and at their fair market value, all leaseholds, gas rights, gas purchase contracts and/or options, and all producing gas wells purchased or drilled by them during the development period.

10. That the originating group would be reimbursed for their services in connection with the promotion of the enterprise, for their out-of-pocket expenses for reports and fees, and for the market value of the assets transferred by them to the corporation from the proceeds of the sale of bonds.

11. That the time involved from the initiation of the enterprise to date of incorporation would be one and one half years.

Sequence of Preliminary Steps:

It is obvious that the initial step in the reproduction of Lone Star Gas Company would be a decision on the part of the originating group to construct a pipe line system to serve the markets now served by Lone Star Gas Company, provided an adequate supply of natural gas could be secured within commercial distances of these markets.

In the preparation of this estimate an attempt has been made to follow in logical order the normal sequence of events that would follow this decision and finally result in the perfection of a corporate organization that would carry the project through the pre-construction, construction, and business development periods.

It has been assumed that following the decision to pro-
[fol. 7882] ceed with the project, the originating group would begin the acquisition of a part of the gas reserves now held by Lone Star Gas Company and a partial development of these reserves for the purpose of testing the extent of their probable production. Gas purchase contracts and/or options to purchase gas would be secured from the owners of producing gas wells, and options would be secured on additional acreage. The basis for the acquisition of these reserves would be, in part, a general geological survey covering a substantial part of Texas, Southern Oklahoma, Southeast New Mexico, and Northwest Louisiana made by a firm of nationally known geologists.

In connection with the acquisition and partial development of reserves, a preliminary engineering survey would be made of the prospective markets and an estimate prepared of the probable cost of the pipe line system. Negotiations would be begun with potential consumers, and the owners of manufactured gas plants located in the larger cities for the purpose of securing a market for natural gas.

It has been assumed that at this juncture the economic feasibility of the project as a whole would have been demonstrated by the results of the geological investigation, the drilling tests and the findings of the engineering survey.

During the preliminary period, offices would be maintained at Dallas, and the member of the originating group, who would ultimately become the executive head of the corporation when organized, would be on the ground directing an organization that would be active in making detail geological investigations, securing additional acreage and gas purchase contracts, the drilling of additional wells, the
[fol. 7883] preparing of sales contracts, and the beginning of detail plans and estimates for construction.

Throughout the progress of this work other members of the originating group would have begun negotiations with responsible fiscal agents for the purpose of securing commitments for a substantial part of the funds that would be required for the completion of the project and the payment of fixed charges during the development period.

Before these commitments could be secured, the underwriting group would require at least three independent re-

ports based upon engineering, geological, and legal investigations.

The engineering survey and report would be made by some nationally known engineering firm, or by some engineer familiar with natural gas projects and favorably identified with the industry. This survey would consist of a general survey of the markets, together with an estimate of the probable sales, both domestic and industrial, in the area proposed to be served, an estimate of operating expenses, an estimate of the cost of construction, and a check of the report prepared by the engineers of the originating group.

The geological survey would cover a study of all probable sources of gas supply commercially available to the prospective markets, together with a detail check of all geological data in possession of the originating group. This survey and report would also be made by a firm having national standing as geologists familiar with natural gas production.

The legal report would cover an opinion on the validity of title of all lands held in fee, leaseholds and gas purchase [fol. 7884] contracts, the examination of all contracts, tentative or closed, for the sale of gas, and an investigation of all regulatory legislation affecting the transportation and sale of natural gas.

In each case the firms or individuals making these reports would be selected by the fiscal agents. All fees and expenses incurred in their preparation would be borne by the originating group.

Upon the basis of favorable reports resulting from the results of the geological, engineering, and legal investigations, final commitments for financing would be secured from the fiscal agents, and corporate organization would proceed upon the basis of a financial structure mutually agreed upon by the originating group and fiscal agents.

At this point, the preliminary development period would end and the expenses attributable to this period would cease. Simultaneously the period of corporate organization would begin and the expenses incurred in connection with setting up of the corporate structure and placing it in readiness to do business would be directly chargeable to organization expense and corporate costs. Upon the perfection of the corporate organization, the direction of the affairs of the

project would pass from the originating group into the hands of the duly elected officers of the corporation and the organization that would function throughout the construction program would be perfected.

Estimate of Cost:

In order to properly estimate the costs that would be involved in the reproduction of Lone Star Gas Company dur- [fol. 7885] ing the preliminary development period, several basic factors must be taken into consideration.

1. The time that would be involved from the beginning of the development of the project to the completion of permanent financing and corporate organization.

2. The total cost and extent of the project.

3. The value of the capital assets delivered to the corporation by the originating group.

4. The value of the information secured in connection with the several geological and engineering investigations.

5. The out-of-pocket advances made by the originating group during the development period.

6. The proper remuneration for the services of the originating group.

The last item of cost must be measured by the risks that would be involved in promotion, the type of personnel that would be required of an originating group for the successful promotion of an enterprise identical in all respects with Lone Star Gas Company as it now exists, the extent of the work and expenses that would be required of the originating group in connection with securing gas purchase contracts and gas sales contracts, and the extent to which the originating group would participate in the permanent financing of the corporation.

As previously noted, the initial steps in the development program would be the acquisition by the originating group of a substantial part of the acreage now owned or held under lease by Lone Star Gas Company, the acquisition of gas purchase contracts, or options for the purchase of gas [fol. 7886] from producing gas wells, the accumulation of definite information relative to the possibilities for sales in the existing markets, and preliminary estimates of the

cost of construction of a pipe line system adequate to serve these markets.

Preliminary Geological Investigation:

The following resume sets out in detail the scope and estimated cost of the geological survey that would be required in order to determine the feasibility of constructing a natural gas transportation system identical with Lone Star Gas Company, and provide a basis for the initial acquisition of acreage. As before stated, this preliminary report would be made by a firm of nationally known geologists in order that the findings might be used as the basis for negotiations with fiscal agents. Upon the completion of this survey, the services of this firm would be dispensed with, and the detail geological work taken up by a geological organization working under the direction of the originating group.

Extent of the Survey:

The area that would necessarily be incorporated in this survey would include all the territory within approximately four hundred miles of the City of Fort Worth, Texas. Specifically the area would include:

1. The Southern half of the State of Oklahoma.

2. All of Texas except a part of the Gulf Coast.

3. The Southeastern one-fourth of the State of New Mexico.

[fol. 7887] 4. The gas producing areas of the State of Louisiana.

Certain portions of these four areas would not require attention for geological and other reasons that would be well known to geologists of experience. The areas that would be omitted from the general investigation for these reasons would include the mountainous regions, major synclinal troughs, territory already proved barren of gas by reason of past explorations, and depleted gas fields.

Time Required:

A period of at least six months, or one hundred and eighty days, would be required for this undertaking, and the per-

sonnel required would be assigned in conformity to this schedule. A longer period of time in conjunction with a smaller personnel would be preferable to the schedule used in this estimate, and the larger personnel that this schedule would require for the reason that this arrangement would permit increased familiarity on the part of the field parties with the respective areas assigned to them, and as a consequence the finished report would be more thorough and accurate. The overall cost of either method would be approximately the same.

The element of time is always a matter of importance in development programs, and for this reason the six month schedule with the appropriate personnel has been adopted.

The personnel that would be required for an accurate and worth while survey of the area outlined above and within the time allotted would be as follows:

[fol. 7888] One chief geologist in charge of investigations.
One automobile.

Field Party, Sou. Oklahoma	Field Party, Tex. Panhandle	Field Party, W. Tex. & N. Mex.
1 Geologist	1 Geologist	1 Geologist
1 Asst. Geol.	1 Asst. Geol.	1 Asst. Geol.
1 Inst. man	1 Inst. man	1 Inst. man
1 Auto and equipment	1 Auto and equipment	1 Auto and equipment

Field Party, All Other Areas	Office Force
1 Geologist	2 Draftsmen
1 Asst. Geol.	3 Clerks
1 Inst. man	
1 Auto and equipment	

Expense:

Chief geologist per diem and expenses		$100.00
Four field parties each per day		
Living expenses	$12.00	
Geologist	35.00	
Ass't. geologist	25.00	
Instrument man	20.00	
Auto expense	7.50	
Equip. and incidentals	5.00	
Total each party	$104.50	
Total four parties		418.00

Office force	25.00
Office rent	5.00
Miscellaneous expense (Stationery, supplies, drawing materials, telephone calls, telegrams, etc.)	30.00
Total expenses per day	$578.00
Working days 180	$104,040.00
Firm fee 10% of cost	10,404.00
Total Preliminary Geological Expense	$114,444.00

Data:

Data secured as a result of the geological survey, described above, would be as follows:

[fol. 7889] (1) Complete maps showing:

(a) All gas fields within distances feasible for pipe line connection.

(b) All individual gas wells within a like distance.

(c) Distances between actual existing sources of gas and principle markets to be supplied.

(d) Approximate outline of structural conditions, and kinds of structures in and around all above mentioned gas fields and wells.

(e) Reconnaissance surveys of all lands, within the area outlined above, that have possibilities of producing gas.

(f) Topographic and stratigraphic conditions of areas through which pipe lines would have to pass.

(g) Cross-sections and charts showing sand thicknesses, character of producing formations, dips, etc.

(2) Individual and total open flow and rock pressure figures, together with logs, elevations, and names of producing formations of all existing gas wells shown on maps.

(3) List of gas wells subject to gas purchase contracts, including names and addresses of owners.

(4) Charts showing production of all gas wells and decline curves on same (if available).

(5) Estimates of total recovery of gas from existing gas fields and wells.

(6) Estimates of probable extensions of existing gas fields and areas around individual or isolated gas wells.

(7) Recommendations and conclusions by which acquisition of, and expenditures for gas wells, gas purchase contracts, lands and leases should be governed. Also preliminary data by which engineers should be guided in surveying for pipe lines.

During the progress of the preliminary geological survey, and upon the basis of its affirmative findings as it progressed, three definite steps would be taken simultan- [fol. 7890] eously in connection with the development of the project.

First, a firm of nationally known engineers would be engaged for the purpose of making a market survey, a general design of a pipe line system that would connect the more promising gas areas as indicated by the geological report and the markets, a preliminary estimate of the cost of the system, and a preliminary estimate of probable earnings and

Second, offices would be opened at Dallas, Texas. A member of the originating group would establish permanent quarters at Dallas, Texas, a geological force would be organized to proceed with a detailed investigation of the area covered by the preliminary report, and an organization would be perfected for the purpose of securing leases, gas purchase contracts and/or options, and testing the acreage as secured.

Third, other members of the originating group would be making preliminary contacts with fiscal agents for the purpose of securing tentative commitments for permanent financing.

Preliminary Engineering Investigation:

The following resume sets out the scope and the estimated cost of a preliminary engineering investigation that would determine the extent of the market, the probable earnings, the general design and cost of construction, and the probable operating expenses of a natural gas pipe line system identical with that of Lone Star Gas Company as of January 1, 1933.

Scope of the Investigation:

(1) Market analysis:

Lone Star Gas Company now serves at wholesale six groups of cities and towns located in Texas and Southern [fol. 7891] Oklahoma as follows:

1. Dallas and County Gas Companies.
2. Fort Worth Division Lone Star Gas Company.
3. Community Natural Gas Company.
4. Texas Cities Gas Company.
5. Municipal Gas Company.
6. Main Line Towns.

The total number of individual cities and towns in each groups is as follows:

Distributing Groups	No. Cities or Towns
1. Dallas and County Gas Companies	5
2. Fort Worth Division Lone Star Gas Co.	1
3. Community Natural Gas Company	237
4. Texas Cities Gas Company	2
5. Municipal Gas Company	21
6. Main Line Towns	4
Total Cities and Towns Served	270

The market analysis would consist of a study of larger markets, and a more or less general study of the lesser markets. A general industrial survey of the area as a whole would be made. This survey would include an actual check on the fuel consumption of the major industrials, the load characteristics of these industrials together with a schedule of industrial rates for gas for groups and individual consumers that would probably secure the business. It would also include a more general survey of the smaller industrials, an estimate of the volume of sales and revenue that might be derived from this group as well as a study of its load characteristics.

The domestic survey would consist of an estimate of the number of domestic consumers that might be secured in all [fol. 7892] cities and towns served and a detail study, based on temperature records, of the annual consumption that might be developed from domestic consumers, and a detail estimate of the probable peak requirements of the domestic

group. In connection with this study, estimates would be made of the probable rates of growth of all cities and towns proposed to be served.

(2) General plan and estimate of cost:

Upon the basis of the market analysis, together with the results of the geological survey, the size and location of the component parts of the transmission system, including compressor stations, would be tentatively worked out and an estimate of cost prepared.

(3) Estimate of operating expenses:

This estimate would consist largely of a study of the probable cost of gas, the cost of compression, and a general study of administrative and other operating charges.

Personnel:

The work would be carried on by a chief engineer and his office assistants located in Dallas, Texas, and several field parties that would be engaged in securing the basic data that would be assembled and correlated by the office organization.

In estimating the personnel that would be required for the field work, the general grouping by companies has been followed.

[fol. 7893] The approximate number of domestic meters in place for each group as of January 1, 1933, was as follows:

1. Dallas and County Gas Companies	70,956
2. Fort Worth Division Lone Star Gas	39,181
3. Community Natural Gas Company	78,214
4. Municipal Gas Company	32,759
5. Texas Cities Gas Company	13,973
6. Gainesville Gas and Electric Co.	2,642
7. Waxahachie Gas Company	1,079
8. Southwestern Light and Power Co.	304
Total Domestic Meters in Place	239,108

The approximate number of industrial consumers served by Lone Star Gas Company, all groups, was 1300 as of January 1, 1933.

Due to the reliable information that would be available from Chambers of Commerce and other sources in the larger cities, the necessary data could be secured more rapidly in these larger cities than in the widely distributed smaller

towns of the Community Natural Gas Company, and Municipal Gas Company groups.

The Dallas and County Gas Companies group would require at least sixty days for one competent investigator, the Fort Worth Division Lone Star Gas Company forty five days for one investigator, and the Community Natural Gas Company group two hundred and thirty seven man days or at least one man day per town served, the Municipal Gas Company group three man days per town served or a total of sixty three man days, the Texas Cities Gas Company group fifteen man days, and all other towns ten man days or a total of four hundred and thirty man days for the field work.

Time Required:

The report would be completed within ninety working days.

[fol. 7894] Inasmuch as the general design and estimates of cost would be of a preliminary character, a general reconnaissance only would be required of the engineer in charge. This reconnaissance would consist of a trip over all sections of the proposed system for the purpose of viewing the terrain, inspecting possible river crossings, and prospective compressor station sites. Contacts would be made with various manufacturers and supply houses for the purpose of securing tentative quotations on the various items of property that would enter into the construction of the plant.

Estimated cost of the investigation:

1. Office Expense				
Chief engineer in charge	90 days	@	$100.00 per day	$9,000.00
Four office engineers	360 days	@	35.00 per day	12,600.00
Stenographic work	3 Mo.	@	300.00 per Mo.	900.00
Office rent	3 Mo.	@	150.00 per Mo.	450.00
Office expense and supplies	3 Mo.	@	500.00 per Mo.	1,500.00
Auto expense engineer in charge				300.00
2. Field Expense				
Field engineer Dallas	60 days	@	$50.00 per day	$3,000.00
Field engineer Ft. Worth	45 days	@	50.00 per day	2,250.00
Field engineers	325 days	@	25.00 per day	8,125.00
Auto expense Dallas 1 car	2 Mo.			200.00
Auto expense Ft. Worth 1 car	1/2 Mo.			150.00
Other auto expense 6 cars	3 Mo.			2,700.00
3. General Expenses				
Expense	880 man days	@	$4.00 per day	$3,520.00
Firm fee				5,000.00
Total Estimated Expenses				$49,695.00

The primary objective of the originating group, the existence of ample gas reserves within commercial distances of [fol. 7895] the available markets having been determined by the preliminary geological survey, would be the creation of a corporate organization, properly financed by means of which the actual construction of the plant and its subsequent operation might be effected.

Before giving consideration to the financing of a Natural Gas project identical with Lone Star Gas Company as of January 1, 1933, responsible fiscal agents would require of the originating group definite assurance of an ample gas supply. A geological report indicating the existence of this supply even though prepared by a firm of national standing would be insufficient for a preliminary consideration of the project unless supported by a substantial ownership of leases, gas purchase contracts and/or options.

The engineering report covering estimates of cost and market analyses, while essential to the final negotiations, would be subordinate at this stage of the development for the reason that the individuals of the originating group, experienced in the natural gas business, would be able to anticipate in a general way the results of its findings.

In view of these facts, the assumption is made that the work in connection with the detailed geological investigations, the acquisition of acreage, and the drilling of wells would be vigorously pushed immediately upon receipt of favorable findings as the preliminary geological report progressed. This assumption leads to a consideration of the cost that would be involved in the detailed geological work that would be used as the basis for the selection of this acreage and the location and drilling of wells. This detailed [fol. 7896] geological work should be continued without interruption throughout the development and organization periods into the construction period. In connection with this phase of the estimate, only those expenses that would be incurred up to the date of the completion of corporate organization will be considered.

Basis of the Estimate:

The basis for the following estimate, and the outline of the scope of work that would be done in connection with the detailed geological work, is the estimated cost of reproduction within a period of four years of all geological data

and records and reports in possession of Lone Star Gas Company as of January 1, 1933.

Personnel:

The personnel required to begin operations when the preliminary geological survey had been completed and to bring all files, records, reports and other geological information now in possession of Lone Star Gas Company up to its present status, within a period of four years would be as follows:

One chief geologist in charge of all operations.
Four field geologists.
Four assistant geologists.
One paleontologist.
Two draftsmen.
Two clerks.

The chief geologist, paleontologist, draftsmen and clerks would have headquarters in Dallas, Texas, and would be provided with suitable offices and the necessary equipment with which to carry on the work.

[fol. 7897] Scope of the Work:

The duties of the chief geologist would be the supervision of all operations of the geological departments in the field and in the office. He would recommend or reject all work done in the field and in the office, and would be directly responsible for the operations of his field parties and his office force. He would be at all times in direct contact with, or available to, the members of the originating groups during the preliminary development period and the officials of the company during the construction period in order that he might be consulted on any matters pertaining to leases, gas purchase contracts, drilling and collateral activities. He would keep in constant touch with all activities within certain distances of headquarters, recommend the purchase of leases that should be acquired, recommend the locating of drilling sites, assist other departments associated with the geological department, and keep himself so advised as to be able to pass upon matters submitted to him on short notice.

The paleontologist would examine well cuttings and report them, file and record samples, advise as to the progress

of drilling operations, advise as to deeper drilling and new locations, and assist the chief geologist.

The draftsmen would prepare all maps and cross-sections, assist in keeping files, plat well logs, and assist the chief geologist and paleontologist.

The clerks would do all stenographic and clerical work, plat well logs, assist in keeping files, and assist in other [fol. 7898] general office work.

Each of the four field geologists, with an assistant, would be assigned to a specific territory or zone and would be provided with a suitable field office and all necessary equipment with which to carry on the field work.

The zones or territorial divisions would be as follows:

Zone 1. Southern Oklahoma.
Zone 2. Texas Panhandle.
Zone 3. Central West Texas.
Zone 4. All other areas contiguous to the principal markets of Lone Star Gas Company.

The work done by each field party would consist of surface and sub-surface mapping, the scouting of drilling wells, the recommending of desirable leases and drilling sites, the collecting and plotting of well logs, the collecting and studying of samples of formations drilled, the running of well elevations, the making of cross-sections, and the watching of operations of other companies and individuals in reference to leasing.

They would also make special reports and progress reports, and would assist the production department by advice in reference to suitable depths for casing seats and depths of expected production, or water horizons. They would also assist the pipe line department (when in construction) in routing their lines, or the preliminary engineering group (prior to construction) in reference to projecting their lines through the more promising gas areas and areas more favorable for pipe line construction.

They would give tentative estimates as to the probable supply of gas in specific areas, and by so doing, assist the designing engineers in their selection of pipe sizes.

[fol. 7899] All of this work would be done under the direct supervision of the chief geologist who would spend a portion of his time with each of the field parties.

Defendant's Exhibit No. 28—Continued

Costs

Salaries of Personnel

Title	Per Month	Per Year
Chief geologist	$600.00	$7,200.00
Field geologist	400.00	4,800.00
Field geologist	400.00	4,800.00
Field geologist	400.00	4,800.00
Field geologist	400.00	4,800.00
Asst. geologist	200.00	2,400.00
Asst. geologist	200.00	2,400.00
Asst. geologist	200.00	2,400.00
Asst. geologist	200.00	2,400.00
Paleontologist	400.00	4,800.00
Draftsman	175.00	2,100.00
Draftsman	175.00	2,100.00
Clerk	150.00	1,800.00
Clerk	125.00	1,500.00
Total		$48,300.00

Office Rent

Location	Per Month	Per Year
Dallas, Texas	$150.00	$1,800.00
Zone 1	25.00	300.00
Zone 2	25.00	300.00
Zone 3	25.00	300.00
Zone 4	25.00	300.00
Total		$3,000.00

General Office Expense

Item	Per Month	Per Year
Telephone and Telegraph	$50.00	$600.00
Supplies	100.00	1,200.00
Total		$1,800.00

[fol. 7900]

Field Expense

Party	Per Month	Per Year
Chief geologist (average 20 days per month in field at $5.00 per day)	$100.00	$1,200.00
Automobile (2000 miles per month at $.08 per mile)	160.00	1,920.00
Party No. 1 (2 men 30 days in field per month at $4.00 per day)	240.00	2,880.00
Automobile (2000 miles per month at $.08 per mile)	160.00	1,920.00
Party No. 2 (same as No. 1)	240.00	2,880.00
Automobile (same as No. 1)	160.00	1,920.00
Party No. 3 (same as No. 1)	240.00	2,880.00
Automobile (same as No. 1)	160.00	1,920.00
Party No. 4 (same as No. 1)	240.00	2,880.00
Automobile (same as No. 1)	160.00	1,920.00
Total		$22,320.00

Recapitulation

Expense	Amount
Salaries	$48,300.00
Office rent	3,000.00
Office expenses	1,800.00
Field expenses	22,320.00
Annual depreciation on equipment	3,000.00
Total Annual Expense	$78,420.00

The equipment upon which depreciation at the rate of 15% per annum has been charged would consist of office furniture, typewriters, field instruments, microscopes, etc. It is estimated that this equipment would cost in excess of $20,000.00 (see detailed list of geological equipment required under Administration During Construction).

Time Involved:

It was estimated that the preliminary development and organization period would extend over a period of one and [fol. 7901] one half years, and that the detailed geological work would, under the direction of the originating group, begin immediately following the completion of the preliminary geological report which would be completed in six months.

The time of the geological organization attributable to the preliminary development and organization period would be one year and the cost involved $78,420.00.

Geological Investigation for Fiscal Agents:

This investigation would consist in the main of a check upon the geological data in possession of the originating group. It would be made subsequent to the completion of the preliminary geological report, subsequent to the completion of some of the work done by the geological organization of the originating group, and subsequent to the actual drilling of wells upon acquired acreage.

For these reasons the personnel required for this investigation and check would be comparatively small and the time required for its completion would not exceed sixty days.

This work would be done by a firm of geologists whose standing would be such as to make their report of value in connection with prospectuses that would be used in marketing the security issues.

It is estimated that the cost of this report would be not less than $15,000.00.

Engineering Investigation for Fiscal Agents:

This investigation would consist of a check upon all market data, the general design of the system, the estimates of [fol. 7902] cost, and the estimate of earnings covered by the engineering data secured by the originating group.

As in the case of the geological check prepared for the fiscal agents, this engineering report would be made by a firm of engineers whose findings would have weight in connection with the issuance of securities. The personnel required for its preparation would be much smaller than the personnel required for the original investigation, and the necessary field and office work would be completed within sixty days.

It is estimated that the cost of this report would be not less than $15,000.00.

The apparent duplication of work and expense in connection with these two reports prepared by firms selected by the fiscal agents could not be avoided in the reproduction of Lone Star Gas Company. Any group of fiscal agents engaged in the underwriting of more than fifty million dollars worth of securities for the construction of a natural gas project, would require these reports notwithstanding the nature of the information previously secured by the originating group.

Legal Investigation for Fiscal Agents:

It has been assumed that one of the basic requirements for underwriting would be the acquisition and partial development, on the part of the originating group, of a substantial part of the acreage now owned in fee or held under lease by Lone Star Gas Company. In connection with permanent financing, the validity of the titles of land owned in fee, or held under lease, as well as the titles in connection with gas purchase contracts would be a matter of pri- [fol. 7903] mary importance. The fiscal agents would require a certification of all titles by a firm of attorneys whose opinion would have weight in connection with the marketing of the securities. The originating group would furnish this firm with title opinions prepared by their own attorneys, together with a copy of all abstracts. An examination of more than five hundred abstracts would be involved in this investigation, and the cost to the originating group for the certification would be not less than $25,000.00.

Cost of Gas Lands, Gas Leases, Rights, and/or Options:

The value of the gas lands, gas leases, rights and/or options held by Lone Star Gas Company as of January 1,

1933, has been independently determined and included in the appraisal as a part of the physical property of Lone Star Gas Company as of that date. For this reason, any part of the value ascribed to these items cannot be included as a part of the development costs.

The necessity for the consideration of the appraised value of a part of these items in connection with the development period grows out of the fact that the date at which these expenditures would be made, from the standpoint of the corporation, would have a direct bearing upon the cost of Interest During Construction.

In view of the assumption that all gas lands, gas leases, rights, and/or options acquired by the originating group and transferred to the corporation when organized, would be transferred upon the basis of their fair market value (appraised value), the Estimated Cost of these property items becomes immaterial in connection with any money outlay on the part of the corporation.

[fol. 7904] The necessity for the consideration of the estimated cost of a part of these items in connection with the development period grows out of the fact that these costs would be a part of the out-of-pocket expenditures of the originating group, and as such, would have a direct bearing upon the amount of remuneration to which the originating group would be entitled.

It is estimated that the fiscal agents would require the originating group to acquire at least fifty per cent of the gas lands, gas leases, rights, and/or options held by Lone Star Gas Company as of January 1, 1933, before tentative commitments for permanent financing would be made. This requirement would cover, in proportionate amounts, the acreage classified as developed acreage and undeveloped acreage.

The value included in this appraisal for the gas lands, gas leases, rights, and/or options, developed and undeveloped, has been estimated at $3,574,980.

At the date of incorporation, the originating group would transfer to the corporation one-half of these assets, and the corporation would reimburse the originating group with the proceeds from the sale of bonds representing one-half of the total value for gas lands, gas leases, rights, and/or options included in this appraisal, or $1,787,490.

The cost to the originating group of the assets thus transferred would consist of the following items:

1. The original cost of the gas lands, leases, rights, and/or options actually transferred.

2. The cost of acquisition, including the expenses of a land and lease organization.

3. The cost of cancelled and surrendered leases, or leases eliminated by the fiscal agents.

[fol. 7905] 4. The cost of rentals accrued prior to transfer.

5. The cost of dry holes drilled in connection with the testing of acreage.

6. The cost of general supervision of drilling operations.

(1) The original cost of the gas lands, leases, rights, and/or options:

As developed in the subsequent analysis of the remuneration for the originating group, the actual acreage originally acquired by the originating group would be largely in excess of the acreage approved by the fiscal agents and transferred to the corporation at its fair market value, or appraised value.

This acreage would have been secured by the originating group largely upon the basis of geological investigations, inasmuch as the drilling explorations of Lone Star Gas Company, and the drilling explorations that have resulted from the existence of Lone Star Gas Company as a marketing agency were assumed to have been non-existent at the date of the initiation of the project. This assumption is a logical application of the theory of reproduction as applied to this property.

Acreage acquired under these circumstances would normally suffer heavy charge offs for cancellation, surrenders, and eliminations by the fiscal agents before this acreage could be comparable to the character of acreage now held by Lone Star Gas Company and assumed to have been transferred to the corporation by the originating group. In [fol. 7906] view of these circumstances it is estimated that the originating group would acquire as a minimum twice the amount of gas lands, gas leases, rights, and/or options actually transferred.

(2) The cost of acquisition:

The cost of acquisition would be represented by the salaries and expenses of a land and lease organization that would begin to function immediately upon decision of the originating group to begin the acquisition of acreage. This organization would:

(a) In conjunction with the Geological Department make thorough investigations of possibilities of all acreage, both producing and non-producing, within general areas prescribed by the originating group, and then determine from time to time the particular portion or portions of each general area in which non-developed acreage and producing properties were to be acquired.

(b) Likewise in conjunction with the Geological Department, keep in close touch with all drilling and producing wells in the general areas, by whomsoever drilled or operated.

(c) Prepare, or have prepared, and put in general use certain standard forms, such as scout reports, purchase orders, purchase drafts, options, escrow agreements, executory contracts, division orders, transfer orders, gas purchase contracts, oil and gas leases, moneral deeds, and general office records.

(d) Negotiate and finally consummate, through brokers and with owners, the acquisition of developed and undeveloped acreage within the areas aforesaid.

(e) Examine and approve, or have examined and ap- [fol. 7907] proved, all abstracts and other title papers in connection with each transaction.

(f) Install a complete and elaborate system of office records for entering up and keeping track of all leases and other properties acquired.

(g) Record all instruments necessary to be recorded and pay all fees therefor.

(h) Pay all delay rentals, royalties and other fixed sums due under the terms of instruments so acquired.

(i) From time to time, enter into contracts with other owners for joint test wells on blocks of acreage held partly by such other owners.

(j) Determine location of test wells on acreage wholly or partly owned and to handle all details in connection therewith.

(k) Determine from time to time which leases are to be continued by payment of delay rentals and which are to be allowed to lapse for non-payment.

(l) Have all releases executed and delivered to land owners.

(m) Conduct all correspondence and negotiations having to do with the properties generally, other than problems relating to accounting, operating and the like.

This organization would function throughout the Development and Organization period and would continue to [fol. 7908] function as part of the administrative and legal organization throughout the pre-construction and construction periods.

(3) The cost of cancelled and surrendered leases, or leases eliminated by the fiscal agents:

Upon the assumption that the originating group would acquire during the development period twice the amount of acreage finally accepted by the fiscal agents, the cost of cancellations, surrenders, and eliminations, would result in an over all cost to the originating group of an amount equal to the original cost of the acreage actually transferred.

(4) The cost of rentals accrued prior to transfer:

The cost of rentals accrued during the development period would be comparatively small due to the short time included in the development period taken in connection with the fact that leases would not be acquired until some definite information had been secured from the results of the preliminary geological survey.

Such rentals as would accrue upon leases secured during the early months of the development period would contribute to the cost of such leases.

(5) The cost of dry holes drilled:

The ratio of dry holes to total wells drilled during the development period would necessarily be largely in excess

of the actual experience of Lone Star Gas Company within [fol. 7909] the past years. Practically all drilling done during this period would be based upon the geological data furnished by the preliminary report, and the subsequent investigations of the originating groups own geologists. The drilling in the areas as proved would be reduced to the minimum, and the exploration program extended to other areas in order to prove the unexplored territory under lease.

Each of these factors would contribute to an increase over the normal dry hole ratio. It is estimated under these conditions that conform to those under which the drilling would actually take place in the reproduction of Lone Star Gas Company, that the percentage of producing wells would not exceed fifty per cent of the total wells drilled.

As of January 1, 1933, Lone Star Gas Company owned 270 producing gas wells located as follows:

Texas

Field	No. Wells
Cheaney	18
Leeray	45
Sipe Springs	8
Miscellaneous	12
Panhandle	78
Petrolia	49
Total Texas	210

[fol. 7910] Oklahoma

Field	No. Wells
Chickasha	43
Duncan	9
Fox	8
Total Oklahoma	60
Total Oklahoma and Texas	270

In connection with the transfer by the originating group to the corporation of one-half of the gas lands, gas leases, rights, and/or options owned by Lone Star Gas Company as of January 1, 1933, it has been assumed that the ratio between developed and undeveloped acreage existing at this date would apply to the acreage transferred.

It would not be reasonable to assume that the drilling of one-half the total number of wells owned by Lone Star Gas Company as of January 1, 1933, would be required to establish this ratio of developed and undeveloped acreage. For this reason, the following estimate has been made of the minimum number of wells, by fields, that would be required to establish this ratio.

Texas

Field	No. Wells
Brad	2
Cheaney	5
Desdemona	1
X-Ray	1
Frankell	1
Leeray	15
Moran	1
Petrolia	1
Ranger	1
Shamrock	20
Sipe Springs	3
[fol. 7911]	
Tiffin	1
Total Texas	52

Oklahoma

Field	No. Wells
Chickasha	6
Duncan	2
Loco	3
Walters	1
Total Oklahoma	12
Total Oklahoma and Texas	64

In the above estimate and allocation of wells, consideration has been given to the amount of developed and undeveloped acreage held by Lone Star Gas Company in each of the fields as of January 1, 1933.

This estimate of the number of producing gas wells developed through the explorations of the originating group fixes the number of dry holes that would result from fifty per cent ratio at 64.

The minimum average direct cost of these unsuccessful tests would not be less than $20,000.00 per well, or a total estimated expenditure of $1,280,000.00 on the part of the originating group that would be absorbed in the appraised value of the leaseholds actually transferred.

(6) Cost of general supervision of drilling operations:

If all wells drilled by the originating group were drilled under contract which would be the logical method of procedure, it would be necessary for them to maintain an organization for the proper supervision of the field operations.

[fol. 7912] This organization would consist of a superintendent of production and office assistants together with district foremen with headquarters in the several fields.

The superintendent of production would be responsible for:

(a) The letting of drilling contracts.
(b) The general supervision of all drilling operations.
(c) The setting of pipe.
(d) The finishing of wells.
(e) The ordering of all material.
(f) The arranging for water and fuel.
(g) The letting of contracts for the construction of rigs and hauling of material.
(h) The continuing or abondening of drilling (in connection with the geological department).

The expenses of this department during the development period insofar as this cost would be properly allocated to dry hole expense would be a part of the cost of the acreage transferred by the originating group.

In the foregoing analysis, no attempt has been made to estimate the cost of the several items that would determine the expense of the originating group in connection with gas lands, gas leases, rights, and/or options transferred to the corporation.

It is evident that this cost would approximate the appraised value of the same items that has been used as the basis for the corporate expenses incurred in the transfer. The dry hole expense alone has been conservatively estimated at more than a million dollars. The cost of cancelled, surrendered, and eliminated leases together with the cost

of lands, leases, rights, and/or options acceptable to the fiscal agents, would be substantially in excess of this amount [fol. 7913] with no consideration given to other items of expense.

Throughout this analysis of Preliminary and Development Expenses, each step has been based upon a logical sequence of the necessary steps that would be involved in the promotion, and a conservative estimate has been made of the costs that would be incurred in each of these steps insofar as these costs have been made a part of the reproduction cost estimate.

The estimated cost to the originating group of the gas lands, gas leases, rights, and/or options transferred to the corporation has not been made a part of the reproduction cost of Lone Star Gas Company as of January 1, 1933. Furthermore, certain inconsistencies would arise in connection with any determination of the cost of these items as distinguished from their value. For example: the original cost of the lands held in fee in the Petrolia field was based upon the existence of reserves that had been greatly depleted at the date of this appraisal. In fact, all developed leaseholds included in the transfer have been evaluated upon the basis of a certain percentage of withdrawals of gas that would be inconsistent with the assumption of the non-existence of Lone Star Gas Company at the initiation of the project.

For these reasons, it has been assumed that the cost to the originating group of the acreage transferred at the date of incorporation would be equal to the appraised value at which this acreage has been included in the appraisal, and the foregoing analysis of the constituent elements of this cost has been made for the purpose of showing that this assumption could not be substantially in error.

[fol. 7914] Cost of Producing Gas Wells:

It has been estimated that at least sixty-four producing gas wells would be required to prove the producing acreage held by Lone Star Gas Company as of January 1, 1933.

The estimated direct cost of completing these wells as developed by this appraisal as well as the location of the wells by fields is shown in the following tabulation:

Texas

Field	Cost per Well	Number of Wells	Total
Brad	$19,292.00	2	$38,589.00
Cheaney	19,878.00	5	99,390.00
Desdemona	19,292.00	1	19,292.00
X-Ray	19,292.00	1	19,292.00
Frankell	19,292.00	1	19,292.00
Leeray	25,382.00	15	380,730.00
Moran	19,292.00	1	19,292.00
Petrolia	9,226.00	1	9,226.00
Ranger	19,292.00	1	19,292.00
Shamrock	12,336.00	20	246,720.00
Sipe Springs	18,313.00	3	54,939.00
Tiffin	19,292.00	1	19,292.00
Total			$945,341.00

Oklahoma

Field	Cost per Well	Number of Wells	Total
Chickasha	$13,416.00	6	$80,496.00
Duncan	11,151.00	2	22,302.00
Loco	6,755.00	3	20,265.00
Walters	11,151.00	1	11,151.00
Total			$134,214.00
Total Texas and Oklahoma			$1,079,555.00

The general production expenses attributable to these direct charges is estimated at 3.7 per cent of $1,079,555.00, or $39,944.00.

[fol. 7915] Organization and Corporate Costs:

Following the agreement between the fiscal agents and the originating group with reference to the financial structure of the corporation, the actual creation of the corporate entity would begin.

1. Preparation of charter, by-laws, and contract for financing:

The preparation of the corporate charter and by-laws and the execution of the contract for financing would be the

first steps in the organization program. This work would be done jointly by the attorneys of the originating group and the fiscal agents.

The attorneys representing the fiscal agents would be members of a firm favorably identified in financial circles, with work of this character. The fees for their services in this connection and the subsequent phases of the corporate organization and the financial set up would be not less than $30,000.00.

The attorneys for the originating group would be their regularly retained counselors, their opinions would not be used in connection with the marketing of the securities, and the fees for these services in this connection and the subsequent phases of the corporate organization and financial set up would not be less than $15,000.00.

2. Charter and Qualification fees:

The charter fees in the State of Texas for corporations having an authorized capital stock in excess of $2,640,000.00 is $2,500.00. In the State of Oklahoma the qualification fee [fol. 7916] is $1.00 per $1,000.00 of capital expended in the State (estimated for Lone Star Gas Company as of December 31, 1931, to be approximately $7,500,000.00) which would result in a fee of $7,500.00, or a total of $10,000.00 for charter and qualification fees.

3. Execution of mortgage and issuance of securities:

The attorneys for the originating group and the fiscal agents would jointly prepare the mortgage and trust indenture. The cost of their services with reference to this and other phases of corporate organization has been provided for in the allowances previously made.

Certain definite out-of-pocket expenditures would be necessary in connection with the subsequent steps.

An estimate of the total expenditures would be made for the purpose of developing the subsequent calculations. This estimate has been assumed to be as follows:

Cost of physical property and general costs	$64,000,000.00
Working capital and supplies	2,000,000.00
Requirements for fixed charges during the development period	2,000,000.00
Total estimated requirements	$68,000,000.00

The capital structure assumed, 50% of the total requirements in bonds, 25% in preferred stock, and 25% in common stock would require the following issues:

	Cash Received	Price	Securities Issued
Bonds	$34,000,000.00	$90.00	$37,778,000.00
Preferred Stock	17,000,000.00	90.00	18,889,000.00
Common Stock	17,000,000.00	100.00	17,000,000.00
	$68,000,000.00		$73,667,000.00

[fol. 7917] For the purpose of this estimate the bonds have been placed at $38,000,000.00, the preferred stock at $19,000,000.00, and the common shares at $17,000,000.00 par basis, or a total issue of $74,000,000.00.

Upon this basis, the following expenses would be incurred:

(a) Federal capital stock issue tax:	
$36,000,000.00 total par value at $.05 per $100.00	$18,000.00
(b) Engraving stock certificates at $.08 each:	
Certificates of preferred stock	$608.00
Certificates of Common Stock	136.00
Total	$744.00
(c) Listing securities on the Pittsburgh Stock Exchange:	
First $500,000.00 of capitalization	$200.00
Next $500,000.00 of capitalization	100.00
Next $24,000,000.00 of capitalization at $50.00 per each $1,000,000.00	1,200.00
Next $49,000,000.00 of capitalization at $25.00 per each $1,000,000.00	1,225.00
Total	$2,725.00
(d) Printing mortgage:	
Printing mortgage	$500.00
(e) Recording mortgage in:	
62 counties in Texas and 14 counties in Oklahoma	$3,800.00

(f) Engraving bonds at $.50 per bond:

$1,000.00 bonds—(34,000.00 each)	$17,000.00
500.00 bonds—(8,000.00 each)	4,000.00
Total	$21,000.00

[fol. 7918] (g) Federal tax on bonds at $.05 for each $100.00:

$38,000.00 00 par value	$19,000.00

(h) Trustee's fees and legal fees in connection with certifying, signing, and sealing 42,000 00 bonds at $.50 each $20,000.00

Recapitulation

Item	Amount
1. Attorney's fees fiscal agents	$30,000.00
2. Attorney's fees originating group	15,000.00
3. Charter and Qualification fees:	
(a) State of Texas	2,500.00
(b) State of Oklahoma	7,500.00
4. Execution of mortgage and issuance of securities (attorney's fees included in items 1, and 2):	
(a) Federal capital stock tax	18,000.00
(b) Engraving stock certificates	744.00
(c) Listing securities	2,725.00
(d) Printing mortgage	500.00
(e) Recording mortgage	3,800.00
(f) Engraving bonds	21,000.00
(g) Federal tax on bonds	19,000.00
(h) Trustee's fees	21,000.00
Total organization and corporate costs	$141,769.00

The foregoing estimate has been made upon security issues which would be estimated to amply cover all expenditures in connection with the construction of the property, the preliminary expenses incurred prior to construction, the undistributed general charges including Interest During Construction, the purchase of the necessary stock of materials and supplies required for operation, the initial working capital, discounts on the securities issued, and an esti-

mated amount with which to meet the excess cost over operating revenues of fixed charges and operating expenses during the period of business development.

Nothing has been included in the foregoing estimate for [fol. 7919] Financial Costs other than the out-of-pocket expenditures that would be made in connection with the fiscal agent's investigation of the project, the preparation and filing of the mortgage, the printing and listing of securities, and such capital stock and bond taxes as would be imposed by governmental authority.

In addition to the foregoing costs, the corporate organization created for the purpose of reproducing the property and business of Lone Star Gas Company would incur substantial expenses in marketing the securities issued, and would also absorb the monetary loss represented by the difference between the par-value of the securities issued and the price paid for the securities by the ultimate purchasers. There could be no escape from the incurrence of these costs in the reproduction of Lone Star Gas Company as of January 1, 1933, nor could any other enterprise of like magnitude have been financed at that time without the incurrence of these charges in substantial amounts.

It is obvious that if the cost of financing as represented by brokerage charges or the equivalent expenses of marketing the securities of the corporation would be an inescapable out-of-pocket expense in the reproduction of the property and business of the company at the appraisal date, then any appraisal reflecting the true reproduction cost of the property and business of Lone Star Gas Company as of January 1, 1933, must include a proper allowance to cover these charges.

It is also obvious that if the securities issued would of necessity be placed in the hands of the investing public at a price less than the par-value of these securities, some provision must be made to compensate the issuing corporation [fol. 7920] for the added interest above the coupon rate that such discounts would impose.

Brokerage or Marketing Costs:

Of the two elements of financial costs herein discussed, brokerage or an equivalent marketing cost is the more definite. It would be incurred as an out-of-pocket expenditure without reference to current market conditions, the credit

of the issuing corporation, or the coupon rates of the securities issued. For this reason, brokerage as distinguished from discount, is a proper element in a rate-base determined by the cost of reproduction.

No large issue of securities has ever been placed in the hands of the investing public without the incurrence of marketing costs on the part of the issuing party. The security issues of the United States Government afford no exception to this general rule, and these expenses would be incurred whether the issuing company marketed its securities through its own organization, or utilized the facilities and organization of an investment banker.

Historical consideration must give way to present conditions in reproduction cost estimates. This fact is evidenced by the use of present prices for materials of construction and present rates for labor in all reproduction cost estimates. Another example of this basic fact is found in a situation wherein a substantial part of a property may have been built before the perfection and general adoption of certain labor saving devices that would be applicable to the particular classes of construction involved. Any engineer in the preparation of a reproduction cost estimate of this property would formulate his cost data upon the basis of the normal methods of construction in general use at the appraisal date, and would give no consideration to the fact [fol. 7921] that a substantial part of the property had been constructed by obsolete and more costly methods.

It follows as a corollary of this basic proposition that the financial structure of Lone Star Gas Company, which for a public utility is unique, and which has been the result of more than twenty years of cumulative development, can have no proper bearing upon the cost of reproduction insofar as the financial structure is involved at the appraisal date. In reproduction, Lone Star Gas Company could not be financed as it has been financed historically, and the problem resolves itself into the determination of the financial structure which would be the normal one at the date of inquiry, and which would result in the securing of funds necessary for construction and business development at a minimum cost, brokerage discounts and coupon rates considered.

In the final analysis, reproduction cost is simply a measure of value, and whenever there is a divergence between cost and value, or whenever the situation is such that cost does not contribute to value, value alone must be considered.

In the instant case wherein brokerage, or the marketing costs of security issues is involved, there is no divergence between cost and value. Lone Star Gas Company is financed and is a going concern. The money required for the construction of its property, and the development of its business has been assembled and transformed into units of property and business whose cost of duplication can be fairly measured in terms of dollars. It follows as an inevitable conclusion that if under any assumed conditions, it would cost money to assemble the dollars required to duplicate this property and business, then this property soundly [fol. 7922] financed is worth more than the aggregate sum represented by the dollar measure of its integral parts. The present value of this increment in worth cannot be less than the cost of assembling the dollars required by a normal financial structure. This conclusion may be clarified by the statement that the collection of a large sum of money so that it is available for the purchase of the materials of construction, and for the payment of services required for the initiation of a business enterprise, has a peculiar and intrinsic worth to the enterprise for which it is available over and above a like sum of money not thus assembled and available for use. The measure of this worth or value is the normal cost of assembly.

The Interstate Commerce Commission in its classification of investment in road and equipment of steam roads, clearly recognizes the propriety of the inclusion of the cost of assembling capital as a capital item. In its definition of Organization Expenses the following statement is found: "This account shall include * * * cost of preparing and distributing prospectuses; cost of soliciting subscriptions for stock; cash fees paid to promoters, and the actual cash value (at the time of the organization) of securities paid to promoters".

Discount:

As indicated by the quotations on all natural gas utilities securities current as of January 1, 1933, no securities, either senior or junior, issued for the purpose of securing funds for the construction of a natural gas producing and transporting system, could have been disposed of except at a substantial discount below the par value of the security

issue. This condition has become more marked since the appraisal date and applies to the security issues of all [fol. 7923] natural gas utilities without regard to their records for continuous service, and without regard to their record of earnings.

No hypothesis can be proposed with reference to a financial structure, or to the obvious desirability of the project, that can escape the general proposition that both senior and junior securities of a natural gas producing and transporting company would of necessity be disposed of at substantial discounts below par-value.

Discounts on security issues, however, unlike the direct costs of assembling capital, do not represent out-of-pocket expenditures. Furthermore, discount to a greater degree than marketing costs reflects the credit rating of the organizers of the issuing companies, and the coupon rates of the securities issued. In the final analysis, discount is simply an increment above coupon rates of interest, and as such, reflects the cost of money as measured by interest charges. For these reasons, discount on security issues is not a proper element in a rate-base and it is, therefore, omitted in this appraisal as an element of the reproduction cost of Lone Star Gas Company as of January 1, 1933.

On the other hand the current discounts on securities, similar in all respects to the securities that would be issued in the reproduction of Lone Star Gas Company should be one of the dominant factors in the determination of what constitutes a fair rate of return for a natural gas pipe line company.

Calculation of Financial Costs, or the Costs of Assembling Capital:

In this estimate of Preliminary Development and Organization Costs, certain basic assumptions have been made with reference to the capital structure of the company, and the obligations assumed by the originating group that must be [fol. 7924] considered in connection with the estimate of financial costs.

(I.) It was assumed that the originating group would be responsible for securing the funds represented by subscriptions for common shares, and that all costs in connection therewith would be included in the amount allowed the originating group as compensation for their promotional

services. This method of handling the disposition of the common shares of the company would relieve the corporation of the marketing expense of twenty five per cent of its capital issue.

(II.) For the remaining seventy five per cent of the capital issue, it has been assumed that twenty five per cent of the total money required would be secured through the sale of eight per cent preferred stock, and fifty per cent through the sale of six and one-half per cent first mortgage bonds. As previously stated, this assumption does not conform to the financial structure of Lone Star Gas Company, but creates a situation with reference to the cost of marketing securities that would result in substantially lower costs than if the existing financial structure had been used as the basis for estimate. The cost of assembling capital by means of the sale of preferred stock, and first mortgage bonds, particularly in the market of January 1, 1933, would have been substantially less than the cost of assembling a like sum of money through the sale of common shares.

Throughout the preparation of this estimate, the actual experience of Lone Star Gas Company has been used provided this experience had a logical application to the problem under consideration. Lone Star Gas Company has issued and sold neither preferred stock, nor mortgage [fol. 7925] bonds. Lone Star Gas Corporation, however, whose principal asset is the ownership of the common shares of Lone Star Gas Company, has disposed of both classes of securities, but in a much lower ratio to total assets than the ratio used in the hypothetical financial structure. Furthermore, at the time these securities were placed in the hands of the investing public, the corporation was a going concern with a record of successful operation and normal earnings. For these reasons, the use of the actual cost to Lone Star Gas Corporation for the assembling of capital by the issuance of preferred stock and bonds as the basis of the estimate of similar charges in the reproduction of Lone Star Gas Company as of January 1, 1933, is more conservative from the standpoint of costs than a strict interpretation of the rules governing reproduction cost estimates would justify.

In May, 1927, Lone Star Gas Corporation issued $15,000,000 of five per cent debentures. The initial sale of this issue was made at $98.75 per $100 unit of the issue. The

marketing cost to Lone Star Gas Corporation, exclusive of all incidental charges and expenses, was $3.00 per $100 unit of the issue.

It has been previously estimated that an equivalent of 380,000 first mortgage bonds of $100 par value each would constitute the underlying or senior issue in connection with the best financial structure that could be suggested for securing the funds necessary for the reproduction of Lone Star Gas Company as of January 1, 1933. It is certain that this issue could not have been placed in the hands of the investing public as of that date for a unit cost as low as $3.00 per $100 unit of issue. For the purpose of this estimate, however, this conservative figure has been used with reference to the marketing costs of first mortgage bonds.

[fol. 7926] In October, 1929, Lone Star Gas Corporation issued $8,000,000 of 6.5 per cent preferred stock. The initial sale of this issue was made at par, and the marketing cost to Lone Star Gas Corporation, exclusive of all incidental charges and expenses, was $4.50 per $100 unit of the issue.

What has been said with reference to the cost of marketing first mortgage bonds applies with greater force to the cost of marketing junior securities. Conditions were much more favorable for the disposition of junior issues in 1929 than the conditions prevailing as of January 1, 1933. Furthermore, as previously stated in the case of both issues of Lone Star Gas Corporation, the issues themselves represented a relatively small part of the total capital structure, and the issuing company was a going concern with a long operating history, and a record of satisfactory earnings. For these and other reasons, the adoption of $4.50 per $100 unit as the estimated marketing cost of 190,000 $100 units of preferred stock in the reproduction of Lone Star Gas Company as of January 1, 1933, is extremely conservative, and the figure adopted is substantially less than the marketing costs that would have been incurred as of that date.

Cost of Marketing First Mortgage Bonds:	
380,000 $100 units at $3.00 each	$1,140,000
Cost of Marketing Preferred Stock:	
190,000 $100 units at $4.50 each	855,000
Total Marketing Costs	$1,995,000

[fol. 7927] Remuneration for the Originating Group:

As previously noted the remuneration for the originating group would be measured by several factors.

1. The type of personnel that would be required for the successful promotion of an enterprise identical with Lone Star Gas Company as of January 1, 1933.

2. The time that would be required to bring the project from its initial stage to the completion of corporate organization.

3. The total cost and extent of the project.

4. The risks involved in the promotion.

5. The amount of the out-of-pocket advances made by the originating group during the development and organization period.

6. The value of the services of the originating group in

(a) Negotiating for, or closing gas sales contracts.

(b) Negotiations with the promoters of distribution properties for the construction of natural gas distributing systems in the market area served by the pipe line company.

(c) Negotiating with the fiscal agents for the permanent financing of the corporation.

(d) Setting up the financial structure of the corporation.

(e) Organizing the corporation and placing it in readiness to do business.

7. The extent of the participation of the originating group in the permanent financing of the corporation.

8. The expenses of the originating group included in their remuneration.

9. The fees normally expected and received for services of a similar nature.

In the preparation of the estimate no consideration has been given to the abnormal conditions existing at this time with reference to the promotion of enterprises and the marketing of securities.

[fol. 7928] Type of Personnel That Would be Required:

It has been previously stated that the personnel that would be required to initiate and bring to a successful conclusion the promotion of a natural gas enterprise identical with Lone Star Gas Company would consist of a group of not less than four men of exceptional ability with substantial financial connections, and wide experience in the natural gas business.

This assumption assures a minimum expense in connection with development charges.

This is true for the reasons that if the individuals of the originating group did not have these characteristics, the preliminary period would be of much longer duration than the one and one half years assumed in this estimate, fiscal agents would be less ready to assume underwriting responsibilities, and delays would be incurred in negotiations with them, the probabilities of increased costs through errors of judgement would be substantially increased, difficulties would be encountered in securing cooperation from other corporations, or individuals with reference to the construction of the necessary distribution plants in the various cities and towns proposed to be served, and the cost of marketing securities and the spread between the price received by the corporation and their par value would be increased.

Men having the qualifications of this originating group, and assuming the responsibilities and risks that the promotion of Lone Star Gas Company would involve, could not be attracted to the promotion unless its successful conclusion carried with it the assurance of substantial financial [fol. 7929] remuneration for their services. This remuneration would be greatly in excess of any consideration based upon salaries however large.

Time Involved:

The preliminary development and organization period has been estimated as one and one half years.

In view of the magnitude of the project and the amount of detail work that would be required in connection with the field work, the acquisition of leases, the drilling of wells, the negotiations with bankers, the negotiations with owners of distribution plants, prospective builders of distribution plants and prospective large industrial customers and the

work in connection with corporate organization, the entire time of each member of the originating group would be absorbed throughout the period.

Total Cost and Extent of the Project:

The total remuneration for the originators of any project is a function of the total cost and the complexity of the project. The amount of money required for the reproduction of Lone Star Gas Company as of January 1, 1933, would not be less than sixty five million dollars without consideration of the fixed charges during the period of business development.

The preliminary development stages of a large natural gas producing and marketing system would be more complex and would require of the originators more intensive application than would the preliminary stages of any other public utility involving a like expenditure of money.

Each of these factors has been taken into consideration in fixing the fee for the originating group.

[fol. 7930] Risks Involved in the Promotion:

The percentage of ventures that fail in the development period is relatively large. Other ventures that are finally launched have a background of failure on the part of one or more promotional groups. The possibility of loss on the part of any originating group is an inherent characteristic of any business promotion. This fact applies with particular force to the promotion of an enterprise that is based upon the successful outcome of the most hazardous of all mining ventures.

The fact that Lone Star Gas Company is in successful operation as of the date of this appraisal would not eliminate this element of risk in reproduction.

It has been assumed as one of the basic factors of this estimate that the originating group would transfer to the corporation at their fair market value (as of January 1, 1933) a substantial part of the lands, leases, gas purchase contracts, and producing gas wells now owned by Lone Star Gas Company.

The gas reserves of Lone Star Gas Company represented by lands held in fee or leases, and gas rights as of January 1, 1933, are the result of twenty years experience and exploration in the territory and a culling of unproductive or

unpromising acreage. From 1918 to 1933, inclusive, $2,471,593.76 has been written off the books of Lone Star Gas Company for cancelled and surrendered leases.

In order that the acreage transferred to the corporation by the originating group might prove acceptable to underwriters as evidence of a supply adequate to justify the [fol. 7931] financing of the project, the originating group would acquire and test acreage largely in excess of the amount actually transferred. During this period of exploration and testing, the dry hole ratio, despite the geological information derived from the investigations previously set out, would be abnormally high as would be the concurrent expense for cancelled and surrendered leases. The wells drilled during this initial stage of the development would necessarily be located in semi-wildcat territory, and the leases secured would not have been selected upon the basis of information secured through exploration.

It is certain that the fiscal agents would scrutinize with extreme care the value of the leaseholds transferred to the corporation and would require that all wells be producers of gas and be in good condition.

The originating group could have no assurance at the initiation of the project that their out-of-pocket expenditures for lands in fee, leaseholds, gas rights, and exploration and testing would be reimbursed by the sum represented by the fair market value of the lands in fee, leaseholds, and gas rights acceptable to the fiscal agents, and the reproduction cost of the producing gas wells.

The Out-of-Pocket Advances of the Originating Group:

The originating group would advance all money required for:

1. The preliminary geological survey.
2. The preliminary engineering survey.
3. The detailed geological work.
4. The purchase of all lands held in fee, all leaseholds and options together with the cost of their acquisition.
5. The drilling of wells together with the supervisory expenses in connection therewith.

[fol. 7932] 6. The fiscal agent's geological report.

7. The fiscal agent's engineering report.
8. The fiscal agent's legal report on titles and contracts.

9. The organization of the corporation.

10. Their office expenses, traveling expenses, the salaries of all clerks, stenographers and technical advisors other than those specifically covered in the foregoing items.

It has been assumed in connection with the foregoing items that the originating group would be reimbursed by proceeds of the sale of bonds of the corporation for the actual expenses incurred for items 1, 2, 3, 6, 7, 8 and 9; that for item 4, the reimbursement would be made upon the basis of the fair market value of the lands, leases and options, and that for item 5, the transfer would be made upon the basis of the reproduction cost of the wells.

All expenses in connection with item 10 would be absorbed by the promotion fee, which would also be paid from the proceeds of the sale of bonds.

The following summary sets out the estimated cost of these items.

1. Preliminary geological survey	$114,444.00
2. Preliminary engineering survey	49,695.00
3. Detailed geological work (one year)	78,420.00
4. Cost of lands, leases and options	1,721,618.00
5. Cost of drilling wells	1,119,499.00
6. Fiscal agent's geological report	15,000.00
7. Fiscal agent's engineering report	15,000.00
8. Fiscal agent's legal report	25,000.00
9. Organization expenses	141,769.00
Total	$3,280,445.00

Items 10 and 11 are omitted for the reason that they will be considered independently with reference to expenses included in the promotion fee.

[fol. 7933] Value of the Services of the Originating Group in Connection With the Following Items:

(a) Negotiating for, or closing gas sales contracts:

Before final commitments could be secured for permanent financing, the fiscal agents would require of the originating group some definite assurance of a market for the sale of gas. Negotiations would be conducted with the major industrials in the market area, and as has been assumed in the analysis of the cost of business development (see Going

Value) a certain proportion of the ultimate industrial consumers now served by Lone Star Gas Company would be attached immediately upon the completion of the lines to the market centers.

The acquisition of this business would be of value not only as an aid in the financing of the company, but also as a factor in the reduction of the cost of subsequent business development.

(b) Negotiating with the owners of distributing properties and the prospective builders of distributing plants:

Lone Star Gas Company as of January 1, 1933 served approximately 270 individual cities and towns as a wholesaler of natural gas for local distribution to approximately 240,000 individual domestic consumers.

Under the basic assumption that Lone Star Gas Company would be non-existent at the initiation of the project, not more than ten cities in this group would have artificial distributing plants, and these plants measured by the present customer saturation, would be sub-normally de- [fol. 7934] veloped as natural gas markets.

The cost of constructing the physical plant of Lone Star Gas Company as of January 1, 1933 could not be underwritten unless assurance could be given that the larger markets having artificial plants would be converted and extended, and that distribution plants would be constructed in the smaller cities and towns where no plants existed at the time of the promotion.

In the subsequent calculations of the cost of Interest During Construction (see Interest During Construction), it has been assumed that the actual construction of the physical property of Lone Star Gas Company could be completed within a three year period. In the subsequent calculation of the cost of Business Development (see cost of Business Development), it has been assumed that concurrent with the construction of the physical property of Lone Star Gas Company there would be an extension of mains in the cities having artificial gas service and a construction of plants in the smaller cities in order that service could be begun promptly upon the completion of the pipe line system. These assumptions materially reduce the total reproduction cost estimate of the property in that the highly important items of the cost of Interest During Construction,

and the cost of Business Development are proportionately reduced.

The period of construction and the situation in reference to the ready availability of the domestic market as- [fol. 7935] sumed in this estimate could be predicated only upon the primary assumption that the originating group had successfully concluded preliminary negotiations for the extension of existing plants and the construction of new plants during the development period.

The value of this service when measured by its effect upon the marketability of securities, the reduction of Interest During Construction, and the reduction of the period of business development, would be greater than the total amount set out as the promoters' remuneration.

(c) Negotiating with the fiscal agents:

The originating group would conduct and conclude all negotiations with the fiscal agents for permanent financing. In view of the magnitude of the project, these negotiations would extend over a considerable period of time, would require of the originators the exercise of judgment and skill, and would involve numerous group conferences in the financial centers with attendant expenses.

(d) Setting up the financial structure:

The originating group would be jointly responsible with the fiscal agents for the financial structure determined upon. The financial standing of the group, together with their background of experience, would permit the use of a structure favorable to the corporation and the one assumed as a basis for this estimate.

[fol. 7936] (e) Organizing the corporation and placing it in readiness to do business:

The originating group would be jointly responsible with the fiscal agents for the corporate organization, preparation of mortgages, indentures, and other similar details. This work would require numerous group conferences with attendant expenses.

The originating group would be largely responsible for the selection of all executive officers who would be installed upon the perfection of corporate organization. The type

of personnel assumed for the originating group would permit the securing of the character of executives now in charge of the operations of Lone Star Gas Company and correspondingly reduce the probability of executive turnover or improvident management during the construction period.

The Extent of the Participation of the Originating Group in Permanent Financing:

It has been assumed that the most advantageous financial structure would consist of an issue of bonds for 50% of the total requirements, an issue of preferred stock for 25% of the requirements, and the 25% remaining provided for by the issuance of common shares. It was further assumed that together with the common shares issued to them for their expenses during the development period, the value of the capital assets transferred to the corporation and their promotion fee, the originating group would assume the responsibility for placing all other common shares issued, or otherwise expressed, would provide all equity [fol. 7937] money.

This last assumption would relieve the corporation of all marketing costs that would normally be incurred in disposing of the class of securities carrying the heaviest brokerage charges. The value of the service would also be reflected in the sale price of the senior securities.

Expenses of Originating Group Included in Their Remuneration:

Nothing has been included in this estimate for the office expenses, clerical salaries, traveling and other expenses that would be incurred by the individual members of the originating group during the development and organization period.

Each member of the group would require offices and clerical assistants throughout the periods. Numerous conferences between the individuals of the group and between the group and the fiscal agents, together with conferences with prospective consumers and owners of distribution plants, would result in large expenditures for traveling and incidental expenses. All of these items have been included in the promotion fee.

Fees Normally Expected and Received:

The fees received for recent natural gas promotions afford a check upon the reasonableness of the amount included in this estimate.

It is obvious that no precise appraisal can be made of the value of the character of the services outlined in the foregoing analysis. Consideration must be given to the effect of the various assumptions upon the overall cost of the project as subsequently developed. It would be irrational to assume that the originating group possessed certain qualifications and rendered certain valuable services [fols. 7938-7939] that would entitle them to substantial remuneration and then fail to give effect to these qualifications and services in the subsequent development, and estimates of the general undistributed costs that would be incurred in the reproduction of Lone Star Gas Company as of January 1, 1933.

In this estimate of these elements of cost in reproduction, consideration has been given to these factors and the value of the promotional services has been reflected in the various overhead charges. This is particularly true in reference to Interest During Construction, cost of marketing securities, and the cost of Business Development.

It is estimated that the minimum fee to the originating group for promotional services in the reproduction of Lone Star Gas Company as of January 1, 1933—under the assumptions outlined in the foregoing analysis—would be not less than $2,000,000.00.

This estimate gives no consideration to any loss or gain that might accrue through the transfer to the corporation at their fair market value the proportionate part of the gas reserves of Lone Star Gas Company assumed to be transferred by the originating group at the date of incorporation. Included in this estimate are the expenses of the originating group not specifically included in the items of expense set out in the summary of Preliminary Development and Organization Costs, and interest charges accrued upon the out-of-pocket expenses of the originating group during the development period.

[fols. 7940-7941] Undistributed General Cost

General Summary

Executive Section	$503,487
Legal Section	490,576
Accounting Section	192,320
Treasury Section	97,509
Land Section	277,138
Geological Section	255,929
Purchasing Section	530,636
Other General Cost	201,574
Engineering Cost	1,127,661
Supervision Cost	414,493
Taxes During Construction	173,818
Interest During Construction	4,975,933
	$9,241,074

* * * * * * *

[fol. 7942] Undistributed General Costs

The undistributed general costs that would be incurred in the reproduction of the physical property of Lone Star Gas Company as of January 1, 1933, from the date of incorporation to the time when such charges would not be attributable to the construction of the physical entity would be as follows:

1. Administration and Legal Costs.

2. General Engineering Costs.

3. General Supervision of Construction Costs.

4. Taxes on Non-operative Property (exclusive of general office building and general office land, and parking lot).

5. Interest on expenditures attributable to non-operative property.

The estimated costs that would be involved in each of the foregoing accounts have been developed in detail in the subsequent sections of the appraisal.

Before proceeding to these detailed analyses, consideration will be given to certain general factors that would have a direct bearing upon these costs.

Pre-Construction and Construction Periods:

In the estimate of each of the Undistributed General Costs, the element of time is a most important factor. It is the multiplier that must be applied to the salaried personnel engaged in the various activities of the several departments, and it is a function of the cost of interest and of taxes applied to non-operative property and accrued during the period of construction.

In this estimate, a period of three and one half years from the date of the incorporation of the company has been [fol. 7943] adopted as representing the minimum time that would be required in which to economically reproduce the physical property of Lone Star Gas Company as of January 1, 1933, and of this three and one-half year period, six months has been allocated to the necessary work that would be done in connection with the various preliminary steps that would precede construction of the plant. In the case of the general engineering work, a period of six months after the completion of the physical property would be required for the preparation of the final engineering records. In the case of the general stores organization, a period of six months following the completion of the construction of the physical property would be required for the purpose of preparing final inventories, furnishing completion reports, and accounting for the final disposition of surplus material attributable to construction. In connection with the accounting, or records section, at least six months subsequent to the completion of the physical property would be required for the checking and closing of construction records. With these exceptions, all estimated expenditures for Undistributed General Costs would be incurred within the three and one half year period adopted.

The duration of the pre-construction and construction periods has been determined after a careful study of the amount and character of the work that would be involved in the various preliminary steps that would precede and be essential to the initiation of construction, the amount of work that would be done in construction, and the sequence in which the individual units of physical property would be begun and completed.

In this connection, consideration has necessarily been [fol. 7944] given to the fact that the development of the estimated direct cost of reproducing the physical property

has been based upon the assumption that the company would organize its own construction forces and complete the plant without the intermediary services of a general engineering contractor. This basic assumption, in reference to the development of the unit costs of physical property which results in the elimination of contractor's profit and the use of contractor's equipment and personnel, would create the necessity for the prompt organization immediately following the incorporation of the company, of the various departments that would be responsible for the preparation of engineering plans, the securing of rights-of-way, the purchase and delivery of materials, the construction of the plant, and the keeping of records and accounts.

Consideration has also been given to the fact that during the progress of construction certain portions of the completed plant would pass into partial operation, and such charges to constructions as would be reduced by reason of this fact have been properly adjusted in order to give effect to such operations.

General Organization Plan:

The general organization plan that has been adopted as the basis for the development of the personnel, and the responsibilities of the executives and department heads who would be engaged in the administrative and other functions of management during the pre-construction and construction periods, follows very closely the general organization plan of Lone Star Gas Company as a going concern jointly engaged in construction and operation. Certain sections that are strictly operative in their functions have been eliminated. In addition to specific eliminations, the rela- [fol. 7945] tions of some of the department heads have been modified to conform to the requirements of an organization in construction only. With these exceptions, the general organization plan of Lone Star Gas Company has been strictly adhered to in the estimate of Undistributed General Costs.

Figure (1) is the general organization chart covering the executive groups and the departmental heads included under Administration and Legal Costs, General Engineering Costs and General Supervision of Construction Costs. This general chart provides the basis for the detailed organization charts that have been used in the subsequent analyses of the personnel that would be required for the various sections.

General Methods Employed:

In the subsequent development of the estimates of Administration and Legal Costs, General Engineering Costs, and General Supervision of Construction Costs that would be incurred in the reproduction of Lone Star Gas Company as of January 1, 1933, the actual executives of the company and the actual departmental heads, as of that date, have been used as the basis for the estimate. This is also true of the subordinate personnel. The number of men that would be engaged in the work required of the various sections, and the respective duties of each man have been determined after a careful study of each section with reference to its personnel and the duties of the various employees during the periods in which Lone Star Gas Company was engaged in its largest construction programs. These analyses were made in conjunction with the department heads having responsible charge of the sections during these construction periods.

[fol. 7946] During the years 1927 and 1929, Lone Star Gas Company (in conjunction with Community Natural Gas Company) was engaged in construction programs that involved expenditures in excess of $10,000,000.00 during each of these years, and the experience of the company afforded a rational basis for estimate.

In fixing salaries, consideration has been given to the fact that a trained organization, at least with reference to department heads and key men, would be required from the date of incorporation. In order to secure such an organization, trained men would necessarily be taken from the personnels of other companies engaged in similar activities. Men employed under these conditions expect and receive salaries in excess of those that they formerly received.

In several of the departments engaged in the reproduction of Lone Star Gas Company, a substantial part of the personnel would be temporarily employed. This is particularly true with reference to the engineering and construction sections, and the salaries of the employees who would not be retained as a part of the operating organization have been adjusted to meet this condition.

The trained organization of Lone Star Gas Company as of January 1, 1933 is an element of value that should be considered and appraised as a part of the present worth of the company. A separate allowance has been made to provide for this element of value.

Consideration must therefore be given to the cost of securing this organization if the present value of the company is to be reflected in the appraisal.

The number of men engaged in the work of the various [fols. 7947-7948] departments, would, in some cases, vary as the successive steps of the work progressed, and as the constituent elements of property passed from construction into operation. During the construction period there would be a division of responsibility on the part of some of the executive and administrative groups.

These changes, and the division of responsibility between operation and construction during the construction period would require adjustments in personnel, and a rational allocation of general costs proportionate to the relative amount of time required for operation and construction on the part of those jointly engaged.

In order that these adjustments and allocations might be made with relative accuracy, a careful study has been made of the rate at which necessary personnel would be required, the rate at which the construction would proceed, and the rate at which expenditures would be made from the date of incorporation to the date of the completion of the physical property. A study has also been made of the time at which the various sections of the completed system would pass into partial operation during the construction period. The results of these studies have been set out in connection with the development of the Cost of Interest During Construction.

[fol. 7949] Administration and Legal Costs

General Summary

Executive Section		$503,487
Legal Section		490,576
Accounting Section		192,320
Treasury Section		97,509
Land Section		277,138
Geological Section		255,929
Purchasing Section:		
Purchasing Division	$217,918	
General Stores	225,690	
Stationery Division	61,482	
Traffic Division	25,546	
		530,636
Total		$2,347,595

[fol. 7950] Administration and Legal Costs

Definition:

As used in this estimate of the reproduction cost of the property and business of Lone Star Gas Company, Administration and Legal Costs are intended to cover the salaries and expenses of executive officers from the date of incorporation until such time as the property under construction would pass into operation. Also the salaries and expenses of the department heads, clerks and other employees, office rent or its equivalent cost, depreciation on equipment; expenses and supplies in connection with the accounting, purchasing, general stores, traffic, land and lease, and geological departments; also all expenditures that would be incurred by the legal department, including the pay and expenses of counsel, solicitors and attorneys, their clerks and assistants, and the expenses of their offices; the cost of printing briefs, legal forms, payments to arbitrators, witness and notorial fees, and other like costs.

In connection with the determination of the construction period, it was estimated that corporate organization would be perfected at least six months prior to the beginning of actual construction. In view of the magnitude of the undertaking, and of the various steps that would necessarily be

taken before the construction program could be entered upon, six months would be the minimum time that would be required to prepare final plans, assemble an administrative, engineering, and construction organization; purchase and secure the delivery of equipment and the materials of construction.

In the detailed analyses of the various sections that [fols. 7951-7952] would be engaged in the work classified under the general head Administration and Legal Costs, care has been taken, wherever possible, to include only the personnel that would be required for construction only.

In each case where there would be a division of responsibility arising from the fact that a portion of the property would become operative during the construction period, proper effect has been given to this fact.

[fol. 7953] Administration and Legal Costs

Executive Section

General Summary

Salaries	$397,925
Office Furniture and Fixtures (Depreciation Only)	5,341
Stationery and Supplies	5,610
Transportation (Cost of Operation plus Depreciation)	19,173
Traveling Expenses	57,750
Communication Expense	17,688
Total	$503,487

[fol. 7954] Executive Section

Summary of Cost

Pre-Construction Period:

Salaries	$72,350
Office Furniture and Fixtures (Depreciation Only)	971
Stationery and Supplies	1,020
Transportation (Cost of Operation plus Depreciation)	3,486
Traveling Expenses	10,500
Communication Expense	3,216
Total	$91,543

Summary of Cost—Continued

Construction Period-First Year:

Salaries	$144,700
Office Furniture and Fixtures (Depreciation Only)	1,942
Stationery and Supplies	2,040
Transportation (Cost of Operation plus Depreciation)	6,972
Traveling Expenses	21,000
Communication Expense	6,432
Total	$183,086

Construction Period-Second Year:

Construction Period—Second Year:

Salaries	$108,525
Office Furniture and Fixtures (Depreciation Only)	1,457
Stationery and Supplies	1,530
Transportation (Cost of Operation plus depreciation)	5,229
Traveling Expenses	15,750
Communication Expense	4,824
Total	$137,315

Construction Period—Third Year:

Salaries	$72,350
Office Furniture and Fixtures (Depreciation Only)	971
Stationery and Supplies	1,020
Transportation (Cost of Operation plus depreciation)	3,486
Traveling Expense	10,500
Communication Expense	3,216
Total	$91,543

[fol. 7955]. Executive Section

General Organization Plan and Duties of the Section:

The Executive Section is that section of the general organization that would be responsible for the general policies

of the company, the procuring of funds for the construction of the property, the negotiating and making of contracts and the employment of department heads. Through the individual executives, the section would also be responsible for the work of all other sections of the general organization that would be engaged in the reproduction of the property and business of Lone Star Gas Company.

The Executive Section would necessarily be engaged and would begin to function immediately upon the completion of the corporate organization, and would continue to direct all of the affairs of the company throughout the pre-construction, construction, and post construction periods.

In conformity with the general plan of this appraisal, the development of the personnel and the duties of the executive section has been based upon the existing personnel of the company, and the duties that have been ascribed in the estimate to the various individual executives conform to the actual duties and responsibilities of these officers in connection with their work when Lone Star Gas Company has been engaged in its major construction programs.

It has been assumed that the individual members of the executive section would become the operating officers of the company upon the completion of its construction program. For this reason, these individual officers would become responsible for the operations of the company as its completed units passed from construction to operation during [fol. 7956] the construction period. Account has been taken of the fact in the allocation of the costs of the section, and the proportionate part of the cost attributable to operation during construction has been deducted from the estimate.

Personnel Analysis:

The following enumeration set out the duties and contacts of the individual officers and employees included in the Executive Section.

President of the Company:

Under the organization plan adopted, the general duties of the president, insofar as his duties would relate to the construction of the property and the development of its business, would be as follows:

1. He would select and engage the services of the executive personnel.

2. He would generally direct all other executive officers.

3. He would determine all matters of general policy.

4. He would conduct all negotiations with fiscal agents.

5. He would conduct all negotiations with owners of distributing plants in cities proposed to be served with natural gas.

6. He would conduct all negotiations with utility operations concerning the construction of distribution plants in cities and towns adjacent to the proposed system, but in which no distribution facilities existed at the time of the initiation of the project.

7. He would conduct all negotiations with large prospective purchasers of natural gas for industrial use.

8. He would make contact with and conduct any necessary negotiations with governmental and regulatory authorities.

9. He would check and approve all estimates of cash requirements for construction, drilling of wells, purchase of leases, and other expenses that would be incident to the reproduction of Lone Star Gas Company.

10. He would check and approve monthly and quarterly progress reports made to the fiscal agents, the directors and the stockholders.

[fol. 7957] Assistant to the President:

The general duties of the assistant to the president would be as follows:

1. He would secure information from all departmental heads, and prepare progress reports and special reports to the fiscal agents, the board of directors, and the stockholders.

2. He would keep the president advised on all matters pertaining to construction, drilling of wells, acquisition of leases, budgets, and other matters of similar nature.

3. He would familiarize himself with and advise the president and other executives relative to progress made by other utility companies in extending their plants and preparing them for the use of natural gas, and in construcing new

plants for the reception of service coincident with the completion of the pipe line system.

4. He would assist the president in presenting statistical and other information to the fiscal agents, the board of directors, and the stockholders.

5. He would see that all matters of general policy determined upon by the president were properly carried out.

Vice President and General Manager:

The duties of the vice president and general manager would be as follows:

1. He would interview and be responsible for the employment of the following departmental heads:

a. General superintendent of construction.
b. Chief engineer.
c. Chief geologist.
d. Chief land and lease agent.
e. General purchasing agent.

2. He would be responsible for the general design of the system, the standards of construction employed and the standards of materials used in construction.

3. He would be responsible for the purchase of the major items of equipment.

4. He would be responsible for the final selection of prospective gas acreage to be acquired.

5. He would be responsible for the final location of wells to be drilled.

6. He would be responsible for the making of gas purchase contracts.

7. He would be finally responsible for the cost and quality of all constructions.

[fol. 7958] 8. He would be responsible for the preparation of reports on progress of construction, acreage acquired, wells drilled, cash requirements for future construction and other matters pertaining to construction.

9. He would consult in reference to all rate schedules for the sale of domestic gas and prepare schedules for the sale of gas for special and industrial purposes.

Vice President and General Counsel:

The general duties of the vice president and general counsel would be as follows:

1. He would organize and be responsible for the legal department.

2. He would be responsible for the selection and retention of all local counsel.

3. He would be responsible for the preparation of all contracts, and the conduct of all litigation arising from the progress of construction, and the development of business.

4. He would be responsible for all corporate matters and all legal questions growing out of the mortgage and its provisions.

5. He would advise all other executives relative to the conduct of their work with reference to its legal phases.

6. He would be finally responsible for all titles.

7. He would be responsible for the final settlement of all claims.

8. He would assist the president in all negotiations with governmental agencies, and be responsible for all franchises.

9. He would have general supervision of the Land and Lease and Rights-of-Way Departments.

Secretary and Treasurer:

The general duties of the secretary and treasurer would be as follows:

1. He would interview and be responsible for the employment of:

a. Comptroller.
b. Assistant treasurer.
c. Assistant secretary.

2. He would be responsible for the adoption of a classification of accounts for the company.

3. He would be responsible for the initiation of the general accounting system.

4. He would be responsible for the initiation of the tax and insurance records.

[fol. 7959] 5. He would be responsible for the selection of insurance companies that would handle all classes of company insurance.

6. He would be responsible for the proper contacts between the company and tax authorities.

7. He would be responsible for the preparation and filing of all corporate reports required by County, State and Federal authorities.

8. He would be responsible for all cash receipts and disbursements.

9. He would be responsible for stock records and transfers, and the listing of stock on exchange.

Assistant Secretary:

The duties of the assistant secretary would be as follows:

1. He would be directly responsible for the initiation and handling of all insurance and tax records.

2. He would be directly responsible for the preparation and filing of all required corporate reports with County and State.

3. He would be directly responsible for the proper contacts between the company and tax authorities.

4. He would be directly responsible for all settlements with insurance companies covering insurable losses suffered by the company.

5. He would assist the secretary and treasurer in all secretarial duties.

Chief Clerk to Vice President and General Manager:

1. He would be directly responsible for the handling of all reports and other office duties in connection with the general duties of the vice president and general manager.

In addition to general officers and assistants whose duties have been specifically enumerated, five secretaries and an information clerk would be required to properly handle the office details of the Executive Section.

Schedule of Salaries:

The schedule of salaries adopted has been based upon the actual salaries of the executive officers of Lone Star Gas Company when in construction and operation, together with a reasonable allowance for the premium that would necessarily be paid in order to secure the type of personnel re-
[fol. 7960] quired from other similar organizations and certain allowances in specific instances for the increase in responsibilities that the wholesale reproduction of Lone Star Gas Company would impose.

Position	Per Anum
President	$40,000
Vice President and General Manager	30,000
Vice President and General Counsel	20,000
Secretary and Treasurer	18,000
Assistant to the President	12,000
Assistant Secretary	6,000
Chief Clerk to Vice President and General Manager	4,000
Secretary to the President	3,600
Secretary to the Vice President and General Manager	2,700
Secretary to the Vice President and General Counsel	2,400
Secretary to the Secretary and Treasurer	2,100
Secretary to the Assistant to the President	2,400
Information Clerk	1,500
Total	$144,700

In the distribution of annual charges for salaries and other expenses attributable to the Ex-cutive Section an allocation has been made upon the assumption that all expenses would be chargeable to construction during the pre-construction period, and the first construction year, that seventy five per cent of all expenses would be chargeable to construction during the second construction year, and that fifty per cent of all expenses would be chargeable to construction during the final construction year.

This allocation of salaries and expenses fairly reflects the proportionate amount of time that the members of the executive group would devote to construction and operation during the construction period.

Office Furniture and Fixtures:

The following summary sets out the reproduction cost as of January 1, 1933, of the office furniture and fixtures of the [fol. 7961] personnel of the Executive Section that would be engaged during the pre-construction and construction periods. As an expense during these periods, depreciation at an annual rate of eight per cent per annum has been allocated to construction and operation as previously outlined.

Summary

Office of Assistant to President	$1,066
Office of Secretary to Assistant to President	641
President's office	4,873
Office of Secretary to President	1,479
Vice President's office	2,374
Office of Assistant to Vice President	1,071
Office of Secretary to Vice President	641
Information Clerk's office	963
Ante room	526
Office of Secretary to Secretary and Treasurer	948
Secretary and Treasurer's office	1,601
Office of Assistant Secretary	1,324
Office of Secretary to General Counsel	601
Office of Vice President and General Counsel	2,078
Vault equipment	962
Carpet for all offices	3,131
Total	$24,279

Stationery and Office Supplies:

The estimate of stationery and office supplies is based upon the per man per annum consumption applied to the purchasing and stores department.

It has been estimated that the lower rate of consumption would be balanced by the higher quality of stationery and supplies used by the company executives. The estimated expense by periods is as follows:

Pre-construction Period	$1,020
First Construction Year	2,040
Second Construction Year	2,040
Third Construction Year	2,040
Total	$7,140

[fol. 7962] Transportation Expenses:

It has been estimated that two Packard Sedans would be required for the Executive Section, one for the exclusive use of the vice president and general manager, and one for the general use of resident members of the Executive Section.

The estimated annual cost of transportation expenses is as follows:

1 Packard Sedan—Cost $2970—Depreciation at 25 per cent	$742
1 Packard Sedan—Cost $2970—Depreciation at 33 per cent	990
1 Packard Sedan—12 000 miles at 7 cents per mile	840
1 Packard Sedan—25 000 miles at 8 cents per mile	2,000
2 Chauffeurs at $100 per month each	2,400
Total	$6,972

The estimated cost of transportation by periods is as follows:

Pre-construction Period	$3,484
First Construction Year	6,972
Second Construction Year	6,972
Third Construction Year	6,972
Total	$24,400

Traveling Expenses:

The traveling expenses of the individuals of the Executive Section has been estimated as follows:

Officer	Per Month	Per Annum
President	$750	$9,000
Vice President and General Manager	300	3,600
Vice President and General Counsel	200	2,400
Secretary and Treasurer	150	1,800
Assistant to the President	200	2,400
Assistant Secretary	150	1,800
Total		$21,000

The estimated cost of traveling by periods is as follows:

Pre-construction Period	$10,500
First Construction Year	21,000
Second Construction Year	21,000
Third Construction Year	21,000
Total	$73,500

[fols. 7963-7964] Communication Expense:

The expense of telegrams, tolls and telephones has been based upon the actual experience of the Executive Section taken in connection with the fact that the present company system would be incorporated during a substantial part of the construction period.

	Per Month	Per Annum
Telegrams and Tolls	$450	$5,400
Telephones 13 at $6.60 each	86	1,032
Total		$6,432

The estimated cost of communication by periods is as follows:

Pre-construction Period	$3,216
First Construction Year	6,432
Second Construction Year	6,432
Third Construction Year	6,432
Total	$22,512

[fol. 7965] Administration and Legal Costs

Legal Section

General Summary

Salaries	$138,120
Retainers and Fees	97,600
Court Costs and Expenses	179,879
Stationery, Office Supplies and Annual Service	7,499
Transportation Expense	13,368
Traveling Expenses	22,950
Communication Expenses	24,826
Office Furniture and Fixtures and Library (Depreciation Only)	6,334
Total	$490,576

[fol. 7966] Legal Section

Summary of Costs

Pre-Construction Period:	
Salaries	$18,510
Retainers and Fees	
Court Costs and Expenses	22,195
Stationery, Office Supplies and Annual Service	1,084
Transportation (Cost of Operation Plus Depreciation)	1,671
Traveling Expenses	2,850
Communication Expenses	2,765
Office Furniture and Fixtures and Library (Depreciation Only)	845
Total	$49,920
Construction Period—First Year:	
Salaries	$41,220
Retainers and Fees	26,600
Court Costs and Expenses	45,163
Stationery, Office Supplies and Annual Service	2,133
Transportation (Cost of Operation Plus Depreciation)	3,342
Traveling Expenses	6,900
Communication Expenses	6,950
Office Furniture and Fixtures and Library (Depreciation Only)	1,689
Total	$133,997
Construction Period—Second Year:	
Salaries	$36,795
Retainers and Fees	28,400
Court Costs and Expenses	45,163
Stationery, Office Supplies and Annual Service	1,965
Transportation (Cost of Operation Plus Depreciation)	3,342
Traveling Expenses	6,150
Communication Expenses	6,950
Office Furniture and Fixtures and Library (Depreciation Only)	1,689
Total	$130,454

[fol. 7967] Construction Period—Third Year:

Salaries	$32,370
Retainers and Fees	28,400
Court Costs and Expenses	45,163
Stationery, Office Supplies and Annual Service	1,797
Transportation (Cost of Operation Plus Depreciation)	3,342
Traveling Expenses	5,400
Communication Expenses	6,950
Office Furniture and Fixtures and Library (Depreciation Only)	1,689
Total	$125,111

Post-Construction Period:

Salaries	$9,225
Retainers and Fees	14,200
Court Costs and Expenses	22,195
Stationery, Office Supplies and Annual Service	520
Transportation (Cost of Operation Plus Depreciation)	1,671
Traveling Expenses	1,650
Communication Expenses	1,211
Office Furniture and Fixtures and Library (Depreciation Only)	422
Total	$51,094

[fol. 7968] Legal Section

General Organization Plan and Duties of the Section:

The Legal Section is that part of the general organization that, in the reproduction of the property and business of Lone Star Gas Company, would be responsible for the examination, approval and the drawing up in proper form of all contracts, charters, franchises, easements, deeds, abstracts of title, insurance policies, notes, bonds, mortgages, liens, releases and government reports of all kinds and character as required by the local state and National Governments. This Section would also render such legal advice, opinions and assistance as would be necessary and useful to other Sections of the general organization, and would be responsible for the prosecution and defense of all

suits and litigation for and in behalf of the company during the pre-construction, construction, and post-construction periods that would grow out of the construction of the property and the development of business.

The Legal Section would begin to function as a part of the general organization immediately upon the completion of corporate organization, and would continue to function as a part of the organization required for the reproduction of the property and business of the company throughout the pre-construction and construction periods, and a part of the personnel of the Section would be engaged in work attributable to construction during the post-construction period.

The development of the personnel and duties of the legal Section as set out in this estimate has been based upon the existing personnel of the company, and the duties that have been ascribed to the various individuals of the Section [fol. 7969] conform to their actual duties and responsibilities in connection with their work when Lone Star Gas Company has been engaged in its major construction and expansion program.

In conformity with the general organization plan of the company, and the organization plan adopted as the basis for this estimate, the Legal Section would be under the general supervision of the vice-president and chief counsel, and under the direct supervision of the Section head, who for identification will be called first attorney.

The first attorney and the second attorney would direct the work of the Section, and handle all general matters; the junior attorneys would be assigned to specific duties as will be developed in the personnel analysis.

Personnel Analysis:

Upon the completion of corporate organization, the first attorney would be engaged, and with the co-operation and under the general direction of the general counsel, would immediately begin the organization of the Legal Section. He would assist in the selection of the personnel of the Section, the employing of other attorneys, secretaries and stenographers, and the selection and purchase of law books and the necessary equipment of the Section. Together with the second attorney, he would be responsible for the handling of any suits and litigation occurring during the

pre-construction period, and he would assist the general counsel in an advisory capacity to all other sections functioning during this time. This work would involve the writing of opinions, contracts, leases, and the preparation of forms to be used by the various departments.

[fol. 7970] Three assistant attorneys would be immediately engaged for specific work in connection with the acquisition of leases. Three months prior to the beginning of construction two additional attorneys would be engaged for specific work in connection with the acquisition of rights-of-way, easements, damages growing out of construction, and similar matters. Beginning with the construction period, the seven attorneys as above set out, together with the necessary secretaries and clerks, would constitute the personnel of the Legal Section during the three year construction period.

For at least six months after the completion of construction, at least four of the attorneys would continue to function in connection with litigation that would be carried over from the construction period. A great number of condemnation cases would be pending on appeal in the County Court from the award of the Commissioners at the end of the construction period. There would also be pending a great number of right-of-way damage claims, and suits arising from the work and actions of the company during construction. This work, would of necessity, require the attention of the Legal Section in co-operation with the Claim Division of the Land Section. There would also be a certain amount of unfinished work in connection with curative data, titles, contracts, easements and leases.

As the company passed from construction to partial operation during the construction period, there would be a normal division of responsibility on the part of the first and second attorneys between construction and operation. For this reason, there has been *al* allocation of their salaries, and of the salaries of their secretaries upon the assumption that one fourth of their time would be given [fol. 7971] to operating matters during the second construction year, and one half during the final construction year.

First Attorney:

1. The first attorney, under the general supervision of the vice-president and general counsel, would be respon-

sible for the carrying out of the details of the organization of the Legal Section, and the selection of its personnel.

2. He would direct and assign the work and duties of all employees of the Section.

3. He would be responsible to the general counsel for the preparation and defense of all suits and litigation arising out of the construction of property and the development of the business of the company.

4. He would prepare and give legal advice and opinions to all other Sections and employees of the company on legal questions arising in connection with the construction of the property, and the development of the business of the company.

5. He would prepare and present briefs and agreements in the trial and appeal of the suits and litigation of the company.

6. He would prepare and examine contracts, franchises, easements, deeds, abstracts of title, notes, mortgages, bonds, and the various regulations, ordinances and laws applicable to the company in local, County and State Governments where it would operate.

7. He would co-operate with the Land Section in the examination and preparation of titles, leases and contracts.

8. He would co-operate with the Claim Department in investigating and settling claims and suits, and prospective claims against the company growing out of construction and business development.

Second Attorney:

The second attorney would assist the first attorney in all matters. He would also be responsible for the direction of the Section during the absence of the first attorney.

In connection with the specific duties ascribed to the first attorney, the second attorney would assist in the prepara-
[fol. 7972] tion and trial of cases in the State District Courts, and in the Federal District Court, and in the preparation of appeals, including briefs and arguments as would be necessary in the Appellate Courts, including the Court of Civil Appeals, the State Supreme Court, the United States Circuit Court, and the United States Supreme Court; and he would assist in the marshaling of facts, the preparation of pleadings, the arrangement for

witnesses, and the actual trial and hearing of the cases. Such litigation would involve damage suits, injunction suits, royalty suits involving leases, title suits, and various other litigation.

Together with the first attorney, he would make appearances for, and on behalf of, the company before regulatory bodies such as the Railroad Commission of Texas, the Corporation Commission of Oklahoma, the Highway Commission of both Texas and Oklahoma, tax boards, and other State and National Bureaus and Commissions in matters which would involve the rights and functions of the company during the construction of its property, and the development of its business. These duties would require the preparation of petitions, applications and protests, and the securing of permits, grants from the regulatory boards and Commissions.

Third and Fourth Attorneys:

It would be necessary for the third and fourth attorneys to devote practically all of their time to the handling of condemnation suits and right-of-way difficulties, which would involve or hinder the progress of the various right-of-way crews, and so affect the progress of all construction.

Their duties in this connection would entail the preparation of condemnation petitions, the interviewing and selec-
[fol. 7973] tion of boards of Commissioners, the hearing and trial of the condemnation cases before the Commissioners and the preparation of awards, bonds, easements and right-of-way grants. They would also handle the minor litigation of the company in the Corporation, Justice and County Courts. This work would involve the marshaling of facts, arrangement for witnesses, preparation of arguments and briefs.

The routine work of the third and fourth attorneys would require them to go to various localities where the right-of-way crews would be at work in order to handle the condemnation suits and right-of-way litigation and difficulties which would interfere with the progress of the construction crews. This would require the use of a company automobile by both the third and fourth attorneys.

Fifth, Sixth, and Seventh Attorneys:

The fifth, sixth, and seventh attorneys would devote practically all of their time to the examination of abstracts,

titles, and leases. This work would involve the examination of thousands of abstracts of title in view of the assumption that one-half of the mineral leases now owned by Lone Star Gas Company would be acquired during a three and one-half year period. Their work would also involve the examination of abstracts of title of the various regulator and measuring station sites, and all property acquired by the company.

It would also be the duty of the fifth, sixth, and seventh attorneys to handle probate matters and minor litigation involving the clearing of titles to be acquired by the company. It would also be their duty to prepare and examine leases, deeds, contracts, and easements, and to assist the third and fourth attorneys in the handling of the minor litigation of the company.

[fol. 7974] A portion of the time of these attorneys would be required in the various gas fields in which the company holds leases, for the preparation of deeds, easements, leases, affidavits, and other curative data necessary for the clearing and approval of titles to the leases and property acquired by the company. At least one company automobile would be required for the prompt discharge of those duties.

Secretaries and Clerk:

During the time that each of the attorneys would be engaged during the pre-construction and construction periods, a secretary would be required to handle the work of each attorney. It would also be necessary to employ a file clerk and librarian.

The secretaries would be continuously engaged in handling the work and correspondence of the various attorneys. They would keep the setting of cases, prepare files, and prepare and furnish file data, take dictation, write interoffice communication, opinions, briefs, contracts, and all forms and character of instruments as directed by the various attorneys. They would be required to keep the files and offices of the individual attorneys, answer phone calls, and assist generally in handling the business of the Section.

The clerk would be responsible for the care of the general files, the arranging of the library and keeping it in proper order, and checking books and periodicals coming into the library. This clerk would also receive and direct all visi-

tors and persons having business with the various individuals of the Section, and would make appointments for them.

Local Attorneys on Retainer:

It has been found both economical and generally advis- [fol. 7975] able, in the construction history of Lone Star Gas Company, to retain local counsel at strategic points on the system. Their familiarity with local conditions would be helpful to the company's attorneys. They would be able to handle local matters promptly and in many cases make more favorable adjustment of claims than would otherwise be possible. They would also save the time and expense of company attorneys by removing the necessity for frequent trips to various parts of the system under construction.

Beginning with the first year of the construction program, local attorneys would be retained in the following cities:

	Per Annum
Duncan, Oklahoma	$600
Durant, Oklahoma	600
Oklahoma City, Oklahoma	1,000
Wichita Falls, Texas	600
Fort Worth, Texas	1,000
Eastland, Texas	600
Abilene, Texas	600
Waco, Texas	600
Corsicana, Texas	600
Greenville, Texas	600
Sherman, Texas	600
Austin, Texas	1,000

These attorneys would be retained as the progress of construction demanded their services.

It would be necessary to pay to the local attorneys fees for such cases or litigation as might be handled by them in their respective Sections. The retainer's fees would simply cover such incidental advice and office work as they would be called upon to do for the company.

In addition to the foregoing retainers, it would be necessary for the company, in the most important cases involving considerable sums of money, to employ other local attorneys residing at the location or point where such litiga- [fol. 7976] tion arises. The matter of compensation to these attorneys would depend upon the amount of litigation

the company might have on which it would be advisable to employ such attorneys. An annual sum of not less than $20,000 would be required for this purpose.

Schedule of Salaries:

Position	Rate Per Month	Rate Per Annum
First Attorney	$750	$9,000
Second Attorney	450	5,400
Third Attorney	275	3,300
Fourth Attorney	275	3,300
Fifth Attorney	225	2,700
Sixth Attorney	225	2,700
Seventh Attorney	225	2,700
First Secretary	150	1,800
Second Secretary	125	1,500
Third Secretary	125	1,500
Fourth Secretary	125	1,500
Fifth Secretary	125	1,500
Sixth Secretary	125	1,500
Seventh Secretary	125	1,500
Clerk	110	1,320

Distribution of Salaries by Periods:

Pre-Construction Period:

First Attorney, Six months at	750	4,500
Second Attorney, Six months at	450	2,700
Third Attorney, Six months at	275	1,650
Fourth Attorney, Six months at	275	1,650
Fifth Attorney, Six months at	225	1,350
Sixth Attorney, Three months at	225	675
Seventh Attorney, Three months at	225	675
First Secretary, Six months at	150	900
Second Secretary, Six months at	125	750
Third Secretary, Six months at	125	750
Fourth Secretary, Six months at	125	750
Fifth Secretary, Six months at	125	750
Sixth Secretary, Three months at	125	375
Seventh Secretary, Three months at	125	375
Clerk, Six months at	110	660
Total		$20,510

Defendant's Exhibit No. 28—Continued

First Construction Year:

First Attorney	$9,000
Second Attorney	5,400
[fol. 7977] Third Attorney	3,300
Fourth Attorney	3,300
Fifth Attorney	2,700
Sixth Attorney	2,700
Seventh Attorney	2,700
First Secretary	1,800
Second Secretary	1,500
Third Secretary	1,500
Fourth Secretary	1,500
Fifth Secretary	1,500
Sixth Secretary	1,500
Seventh Secretary	1,500
Clerk	1,320
Total	$41,220

Second Construction Year:

Total First Construction Year Less:		$41,220
One Fourth of $9,000	$2,250	
One Fourth of 5,400	1,350	
One Fourth of 1,800	450	
One Fourth of 1,500	375	
		4,425
Total		$36,795

Third Construction Year:

Total First Construction Year Less:		$41,220
One Half of $9,000	$4,500	
One Half of 5,400	2,700	
One Half of 1,800	900	
One Half of 1,500	750	
		8,850
Total		$32,370

Defendant's Exhibit No. 28—Continued

Post-Construction Year:

First Attorney, Three months at	$750	$2,250
Second Attorney, Three months at	450	1,350
Third Attorney, Six months at	275	1,650
Fourth Attorney, Six months at	275	1,650
First Secretary, Three months at	150	450
Second Secretary, Three months at	125	375
Third Secretary, Six months at	125	750
Fourth Secretary, Six months at	125	750
Total		$9,225

[fol. 7978] Retainers and Fees:

First Construction Year:

Attorney at Duncan, Oklahoma	$600
Attorney at Oklahoma City, Oklahoma	1,000
Attorney at Wichita Falls, Texas	600
Attorney at Fort Worth, Texas	1,000
Attorney at Eastland, Texas	600
Attorney at Abilene, Texas	600
Attorney at Waco, Texas	600
Attorney at Sherman, Texas	600
Attorney at Austin, Texas	1,000
Fees	20,000
Total	$26,600

Second Construction Year:

Attorney at Duncan, Oklahoma	$600
Attorney at Durant, Oklahoma	600
Attorney at Oklahoma City, Oklahoma	1,000
Attorney at Wichita Falls, Texas	600
Attorney at Fort Worth, Texas	1,000
Attorney at Eastland, Texas	600
Attorney at Abilene, Texas	600
Attorney at Waco, Texas	600
Attorney at Corsicana, Texas	600
Attorney at Greenville, Texas	600
Attorney at Sherman, Texas	600
Attorney at Austin, Texas	1,000
Fees	20,000
Total	$28,400
Third Construction Year	$28,400
Post-Construction Year	$14,200

• • • • • • •

Court Costs and Expenses:

Based upon the experience of Lone Star Gas Company in construction, approximately two hundred suits per annum would grow out of the three year construction program. These suits would be in addition to those growing out of the condemnation of rights-of-way, the expenses of which have been included as a part of the direct structural costs [fol. 7979] as transmission system right-of-way. These suits would consist of miscellaneous damage suits, injunctions, trespass to try title, royalty suits, lease suits, and other similar cause for litigation.

The experience of the company further indicates that for every two hundred suits filed one hundred would come to trial with approximately twenty-five originating in the Justice Court, twenty-five in the County Courts, and fifty in the State and Federal District Courts. The average cost of these suits has been found to be as follows:

Justice Court:

Court Costs	$7.50
Subpoena and Witness Fees	35.00
Total	$42.50

County Court:

Court Costs	$15.00
Subpoena and Witness Fees	45.00
Total	$60.00

District Court:

Court Costs	$25.00
Subpoena and Witness Fees	100.00
Total	$125.00

Of these suits originating in the Courts designated, it is estimated that fifteen would be appealed from the Justice to the County Court, and of these fifteen appeals, at least five would be subsequently appealed from the County

Courts; that of the cases originating in the County Courts, fifteen would be appealed to the higher Courts; and that of the cases originating in the District Courts, twenty five would be appealed. The estimated cost of these appeals is as follows:

[fol. 7980] Justice to County Courts:

Preparation of Transcript and Record for Appeal	$15.00
Cost of Trial in County Courts	60.00
Total	$75.00

County Courts to Appellate Courts:

Statement of Facts and Transcript	$150.00
Court of Civil Appeals Costs	75.00
Printing Briefs	125.00
Copy of Opinion	10.00
Bond Cost	10.00
Incidental Charges	10.00
Total	$380.00

District Court of Appeals:

Statement of Fact and Transcript	$200.00
Appellate Court Costs	100.00
Printing Briefs	200.00
Copy of Opinion	20.00
Bond Cost	50.00
Incidental Charges and Costs	25.00
Total	$595.00

None of the foregoing estimates of cost include any allowance for expenses of counsel, stenographic services, and legal fees.

Defendant's Exhibit No. 28—Continued

Distribution of Court Costs and Expenses by Periods:

Pre-Construction Period:

Justices Court Cases	12 at $42.50	$510
County Court Cases	12 at 60.00	720
District Court Cases	25 at 380.00	9,500
Appeals Justice to County Courts	7 at 75.00	525
Appeals County to Higher Courts	10 at 380.00	3,800
Appeals from District Courts	12 at 595.00	7,140
Total		$22,195

First Construction Year:

Justice Court Cases	25 at $42.50	$1,063
County Court Cases	25 at 60.00	1,500
District Court Cases	50 at 380.00	19,000
Appeals Justice to County Courts	15 at 75.00	1,125
[fol. 7981] Appeals County to Higher Courts	20 at 380.00	7,600
Appeals from District Court	25 at 595.00	14,875
Total		$45,163
Second Construction Year		$45,163
Third Construction Year		$45,163
Post-Construction Period		$22,195

Stationery, Office Supplies, and Annual Service by Periods—Annual Service Details:

A. L. R. Annual digest Service	$5
Oklahoma Digest and Statutes Service for 1933	10
Federal and Supreme Court Blue Book	10
Shepard's Texas Citations, Annual	10
Shepard's Southwestern Citations, Annual	12
U. S. Digest Pocket Service per Year	2
Vernon's Accumulative Texas Statutes Pocket Service	18
Shepard's Oklahoma Citations	45
Texas Syllabi	7

Defendant's Exhibit No. 28—Continued

Ruling Case Law Pocket Service	$10
National Reporter Blue Book	10
Texas and Southwestern Reporter Blue Book	10
Pacific Reporter Blue Book	10
Pamphlet Supps. to U. S. Code, (Compact Edition) Year to December 31, 1933	3
Ray's Advance Session Laws of Texas, 5 Volumes	15
Texas Law Review	4
Harvard Law Review	5
Public Utility Reports	15
Total	$201

Pre-Construction Period:

Annual Service	$100
Stationery and Office Supplies	984
Total	$1,084

[fol. 7982] First Construction Year:

Annual Service	$210
Stationery and Office Supplies	1,932
Total	$2,133

Second Construction Year:

Annual Service	$201
Stationery and Office Supplies	1,764
Total	$1,965

Third Construction Year:

Annual Service	$201
Stationery and Office Supplies	1,596
Total	$1,797

Defendant's Exhibit No. 28—Continued

Post-Construction Period:

Annual Service	$100
Stationery and Supplies	420
Total	$520

* * * * * * *

Transportation Expense by Periods:

Equipment:

Three Standard Buicks Cost $3,675.
Operation 4.5 cents per Mile.

Pre-Construction Period:

Depreciation at $76.00 per month for Six Months	$456
Operation 27,000 Miles at 4.5 cents per mile	1,215
Total	$1,671

First Construction Year:

Depreciation at $76.00 per month for Twelve months	$912
Operation 54,000 Miles at 4.5 cents per Mile	2,430
Total	$3,342
[fol. 7983] Second Construction Year	$3,342
Third Construction Year	$3,342
Post-Construction Period	$1,671

* * * * * * *

Defendant's Exhibit No. 28—Continued

Traveling Expenses by Periods:

Pre-Construction Period:

First Attorney,	$100	per month	six months	$600
Second Attorney,	100	per month	six months	600
Third Attorney,	75	per month	six months	450
Fourth Attorney,	75	per month	six months	450
Fifth Attorney,	75	per month	six months	450
Sixth Attorney,	50	per month	three months	150
Seventh Attorney,	50	per month	three months	150
Total				$2,850

First Construction Year:

First Attorney,	$150	per month	12 months	$1,800
Second Attorney,	100	per month	12 months	1,200
Third Attorney,	75	per month	12 months	900
Fourth Attorney,	75	per month	12 months	900
Fifth Attorney,	75	per month	12 months	900
Sixth Attorney,	50	per month	12 months	600
Seventh Attorney,	50	per month	12 months	600
Total				$6,900

Second Construction Year:

First Attorney,	$150	per month	9 months	$1,350
Second Attorney,	100	per month	9 months	900
Third Attorney,	75	per month	12 months	900
Fourth Attorney,	75	per month	12 months	900
Fifth Attorney,	75	per month	12 months	900
Sixth Attorney,	50	per month	12 months	600
Seventh Attorney,	50	per month	12 months	600
Total				$6,150

Defendant's Exhibit No. 28—Continued

[fol. 7984] Third Construction Year:

First Attorney,	$150 per month 6 months	$900
Second Attorney,	100 per month 6 months	600
Third Attorney,	75 per month 12 months	900
Fourth Attorney,	75 per month 12 months	900
Fifth Attorney,	75 per month 12 months	900
Sixth Attorney,	50 per month 12 months	600
Seventh Attorney,	50 per month 12 months	600
Total		$5,400

Post-Construction Period:

First Attorney,	$150 per month 3 months	$450
Second Attorney,	100 per month 3 months	300
Third Attorney,	75 per month 6 months	450
Fourth Attorney,	75 per month 6 months	450
Total		$1,650

* * * * * * *

Communication Expenses by Periods:

Pre-Construction Period:

Eleven Phones,	$6.60 per month 6 months	$436
Four Phones,	6.60 per month 3 months	79
Telegrams and Tolls	$15.00 per day for 150 days	2,250
Total		$2,765

First Construction Year:

Twelve Phones,	$6.60 per month 12 months	$950
Telegrams and Tolls	$20.00 per day for 300 days	6,000
Total		$6,950
Second Construction Year		$6,950
Third Construction Year		$6,950

Post-Construction Period:

Eight Phones,	$6.60 per month 4 months	$211
Telegrams and Tolls,	$10.00 per day for 100 days	1,000
Total		$1,211

Defendant's Exhibit No. 28—Continued

[fols. 7985-7986] Floor Space Requirements:

The Legal Section would require one floor of the general office structure of Lone Star Gas Company.

Office Furniture and Fixtures as per Detailed Inventory:

Offices of Seven Attorneys	$1,857
Offices of Two Secretaries	999
Office of Stenographic Section of Legal Department Accom-odating Five Stenographers	1,231
Library, Office of Librarian and File Clerk	12,802
Total	$16,889

[fol. 7987] Administration and Legal Costs

Accounting Section

General Summary

Salaries	$159,461
Stationery and Office Supplies	11,788
Transportation (Depreciation Plus Operation)	4,152
Traveling Expenses	6,465
Communication Expense	6,873
Office Furniture and Fixtures (Depreciation Only)	3,581
Total	$192,320

[fol. 7988] Accounting Section

Summary of Costs

Pre-Construction Period:

Salaries	$12,810
Stationery and Office Supplies	672
Transportation (Cost of Operation Plus Depreciation)	324
Traveling Expenses	195
Communication Expense	758
Office Furniture and Fixtures (Depreciation Only)*	168
Total	$14,927

* One fourth of the Equipment for Six Months.

9862

Defendant's Exhibit No. 28—Continued

Construction Period—First Year:

Salaries	$55,920
Stationery and Office Supplies	4,200
Transportation (Cost of Operation Plus Depreciation)	1,128
Traveling Expenses	1,890
Communication Expense	1,975
Office Furniture and Fixtures (Depreciation Only)	1,347
Total	$66,460

Construction Period—Second Year:

Salaries	$45,015
Stationery and Office Supplies	3,402
Transportation (Cost of Operation Plus Depreciation)	1,128
Traveling Expenses	1,890
Communication Expense	1,975
Office Furniture and Fixtures (Depreciation Only)*	1,116
Total	$54,526

* Depreciation on 75 per cent of all Furniture and Fixtures except Plant and Equipment Division.

Construction Period—Third Year:

Salaries	$34,110
[fols. 7989-7990] Stationery and Office Supplies	2,604
Transportation (Cost of Operation Plus Depreciation)	1,128
Traveling Expenses	1,890
Communication Expense	1,975
Office Furniture and Fixtures (Depreciation Only)*	866
Total	$42,573

* Depreciation on 50 per cent of all Furniture and Fixtures except Plant and Equipment Division.

Defendant's Exhibit No. 28—Continued

Post-Construction Period:

Salaries	$11,606
Stationery and Office Supplies	910
Transportation (Cost of Operation Plus Depreciation)	444
Traveling Expenses	600
Communication Expense	190
Office Furniture and Fixtures (Depreciation Only)*	84
Total	$13,834

* One Fourth of the Equipment for Three Months.

* * * * * * *

[fol. 7991] Accounting Section

General Organization Plan and Duties of the Section:

In general the duties of the Accounting Section used in this estimate of the reproduction cost of the property and business of Lone Star Gas Company as of January 1, 1933, conform to the duties of any well organized accounting department of the general organization of a company engaged in an extensive construction program. Specifically the duties herein assigned to the Section as a whole, and to the various individuals who would be engaged in accounting work, conform to the duties of the Section and the responsibilities of the individuals when Lone Star Gas Company has been engaged in extensive construction programs.

In the reproduction of the property and business of the company, it would be the duty of this Section to keep proper records of all monies disbursed, and to properly distribute and allocate all charges as prescribed by the Standard Classification of Accounts. It would also be its function to make certain that the proper approved authorizations would be attached to and made a part of each voucher disbursing funds. It would also be the duty of the Section to prepare regular and special reports covering expenditures, property additions, monies advanced, and other kindred matters. After provision had been made for proper supervision, the Section would be divided into three general di-

visions—The General Book Division, the Distribution Division, and the Plant and Equipment Division. The general duties of these divisions are briefly outlined in the following summary:

General Book Division:

The General Book Division would keep the general books [fol. 7992] of the company. It would keep all subsidiary records other than those pertaining to property. It would prepare monthly financial reports, and special reports. It would check and approve vouchers passing through the Section. It would do all comptometer and typing work for the Section, and file all vouchers, transfers, expense accounts, and all other miscellaneous papers.

Distribution Division:

The Distribution Section would distribute all charges to various job orders as provided for in the Standard Classification of Accounts. It would also be the duty of this division to check all vouchers in order that they might be properly supported with copies of orders, material recovery reports, or other evidences of the delivery of the material covered by the various invoices.

Plant and Equipment Division:

The Plant and Equipment Division would be responsible for the posting of all charges to various job orders covering units of construction. It would check all charges made to job orders against engineering records, prepare all data in support of vouchers clearing construction, and charges to permanent investment. It would also post and keep current all permanent investment records covering all classes of property.

Personnel Analysis:

Comptroller:

The comptroller would be in responsible charge of the work of the Accounting Section. He would be directly responsible to the secretary and treasurer, and would be employed immediately upon the completion of corporate organization. During the pre-construction period his duties would be as follows:

[fol. 7993] 1. He would secure data on and make recommendations concerning the adiption of a standard classification of accounts for the company.

2. He would secure data on and make recommendations concerning the adoption of a modern and approved accounting system.

3. He would confer with all Section and Division heads with reference to the types of reports to be prepared by them for use by the Section and Division heads, the responsible executives, and the Accounting Section.

4. He would prepare the personnel scheme of the Accounting Section, and then confer with the personnel manager relative to the engagement of employees with proper qualifications. He would also interview prospects secured by the personnel manager, and approve or disapprove the various individuals recommended.

5. He would be responsible for the preparation of all accounting forms, and he would also assist other Sections in the preparation and selection of forms for their specific needs.

6. He would confer with the assistant secretary, the Tax Division, and other sections and divisions relative to the kind of information that would be required from the Accounting Section for the proper preparation of the various forms of governmental reports.

7. He would generally supervise the work performed by the Accounting Section.

During the construction period, the general duties of the comptroller would be similar to those above outlined with an increase in responsibility in connection with the direction of the Section due to the increase in personnel that would take place upon the beginning of actual construction.

It has been assumed that during the first construction year, the entire time of the comptroller would be devoted to construction records and other classes of work pertaining wholly to construction. During the second construction year, it has been assumed that a proper division of his time and responsibilities would be seventy-five per cent to con-
[fol. 7994] struction and twenty-five per cent to operation. During the third construction year, it has been assumed

that his time and responsibilities would be equally divided between construction and operation. During the first year in which the company would be wholly operative, or the post-construction period, it has been assumed that twenty-five per cent of his time and responsibilities would be devoted to the work of his Section that would grow out of the construction of the plant.

General Auditor:

The general auditor would be directly responsible to the comptroller, and would be employed immediately after the perfection of corporate organization. His general duties during the pre-construction period would be as follows:

1. He would assist the comptroller in all matters pertaining to the organization of the Accounting Section, and to its operation after organization.

2. He would work out all details in connection with the preparation of accounting forms, and check all proofs received from printers and stationers.

3. He would be directly responsible for the supervision of the work of the Section.

4. He would be responsible for the final accounting approval of all vouchers prepared by or passed through the Accounting Section.

The duties of the general auditor during the construction and post-construction periods would conform to those above outlined. There would be a reduction in the amount of time required for the preparation and approval of forms, and a heavy increase in the proportionate amount of time required for the supervision of the Section, the approval of vouchers and other routines. The division of the general auditor's time between construction and operation after the end of [fol. 7995] the first construction year conforms to that set out under the discussion of the duties of the comptroller.

Traveling Auditor:

The traveling auditor would be directly responsible to and work under the supervision of both the comptroller and the general auditor. The position of traveling auditor would not be filled until the beginning of actual construction,

however, it would be necessary that he be retained for a period of six months following the completion of construction, and during this time his salary and expenses would be charged to construction. His duties during the entire period of his employment would be as follows:

1. He would check monthly all working funds in possession of the superintendents of the Construction Section.

2. We would act as contact man between the Accounting Section and the field construction personnel.

3. He would advise and instruct all persons having working funds with reference to the proper methods of preparing disbursement reports and other matters of a similar nature.

4. He would prepare a report showing the result of each individual audit made in the field.

5. He would follow up, under the direction of the comptroller or general auditor, each recommendation in his audit reports for the purpose of seeing that these recommendations were followed.

Secretary to the Comptroller and General Auditor:

The secretary to the comptroller and general auditor would handle all correspondence of their offices, receive and distribute all incoming and outgoing mail, and perform other secretarial duties. He would also type audit reports prepared by the traveling auditor, and assist in the handling of the correspondence of the chief clerks of the Section.

[fol. 7996] General Book Division:

Chief Clerk:

The chief clerk of the General Book Division would be directly responsible to the general auditor, and he would be employed immediately upon the completion of corporate organization. During the pre-construction period his duties would be as follows:

1. He would check and approve all vouchers passing through the Accounting Section.

2. He would be responsible for the compilation of all special reports pertaining to general matters, or all reports

other than detailed reports covering property or property additions.

3. He would prepare all vouchers covering storehouse transfers, automobile time sheets, prepaid rentals, and other similar matter.

4. He would prepare all monthly financial reports.

Following the pre-construction period, and during the construction period, the chief clerk would be unable to perform all of the duties set out, and his work would be limited to the following:

1. He would check and approve all vouchers passing through the Accounting Section.

2. He would be responsible for the compilation of all special reports other than those pertaining to property and property additions.

3. He would supervise generally the work of the General Book Section.

Assistant Chief Clerk:

The position of assistant chief clerk would not be filled until the beginning of actual construction, therefore no charges have been included for the expenses of this office during the pre-construction period. His specific duties would be as follows:

1. He would assist the chief clerk in all matters delegated to him.

[fol. 7997] 2. He would prepare all monthly financial reports under the direction of the chief clerk.

3. He would assist in the preparation of all special reports.

4. He would assist in the performance of all miscellaneous duties arising from work of the General Book Division.

General Clerk:

The position of general clerk would not be filled until the beginning of actual construction, therefore no charges have been included for the expenses of this office, that is, during the pre-construction period. His particular duties would be as follows:

1. He would assist, when necessary, in the preparation of special reports.

2. He would be directly responsible for the preparation of miscellaneous vouchers covering storehouse transfers, automobile time sheets, teaming tickets, prepaid insurance, prepaid rentals, and all other miscellaneous vouchers.

3. He would assist in miscellaneous work that would be required of the General Book Division.

Posting Machine Operator:

The posting machine operators would be directly responsible to the chief clerk. He would be employed immediately after the perfection of corporate organization. The duties of this operator during the pre-construction and construction periods would be as follows:

1. He would post all charges to the general ledger as well as charges to the subsidiary ledgers from all vouchers passing through the Section.

2. He would take off monthly trial balances from the general ledger and subsidiary ledgers, and transfer them to the chief clerk or assistant chief clerk for use in the preparation of monthly financial reports.

3. Assist in any other miscellaneous work of the Division.

[fol. 7998] Comptometer Operator:

During the pre-construction period, the service of one comptometer operator would be required. With the beginning of actual construction an additional operator would be employed. Both operators would be required during the entire construction period. The duties of the comptometer operators would be as follows:

1. They would check and compute the accuracy of all extensions in all statements prepared by the Division.

2. They would check all storehouse material transfers.

3. They would check all financial statements prepared by the Division, and do all other verification that would be necessary in connection with the operation of the entire Accounting Section.

Typists:

One typist would be employed upon the completion of corporate organization, and one additional typist would be employed upon the beginning of construction. Both typists would be required during the entire construction period. The duties of these typists would be as follows:

1. They would type all miscellaneous vouchers originating in the Section.

2. They would type all special reports prepared by the Section.

3. They would type all financial reports prepared by the Section.

4. They would type all construction reports prepared by the Plant and Equipment Division.

5. They would do all miscellaneous typing that would be necessary in the operation of the Accounting Section.

Voucher Clerk:

The voucher clerk would be employed at the beginning of [fol. 7999] the first construction year. His duties during the construction period would be as follows:

1. After all vouchers had been checked by the chief clerk and passed to the general auditor for further check and approval, they would be returned to the voucher clerk who would place the voucher number thereon. He would also detach the copy of the voucher check after the number had been placed thereon, and transfer it to the filing clerk.

2. He would be responsible for the delivery of all cash vouchers to the Treasury Section for payment.

3. He would assist all other clerks in the General Book Division.

File Clerk:

The file clerk would be employed at the beginning of the first construction year, and his duties during the construction period would be as follows:

1. He would file alphabetically copies of all voucher checks passing through the Section

2. He would assort in numerical order and file storehouse transfers and job tickets.

3. He would file all vouchers upon their return from the Treasury Section.

4. He would file all expense accounts in alphabetical order upon their return from the Payroll Division.

5. He would do all miscellaneous filing required in connection with the work of the Accounting Section.

Office Boy:

An office boy would be required by the Section at the beginning of the construction period. His duties would be as follows:

1. He woud run errands for the Section.

2. He would assist in the operation of Ditto or mimeograph machines in the preparation of all monthly or special reports.

3. He would perform such miscellaneous duties as would be required by the Section.

[fol. 8000] Distribution Division:

Chief Distribution Clerk:

It would be necessary to engage the chief distribution clerk immediately upon the organization of the Section. During the pre-construction period, the chief clerk would be able to handle all work pertaining to the distribution of charges. At the beginning of construction, the personnel of the Division would be increased as hereinafter set out, and all of the time of the chief clerk would be required for the checking and approval of distribution on all vouchers passing through the Section.

Distribution Clerks:

Immediately upon the beginning of construction, two distribution clerks would be required. These clerks would be continuously engaged throughout the construction period, and for a six months period following the completion of construction. The duties of the distribution clerks would be as follows:

1. They would make distribution of charges on all vouchers passing through the Section.

2. They would make distribution on all storehouse material transfers.

3. They would make distribution of all expense accounts.

4. They would make distribution of all automobile time sheets.

5. They would make distribution of charges on all miscellaneous vouchers including pre-paid insurance, rentals, and other vouchers of similar character.

Freight and Express Distribution Clerks:

Two distribution clerks whose duties would be confined to the proper distribution of all charges for freight and express would be engaged at the beginning of the construction [fol. 8001] period. Transportation charges would apply to all materials entering into the construction of the system, and the details handled by these clerks would be volum-ous. They would make distribution of all freight, express, and truck line charges. In order to make proper distribution of these charges, it would be necessary for the clerks to locate original invoices, or transfers covering the materials upon which the transportation charges would apply.

Plant and Equipment Division:

Chief Construction Accountant:

This position would be filled immediately upon the beginning of construction, and the work of the division would require the retention of the chief construction accountant for a six months period following the completion of construction. His duties during the construction and post-construction periods would be as follows:

1. He would supervise the posting to the individual work orders all charges for labor, materials, and miscellaneous items.

2. He would supervise the compiling of all construction costs, the checking against engineer's records and daily performance sheets of construction groups for the purpose of verifying all charges made to the various job orders.

3. He would supervise the compilation of supporting data for vouchers clearing construction accounts, and charges to

the permanent investment accounts as prescribed by the Standard Classification of Accounts.

Construction Accountants:

Two construction accountants would be employed at the beginning of construction. These accountants would be retained for a six months period following the completion of construction. Their duties during the construction and [fol. 8002] post-construction periods would be as follows:

1. They would post to the individual work order number all charges for labor, materials, and miscellaneous items.

2. They would compile all construction costs, check against engineer's records, and daily performance sheets of construction gangs in order to verify all charges made to the various job orders.

3. They would compile supporting data for vouchers clearing construction account, and charges to the permanent investment accounts, classification of same as prescribed by the Standard Classification of Accounts.

4. They would prepare construction completion reports by work order numbers which would show the actual cost of construction. These costs could be compared with estimated costs.

Posting Machine Operators:

Two posting machine operators would be employed at the beginning of construction. These operators would be retained for a six months period following the completion of construction. Their duties during the construction and post-construction periods would be as follows:

1. They would post all charges from all vouchers, both cash and journal, to the classified account as prescribed by the Standard Classification of Accounts to the work order numbers covering construction projects.

2. They would prepare trial balances of the work order ledgers monthly, which would show general information on each work order covering the amount of expenditure authorized, the amount expended during the month, the amount expended to date, total money expended, and the balance under-expended or over-expended.

3. They would assist in the preparation of any special construction reports.

Defendant's Exhibit No. 28—Continued

Schedule of Salaries:		Rate per Month	Rate per Annum
General:			
Comptroller		$750	$ 9,000
[fol. 8003]			
General Auditor		400	4,800
Traveling Auditor		200	2,400
Secretary		150	1,800
General Book Division:			
Chief Clerk		250	3,000
Assistant Chief Clerk		200	2,400
General Clerk		175	2,100
Posting Machine Operators		125	1,500
Comptometer Operators		125	1,500
Typists		110	1,320
Voucher Clerk		100	1,200
File Clerk		80	960
Office Boy		60	720
Distribution Division:			
Chief Clerk		225	2,700
Distribution Clerks		175	2,100
Freight and Express Distribution Clerks		150	1,800
Plant and Equipment Division:			
Chief Clerk		225	2,700
Construction Accountants		175	2,100
Posting Machine Operators		125	1,500
Distribution of Salaries by Periods—Pre-Construction:			
Comptroller	Six months at	750	4,500
General Auditor	Six months at	400	2,400
Secretary	Six months at	150	900
Total			$ 7,800
General Book Division:			
Chief Clerk	Six months at	250	1,500
Posting Machine Operator	Six months at	125	750
Comptometer Operator	Six months at	125	750
Typist	Six months at	110	660
Total			$ 3,660
Distribution Division:			
Chief Clerk	Six months at	225	1,350
Total			$ 1,350

[fol. 8004]

Distribution of Salaries by Periods—First Construction Year:

General:			
Comptroller		....	$ 9,000
General Auditor		....	4,800
Traveling Auditor		....	2,400
Secretary		....	1,800
Total		....	$18,000

Defendant's Exhibit No. 28—Continued

		Rate per Month	Rate per Annum
General Book Division:			
Chief Clerk		....	$ 3,000
Assistant Chief Clerk		....	2,400
General Clerk		....	2,100
Posting Machine Operator		....	1,500
Comptometer Operator		....	1,500
Comptometer Operator		....	1,500
Typist		....	1,320
Typist		....	1,320
Voucher Clerk		....	1,200
File Clerk		....	960
Office Boy		....	720
Total		....	$17,520
Distribution Division:			
Chief Clerk		....	2,700
Distribution Clerk		....	2,100
Distribution Clerk		....	2,100
Freight and Express Clerk		....	1,800
Freight and Express Clerk		....	1,800
Total		....	$10,500
Plant and Equipment Division:			
Chief Clerk		....	2,700
Construction Accountant		....	2,100
Construction Accountant		....	2,100
Posting Machine Operator		....	1,500
Posting Machine Operator		....	1,500
Total		....	$ 9,900

[fol. 8005]

Distribution of Salaries by Periods—Second Construction Year

General:			
Comptroller	Nine months at	$750	$6,750
General Auditor	Nine months at	400	3,600
Traveling Auditor	Twelve months at	200	2,400
Secretary	Nine months at	150	1,350
Total			$14,100
General Book Division:			
Chief Clerk	Nine months at	250	2,250
Assistant Chief Clerk	Nine months at	200	1,800
General Clerk	Nine months at	175	1,575
Posting Machine Operator	Nine months at	125	1,125
Comptometer Operator	Nine months at	125	1,125
Comptometer Operator	Nine months at	125	1,125
Typist	Nine months at	110	990
Typist	Nine months at	110	990
Voucher Clerk	Nine months at	100	900
File Clerk	Nine months at	80	720
Office Boy	Nine months at	60	540
Total			$13,140

Defendant's Exhibit No. 28—Continued

		Rate per Month	Rate per Annum
Distribution Division:			
Chief Clerk	Nine months at	$225	$2,025
Distribution Clerk	Nine months at	175	1,575
Distribution Clerk	Nine months at	175	1,575
Freight and Express Clerk	Nine months at	150	1,350
Freight and Express Clerk	Nine months at	150	1,350
Total			$7,875
Plant and Equipment Division:			
Chief Clerk			$2,700
Construction Accountant			2,100
Construction Accountant			2,100
Posting Machine Operator			1,500
Posting Machine Operator			1,500
Total			$9,900

Distribution of Salaries by Periods—Third Construction Year

[fol. 8600] General:

Comptroller	Six months at	$750	$4,500
General Auditor	Six months at	400	2,400
Traveling Auditor	Twelve months at	200	2,400
Secretary	Six months at	150	900
Total			$10,200
General Book Division:			
Chief Clerk	Six months at	250	1,500
Assistant Chief Clerk	Six months at	200	1,200
General Clerk	Six months at	175	1,050
Posting Machine Operator	Six months at	125	750
Comptometer Operator	Six months at	125	750
Comptometer Operator	Six months at	125	750
Typist	Six months at	110	660
Typist	Six months at	110	660
Voucher Clerk	Six months at	100	600
File Clerk	Six months at	80	480
Office Boy	Six months at	60	360
Total			$8,760
Distribution Division:			
Chief Clerk	Six months at	225	1,350
Distribution Clerk	Six months at	175	1,050
Distribution Clerk	Six months at	175	1,050
Freight and Express Clerk	Six months at	150	900
Freight and Express Clerk	Six months at	150	900
Total			$5,250
Plant and Equipment Division:			
Chief Clerk			$2,700
Construction Accountant			2,100
Construction Accountant			2,100
Posting Machine Operator			1,500
Posting Machine Operator			1,500
Total			$9,900

Defendant's Exhibit No. 28—Continued

Distribution of Salaries by Periods—Post-Construction Period

		Rate Per Month	Rate Per Annum
General:			
Comptroller	1.5 months at	$750	$1,125
General Auditor	1.5 months at	400	600
[fol. 8007] Traveling Auditor	Six months at	$200	$1,200
Secretary	1.5 months at	150	225
Total			$3,150
General Book Division:			
Chief Clerk	1.5 months at	250	375
Assistant Chief Clerk	1.5 months at	200	300
General Clerk	1.5 months at	175	263
Posting Machine Operator	1.5 months at	125	188
Comptometer Operator	1.5 months at	125	188
Comptometer Operator	1.5 months at	125	188
Typist	1.5 months at	110	165
Typist	1.5 months at	110	165
Voucher Clerk	1.5 months at	100	150
File Clerk	1.5 months at	80	120
Office Boy	1.5 months at	60	90
Total			$2,192
Distribution Division:			
Chief Clerk	1.5 months at	225	338
Distribution Clerk	1.5 months at	175	263
Distribution Clerk	1.5 months at	175	263
Freight and Express Clerk	1.5 months at	150	225
Freight and Express Clerk	1.5 months at	150	225
Total			$1,314
Plant and Equipment Division:			
Chief Clerk	Six months at	225	1,350
Construction Accountant	Six months at	175	1,050
Construction Accountant	Six months at	175	1,050
Posting Machine Operator	Six months at	125	750
Posting Machine Operator	Six months at	125	750
Total			$4,950

* * * * * * *

Stationery and Office Supplies by Periods:

Pre-Construction Period:	
General Division	252
General Book Division	336
Distribution Division	84
[fol. 8008] Plant and Equipment Division	
Total	$ 672

Defendant's Exhibit No. 28—Continued

Construction Period—First Year	Rate per Annum
General Division	$672
General Book Division	1,848
Distribution Division	840
Plant and Equipment Division	840
Total	$ 4,200
Construction Period—Second Year	
General Division	546
General Book Division	1,386
Distribution Division	630
Plant and Equipment Division	840
Total	$ 3,402
Construction Period—Third Year	
General Division	420
General Book Division	924
Distribution Division	420
Plant and Equipment Division	840
Total	$ 2,604
Post-Construction Period	
General Division	140
General Book Division	238
Distribution Division	112
Plant and Equipment Division	420
Total	$ 910

* * * * * * *

Transportation Expense by Periods

Equipment—One Chevrolet $ 580
Operation 4 cents per mile

[fol. 8009] **Pre-Construction Period**

Depreciation at $14 per month for six months	$ 84
Operation 6,000 miles at 4 cents per mile	240
Total	$ 324
Construction Period—First Year	
Depreciation at $14 per month for twelve months	168
Operation 24,000 miles at 4 cents per mile	960
Total	$ 1,128
Construction Period—Second Year	$ 1,128
Construction Period—Third Year	$ 1,128
Post-Construction Period	
Depreciation at $14 per month for six months	84
Operation 9,000 miles at 4 cents per mile	360
Total	$ 444

* * * * * * *

Defendant's Exhibit No. 28—Continued

		Rate Per Annum
Traveling Expenses by Periods		
Pre-Construction Period		
Comptroller	30 days at $6.50 per day	$ 195
Total		$ 195
Construction Period—First Year		
Comptroller	60 days at $6.50 per day	390
Traveling Auditor	300 days at 5.00 per day	1,500
Total		$ 1,890
Construction Period—Second Year		$ 1,890
Construction Period—Third Year		$ 1,890
fols. 8010-8011] Post-Construction Period		
Traveling Auditor	120 days at $5.00 per day	$ 600
Total		$ 600
Communication Expense by Periods		
Pre-Construction Period		
Four Telephones at $6.60 per month for six months		158
Telegrams and Tolls at $5.00 per day for 120 days		600
Total		$ 758
Construction Period—First Year		
Six Telephones at $6.60 per month for twelve months		475
Telegrams and Tolls at $5.50 per day for 300 days		1,500
Total		$ 1,975
Construction Period—Second Year		$ 1,975
Construction Period—Third Year		$ 1,975
Post-Construction Period		
Four Telephones at $6.60 per month for 1.5 months		40
Telegrams and Tolls at $5.00 per day for 30 days		150
Total		$ 190
Office Furniture and Fixtures as per Detailed Inventory		
Office of Comptroller		583
Office of General Auditor		300
Office of Traveling Auditor		184
Office of Secretary to Comptroller		340
Office of General Bookkeeping Section		6,942
Office of Distribution Section		883
Office of Plant and Equipment Record Section		4,235
Total		$13,467

Defendant's Exhibit No. 28—Continued

[fol. 8012] Administration and Legal Costs

Treasury Section

General Summary

Salaries	$87,925
Stationery and Office Supplies	5,527
Communication Expense	2,236
Office Furniture and Fixtures (Depreciation Only)	1,821
Total	$97,509

[fols. 8013-8014] Treasury Section

Summary of Costs

Pre-Construction Period:

Salaries	$8,550
Stationery and Office Supplies	340
Communication Expense	308
Office Furniture and Fixtures—Depreciation only	133
Total	$9,331

Construction Period—First Year:

Salaries	$33,420
Stationery and Office Supplies	2,184
Communication Expense	617
Office Furniture and Fixtures—Depreciation only	710
Total	$36,931

Construction Period—Second Year:

Salaries	$25,065
Stationery and Office Supplies	1,638
Communication Expense	617
Office Furniture and Fixtures—Depreciation only	533
Total	$27,853

Defendant's Exhibit No. 28—Continued

Construction Period—Third Year:	
Salaries	$16,710
Stationery and Office Supplies	1,092
Communication Expense	617
Office Furniture and Fixtures—Depreciation only	355
Total	$18,774
Post-Construction Period:	
Salaries	$4,180
Stationery and Office Supplies	273
Communication Expense	77
Office Furniture and Fixtures—Depreciation only	90
Total	$4,620

[fol. 8015] Treasury Section

General Organization Plan and Duties of the Section:

The Treasury Section is that Division of the administrative group that in the reproduction of Lone Star Gas Company, would be directly responsible for the receipt and disbursement of all funds, the preparation of budgets and estimates, the reconciliation of bank balances, and all payrolls and expense accounts covering the salaries and expenses of all employees engaged in the construction of the plant.

In conformity with the present organization plan of Lone Star Gas Company, the Treasury Section through the assistant treasurer would be responsible for the selection of the subordinate personnel of all Sections other than those directly responsible for construction.

The Section would be organized immediately upon the completion of corporate organization by the employment of the assistant treasurer who would proceed with the selection of the individual employees of the Section. The organization of the Pay-Roll Division would be completed at a later date, and would not function with its entire personnel until the beginning of actual construction.

In conformity with the adjustments made with reference to the salaries and expenses of the Executive Section due

to the fact that the company would be in partial operation during the construction period, the salaries and expenses of the Treasury Section have been reduced upon the same basis during the second and third construction years.

Personnel Analysis:

Assistant Treasurer and Personnel Manager:

[fol. 8016] The assistant treasurer would be directly responsible to the secretary and treasurer of the company. In the reproduction of Lone Star Gas Company, his duties would be as follows:

1. He would confer with the various Section heads concerning the qualifications of the personnel necessary to fill positions in their offices.

2. He would secure data on and made recommendations concerning the adoption of a modern and approved treasury and payroll accounting system.

3. He would prepare treasury personnel layout, and proceed with the organization of his Section.

4. He would be responsible for the work of the Treasury Section.

5. He would be responsible for the preparation of all cash budgets and other statements of like nature.

6. He would check and approve all cash vouchers passing through the Section and countersign all checks supported by vouchers.

7. He would be responsible for all collections.

8. He would be directly responsible for the placing of fidelity bonds covering positions of trust both in the general office and in the field.

9. He would be responsible for all bank accounts.

10. He would be responsible for all construction payrolls and expense accounts.

Chief Clerk:

The chief clerk of the Treasury Section would be directly responsible to the assistant treasurer. His duties in connection with the work of the Section would be as follows:

1. He would have direct charge of the subordinate personnel and would be directly responsible for the work of the Section during any absence of the assistant treasurer.

2. He would handle all correspondence.

3. He would do all detail work in connection with the preparation of budgets.

[fol. 8017] 4. He would receive and collect all expenditure requisitions submitted by the various Section heads.

5. He would assist the assistant treasurer in all matters arising in connection with the work of the Section.

General Clerk:

The duties of the general clerk would be as follows:

1. He would be directly responsible for the reconciliation of all bank balances.

2. He would be directly responsible for the collection of all accounts and notes due the company.

3. He would assist the chief clerk in the analysis of the estimates of cash requirements submitted by the various Section heads, and would also assist in the preparation of budgets.

Secretary to the Assistant Treasurer:

The secretary to the assistant treasurer would perform all secretarial duties in connection with the work of the Section. He would also make all appointments for all applicants for positions and assist in the preparation and filing of all application forms submitted by applicants.

Typist:

One typist and file clerk would be required for the typing of budgets and reports.

Pay Master:

The paymaster would be directly responsible for the payroll Division of the Treasury Section. His specific duties would be as follows:

1. He would finally check and approve all construction payrolls and expense accounts.

2. He would keep a record of the rates of pay for all employees engaged in construction, and the length of service of these employees.

[fol. 8018] 3. He would maintain records for the use of the Income Tax Section of the United States Treasury Department.

Assistant Pay Master:

In view of the magnitude of the work that would be required to reproduce the physical property of Lone Star Gas Company within a three year construction period, an assistant pay master would be required to assist the pay master in taking care of the details of the Payroll Division.

Machine Operator:

One machine operator would be required to make calculations and extensions for the Payroll Division.

Comptometer Operator:

One comptometer operator would be required to make calculations and check additions and extensions for the Payroll Division.

Typist:

In addition to the assistant pay master, two payroll and expense account clerks would be required to handle the detail work of the Division. One typist would also be required.

Schedule of Salaries—General Division:

Position	Rate Per Month	Rate Per Annum
Assistant Treasurer and Office Personnel Officer	$750	$9,000
Chief Clerk	250	3,000
General Clerk	200	2,400
Secretary	150	1,800
Cash Book Clerk	150	1,800
Typist and File Clerk	125	1,500
Pay Roll Division:		
Pay Master	275	3,300
Assistant Pay Master	225	2,700
Payroll and Expense Account Clerks	150	1,800
[fol. 8019] Machine Operator	125	1,500
Comptometer Operator	125	1,500
Typist	110	1,320

Defendant's Exhibit No. 28—Continued

Distribution of Salaries by Periods—General Division:		Rate Per Annum
Pre-Construction Period		
Assistant Treasurer and Office Personnel Officer	Six Months	$4,500
Chief Clerk	Six Months	1,500
General Clerk		.....
Secretary	Six Months	900
Cash Book Clerk		.....
Typist		.....
Total		$6,900
Pay Roll Division:		
Pre-Construction Period		
Pay Master	Six Months	$1,650
General Division:		
Construction Period—First Year		
Assistant Treasurer and Office Personnel Officer		$9,000
Chief Clerk		3,000
General Clerk		2,400
Secretary		1,800
Cash Book Clerk		1,800
Typist		1,500
Total		$19,500
Pay Roll Division		
Construction Period—First Year		
Pay Master		$3,300
Assistant Pay Master		2,700
Payroll and Expense Account Clerk		1,800
Payroll and Expense Account Clerk		1,800
[fol. 8020] Machine Operator		$1,500
Comptometer Operator		1,500
Typist		1,320
Totals		$13,920
General Division:		
Construction Period—Second Year		
Assistant Treasurer and Office Personnel Officer	Nine Months	$6,750
Chief Clerk	Nine Months	2,250
General Clerk	Nine Months	1,800
Secretary	Nine Months	1,350
Cash Book Clerk	Nine Months	1,350
Typist	Nine Months	1,125
Total		$14,625
Pay Roll Division:		
Construction Period—Second Year		
Pay Master	Nine Months	$2,475
Assistant Pay Master	Nine Months	2,025
Payroll and Expense Account Clerk	Nine Months	1,350
Payroll and Expense Account Clerk	Nine Months	1,350
Machine Operator	Nine Months	1,125
Comptometer Operator	Nine Months	1,125
Typist	Nine Months	990
Total		$10,440

Defendant's Exhibit No. 28—Continued

		Rate Per Annum
General Division:		
Construction Period—Third Year		
Assistant Treasurer and Office Personnel Officer	Six Months	$4,500
Chief Clerk	Six Months	1,500
General Clerk	Six Months	1,200
Secretary	Six Months	900
Cash Book Clerk	Six Months	900
Typist	Six Months	750
Total		$9,750
[fol. 8021] Payroll Division:		
Construction Period—Third Year		
Pay Master	Six Months	$1,650
Assistant Pay Master	Six Months	1,350
Payroll and Expense Account Clerk	Six Months	900
Payroll and Expense Account Clerk	Six Months	900
Machine Operator	Six Months	750
Comptometer Operator	Six Months	750
Typist	Six Months	660
Total		$6,960
General Division:		
Post-Construction Period		
Assistant Treasurer and Office Personnel Officer	1.5 Months	$1,125
Chief Clerk	1.5 Months	375
General Clerk	1.5 Months	300
Secretary	1.5 Months	225
Cash Book Clerk	1.5 Months	225
Typist	1.5 Months	188
Total		$2,438
Pay Roll Division:		
Post-Construction Period		
Pay Master	1.5 Months	$413
Assistant Pay Master	1.5 Months	338
Payroll and Expense Account Clerk	1.5 Months	225
Payroll and Expense Account Clerk	1.5 Months	225
Machine Operator	1.5 Months	188
Comptometer Operator	1.5 Months	188
Typist	1.5 Months	165
Total		$1,742
Stationery and Office Supplies:		
Pre-Construction Period		
General Division		$256
Payroll Division		84
Total		$340

Defendant's Exhibit No. 28—Continued

[fol. 8022]		Rate Per Annum
Construction Period—First Year		
	General Division	$1,008
	Payroll Division	1,176
	Total	$2,184
Construction Period—Second Year		
	General Division	$756
	Payroll Division	882
	Total	$1,638
Construction Period—Third Year		
	General Division	$504
	Payroll Division	588
	Total	$1,092
Post-Construction Period		
	General Division	$126
	Payroll Division	147
	Total	$273

Transportation Expense:

No company transportation equipment would be required for the Treasury Section in the reproduction of the property and business of Lone Star Gas Company.

Traveling Expenses:

No traveling expenses would be incurred by any member of the Treasury Section in the reproduction of the property and business of Lone Star Gas Company.

Communication Expenses by Periods:

Pre-Construction Period:

Four Telephone- at $6.60 per month for six months	$158
[fols. 8023-8024] Telegrams and Tolls $25 per month for six months	150
Total	$308

Defendant's Exhibit No. 28—Continued

Construction Period—First Year:	
Four Telephones at $6.60 per month for twelve months	$317
Telegrams and Tolls $25 per month for twelve months	300
Total	$617
Construction Period—Second Year	$617
Construction Period—Third Year	$617
Post-Construction Period:	
Four Telephones at $6.60 per month for 1.5 months	$40
Telegrams and Tolls $25 per month for 1.5 months	37
Total	$77
Office Furniture and Fixtures as Per Detailed Inventory:	
Office of Assistant Treasurer	$966
Office of Secretary to Assistant Treasurer	569
Office of Chief Clerk	189
Office of General Clerk, Cash book Clerk, Typist and File Clerk	1,334
Office of Paymaster and Assistant	295
Office of Two General Clerks, Moon Hopkins Machine Operator, Calculating Machine Operator, and Typist	3,714
Total	$7,097

Defendant's Exhibit No. 28—Continued

[fol. 8025] Administration and Legal Costs

Land Section

General Summary

Salaries	$184,200
Office Furniture and Fixtures (Depreciation Only)	2,107
Stationery and Supplies	7,888
Transportation (Cost of Operation plus Depreciation)	36,419
Traveling Expenses	26,515
Communication Expense	20,009
Total	$277,138

[fols. 8026-8027] Summary of Costs

Pre-Construction Period:

Salaries	$24,900
Office Furniture and Fixtures (Depreciation Only)	301
Stationery and Supplies	1,270
Transportation (Cost of Operation plus Depreciation)	4,943
Traveling Expenses	3,595
Communication Expense	2,858
Total	$37,867

Construction Period—First Year:

Salaries	$53,100
Office Furniture and Fixtures (Depreciation Only)	602
Stationery and Supplies	2,206
Transportation (Cost of Operation plus Depreciation)	10,492
Traveling Expenses	7,640
Communication Expense	5,717
Total	$79,757

Defendant's Exhibit No. 28—Continued

Construction Period—Second Year:

Salaries	$53,100
Office Furniture and Fixtures (Depreciation Only)	602
Stationery and Supplies	2,206
Transportation (Cost of Operation plus Depreciation)	10,492
Traveling Expenses	7,640
Communication Expense	5,717
Total	$79,757

Construction Period—Third Year:

Salaries	$53,100
Office Furniture and Fixtures. (Depreciation only)	602
Stationery and Supplies	2,206
Transportation (Cost of Operation plus Depreciation)	10,492
Traveling Expenses	7,640
Communication Expense	5,717
Total	$79,757

* * * * * * *

[fol. 8028]

General Organization Plan and Duties of the Section:

In the reproduction of Lone Star Gas Company, the Land Section would function without interruption and without change in personnel during the latter part of the Preliminary Development and Organization Period, the Pre-Construction Period and the Construction Period.

Upon the Land Section would devolve all work in connection with the acquisition of:

1. Fee lands.
2. Surface leases.
3. Mineral leases.

4. Gas purchase contracts.

5. Rights-of-way, easements, leases and road grants.

6. All miscellaneous contractual relations in any manner affecting lands, or interest in lands.

The Section would make thorough investigations of all acreage, producing and non-producing, within areas prescribed, and in areas adjacent thereto, and would determine the particular portion of such acreage that should be acquired, and would also determine the relative value of this acreage.

The Section would acquire and maintain records of all drilling operations in the prescribed areas, and in the areas immediately adjacent thereto.

The Section would prepare and put in general use standard forms covering scout reports, purchase orders, drafts, options, escrow agreements, executory contracts, division orders, transfer orders, gas purchase contracts, gas leases, and mineral deeds.

The Section would negotiate through brokers and with [fol. 8029] land owners for the acquisition of desirable developed and undeveloped acreage.

The Section would secure and compile for the Legal Section abstracts of titles.

The Section would determine the advisability of relenquishing leases where the prospect of profitable development would be doubtful, and would permit expirations that would be preferable to the expense of development.

The Section would, in connection with the Legal Section, see that releases were properly drawn, executed, and delivered to land owners.

The Section would, in connection with the Geological Section, determine the location of test wells.

The Section would initiate, draw, approve records, and handle for payment all vouchers issued in consideration for lands or interest in lands, and for any incidental expense incurred in connection therewith.

The Section would pay all rentals when due, issue vouchers to cover such payments, and maintain proper records thereof.

The Section would provide for and maintain a complete set of ready reference records.

The Section would set a system for and index and file all instruments and other papers affecting lands and matters pertaining thereto.

The Section would prepare and furnish statistics and other informatory communications to the Engineering Supervisor of Construction, Accounting, Geological and Executive Sections upon all matters pertaining to the Land Section.

[fol. 8030] Personnel Analysis:

In order that the duties of the Land Section might be economically performed, actual experience of Lone Star Gas Company has shown that the work systematically classified would be apportioned and placed under the direct supervision of division superintendents. These division superintendents would co-ordinate their work with and would be subject to the general direction of the Section manager, and for that purpose the personnel required would be as outlined in the following analysis.

Section Manager:

Upon the Section manager would devolve the duty of furnishing the contact between the Land Section and the Executive and Legal Sections of the general organization, the general direction of the operations of all divisions of the Land Section, and the final approval of all matters handled within this Section.

Necessarily a man to meet the requirements of this position would combine administrative and executive ability with a general knowledge of the natural gas business; a knowledge of so-called land laws, the rules peculiar to oil and gas mining leases and operations thereunder, and the regulations of the various State and other Commissions of those States in and through which Lone Star Gas Company would seek to produce, transport, purchase, distribute and sell natural gas; the ability to draw all instruments requisite to the proper acquisition of the land properties of the company and all operations incident thereto. He would also be able to make technical interpretations concerning these matters and have experience sufficient to determine their practical significance.

[fol. 8031] Stenographer:

In order to handle properly the writing of instruments and correspondence and miscellaneous files pertinent to the office of the Section manager, there would necessarily be employed a stenographer of sufficient ability and experience to take notes and transcribe accurately and in acceptable form technical and semi-technical instruments and general correspondence necessary to the conduct of the office.

Division of Records and Archives:

To this division of the Land Section there would be assigned the duty of installing and maintaining a system of classified ready reference records, indices and cross indices, and files for all instruments affecting the ownership of lands or interest in lands acquired by Lone Star Gas Company as well as all related correspondence.

As the conservation of Lone Star Gas Company's interest in its lands and the compliance with and enforcement of its contractual obligations attached thereto would be dependent upon these records, accuracy and specific knowledge of this phase of the natural gas business would be necessary.

In order to provide for and maintain records to meet these requirements would necessitate the employment of a personnel conversant with and experienced in the functions of the Land Sections of established oil or natural gas companies. Inasmuch as many matters handled by the Land Section would be closely associated with the functions of other Sections of the general organization, particularly the Legal, Engineering, Accounting and Geological Sections, the personnel employed in the Land Section would be required [fol. 8032] to have a general knowledge of the workings of these Sections.

Based upon the actual experience of Lone Star Gas Company, the personnel set out in the following analysis would be required in the Division of Records and Archives during the Pre-Construction and Construction Periods.

First Clerk:

To this clerk would be assigned the duty of maintaining general supervision over all other employees in the Divi-

sion, the distribution of work as classified, and the handling of all miscellaneous matters of this Division of the Land Section. Full knowledge of the work of the Division, and previous experience in similar work would be required of the first clerk.

Second and Third Clerks—Typists:

Upon these two clerks would devolve the work of abstracting, cross checking, and registering ready reference data from natural gas leases into ledgers provided for the purpose, compiling rental statements, drawing and mailing vouchers in payment of rentals, compiling reports and statistics pertaining to gas leases and the operations thereon. Previous experience in similar work would be required of the second and third clerks.

Fourth and Fifth Clerks—Typists:

Upon these two clerks would devolve the duty of abstracting, cross checking, and registering ready reference data from deeds, surface leases, miscellaneous contracts, rights-of-way grants, easements and licenses, construction claims paid, the drawing and mailing of vouchers in payment of rentals, compiling reports and statistics, and maintaining files.

[fol. 8033] Sixth Clerk:

The sixth clerk would be required for general utility work in connection with the care of files, blue prints and other records.

Stenographer:

The stenographer required for the Division would be experienced, accurate and capable of handling the varied assignments of dictation, forms of instruments, and the statistical data compiled.

Lease Division

Superintendent:

To the superintendent of this Division would be assigned the direct supervision of field forces employed in investigat-

ing, negotiating for, and acquiring prospective and producing gas properties; the maintenance of maps of properties of prospective and producing gas areas; meeting and dealing with lease brokers; handling correspondence and reports preliminary to the acquirement of leases, and maintaining the proper records thereof; and closing deals for leases, subject to the approval of the Section manager.

The requirements of this position would demand the services of a man with practical experience in field operations; a knowledge of the theory and functions of the Geological Section; a familiarity with and knowledge of the functions of the field forces of the Production Division. A man to meet the requirements could only be obtained from the organization of an established natural gas company.

Division Field Men:

Four division field men would be required, one for the West Texas area, one for the Panhandle area, one for Oklahoma, and one for South Central Texas. The division [fol. 8034] field man would report directly to the superintendent of the Lease Division.

Stenographer—Clerk:

A stenographer and clerk would necessarily be required in the office of the superintendent of the Lease Division and he should have sufficient experience to properly handle the correspondence, reports and files pertinent to the operations of the office and should be capable in the reading and spotting of maps maintained by the Division.

Right of Way and Construction Claims Division

Superintendent:

To the superintendent of this Division would be assigned the direct supervision over right-of-way men in the purchase of right--of-ways and settlement of construction damage claims; the acquisition of fee lands and miscellaneous surface leases necessary to the operation of the pipe line or Transportation Section; maintenance of proper records preliminary to the acquisition of rights-of-ways; settlement of damage claims; and the purchase of fee lands and

closing of surface leases, subject to the approval of the manager of the Land Section.

A man to properly fill the requirements of the position must have had practical experience in field work of the sort and a knowledge of the requirement and functions of the Transportation or Pipe Line Section of the system. A man of the caliber required would have to be obtained from the organization of an established natural gas company.

Stenographer—Clerk:

To the office of the superintendent of this Division would be assigned a stenographer and clerk of sufficient ability to [fol. 8035] handle the correspondence and files of this Division, render the reports required therefrom, and maintain all records preliminary to the closing of rights-of-ways and surface leases, and the settlement of construction claims.

Schedule of Salaries:

Position	Per Annum
Section manager	$9,000
Secretary	1,800
First Clerk—Division of Records	4,800
Second Clerk—Division of Records	2,400
Third Clerk—Division of Records	1,800
Fourth Clerk—Division of Records	1,800
Fifth Clerk—Division of Records	1,800
Sixth Clerk—Division of Records	1,800
Stenographer—Division of Records	1,500
Superintendent—Lease Division	4,800
West Texas Field Man	3,300
Panhandle Field Man	3,300
Oklahoma Field Man	3,300
South Central Texas Field Man	3,300
Clerk—Lease Division	1,800
Superintendent Right of Way Division	4,800
Clerk Right of Way Division	1,800
Total	$53,100

Defendant's Exhibit No. 28—Continued

Office Furniture and Fixtures as Per Detail Inventory:

Summary

Office of Sectional Manager of Land Department	$291
Office of Secretary to Sectional Manager of Land Department	946
Office of Superintendent of Lease Division	232
Office of Secretary to Superintendent of Lease Division	299
Office of Superintendent of Right-of-way Division	137
Office of Secretary to Superintendent of Right-of-way Division	299
Office of Chief Clerk of Land and Lease Department	233
Office of Secretary and Assistants to Chief Clerk of Land and Lease Department	5,091
Total	$7,528

[fol. 8036] Stationery and Office Supplies:

Pre-Construction Period	$1,270
First Construction Year	2,206
Second Construction Year	2,206
Third Construction Year	2,206

Transportation Expense:

It would be necessary for the superintendent of the Lease Division, the superintendent of the Rights-of-way and Construction Claims Division, and the four Division field men to have automotive equipment for efficient discharge of their duties.

The estimated annual cost of transportation expense is as follows:

2 cars at $1,250 each—$2,500 Depreciation at 25 per cent	$625
4 cars at $650 each—$2,600 Depreciation at 33 per cent	867
2 cars 36,000 miles at 5 cents per mile	1,800
4 cars 144,000 miles at 5 cents per mile	7,200
Total	$10,492

Defendant's Exhibit No. 28—Continued

Traveling Expense:

It is estimated that the two superintendents would be in the field at least one-half the time, and that the Division field men would be continuously in the field. Upon this basis, the annual cost would be as follows:

Superintendents 360 days at $5.00 per day	$1,800
Division Field men 1,460 days at $4.00 per day	5,840
Total	$7,640

Communication Expense:

In addition to the cost of office phones, the General Office would be in daily communication with the field men engaged in lease and rights-of-way activities. The estimated annual [fols. 8037-8038] cost for communication is as follows:

	Per Annum
Telegrams and Tolls, $450.00 per month	$5,400
Telephones 4 at $6.60 each, $26.40 per month	317
Total	$5,717

Floor Space Requirements:

The minimum floor space requirements for the Section would be 1,800 square feet.

Division of Expense by Periods:

The personnel of the Land Division and the Lease Division would be engaged six months prior to the beginning of construction. The superintendent of rights-of-way and his clerk would be engaged three months prior to the beginning of construction. Salaries, transportation, and traveling expenses have been allocated on this basis.

Defendant's Exhibit No. 28—Continued

[fol. 8039] Administration and Legal Costs

Geological Section

General Summary

Salaries	$160,050
Office Rent (Field Offices Only)	3,900
Office Expenses	6,060
Field Expenses	75,300
Equipment	10,619
Total	$255,929

[fol. 8040] Geological Section

Summary of Costs

Salaries:		
Pre-construction period		$24,150
Construction period:		
First construction year	$48,300	
Second construction year	48,300	
Third construction year	39,300	
		135,900
Office Rent (Field Offices Only):		
Pre-construction period		600
Construction period:		
First construction year	$1,200	
Second construction year	1,200	
Third construction year	900	
		3,300
Office Expenses:		
Pre-construction period		900
Construction period:		
First construction year	$1,800	
Second construction year	1,800	
Third construction year	1,560	
		5,160

Defendant's Exhibit No. 28—Continued

Field Expenses:		
Pre-construction period		$13,920
Construction period:		
First construction year	$22,320	
Second construction year	22,320	
Third construction year	16,740	
		61,380
Equipment (Depreciation Only):		
Pre-construction period		1,609
Construction period:		
First construction year	$3,218	
Second construction year	3,218	
Third construction year	2,574	
		9,010
Total		$255,929

[fol. 8041] Geological Section

Under the discussion of Preliminary Development and Organization Costs, the personnel and duties of the geological organization that would be required to reproduce the geological information and records in possession of Lone Star Gas Company as of January 1, 1933, within a four year period, were analyzed and the proportionate cost attributable to the development period set up as a part of the preliminary development costs.

In this phase of the analysis, it was estimated that this geological organization would begin to function immediately upon the completion of the preliminary geological report, and that the time involved as a preliminary charge would be one year which period would carry the geological work up to the date of the incorporation of the company.

The work of the Geological Section would have no direct relation to the construction of the physical plant of Lone Star Gas Company (except gas well construction) and for this reason, it has been assumed that the work of the Geological Section would continue without modification in personnel or general duties until the present geological records of the company would be reproduced. With the personnel set up for the preliminary period, it is estimated

that three years from the date of incorporation would be the minimum time required for this work.

This assumption would result in the substantial completion of the geological work necessary for the reproduction of information and records by a date which would be six months in advance of the estimated completion date of the physical property. At this time there would necessarily be a reduction in the personnel of the Geological Section [fol. 8042] in order to conform to the reduction of duties, which for the last six months of construction, would be confined to routine office work and the field work in connection with the location of the last group of gas wells, and the investigation of new acreage not actually in possession of the company as of January 1, 1933.

In connection with this estimate of geological costs from the date of incorporation to a date six months in advance of the completion of construction, a three year period, it will be unnecessary to set out in detail the scope of the work that would be done, or the duties of the various individuals that would be engaged for the reason that these details have been fully covered in the analysis of Preliminary Development Costs, and as above stated, for the reason that there would be no material modification in the work done, nor in the personnel engaged during the three year period following incorporation.

The item of office rent for the general office force has been eliminated for the reason that it has been assumed that the general office building of the company would be acquired at incorporation, and the cost of this building representing rent has been included as an undistributed cost.

Estimate of Cost—Three Year Period

Salaries of Personnel	Per Month	Per Year	Three Years
Chief Geologist	$600	$7,200	$21,600
Field Geologist	400	4,800	14,400
Field Geologist	400	4,800	14,400
Field Geologist	400	4,800	14,400
Field Geologist	400	4,800	14,400
Assistant Geologist	200	2,400	7,200
Assistant Geologist	200	2,400	7,200

Defendant's Exhibit No. 28—Continued

[fol. 8043]

Salaries of Personel—Contd.	Per Month	Per Year	Three Years
Assistant Geologist	$200	$2,400	$7,200
Assistant Geologist	200	2,400	7,200
Paleontologist	400	4,800	14,400
Draftsman	175	2,100	6,300
Draftsman	175	2,100	6,300
Clerk	150	1,800	5,400
Clerk	125	1,500	4,500
Total			$144,900

Office rent (General) Included under Undistributed General Costs. Square feet required 1,000.

Office Rent—Field

Location	Per Month	Per Year	Three Years
Zone 1	$25	$300	$900
Zone 2	25	300	900
Zone 3	25	300	900
Zone 4	25	300	900
Total			$3,600

General Office Expense

Item	Per Month	Per Year	Three Years
Telephone and Telegraph	$50	$600	$1,800
Supplies	100	1,200	3,600
Total			$5,400

Field Expense

Party	Per Month	Per Year	Three Years
Chief geologist (Average 20 days in field at $5.00 per day)	$100	$1,200	$3,600
Automobile (2,000 miles per month at $0.08 per mile)	160	1,920	5,760
Party 1 (2 men 30 days in field per month at $4.00 per day)	240	2,880	8,640
(2000 miles per month auto)	160	1,920	5,760
Party 2 same as 1	400	4,800	14,400
Party 3 same as 1	400	4,800	14,400
Party 4 same as 1	400	4,800	14,400
Total			$66,960

[fol. 8044] Equipment (Depreciation Only)

Description		Per Year	Three Years
Office equipment	$2,784 at 8%	$223	$669
Automobiles	5,000 at 50%	2,500	7,500
Field equipment	2,476 at 20%	495	1,485
Total			$9,654

Recapitulation

Salaries	$144,900
Office rent (Field)	3,600
General office expense	5,400
Field expense	66,960
Equipment (Depreciation only)	9,654
Total Cost—Three Year Period	$230,514

Defendant's Exhibit No. 28—Continued

Estimated Cost—Six Month Period

During the last six months of the construction period the reduction in the Geological Section personnel is reflected in the following schedule:

Salaries of Personnel	Per Month	Per Year	Six Months
Chief geologist	$600	$7,200	$3,600
Field geologist	400	4,800	2,400
Field geologist	400	4,800	2,400
Assistant geologist	200	2,400	1,200
Assistant geologist	200	2,400	1,200
Paleontologist	400	4,800	2,400
Draftsman	175	2,100	1,050
Clerk	150	1,800	900
Total			$15,150

Office rent (General) Included under Undistributed General Costs.

Office Rent—Field

Location	Per Month	Per Year	Six Months
Zone 1	$25	$300	$150
Zone 2	25	300	150
Total			$300

[fol. 8045] General Office Expense

Item	Per Month	Per Year	Six Months
Telephone and Telegraph	$35	$420	$210
Supplies	75	900	450
Total			$660

Field Expense

Party	Per Month	Per Year	Six Months
Chief geologist (Average 10 days per month in field at $5.00 per day)	$50	$600	$300
Automobile (1,000 miles per month at $.08 per mile)	80	960	480
Party 1 (2 men 30 days in field at $4.00 per day each)	240	2,880	1,440
(2,000 miles per month auto)	160	1,920	960
Party 2 same as 1	400	4,800	2,400
Total			$5,580

Recapitulation

Salaries	$15,150
Office rent (Field)	300
General office expense	660
Field expense	5,580
Equipment (Depreciation only)	965
Total Cost—Six Month Period	$22,655

Defendant's Exhibit No. 28—Continued

Equipment (Field)

No.	Description	Unit Price	Replacement	Total
5	Automobiles (equipped for field use)	$1,000.00	2 Years	$10,000.00
5	Altimeters	150.00	.....	750.00
4	Alidades	150.00	.....	600.00
4	Plane Tables	21.75	.....	87.00
5	Brunton Compass	30.00	.....	150.00
5	Stadia Hand levels	50.00	.....	250.00
4	Stadia rods	5.00	2 Years	40.00
4	Portable typewriters	48.60	.....	184.40
5	Brief cases (Field type)	10.00	2 Years	100.00
1	Petrographic Microscope	250.00	.....	250.00
1	Microscope lamp	25.00	.....	25.00
4	Magnifying glasses	7.50	.....	30.00
	Total			$12,476.40

[fol. 8046-8047] Equipment (Office)

No.	Description	Unit Price	Total
5	Flat top desks	$54.60	$273.00
2	Regular typewriters	83.03	166.06
1	Long carriage typewriter	150.00	150.00
1	Calculating machine	180.00	180.00
2	Stenographer's desks	64.40	128.80
10	Straight chairs	11.85	118.50
2	Swivel chairs	22.00	44.00
10	Steel filing cabinets	27.30	273.00
2	Stenographer's chairs	14.25	28.50
2	Drafting tables	22.00	44.00
2	Drafting table stools	4.28	8.56
4	Drafting boards	3.50	14.00
1	3-Section oak map case	116.00	116.00
1	Map roll	100.00	100.00
1	Large table	84.00	84.00
4	Small tables	35.00	140.00
2	Costumers	7.40	14.80
2	Telephone stands	4.75	9.50
6	Letter trays	1.15	6.90
5	Ink stands	3.55	17.75
4	Card index files	28.00	112.00
5	Cuspidors	1.05	5.25
5	Mats	.33	1.65
5	Waste paper baskets	.95	4.75
2	Line-a-time	17.25	34.50
5	Pencil sharpeners	3.75	18.75
2	Rugs	50.00	100.00
2	Sets drafting instruments	25.00	50.00
	Laboratory apparatus	50.00	50.00
	Maps	500.00	500.00
	Library complete	6,000.00	6,000.00
	Total		$8,794.27

Recapitulation

Field equipment	$12,476.40
Office equipment	8,794.27
Total Field and Office Equipment	$21,270.67

Defendant's Exhibit No. 28—Continued

[fol. 8048] Administration and Legal Costs

Purchasing Section

General Summary

Salaries:		
Purchasing Department	$174,225	
Stores Department	149,200	
Stationery Department	52,360	
Traffic Department	23,775	
		$399,560
Office Furniture and Fixtures:*		
Purchasing Department	$1,960	
Stores Department	3,402	
Stationery Department	1,975	
Traffic Department	151	
		7,488
Stationery and Supplies:		
Purchasing Department	$13,567	
Stores Department	12,500	
Stationery Department	2,293	
Traffic Department**	512	
		28,872
Transportation:		
Purchasing Department	$7,964	
Stores Department	18,083	
		26,047
Traveling Expenses:		
Purchasing Department	$9,200	
Stores Department	21,350	
Stationery Department	525	
Traffic Department	1,000	
		32,075
Communication:		
Purchasing Department	$11,002	
Stores Department	21,155	
Stationery Department	4,328	
Traffic Department	108	
		36,593
Total		$530,635

* Depreciation only.

** Includes I. C. C. Reports $311.50.

Defendant's Exhibit No. 28—Continued

[fol. 8049] Purchasing Section

Summary of Costs

Pre-Construction Period:

Purchasing Division:	
Salaries	$14,400
Office Furniture and Fixtures (Depreciation Only)	159
Stationery and Supplies	450
Transportation Expense	645
Traveling Expenses	744
Communication Expense	889
Total	$17,287
Stores Division:	
Salaries	$7,635
Office Furniture and Fixtures (Depreciation Only)	174
Stationery and Supplies	640
Transportation Expense	1,090
Traveling Expenses	1,370
Communication Expense	1,411
Total	$12,320
Stationery Division:	
Salaries	$6,820
Office Furniture and Fixtures (Depreciation Only)	257
Stationery and Office Supplies	490
Traveling Expenses	69
Communication Expense	564
Total	$8,200
Traffic Division:	
Salaries	$1,275
Office Furniture and Fixtures (Depreciation Only)	8
Stationery and Supplies	27
Traveling Expenses	250
Communication Expense	28
Total	$1,588

Defendant's Exhibit No. 28—Continued

[fol. 8050] Construction Period—First Year:

Purchasing Division:	
Salaries	$48,900
Office Furniture and Fixtures (Depreciation Only)	551
Stationery and Supplies	4,322
Transportation Expense	2,239
Traveling Expenses	2,587
Communication Expense	3,094
Total	$61,693
Stores Division:	
Salaries	$39,898
Office Furniture and Fixtures (Depreciation Only)	909
Stationery and Supplies	3,342
Transportation Expense	4,822
Traveling Expenses	5,755
Communication Expense	5,641
Total	$60,367
Stationery Division:	
Salaries	$15,180
Office Furniture and Fixtures (Depreciation Only)	573
Stationery and Office Supplies	601
Traveling Expenses	152
Communication Expense	1,255
Total	$17,761
Traffic Division:	
Salaries	$7,500
Office Furniture and Fixtures (Depreciation Only)	48
Stationery and Supplies	162
Traveling Expenses	250
Communication Expense	27

Defendant's Exhibit No. 28—Continued

[fol. 8051] Construction Period—Second Year:

Purchasing Division:	
Salaries	$48,900
Office Furniture and Fixtures (Depreciation Only)	551
Stationery and Supplies	4,322
Transportation Expense	2,239
Traveling Expenses	2,587
Communication Expense	3,094
Total	$61,693
Stores Division:	
Salaries	$39,899
Office Furniture and Fixtures (Depreciation Only)	910
Stationery and Supplies	3,343
Transportation Expense	4,823
Traveling Expenses	5,755
Communication Expense	5,641
Total	$60,371
Stationery Division:	
Salaries	$15,180
Office Furniture and Fixtures (Depreciation Only)	573
Stationery and Supplies	601
Traveling Expenses	152
Communication Expense	1,255
Total	$17,761
Traffic Division:	
Salaries	$7,500
Office Furniture and Fixtures (Depreciation Only)	48
Stationery and Supplies	162
Traveling Expenses	250
Communication Expense	27
Total	$7,987

Defendant's Exhibit No. 28—Continued

[fol. 8052] Construction Period—Third Year:

Purchasing Division:	
Salaries	$48,900
Office Furniture and Fixtures (Depreciation Only)	551
Stationery and Supplies	4,322
Transportation Expense	2,239
Traveling Expenses	2,587
Communication Expense	3,094
Total	$61,693
Stores Division:	
Salaries	$39,898
Office Furniture and Fixtures (Depreciation Only)	910
Stationery and Supplies	3,343
Transportation Expense	4,822
Traveling Expenses	5,754
Communication Expense	5,641
Total	$60,368
Stationery Division:	
Salaries	$15,180
Office Furniture and Fixtures (Depreciation Only)	572
Stationery and Supplies	601
Traveling Expenses	152
Communication Expense	1,255
Total	$17,760
Traffic Division:	
Salaries	$7,500
Office Furniture and Fixtures (Depreciation Only)	47
Stationery and Supplies	161
Traveling Expenses	250
Communication Expense	26
Total	$7,984

Defendant's Exhibit No. 28—Continued

[fols. 8053-8054] Post-Construction Period:

Purchasing Division:	
Salaries	$13,125
Office Furniture and Fixtures (Depreciation Only)	148
Stationery and Supplies	150
Transportation Expense	602
Traveling Expenses	695
Communication Expense	831
Total	$15,551
Stores Division:	
Salaries	$21,870
Office Furniture and Fixtures (Depreciation Only)	499
Stationery and Supplies	1,832
Transportation Expense	2,526
Traveling Expenses	2,716
Communication Expense	2,821
Total	$32,264

* * * * * * *

[fol. 8055] Purchasing Section

General Organization Plan and Duties of the Section:

The Purchasing Section is that Section of the general organization that would be responsible for the securing of satisfactory materials and supplies at the cheapest prices available, quality of merchandise considered for the general office, for construction, and for other departments in the reproduction of Lone Star Gas Company. The Purchasing Section would also be responsible for the delivery of materials and supplies to the various departments in advance of the time set for their actual use. Through the proper functioning of this department delays and attendant unnecessary expenses in *in* construction costs would be eliminated.

In its general functions, the Purchasing Section would be strictly a material and supply department. The purchasing agent and the employees would receive, check, and pass for payment all invoices, negotiate all contracts and agreements covering the purchase of materials and supplies, maintain complete records of all purchases, and furnish reports to the general manager and department heads.

In the reproduction of Lone Star Gas Company, following the actual organization plan of this company when in construction and operation, the head of this section would be the purchasing agent who would report directly to the general manager, and who would also be in close contact with all other department heads in the organization.

Under the general supervision of the purchasing agent would be the Purchasing Department, Stores Department, the Traffic Department, and the Stationery Department. The Stores Department would be under the direct super- [fol. 8056] vision of the supervisor of Stores, the Traffic Department under the direct supervision of the traffic manager, and the Stationery Department under the direct supervision of an assistant purchasing agent.

Purchasing Department

Summary of Salaries and Expenses

Salaries:		
Pre-Construction period	$14,400	
Construction period	146,700	
Post-Construction Period	13,125	
		$174,225
Office Furniture and Fixtures:		
Depreciation based on total cost of $7,001 as shown by detailed inventory		1,960
Stationery and Supplies:		
Pre-Construction period	450	
Construction period	12,967	
Post-Construction period	150	
		13,567

Defendant's Exhibit No. 28—Continued

Transportation:		
Two automobiles	$2,444	
Operating cost	5,520	
		$7,964
Traveling Expenses:		
Purchasing agent	7,200	
Assistant purchasing agent	2,000	
		9,200
Communication:		
Telephone exchange service	3,802	
Telephone tolls	4,800	
		8,602
Telegraph tolls		2,400
Total		$217,918

(NOTE.) Office rent is included under Undistributed General Costs. The estimated net floor space that would be required for the Purchasing Department is 3,100 square feet.

Personnel Analysis:

In developing an organization for a Purchasing Department that would be responsible for the purchase, receipt [fol. 8057] and distribution of the material and supplies that would be required for the reproduction of Lone Star Gas Company as of January 1, 1933, within a three year construction period, several basic factors must be considered.

1. That the value of the material that would be used in reproduction would be approximately $30,000,000.

2. That the Construction Department would be continuously engaged under peak conditions throughout the construction period.

3. That several distinct classes of construction would be proceeding simultaneously and at different locations on the system as:

(a) Laying pipe and drilling wells.
(b) Building compressor stations, measuring and regulator stations.
(c) Constructing telephone lines.
(d) Building river crossings.
(e) Laying gathering and well lines.

Due to the speed with which this work would be done, and the mass of details that would be involved in its satisfactory completion, a thoroughly experienced Purchasing Department would be required, and none but experienced employees with the exception of some engaged in minor capacities, could be used.

It would be necessary to begin the organization of the Purchasing Department immediately upon the completion of corporate organization, and the engagement of the engineering personnel, as the following materials and supplies would be needed.

Field equipment for surveying crews.
Office furniture and fixtures.
Stationery and office supplies.

It has been assumed that this date would be six months in advance of the beginning of actual construction. At the beginning of the six months pre-construction period, the department would have the following personnel:

Purchasing agent.
Assistant purchasing agent.
Chief Clerk.
Stenographer.

[fol. 8058] The qualifications and duties of these employees would be as follows:

Purchasing Agent:

It would be necessary to secure a man with proper qualifications for this work from the organization of some other company engaged in similar activities, as his work would require a thorough knowledge of the materials and supplies that would be used in the construction of Lone Star Gas Company. It would not be necessary for him to have had practical construction experience provided his previous

purchasing experience had been secured on the construction of a major gas system. His general duties would consist of the responsible direction and supervision of the Purchasing, Stores, Traffic, and Stationery Departments. He would negotiate all contracts and agreements, confer with the general manager and department heads, and direct the departmental work.

Assistant Purchasing Agent:

The assistant purchasing agent should have a thorough familiarity with the classes and values of office furniture, equipment and supplies, and should have a knowledge of paper stocks and printing methods. He should also have executive ability, as he would be placed in charge of the Stationery Department. His immediate duties would be the purchase of the necessary furniture, supplies, stationery, and printed forms needed by the Engineering and Purchasing Departments. His other duties would consist of the setting up and maintenance of proper price and stock records, the compilation and furnishing of necessary reports of issues required for accounting purposes, the interviewing of salesmen, and the maintenance of interdepartmental contacts.

[fol. 8059] (NOTE.) The salary and expenses of the assistant purchasing agent have been included under the cost of the Stationery Department.

Chief Clerk:

The chief clerk would, of necessity, be a man thoroughly trained and experienced in the gas and oil industry material supply markets and prices. He would also have executive qualifications, as he would have direct supervision of the detail division of the department, and would assist the purchasing agent in the selection of the clerical personnel for the department.

Stenographer:

The stenographer should be a man experienced in stenographic work, and should be familiar with the terms, both catalog and field, used in describing the material that would be used in the construction work. His duties would be the handling of all correspondence for the purchasing agent,

assistant purchasing agent, and chief clerk and the typing of all orders from requisitions, for the office, and for material and supplies required by the field forces of the Engineering Department. After the complete department is organized, this stenographer would have direct supervision over the stenographers required to write orders, and would personally check all orders with the requisitions. He would also act as secretary to the purchasing agent and assistant purchasing agents, other than the assistant purchasing agent in charge of the Stationery Department.

At this time, it would also be necessary for the purchasing agent to begin the organization of the Stores and Traffic Departments. A thoroughly capable supervisor of stores and a traffic manager would have to be secured. Care should be exercised in the choice of these two men, [fol. 8060] and they should have highest qualifications as considerable economy to the company would result in securing men for these two positions who would be able to build efficient departments capable of handling the large amount of work that would begin immediately after the organization of the departments.

The Engineering Department would begin furnishing the Purchasing Department with specifications for construction equipment, material and supplies from three to four months in advance of the date set for starting actual construction. The Purchasing Department would at this time begin the assembly of a complete list of manufacturers and jobbers who would be able to furnish material and supplies for the construction program. The Purchasing Department would begin the preparation of inquires from specifications furnished by the Engineering Department.

Within two months after the beginning of the six months pre-construction period, the following employees would be added:

Assistant purchasing agent.
Assistant purchasing agent.
Price Clerk.
Price Clerk.
Stenographer.
Typist.
Typist.

The duties of these added employees would be as follows:

Assistant Purchasing Agent:

This assistant purchasing agent would be the purchasing agent's first assistant and would have supervision of the department. He would interview salesmen and relieve the purchasing agent of the overflow from his desk. He would sign all orders when the purchasing agent was absent, and handle purchases for pipe and machinery, as well as other major items used in the construction. He should be familiar with the material and supplies needed, and be an experienced purchasing agent.

[fol. 8061] Assistant Purchasing Agent:

This assistant purchasing agent also should have had previous experience in a Purchasing Department of a natural gas pipe line company as he would purchase all the hand tools and fittings required for this work. He would interview salesmen. He would also check all orders against requisitions before they would be passed to the purchasing agent for signing.

Price Clerks:

The qualifications of two price clerks would require that they have a thorough knowledge of the work they would be called upon to perform and be able to understand the specifications of materials and the purpose for which these materials would be required. They would prepare inquires from requisitions received from the Engineering Department, and request quotations from the various companies that could furnish the material needed. They would set up and maintain quotations and price records; check requisitions before placing orders, and inform purchase order clerks as to the sources of supply; check prices on all invoices, and handle correspondence with reference to credit memoranda covering incorrect prices. They would also handle other correspondence in connection with quotations, catalogs, prices, trade and cash discounts. They would make card-index records of cash discounts, and stamp all invoices with dates discounts would be due; keep necessary records of purchases on contracts, blanket orders, etc., and keep the purchasing agent informed as to the status of contracts, agreements, and blanket orders, prices, transfers, estimates, and inventories.

Stenographer:

This stenographer should have had previous experience [fol. 8062] in similar work, and should be thoroughly capable and efficient. He would handle all stenographic work for the chief clerk and price clerks.

Typist:

This clerk should be thoroughly capable and experienced and be familiar with terms, names, and general specifications of materials that would be used in this work. He would type lists of materials and specifications prepared by the price clerks for quotations. When required, he would be transferred to the duties of tracing clerk.

Typist:

This clerk should be thoroughly capable and experienced, and familiar with terms, names, and general specifications of materials that would be used in this work. He would also assist the other typist and would type purchase orders. Later he would be transferred to the duties of purchase order clerk.

Within four months after the beginning of the six-month pre-construction period, the following employees would be required:

Purchase order clerk.
Purchase order clerk.
Stenographer.
Purchase order invoice clerk.
Field order invoice clerk.
Pipe order clerk.

whose duties would be as follows:

Purchase Order Clerks:

These two clerks should be capable and efficient typists and thoroughly familiar with classes of materials that would be used in this work. They would be under the supervision of the head stenographer, and it would be their duties to assign purchase order numbers to requisitions, to keep proper register and index of purchase orders, and to type purchase orders from requisitions, to assist in checking orders against requisitions, and to file requisitions, and the typist already

[fol. 8063] in the organization and referred to above would be transferred to one of these jobs.

Stenographer:

This stenographer should be thoroughly capable and efficient and experienced in this line of work. He would handle stenographic work and typing in detail for the division, file correspondence, and assist other clerks.

Purchase Order Invoice Clerk:

This clerk should have had previous experience in similar work, and should be familiar with requirements and proceedures of the Accounting and Stores Departments. He should also be familiar with the various kinds of materials required, and the purposes for which this material would be used. He would handle purchase orders (except those assigned to pipe order clerk); set up and keep proper file of open purchase orders; match invoices and material received reports; check quantities and specifications on invoices against orders and material received reports; trace storekeepers for material received reports; trace shippers for invoices and shipping papers. He would also handle correspondence regarding shortages, return of incorrect and defective materials, and credit memoranda covering and furnish the Traffic Department with necessary papers and data for filing claims for loss and damage.

Field Order Clerk:

A clerk for this job should have had previous experience in this class of work. He should be familiar with Accounting and Stores Department procedure, and field activities and requirements. He would register and file field orders; trace field men for orders; trace vendors for invoices; match [fol. 8064] and check invoices with orders; handle correspondence regarding discrepancies in invoices and orders, and credit memoranda covering invoice shortages and materials returned.

Pipe Order Clerk:

The pipe order clerk should be a man having a wide experience in the handling of orders for pipe and other kindred materials that would be used in the work, and should be thoroughly familiar with all such materials. He should

understand Accounting and Stores Department procedure, and should be familiar with gas pipe line construction work. He would check all requisitions for carload shipments of pipe; place orders to cover, keep complete record of all such orders; arrange pipe shipping schedules, and trace mills for shipping information. He would furnish shipping notices to the Stores, Traffic, Engineering and Pipe Line Departments; check invoices as to quantities and prices; match invoices with material received reports; check mill tallies and storekeeper's tallies. He would also handle all requisitions, orders, shipping notices, material received reports, and invoices covering pipe line paint, oxygen, acetylene, carbide, and welding rod; set up and maintain complete field and records; handle correspondence in connection with the above, and furnish the Traffic Department necessary papers for filing loss and damage claims.

At the end of the six-month pre-construction period, the following additional employees would be required to complete the organization and carry on the work of the department during the three-year construction period.

Tracing Clerk.
Drum record clerk.
Purchase order invoice clerk.
Field order invoice clerk.
Stenographer.
File clerk.

[fol. 8065] Tracing Clerk:

The typist already employed and referred to above would be transferred to this job. His duties would be to set up and maintain open file on all tracing copies of purchase orders (except those handled by pipe order clerk); check acknowledgements against orders; make record of shipping dates, and notify department heads and field men when shipments would be made, how shipped, routing, and approximate date of delivery. He would also trace shippers on all open orders at regular intervals; check all weekly reports of open purchase orders from the field, and advise field men with reference to the status of all open orders reported by them. This clerk would also be a typist and would handle all correspondence in connection with this desk.

2747

Drum Record Clerk:

The drum record clerk should be experienced in work of a similar nature. His duties would be the setting up and maintenance of card-index or ledger record of all oxygen and acetylene cylinders received and returned; also, all other returnable containers, including electric wire and cable reels, and he would also handle transfers of full drums from one point to another; check semi-monthly drum reports; keep complete file records of all transfers and reports of empty cylinders returned; check drum reports from vendors and furnish them with reports of drums outstanding at regular intervals.

Purchase Order Invoice Clerk:

This clerk should have had previous experience in similar work, and should be familiar with requirements and procedures of the Accounting and Stores Departments. He should also be familiar with the various kinds of materials required, and the purposes for which used. He would han- [fol. 8066] dle purchase orders (except those assigned to pipe order clerk); set up and keep proper file of open purchase orders; match invoices and material received reports, check quantities and specifications on incoices against orders and material received reports; trace storekeepers for material received reports; trace shippers for invoices and shipping papers. He would also handle correspondence regarding shortages, return of incorrect and defective materials, and credit memoranda covering; furnish Traffic Department with necessary papers and data for filing claims for loss and damage.

Field Order and Invoice Clerk:

A clerk for this job should be capable and efficient, and have had previous experience in this class of work. He should be familiar with Accounting and Stores Department procedure, and field activities and requirements. He would register and file field orders; trace field men for orders; trace vendors for invoices; match and check invoices with orders; handle correspondence regarding discrepancies in invoices and orders, and credit memoranda covering invoice shortages and materials returned.

Stenographer:

This stenographer should have had previous experience in similar work, and should be thoroughly capable and efficient. He would handle all overflow stenographic work for the chief clerk and price clerks as the volume of their work would be increased to such an extent after the beginning of actual construction that an additional stenographer would be necessary. He would also handle correspondence and details from the price order clerk.

[fol. 8067] File Clerk:

This file clerk should be capable, efficient, and experienced in filing. His duties would be the opening, stamping, and distributing of all incoming mail; the collection and mailing of all outgoing mail; the distributing files and correspondence between desks in the department; the preparing and filing of all purchase orders. He would also pull and deliver closed orders from files when called for and keep record of all "out" orders and see that they are returned to the files. He would keep a daily record of the number of invoices received and passed, and the number of pieces of correspondence handled in and out, and also run errands.

Schedule of Salaries

Pre-construction Period:

Position	Months	Rate	Total
Purchasing agent	6	$700	$4,200
Assistant purchasing agent	4	400	1,600
Assistant purchasing agent	4	300	1,200
Chief clerk	6	300	1,800
Stenographer	6	175	1,050
Price clerk	4	200	800
Price clerk	4	150	600
Stenographer	4	125	500
Purchase order clerk	4	150	600
Purchase order clerk	2	150	300
Stenographer	2	125	250
Tracing clerk	4	125	500
Purchase order invoice clerk	2	150	300
Field order invoice clerk	2	150	300
Pipe order clerk	2	200	400
Total			$14,400

Defendant's Exhibit No. 28—Continued

Salaries

Three Year Construction Period:

	Rate Per Year	Total 3 Years
Purchasing agent	$8,400	$25,200
Assistant purchasing agent	4,800	14,400
Assistant purchasing agent	3,600	10,800
Chief clerk	3,600	10,800
Price clerk	2,400	7,200
[fol. 8068] Price clerk	1,800	5,400
Stenographer	2,100	6,300
Stenographer	1,500	4,500
Stenographer	1,500	4,500
Stenographer	1,500	4,500
Purchase order clerk	1,800	5,400
Purchase order clerk	1,800	5,400
Tracing clerk	1,500	4,500
Purchase order invoice clerk	1,800	5,400
Purchase order invoice clerk	1,800	5,400
Field order invoice clerk	1,800	5,400
Field order invoice clerk	1,800	5,400
Pipe order clerk	2,400	7,200
Drum record clerk	1,800	5,400
File clerk	1,200	3,600
Total	$48,900	$146,700

Salaries

Post-Construction Period:

	Months	Rate	Total
Purchasing agent	6	$700	$4,200
Assistant purchasing agent	6	400	2,400
Chief clerk	6	300	1,800
Stenographer	6	175	1,050
Stenographer	6	125	750
File clerk	6	100	600
Price clerk	3	200	600
Stenographer	3	125	375
Purchase order invoice clerk	3	150	450
Field order invoice clerk	3	150	450
Drum record clerk	3	150	450
Total			$13,125

Defendant's Exhibit No. 28—Continued

Summary

Pre-construction period—6 months	$14,050
Three year construction period $48,900 per year	146,700
Post-construction period—6 months	13,125
Total Four Years	$173,875

[fol. 8069] Reduction of Personnel

Personnel at End of Three Year Construction Period.

Purchasing agent	Stenographer
Assistant purchasing agent	Stenographer
Chief clerk	Purchase order invoice clerk
Price clerk	Field order invoice clerk
Secretary to purchasing agent	Drum record clerk
File clerk	

Personnel Three Months After Construction is Completed:

Purchasing agent
Assistant purchasing agent
Chief clerk
Secretary to purchasing agent
Stenographer
File clerk

The above force would be required for an additional three months only which would be six months after construction is completed, at which time all employees would assume operating duties of the department.

Stationery and Office Supplies

During the year 1931, the stationery and office supply requirements of the Purchasing Department of Lone Star Gas Company amounted to $1,695.83. During this period the amount of purchases handled was comparatively small as the company was in operation only. It is, therefore, considered that a conservative estimate for the purpose of this report would be twice the cost for 1931, or three thousand three hundred ninety one dollars and sixty six cents per year, and upon this basis the estimate follows:

Defendant's Exhibit No. 28—Continued

Pre-construction period—6 months	$450.00
Construction period—3 years	12,966.64
Post-construction period—6 months	150.00
Total	$13,566.64

Transportation

It would be necessary for the purchasing agent and his first assistant to make frequent trips over the system dur- [fol. 8070] ing the four years this department would be engaged in work in connection with the construction program. Therefore, for this purpose, the following automotive equipment would be required:

One Chrysler standard sedan	$1,746.50
One Chevrolet standard sedan	697.50
Total	$2,444.00

It is assumed that these automobiles would be practically worn out at the end of the four years, therefore, no salvage has been allowed.

Automobile Operating Expense

It has been estimated that during the period of construction, the Chrysler automobile would travel approximately 18,000 miles per year, and the Chevrolet approximately 12,000 miles per year, or a total of 120,000 miles, cost of operation being as follows:

Chrysler—72,000 miles at $.05 per mile	$3,600.00
Chevrolet—48,000 miles at $.04 per mile	1,920.00
Total	$5,520.00

(Note.) The Automotive Section advises that over a period of four years, operating costs of a Chrysler would average around $.045 to $.05 per mile, and around $.035 to $.04 per mile on a Chevrolet.

Traveling Expenses

During the period of construction, it would be necessary for the purchasing agent to make a number of trips to East-

ern pipe mills and other supply sources, and to make frequent trips over the system. It is estimated that his expenses for this purpose over the entire period would average approximately one hundred and fifty dollars per month.

Total: Four years at $1,800.00 per year $7,200.00

[fols. 8071-8072] It would also be necessary for the first assistant purchasing agent to make frequent trips of inspection to the various locations where materials would be delivered, and it is estimated his traveling expenses would average approximately five hundred dollars per —.

Total: Four years at $500.00 per year $2,000.00

Communication

The following expenses for telephone exchange service and telephone and telegraph tolls would be incurred in view of the fact that a great amount of such communication would be necessary in connection with the ordering, shipping and delivery of the necessary equipment, materials and supplies. Therefore, basing this on the present service charge per phone, it is estimated that the following expenses would be incurred:

12 Telephones at $6.60 each per month	$3,801.60
Telephone tolls $100.00 per month (Estimated)	4,800.00
Telegraph tolls $50.00 per month (Estimated)	2,400.00
Total	$11,001.60

[fol. 8073] Stores Department

Summary of Salaries and Expenses

Salaries:		
Pre-construction period	$7,635	
Construction period	119,695	
Post-construction period	21,870	
		$149,200
Office Furniture and Fixtures:		
Depreciation based on total cost of $12,148 as shown by detailed inventory		3,402

Defendant's Exhibit No. 28—Continued

Stationery and Office Supplies:		
Stationery and supplies		$12,500
Transportation:		
Three automobiles—Auto Expense:		
Pre-construction period	1,090	
Construction period	14,467	
Post-construction period	2,526	
		18,083
Traveling Expenses:		
Supervisor of Stores and Inventory men		
Pre-construction period	1,370	
Construction period	17,264	
Post-construction period	2,716	
		21,350
Communication:		
Pre-construction period	1,411	
Construction period	16,923	
Post-construction period	2,821	
		21,155
Total		$225,690

(Note.) Office rent is included under Undistributed General Costs. The estimated net floor space that would be required for the Stores Department is 2,600 square feet.

Duties of the Department and Personnel Analysis

In the reproduction of Lone Star Gas Company, the Stores Department would be organized about ninety days before actual construction would begin, and in this connection, the general office personnel, which would consist of the following employees, would be actively engaged at the beginning of the construction period.

[fol. 8074] Supervisor of stores.
Stenographer.
Assistant supervisor of stores.

Stenographer.
Chief Clerk.
Voucher clerk.
Two invoice clerks.
Combination stenographer and comptometer operator.
Surplus clerk.
Price clerk.
Two combination stock clerks and machine operators.
Two comptometer operators.
Two stenographers.
Field supervisor.
Two inventory field men.
Progress report clerk.
Combination stenographer and comptometer operator.

This personnel which would comprise the departmental organization at the end of the pre-construction period would be amplified as the actual construction progressed.

As soon as material would be ordered for the various lines, compressor stations and other elements of the construction program, the Stores Department field men would furnish routings and destination points to the Purchasing Department. Pipe yards would be rented, and temporary warehouses secured in which to house and protect material items which would be delivered in advance of construction.

A large amount of preliminary work would be required of the department in connection with estimates for the automotive equipment that would be required for the unloading, hauling, and transfer of material inasmuch as the department would be directly responsible for the delivery of all materials of construction.

While not a part of the cost of General Stores to which this estimate has been confined, a knowledge of the activities of the Field Stores Division of the department the cost of which is included in the estimate of direct structural costs is necessary for a clear concept of the part that the Stores Department would play in the reproduction program.

[fol. 8075] As material would be ordered for pipe lines, drilling wells, compressor stations and other elements of the property, it would be necessary to employ divisional storekeepers and warehousemen. It would be the duty of the storekeepers to keep the supervision of the Construction Department fully advised as to the receipt of material, and be responsible for the following:

1. The receipt and issuance of all material.

2. The uncrating and storing of all material.

3. The unloading and tallying of pipe when received.

4. The checking of material against purchase orders.

5. The payment of all freight and express charges.

6. The origination of all claims for damages and shortages.

7. The draying of material to and from warehouses.

8. The keeping up with material used on completion reports.

9. The keeping of drum records for oxygen and acetylene drums.

10. Locating where material is to be used by account numbers.

11. The purchasing of emergency material needed by the Construction department.

12. The issuance of material received reports, storehouse requisitions, and transfers.

13. The origination of purchase requisitions for material needed in construction.

14. The tallying of pipe on various lines constructed and other similar details.

All records and supervision in connection with the above field work would be kept and maintained by the General Stores Division.

It would be necessary for the Stores Department to have constant and close contacts with the Purchasing Department, the Rights-of-way Department, the Engineering Department, and the Construction Department for the purpose of securing prompt delivery of material and the pre- [fol. 8076] vention of the delivery of defective material or material unsuited for specific purposes. It would also be necessary for the Stores Department to provide for the vouchering of all invoices, the registering of invoices, and the listing of all invoices by voucher number.

After warehouses had been located for the construction of compressor stations and for field work, stock records

would be set up in the general office in order to maintain a record of material used on the various accounts. After the construction work had progressed and some of the stations and lines had been completed, it would be necessary to add to the general office force a surplus material clerk whose duties will be developed in the subsequent discussion.

Supervisor of Stores

In the reproduction of Lone Star Gas Company, the duties of the supervisor of stores would be so numerous and varied that in order to properly discharge these duties he should have a thorough knowledge of all materials which he would be called upon to handle, and of the purpose for which they would be used. He should also thoroughly understand the principles of accounting in order to furnish correct distribution for material received, or used out of his warehouses. He would act in a supervisory capacity, seeing that materials would be unloaded promptly and that pipe would be strung satisfactorily on pipe lines; that warehouse stocks would be kept up and pipe properly checked as it would be delivered to the job. He should see to the payment of invoices, the filing of claims and many other details which would come up during a construction period of this length of time, and on a construction program of this magnitude.

In order to secure a man with these qualifications, it [fol. 8077] would be necessary to secure him from some supply house or preferably, from some other natural gas company.

Stenographer for Supervisor of Stores:

It would be necessary for a stenographer for this position to have had experience with a supply house and to be thoroughly familiar with pipe and fittings, as well as with filing.

Assistant Supervisor of Stores:

The assistant supervisor of stores would be required to have practically the same general knowledge as the supervisor of stores. He would take care of the overflow of details. He should also be familiar with all classes of material and accounting procedure, as he would be respon-

sible for the reports on receipt of material, transfers covering material used, and the account numbers on which the material would be used. It would be his duty to see that the general office would function properly; that payment of invoices would be made promptly in order to secure discounts; to keep up with the construction work in the field, and to see that the field storekeepers were taking care of their work in a proper manner.

In order to secure a man of the above qualifications, it would be necessary to secure him from some supply house or gas company.

Stenographer for Assistant Supervisor of Stores:

It would be necessary for a stenographer for this position to have had experience with a supply house and to be thoroughly familiar with pipe and fittings, as well as with filing.

Chief Clerk:

The chief clerk's duties would be the supervision of all of the work of the clerks in the Stores Department, to see that the invoices were paid promptly and properly entered [fol. 8078] on stock records; that transfers were priced and entered on stock records, and to supervise the handling of material transfer orders and material records. It would also be his duty to handle office correspondence and to see that the department functioned properly.

To secure the services of a man of the above experience, it would be necessary that he be secured from a supply house or another gas company.

Voucher Clerk:

The duties of the voucher clerk would be to voucher all invoices with voucher checks and to keep an invoice register showing the date paid and the voucher number covering, and to see that all invoices were paid promptly in order to take advantage of cash discounts.

Invoice Clerks:

After construction work is fully started, it would be necessary to have two additional invoice clerks who would assist the voucher clerk in the paying of invoices and the checking

of the invoice register by showing the voucher numbers and dates paid, as well as to see that all invoices were paid in time to take advantage of cash discounts.

Surplus Material Clerk:

As all purchase requisitions would be passed to the Stores Department, it would be the function of the surplus material clerk to keep informed relative to any surplus material from pipe line, compressor station, and other construction for the purpose of furnishing material for construction from surplus stock rather than by the purchase of new material. This clerk would be one of the most important employees in the department. A failure on his part to properly discharge his duties would result in an accumulation of surplus [fol. 8079] material in warehouses with corresponding losses resulting therefrom. A thorough knowledge of materials of construction would be required as a qualification of this clerk.

Combination Stenographer and Comptometer Operator:

It would be necessary to have a combination stenographer and comptometer operator in the invoice department, preferably someone who had had experience with a supply house or a gas company. He would check discounts and prices on invoices and tally sheets, and write letters regarding statements and other office details.

Price Clerk:

It would be the duty of the price clerk to price all transfers and material received reports and to see that they would be properly entered on the stock records. This man should be familiar with all classes of material. He should also be familiar with accounting procedure of the company, and it would be his duty to see that transfers would be properly priced.

In order to secure a man of this experience it would be necessary to secure him from some supply house.

Stock Record Clerks and Machine Operators;

It would be the duty of the stock record clerks to keep the stock records up to date, handle all material, receive reports with invoices, and enter the stock records; handle all trans-

fers in and out of the respective warehouses and to be familiar with the operation of a Burroughs Posting Machine and a Moon Hopkins Machine in order to handle these transfers. He would keep the stock records up to date, and take off monthly balances for the Stores Department statement of material on hand. These clerks should be familiar with material of all kinds, keep themselves posted in prices [fol. 8080] and also see that transfers were handled properly.

Comptometer Operators:

It will be necessary after construction work advances to have two comptometer operators for the extension of material received reports, prices of material and the checking of transfers, invoices and pipe tallies.

Stenographers:

It would be necessary to have two stenographers in this department after material begins to arrive to write letters on material which has been damaged or is short in shipment, or any other letters for anyone under the chief clerk. They should also be thoroughly familiar with filing and receive all mail for this department.

Field Material Supervisor:

This man should be familiar with all classes of material and should keep up with all construction work, oversee the pipe stringing foreman, see that the pipe as well as other material were handled properly. He would have to be a good organizer, as the inventory men and district storekeepers, as well as the storekeepers would be under his general supervision during the construction period. He would be in the field practically all the time in direct connection with all of the work that would be going on. He should be able to line up all storekeepers in the field as to the proper procedure in handling Stores Department records. He would report daily to the supervisor of stores or his assistants on various matters pertaining to construction. In order to obtain a man with these qualifications it would be necessary to secure him from some supply company or gas company.

[fol. 8081] Inventory Men:

After construction work has made some progress and various stations have been completed, it would be necessary to have inventory men close out the expenditure requisitions and take inventories of material that would be left over from construction. These inventory men should thoroughly understand all classes of material, and the general routine of stores work and also be familiar with accounting procedure. They should be able to advise and instruct the storekeepers and warehousemen with whom they might come in contact. They would also furnish routing and destination points for the delivery of material, and report to the field material supervisor. To secure two men for this work, it would be necessary to get them from a supply house or some other gas company.

Progress Report Clerk:

It would be necessary when construction began to have a progress report clerk who would check progress reports on pipe received and other material, showing how much pipe had been strung each day and the general progress made during construction. This man should be familiar with all the field operations and the location of the work, as he would be required to work in connection with the field material supervisor in regard to the handling of trucks and truck drivers. He would also have to keep in touch with all the gangs that might be working each day.

Combination Stenographer and Comptometer Operator:

It would be necessary to have a stenographer in the inventory department for the filing and writing of letters. During the first year of construction a combination stenographer and comptometer operator would suffice for this work. After [fol. 8082] construction had progressed a comptometer operation in addition to the stenographer would be required.

Defendant's Exhibit No. 28—Continued

Schedule of Salaries

Position	Monthly Rate	Annual Total
Supervisor of stores	$450	$5,400
Assistant supervisor of stores	250	3,000
Chief clerk	200	2,400
Stenographer	125	1,500
Stenographer	115	1,380
Voucher clerk	175	2,100
Invoice clerk	125	1,500
Invoice clerk	125	1,500
Stenographer and comptometer operator	125	1,500
Surplus material clerk	165	1,980
Price clerk	135	1,620
Stock record clerks and machine operators (Each)	125	1,500
Comptometer operators (Each)	115	1,380
Stenographers (Each)	100	1,200
Field material supervisor	200	2,400
Inventory men (Each)	175	2,100
Progress report clerk	150	1,800
Comptometer operator and stenographer	100	1,200

Stationery and Office Supplies

Based upon the past experience of the department in construction, it is estimated that requirements for stationery and supplies would cost $12,500.

Total $12,500

Transportation

Four automobiles would be required for employees of the office who would have general supervision of work in the field. These automobiles would cost $2,963 and would lose their entire value during the progress of the work.

Total $2,963

Traveling Expenses

Traveling expenses of the supervisor and inventory men. [fols. 8083-8084] As previously developed, the Stores De-

partment would be responsible for the routing and destination of pipe and equipment, the rent of temporary warehouses, the unloading and stringing of pipe, and other field operations. At least four men from the department would be traveling a major portion of time involved in construction. The expenses of these men have been estimated at $21,350.

Total $21,350

Communication

Long distance tolls, telegrams and telephones. Due to the fact that the company lines would not be built in advance of construction, the Stores Department would incur large expenditures on account of long distance tolls. These calls would become less during the progress of construction on account of the partial completion of the company system. It is estimated that the cost of tolls for the pre-construction and construction periods would be $15,000.

Total $15,000

The charges for telegrams during the pre-construction and construction periods would necessarily be large. This estimate has been based upon the actual expenditures for the department during periods in which a large amount of construction work was current. The estimated amount has been placed at $5,000.

Total $5,000

For the office force of the department to function properly, eight telephones at a cost of $27.50 would be required for the period, or a total outlay of $1,155.

Total $1,155

[fol. 8085] Stationery Department

Summary of Salaries and Expenses

Salaries:		
Pre-Construction period	$6,820	
Construction period	45,540	
Post-Construction period		
		$52,360

Defendant's Exhibit No. 28—Continued

Office Furniture and Fixtures:		
Depreciation based on total cost of $6,888 as shown by detailed inventory		$1,975
Stationery and Supplies:		
Pre-Construction period	$490	
Construction period	1,803	
Post-Construction period		
		2,293
Traveling Expenses:		
Supervisor		525
Communication:		
Telephone exchange service	$1,529	
Dictograph installation	700	
Telephone tolls	1,470	
Telegraph tolls	630	
		4,329
Total		$61,482

(Note) Office rent is included under Undistributed General Costs. The estimated net floor space that would be required for the Stationery Department is 3,062 square feet.

Duties of the Department and Personnel Analysis:

This department would report directly to the Purchasing Agent.

The duties of this department would be to promptly furnish the general and field offices with all office furniture and equipment, properly maintain this equipment, and supply all offices with printing, stationery, office, and janitor's supplies. This department would be responsible for the maintenance of sufficient stock at all times. It would prop- [fol. 8086] erly receipt, disburse, and account for this stock, and assist in the standardization of office equipment, furniture, printed forms, and supplies for the purpose of economy and practicability.

In the reproduction of Lone Star Gas Company, this department would function from the beginning of organization or six months prior to actual construction, and would require at the outset a suitable department head and four experienced clerks, as follows:

Chief clerk.
Secretary and order clerk.
Stock record and disbursement clerk.
Multigraph and mimeograph operator.

As the organization man-power increased it would be necessary to increase the Stationery Department force by the employment of an additional multigraph operator, a disbursement clerk and, when the field foremen and storekeepers were about 50% organized, a shipping clerk. The department would be complete at least sixty days prior to actual construction.

Assistant Purchasing Agent:

The assistant purchasing agent should be a man of experience in accounting, selling and purchasing, and should be thoroughly familiar with classes and values of office furniture, equipment and supplies. He should also have a knowledge of paper stocks and printing methods and be capable of contacting the public as well as the department heads of the organization. His specific duties would be:

The selection of suitable department personnel.
The purchasing of office supplies and equipment.
The surveying of sources of supply, furniture and equipment houses, printing and lithographing establishments.
[fol. 8087] The supervision of department work.
The assisting of all departments in selection of proper stocks, sizes and binding or filing methods for all forms and suitability of various grades of supplies and determining the maximum and minimum required of such items.
The making of contracts for purchases of such equipment or service as should be contracted for.
The interviewing of sales representatives.
The accounting for disbursements.
The handling of correspondence.

Chief Clerk:

The chief clerk should have a thorough knowledge of general office and stock handling procedure and he should be an experienced office supply man. His specific duties would be:

The assisting of the department head in various duties.

The maintaining of records on brief cases, typewriters, furniture, statements and shipments.

The checking of all orders, invoices, statements and shipments.

The keeping current of all price lists and catalogues.

The transferring of surplus equipment and supplies from points where not in use to points where needed.

The making up of requisitions for stock items.

The promotion of a feeling of friendliness between employees of this and other departments.

The checking of multigraph shop job tickets and estimating the savings effected by that department.

The handling of correspondence.

Secretary and Order Clerk:

A secretary and order clerk should be experienced in secretarial and general office work and have a knowledge of purchasing procedure. His specific duties would be:

The contacting of sales representatives.

Secretarial work.

The typing of purchase orders and statements.

The making up of quotation sheets and the listing of bids on bid cards.

Filing.

The keeping of furniture transfer records.

Multigraph Operator:

The multigraph operator should be experienced and thoroughly capable of handling all phases of multigraphing and mimeographing.

[fol. 8088] His specific duties would be as follows:

The setting of forms for multigraph.

The operating of multigraph and mimeograph machines.

The knocking down of forms run on multigraph.

The cutting of mimeograph stencils other than circular letters for various departments.

The cutting of paper for forms run.

The cutting of paper stock for field stationery, file backs, index cards.

The gathering of forms of more than one copy.

The padding of forms.

The washing and repairing of multigraph.

The working up of job tickets on jobs done in shop.

The binding of books.

The Disbursement Record and Invoice Clerk:

The disbursement record and invoice clerk should have general office experience with a working knowledge of stock handling and accounting. His duties would be as follows:

The posting of each day's disbursements and receipts.
The compilation and checking of monthly statement of disbursements and receipts.
The crediting into stock of all material returned.
The keeping of yearly and monthly record on, and passing of all invoices and multigraph job tickets.
The receiving of shipments and deliveries.
The checking of stock currently to avoid overages and shortages.

Assistant Multigraph Operator:

The duties of the assistant multigraph operator would be as follows:

The setting and knocking down of type.
The operating of multigraph and mimeograph machines.
Trimming and padding.
Book binding.
Gathering.
The cutting and trimming of miscellaneous work in building.
Perforating and punching.

Disbursement Clerk:

The duties of the disbursement clerk would be as follows:

The handling of disbursements of supplies to general offices.
[fol. 8089] The receiving and distributing of mail.
The issuing of stationery back orders.
The issuing of notices of disbursements of numbered orders to Automobiles, Purchasing, and Stores Department.
The recording of shipments of all numbered orders or contracts.
The recapping of disbursements daily.
The compiling of records of field shipments.
The checking monthly of stationery disbursements and receipts statements.

Shipping Clerk:

The securing of approval on field requisitions.

The filling, writing-up, wrapping, and stamping of field orders.

The assisting at window of disbursements.

Going to the post office in the afternoon with shipments.

The making of stamp reports daily and monthly.

The shaving of cylinders for dictaphone.

Putting stock in bins.

The receiving and unpacking of freight and express shipments.

Schedule of Salaries

Assisting purchasing agent (Supervisor) Three years, six months $350 per month	$14,700
Chief clerk, Three years, six months $200 per month	8,400
Secretary and order clerk, Three years, six months $150 per month	6,300
Multigraph operator (Chief), Three years, six months $175 per month	7,350
Stock record and disbursement clerk, Three years, six months $125 per month	5,250
Assistant multigraph and mimeograph operator, Three years, four months $100 per month	4,000
Disbursement clerk, Three years, three months $90 per month	3,510
Shipping clerk, Three years, two months $75 per month	2,850
Total	$52,360

Stationery and Office Supplies

Based upon the actual experience of the department during the construction periods of 1927 and 1929, the expenses of the Stationery Department for stationery and office supplies would be as follows:

[fols. 8090-8091]

Pre-construction period	$490.00
Construction period	1,803.00
Total	$2,293.00

Transportation

No transportation cost would be incurred in the reproduction of Lone Star Gas Company.

Traveling Expenses

The traveling expenses of the department have been estimated at $525.00 for the three and one half year period.

Total	$525.00

Communication

The communication expenses of the department have been estimated as follows:

Telephones—exchange service	$1,529.00
Dictograph	700.00
Telephone tolls	1,470.00
Telegraph tolls	630.00
Total	$4,329.00

[fol. 8092] Traffic Department

Summary of Salaries and Expenses

Salaries:		
Pre-Construction period	$1,275	
Construction period	22,500	
		$23,775
Office Furniture and Fixtures:		
Depreciation based on total cost of $541 as shown by detailed inventory		151
Stationery and Supplies:*		
Stationery and supplies		512
Transportation:		
Pre-Construction period	$250	
Construction period	750	
		1,000
Communication:		
Pre-Construction period	$28	
Construction period	80	
		108
Total		$25,546

* Includes Interstate Commerce Commission Reports, advance copies Interstate Commerce Commission Reports, and one Hawkins' Digest.

(NOTE.) Office rent is included under Undistributed General Costs. The estimated net floor space that would be required for the Traffic Department is 420 square feet.

Duties of the Department and Personnel Analysis:

This department would report directly to the purchasing agent.

Transportation matters, particularly freight rates and routing, are intricate, therefore, trained, experienced technical man would be required. Traffic management would be essential in the economical reproduction of Lone Star Gas Company. "It is basic and fundamental to the elimination of industrial waste incident to transportation; it is recognized as indispensable to large concerns; and it renders many valuable but immeasurable services to all depart- [fol. 8093] ments which alone justify its maintenance". (Industrial Traffic Management Survey by U. S. Department of Commerce * * * Domestic Commerce Series No. 39.)

The Traffic Department's main contact would be with transportation agencies, also State and Federal Transportation Regulatory Bodies, with which matters covering freight rate adjustments would be handled.

Traffic Manager:

The specific duties of the traffic manager would be:

The supervision of the work of the Traffic Department.

The obtaining of new rates and ratings.

The obtaining of revisions in tariffs and regulations.

The securing of rate and classification adjustments or the prevention.

The determination of available freight routings and other modes of transportation.

The routing of shipments.

The responsibility for company paying just and reasonable transportation.

The quoting of rates.

The assembling of evidence for rate cases.

The filing of informal, formal, and special docket complaints.

The practice before carrier and governmental regulatory bodies.

The preparation and filing of briefs for traffic cases.

The preparation of claims for loss and damage.
The keeping of executives and others informed of current traffic changes.
The arranging of average demurrage agreements.

Rate Clerk:

The specific duties of the rate clerk would be as follows:

The routing of shipments.
The checking of freight bills for proper charges.
The tracing of shipments.
The securing of tariffs and classifications, and the maintenance of tariff file.
The assisting of the traffic manager in preparation of claims.
The studying of tariffs and keeping informed of rate changes.
The handling of diversion, or reconsignments of shipments.
The checking of transportation items on invoices.

fols. 8094-8095] Secretary:

The specific duties of the secretary would be:

The taking of dictation and writing of letters.
The handling of requisitions for supplies.
The maintenance of correspondence and claim files.
The recording of claims in claim register.
The recording of checks in payment of claims.
The following up of open claims.
The securing of freight bills and invoices to support claims.
The typing of exhibits and statements in rate cases.

Schedule of Salaries

Position	Monthly Rate	Annual Rate
Traffic manager	$300	$3,600
Rate clerk	200	2,400
Secretary	125	1,500

Stationery and Office Supplies

Based upon the actual experience of the department, the expenses of the Traffic Department for stationery and office

supplies for the three and one half years have been estimated as follows:

Office supplies	$200.00
Interstate Commerce Commission reports	256.50
Advance copies $10.00 per year	30.00
One Hawkins' Digest	25.00
Total	$511.50

Transportation and Traveling Expenses

The transportation and traveling expenses of the Traffic Department for the three and one half year period have been estimated at $1,000.00.

Total	$1,000.00

Communication

The communication expense of the Traffic Department has been estimated at $108.00.

Total	$108.00

[fol. 8096] Other General Costs

General Summary

Office building costs	$134,820
Compensation insurance	9,487
Mail room expense	11,550
Certification of expenditures	35,000
Fidelity bond expense	10,717
Total	$201,574

[fol. 8097]

Summary of Costs

Pre-Construction Period:

Office building costs	$19,260
Compensation insurance	1,357
Mail room expense	1,650
Certification of expenditures	5,000
Fidelity bond expense	1,531
Total	$28,798

Defendant's Exhibit No. 28—Continued

Construction Period—First Year:

Office building costs	$38,520
Compensation insurance	2,710
Mail room expense	3,300
Certification of expenditures	10,000
Fidelity bond expense	3,062
Total	$57,592

Construction Period—Second Year:

Office building costs	$38,520
Compensation insurance	2,710
Mail room expense	3,300
Certification of expenditures	10,000
Fidelity bond expense	3,062
Total	$57,592

Construction Period—Third Year:

Office building costs	$38,520
Compensation insurance	2,710
Mail room expense	3,300
Certification of expenditures	10,000
Fidelity bond expense	3,062
Total	$57,592

[fol. 8098]

Immediately upon the completion of corporate organization, steps would be taken to provide suitable quarters for the executives and the various departmental sections that would function throughout the pre-construction and construction periods. This would be done either by the rental of office space, the construction of permanent quarters, or by the purchase of a suitable structure.

Inasmuch as Lone Star Gas Company owned a general

office structure as of January 1, 1933, the most practical method of estimating the cost of rent during the pre-construction and construction periods is to assume that the company would acquire this building at the date of incorporation, and to fix the cost of rent upon the basis of historical operating costs including taxes and depreciation. The interest charges upon the reproduction cost of the building, and the fair market value of the land have been included in the cost of Interest During Construction and are therefore omitted from the estimate of rental charges.

The floor space required for each department that would be engaged in reproduction has been separately determined in the subsequent analyses. The aggregate floor space required indicates the necessity for the use of the entire building throughout the pre-construction and construction periods. For this reason, the cost of rent has not been segregated, but is included in the estimate as a general undistributed charge.

The General Office Structure and the General Office land owned by Lone Star Gas Company as of January 1, 1933 consisted of a ten story and basement office building, the land upon which the building is located and an adjoining lot seventy feet by ninety three feet used and useful for the [fol. 8099] purpose of parking company owned automobiles. The structure is properly designed for the purpose of accom-odating the organization during construction and the use of the parking lot would be essential.

The original cost of the land and the estimated reproduction cost of the building and its integral equipment as of January 1, 1933 were as follows:

General office land	$44,545.00
Parking lot land	18,052.00
General office structure	321,438.00
Total	$384,035.00

The General Office Structure has available for use the following areas, exclusive of elevator shafts, janitor's closets and lavatories, but inclusive of all corridors:

Defendant's Exhibit No. 28—Continued

First Floor	Square Feet
Space 1—315 South Harwood Street*	1,132.75
Space 2—313 South Harwood Street*	1,412.43
Space 3—311 South Harwood Street	1,401.75
Space 4—309 South Harwood Street	1,201.50
Space 5— Inside	475.23
Lobby	806.09
Total area nine floors 9 x 5,507.25 Square feet—area each typical floor	49,565.25
Total: Area exclusive of basement	55,995.00
Total: Area exclusive of basement, lobby and rentable area	52,043.73

*Rentable.

The average operating expenses of the General Office Structure including an annual charge of three per cent for depreciation on the reproduction cost for the years 1929, and 1930, are shown in the following tabulation. The operating expenses for the year 1933 could not be used due to the fact that certain inter-building charges were made between Lone Star Gas Company, and Dallas Gas Company during 1933 which would not be definitely segregated.

[fol. 8100]

Item	Amount 1929	Amount 1930	Average Amount
Repairs to Machinery	$109	$286	$198
Repairs to Building	577	100	339
Light and Power	4,219	4,995	4,607
Building Engineer and Helper	3,763	3,809	3,786
Water	342	373	358
Fuel	1,782	1,667	1,725
Insurance	1,158	1,251	1,205
Towel Supply	503	313	408
Miscellaneous Supplies	877	1,243	1,060
Light Globes and Electrical Equipment	130	192	161
Lubricating Oils	6	14	10
Janitor Service	8,292	9,237	8,765
Miscellaneous Tools	175	244	210

Defendant's Exhibit No. 28—Continued

Item	Amount 1929	Amount 1930	Average Amount
Advalorem Taxes (1932):			
Office Building and Site			$6,851
Parking Lot			288
Furniture and Fixtures			346
Depreciation 3% on $321,438			9,643
Total Annual Charges			$39,960
Less: Rentals			1,440
Net Annual Charges			$38,520

Office Building Costs—By Periods

Pre-Construction Period	$19,260
Construction Period—First Year	38,520
Construction Period—Second Year	38,520
Construction Period—Third Year	38,520

The office building would be used for construction in housing the personnel of some sections during the Post-Construction Period. It is assumed, however, that this construction charge would be offset by the fact that the building would not be fully occupied until the begining of the First Construction Year.

Compensation Insurance

The annual rate for compensation insurance for office employees as of January 1, 1933 was eight cents for each one hundred dollars of payroll. For engineers engaged in field work, the man-ual rate was $1.21 for each one hundred dollars of payroll.

[fol. 8101] The salaries for the various sections, as determined by the analyses are as follows:

Defendant's Exhibit No. 28—Continued

Executive Section	$397,925
Legal Section	138,120
Accounting Section	159,461
Treasury Section	87,925
Land Section	184,200
Geological Section	160,050
Purchasing Section	399,560
Engineering Section (Office)	670,066
Supervision	516,050
Other General Costs	11,550
Total	$2,724,907
Engineering Section (Field)	$603,895
Office Salaries $2,724,907 at 8 cents per $100.00	$2,180
Field Engineer's Salaries $603,895 at $1.21 per $100.00	7,307
Total	$9,487

Compensation Insurance—by Periods

Pre-Construction Period	$1,357
Construction Period—First Year	2,710
Construction Period—Second Year	2,710
Construction Period—Third Year	2,710

Mail Room Expense

The mail room personnel would be composed of one head clerk and two assistant clerks. They would be employed throughout the Pre-Construction and Construction Periods. Their salaries would be as follows:

Chief Clerk	$1,500 per annum
Assistant Clerk	900 per annum
Assistant Clerk	900 per annum

Mail Room Expense by Periods:

Pre-Construction Period	$1,650
Construction Period—First Year	3,300
Construction Period—Second Year	3,300
Construction Period—Third Year	3,300

[fol. 8102] Certification of Expenditures

The provisions of any mortgage under which funds would be advanced for the construction of the Property of Lone Star Gas Company, would require that all expenditures for construction and other general charges be checked and certified to by some independent auditing firm of national recognition. The minimum fee for such services as could be required in the reproduction of Lone Star Gas Company would be not less than $10,000 per annum. This fee would be paid by the company; although the auditing firm would be selected by the trustee.

Certification of Expenditures Costs by Periods:

Pre-Construction Period	$5,000
Construction Period—First Year	10,000
Construction Period—Second Year	10,000
Construction Period—Third Year	10,000

Fidelity Bond Expense

In the reproduction of the property and business of Lone Star Gas Company, it would be necessary for the company to be insured against fidelity losses by a Primary Blanket Fidelity Bond which would embrace the company's bondable employees. These bondable employees would be divided into three classes, A, B, and C, which are defined as follows:

"Class A—Executives, officials and all Employees who, as a part of their regular duties, Handle or Have Custody of Money, Securities or Merchandise, including in any event auditors, assistant auditors, adjustors, purchasing agents, buyers, managers, assistant managers, branch managers, superintendents, bookkeepers, cashiers, outside salesmen, shipping or receiving clerks, stock clerks, outside messengers, paymasters, timekeepers and collectors."

"Class B—Employees, other than those included in Classes A and C, Who Do Not, as a part of their regular duties, Handle or Have Custody of Money, Securities or Merchandise, including in any event inside salesmen, inside messengers, office and filing clerks, mail clerks, stenogra-

[fols. 8103-8104] phers, typists, business machine operators, telephone switchboard operators, janitors and porters."

"Class C—Wage earners (including foremen, factory workers, mechanics and laborers) Who Do Not, as a part of their regular duties, Handle Money."

It is estimated that an average of 80 employees would be embraced in Class A, an average of 250 in Class B, and a substantially larger number in Class C. A coverage of not less than $200,000 would be required for proper security of funds. The annual premium on a bond of this amount would be $3,063.

Fidelity Bond Expense—by Periods:

Pre-Construction Period	$1,531
Construction Period—First Year	3,062
Construction Period—Second Year	3,062
Construction Period—Third Year	3,062

[fol. 8105]

Summary

General Engineering Costs

First Year:

General Payroll, Travelling Expenses and Fees	$246,646.60	
Office and Field Equipment, Supplies and Expenses	17,478.72	
Field Payroll and Expenses	239,242.72	
		$503,368.04

Second Year:

General Payroll, Traveling Expenses and Fees	173,824.00	
Office and Field Equipment, Supplies and Expenses	11,354.51	
Field Payroll and Expenses	181,868.07	
		367,046.58

Third Year:

General Payroll, Traveling Expenses and Fees	126,659.00	
Office and Field Equipment, Supplies and Expenses	6,985.12	
Field Payroll and Expenses	105,622.25	
		239,266.37

Defendant's Exhibit No. 28—Continued

Fourth Year:		
General Payroll and Traveling Expenses	$17,700.00	
Office Equipment, Supplies and Expenses	280.19	
		$17,980.19
Grand Total—General Engineering Costs		$1,127,661.18

[fols. 8106-8109] Summary

Reproduction Cost of Final Engineering Records

Second Year:		
General Payroll and Travelling Expenses	$136,320.00	
Office and Field Equipment, Supplies and Expenses	11,231.00	
Field Payroll and Expenses	198,751.15	
		$346,302.15
Third Year:		
General Payroll and Travelling Expenses	88,659.60	
Office and Field Equipment, Supplies and Expenses	7,991.59	
Field Payroll and Expenses	156,484.80	
		253,135.99
Fourth Year:		
General Payroll and Travelling Expenses	68,307.00	
Office and Field Equipment, Supplies and Expenses	9,389.71	
Field Payroll and Expenses	88,555.50	
		166,252.21
Grand Total—Reproduction Cost of Final Engineering Records		$765,690.35

(Note.) The Reproduction Cost of Final Engineering Records are included as a part of Direct Structural Costs, Volume I, of this report.

• • • • • • •

[fol. 8110] General Engineering Costs and Reproduction Cost of Final Engineering Records

Definition:

As used in this estimate of the reproduction cost of the property and business of Lone Star Gas Company, General Engineering Costs and Reproduction Cost of Final Engineering Records are intended to cover the fees and expenses of consultants, the salaries and expenses of the chief engineer, the office engineers, assistant engineers, draftsmen, designers, photostat and blue print operators, clerks and stenographers from the date of the incorporation of the company until such time as the permanent engineering records in possession of Lone Star Gas Company as of January 1, 1933, would be completed. Also the cost of all supplies, office rent or its equivalent cost, tolls, telephones and telegrams, automobile expenses, insurance on employees, bonding expenses, depreciation on furniture, fixtures and equipment, and other expenses that would be incurred in the design of the constituent items of property, the preparation and maintaining of engineering records, and in the general engineering supervision of construction.

This estimate of general engineering does not include the engineering costs that would be incurred prior to the incorporation of the company and specifically treated in connection with Preliminary Development Costs, special fees paid for the design of special structures and included in the physical cost of these structures, and engineering costs directly charged to specific property accounts in the estimate of the structural costs of the physical property of Lone Star Gas Company as of January 1, 1933.

[fol. 8111] Schedule of Engineering Work:

The work that would be done by the engineering section in the reproduction of Lone Star Gas Company as of January 1, 1933, would require four years for completion. There would be three years of preliminary engineering and three years of final engineering. For two years the preliminary engineering and final engineering would be carried on concurrently.

The preliminary engineering work would be done prior to and for the construction. The final engineering work would be done after construction for permanent records, and for the operation of the property.

The first year of engineering would consist of the first year of preliminary engineering and would start six months before actual construction begins.

The Second year of engineering would consist of the second year of preliminary engineering and the first year of final engineering.

The third year of engineering would consist of the third year of preliminary engineering and the second year of final engineering.

The fourth year of engineering would consist of the third year of final engineering and would be completed six months after construction.

The schedule as above outlined is shown in graphic form in Chart of Distribution of Engineering as Related to the Construction Period.

Organization Plan, Duties of the Section, and Personnel Analysis:

The employment of the chief engineer and the office engineer would follow immediately upon the completion of cor- [fol. 8112] porate organization and the selection of the executive officers of the company.

The chief engineer and the office engineer would be furnished with copies of the preliminary engineering reports prepared for the operating group and would be advised by the general manager as to the plans of the management and the general scope and nature of the project. With this information in hand they would work out an organization covering the necessary personnel for the General Engineering Section.

The personnel indicated by the general engineering chart would be employed immediately.

The chief engineer would report to the vice president and general manager and to the general superintendent. He would supervise the work of the engineering organization, consult with and advise the heads of all construction groups in emergency matters, contact and retain all necessary consultants and specialists whose services would be required in the design and construction of the entire property and visit the various points on the property during construction when his judgment and advice would be required.

The secretary for the chief engineer would be a man of experience in order to properly handle the chief engineer's

correspondence, keep such files as the chief engineer would require to be at hand, interview callers in the chief engineer's absence, and similar duties that would arise.

The office engineer would report to the chief engineer. He would supervise and co-ordinate the work of the statistical engineer, field engineers, designing engineer, and the chief draftsman, He would contact and consult with the various department heads and assistant department heads in order [fol. 8113] to obtain such material, information and data as would be required from them by the engineering organization.

The remaining personnel of the engineering organization would consist of four groups, as follows:

The statistical engineers group which would consist of computers, inventory men, and stenographers.

The computers would receive the necessary data from the field engineers and make all calculations for line sizes in order to obtain the proper size lines in order to deliver the required gas at the points of delivery and maintain proper operating conditions. They would figure all material for pipe lines, telephone lines, compressor stations, measuring and regulating stations, and all other structures required to complete the property. They would prepare estimates of all units, write descriptions for all lands to be purchased or leased (except mineral leases), assemble all data for staking well locations and making lease surveys, and they would calculate all lease acreage and check all lease descriptions of the mineral leases for the Land and Lease Department.

The inventory men would keep daily progress of all construction on maps and forms prepared for that purpose; they would prepare a weekly report, summarize the progress of all construction, and charts to accompany same; they would keep a permanent detailed record of all pipe lines, including the length, size, type, date of completion, and date of final inventory; they would keep a permanent record of all leases purchased, including the lease number, name of lessor, area, county in which the lease is located, size of plat and by whom platted in case a plat had been made, name of the survey party and date of survey in case a survey had been made, and such other data pertaining to the leases; and they [fol. 8114] would keep an up to date summary book showing the total amounts of pipe laid by sizes and kinds, as well as preparing a statement at the end of each period, giving the same information.

The stenographers would type all requisitions for material to be used in construction which would include checking the purchase orders and material received reports with the original requisitions to avoid discrepancy; they would type all descriptions prepared by the computers for all necessary sites to be secured; they would type all estimates of cost of construction prepared by the computers; they would type all correspondence with the field engineers and surveying parties, and other miscellaneous correspondence and office work; they would type all progress reports of construction, and also all pipe line statements; and one of the stenographers would keep files (except the filing of notes and drawings mentioned later) of the engineering department.

The group of field engineers would count and locate the houses in the communities under consideration for service, and classify the probable consumers as to probable consumption.

They would supervise the work of the survey parties, contact all field organization in order to correlate the engineering departments field work with the other groups in order to obtain an efficient and prompt dispatch of all work done in connection with the other groups, make reconnoissance surveys, supervise the bridge inspectors, and do all other work of this character that might become necessary.

One group of designers under the supervision of the designing engineer would furnish all necessary data to the draftsmen for the drawing up of all plans, write all specifi- [fol. 8115] cations for the construction of all plants and structures, and interview the representatives of the manufacturers of all equipment that would be considered for all plants and structures.

Another group would work under the supervision of the chief draftsman, who would have such assistants as would be necessary for the proper supervision of this group. This group would consist of draftsmen, file clerks, blueprint operators, and a photostat operator. This group would draw all maps, plans and charts, maintain files of all drawings and notes, correspondence, and data used in the preparation of the drawings, mount the system map as the sheets were made, make blueprints, photostat prints, and keep a set of maps posted to date for the general superintendent, chief engineer, production superintendent, and the superintendent of the Lease Department.

Defendant's Exhibit No. 28—Continued

Schedule of Salaries

	Month	Year
Chief Engineer	$1,000	$12,000
Office Engineer	400	4,800
Chief Draftsman	300	3,600
Designing Engineer	300	3,600
Field Engineer (Head of group)	300	3,600
Statistical Engineer	300	3,600
Assistant Chief Draftsman (Head)	275	3,300
Field Engineers	275	3,300
Designers	250	3,000
Assistant Chief Draftsman	250	3,000
Computers	200	2,400
Secretary for Chief Engineer	175	2,100
Draftsman (Average)	170	2,040
Inventory men	170	2,040
Photostat operator	160	1,920
Blueprint operator	160	1,920
Blueprint Photostat helper	150	1,800
File Clerk (Head of group)	150	1,800
Stenographer (Head of group)	135	1,620
File Clerks	125	1,500
Stenographers	125	1,500
Car cost	175	2,100
Expenses per man	125	1,500

Helpers employed locally by field engineers to assist in house counting $4.00 per day.

[fol. 8116] Schedule of Salaries

	Month	Year
Chief Engineer	$1,000	$12,000
Office Engineer	400	4,800
Chief Draftsman	300	3,600
Designing Engineer	300	3,600
Field Engineer (Head of Group)	300	3,600
Statistical Engineer	300	3,600
Assistant Chief Draftsman (Head of Group)	275	3,300
Field Engineers	275	3,300

Defendant's Exhibit No. 28—Continued

	Month	Year
Designers	250	3,000
Assistant Chief Draftsman	250	3,000
Computers	200	2,400
Secretary of Chief Engineer	175	2,100
Draftsmen (Average)	170	2,040
Inventory men	170	2,040
Photostat operator	160	1,920
Blueprint operator	160	1,920
Blueprint-Photostat helper	150	1,800
File Clerk (Head of Group)	150	1,800
Stenographer (Head of Group)	135	1,620
File Clerks	125	1,500
Stenographers	125	1,500
Car cost	175	2,100
Expenses per man	125	1,500

Helpers employed locally by field engineers to assist in house counting—$4.00 per day.

[fol. 8117] First Year Engineering

(Here follows 1 photolithograph, side folio 8118)

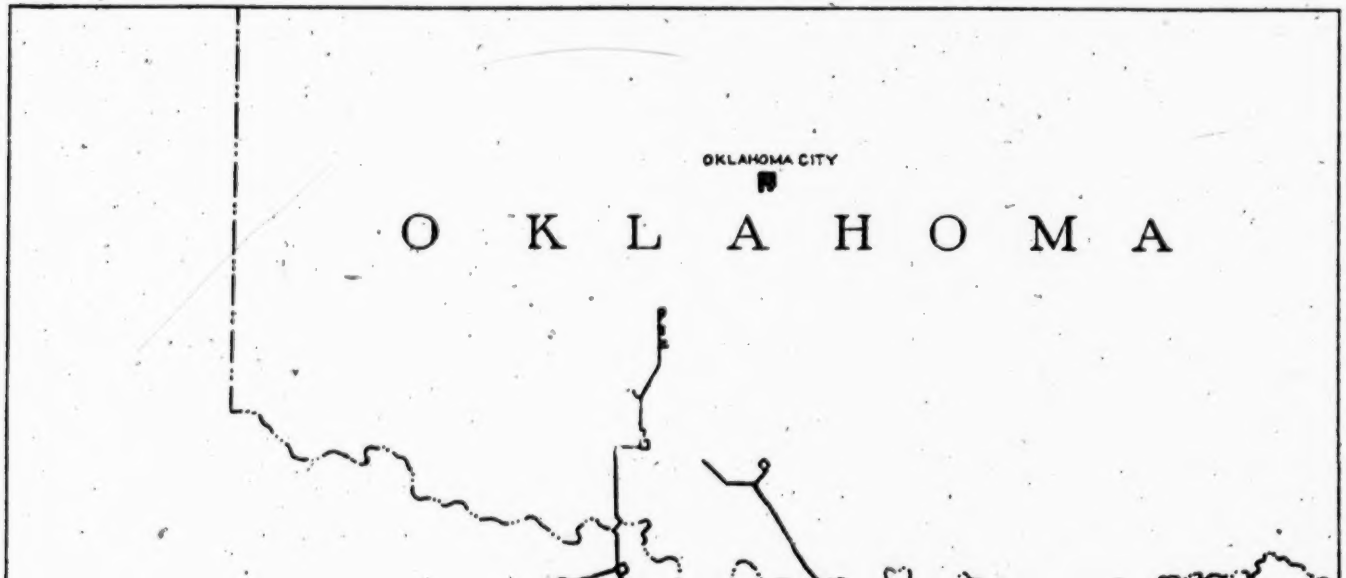
BLANK

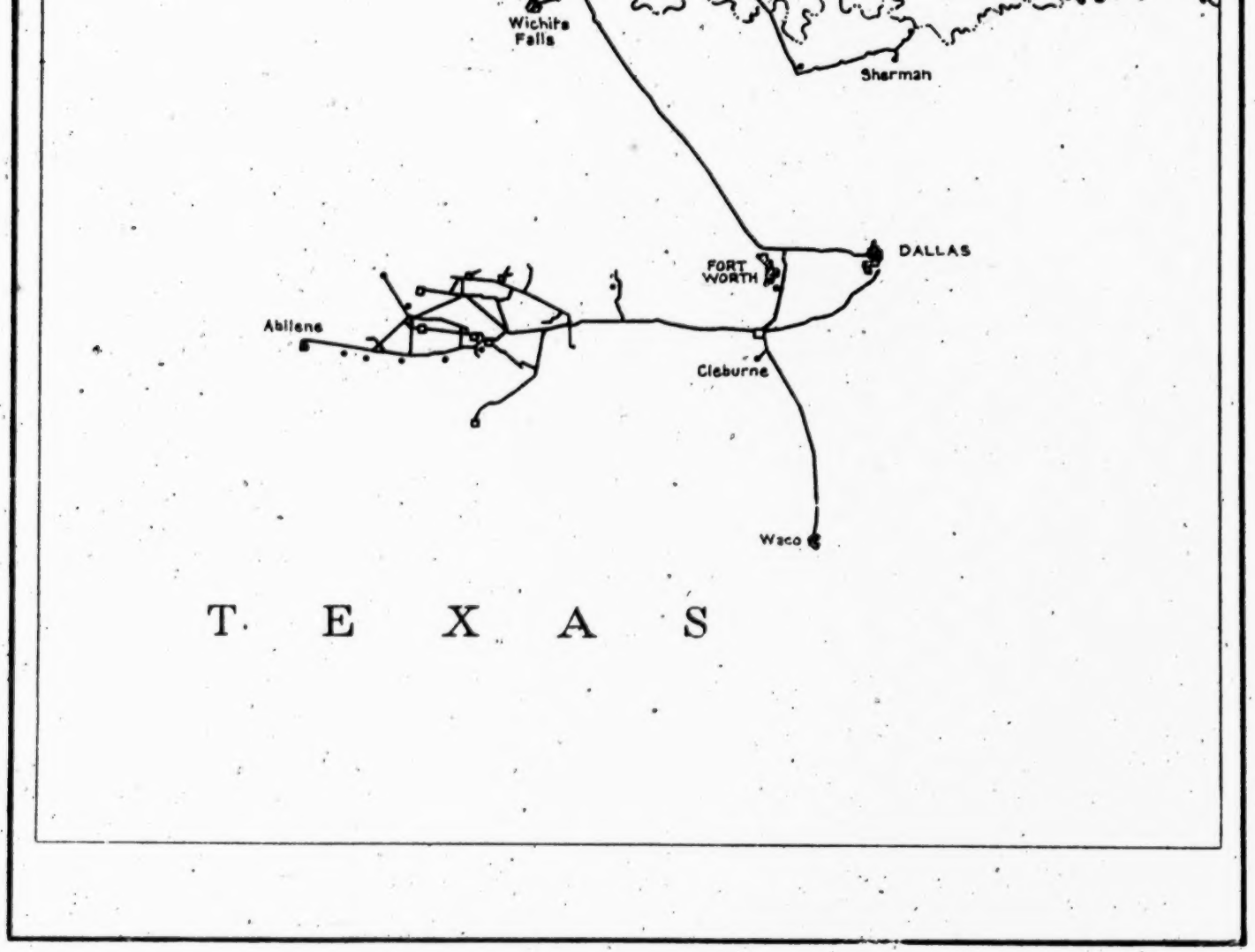
PAGE

LONE STAR GAS CO.
-CONSTRUCTION PERIOD-
FIRST YEAR

8118

SCALE
0 10 20 30 40
Miles




Wichita Falls
Sherman
DALLAS
FORT WORTH
Abilene
Cleburne
Waco
T E X A S

9786A

BLANK

PAGE

Defendant's Exhibit No. 28—Continued

[fol. 8119] Payroll for First Year of Engineering

General Engineering Cost

Chief Engineer	$12,000.00	
Secretary of Chief Engineer	2,100.00	
Office Engineer	4,800.00	
		$18,900.00
Statistical Engineer	3,600.00	
Computers 8.06 at $2,400.00	19,344.00	
Inventory men—2.33 at $2,040.00	4,753.20	
Stenographer (Head of Group)	1,620.00	
Stenographers—2.83 at $1,500.00	4,245.00	
		33,562.20
Field Engineers (Head of Group)	3,600.00	
Field Engineers—3.58 at $3,300.00	11,814.00	
		15,414.00
Designing Engineer	3,600.00	
Designers 5.40 at $3,000.00	16,200.00	
		19,800.00
Chief Draftsman	3,600.00	
Ass't Chief Draftsman (Head of Group)	3,300.00	
Ass't Chief Draftsmen 2.32 at $3,000.00	6,960.00	
Draftsmen 49.76 at $2,040.00	101,510.40	
File Clerk (Head of Group)	1,800.00	
File Clerks 2.12 at $1,500.00	3,180.00	
Photostat Operator	1,920.00	
Blueprint Operator	1,920.00	
Blueprint-Photostat Helper	1,800.00	
		125,990.40
Car Cost 5.58 at $2,100.00		11,718.00
Expenses 5.58 men at $1,500.00		8,370.00
Helpers counting houses—723 days at $4.00		2,892.00
Consulting Fees		10,000.00
Total		$246,646.60

Defendant's Exhibit No. 28—Continued

[fol. 8120]

Engineering Personnel Required for the First Year of Engineering

General Engineering Cost

Chief Engineer		Entire year
Secretary of Chief Engineer		Entire year
Office Engineer		Entire year
Statistical Engineer		Entire year
Computers as shown in detail	16,156	Hours
Plus 10% Omissions and Contingencies	1,616	
Total	17,772	Hours
17,772 divided by 2206 = 8.06 Computer years		
Inventory men as shown in detail	4,667	Hours
Plus 10% Omissions and Contingencies	467	
Total	5,134	Hours
5,134 divided by 2206 = 2.33 Inventory men years		
Stenographers as shown in detail	7,683	Hours
Plus 10% Omissions and Contingencies	768	
Total	8,451	Hours
8,451 divided by 2206 = 3.83 Stenographer years		
Field Engineers		
Survey Party days as shown in detail	3,314	Days
3,314 divided by 3 = 1105 Field Engineering Days		
Field Engineer Days	1,105	Days
Obtaining data for calculating Pressure and Volumes, etc.	63	
Total	1,168	Days
1,168 divided by 255 = 4.50 Field Engineer Years		
Designing Engineers		Entire year
Designers as shown in detail	10,822	Hours
Plus 10% Omissions and Contingencies	1,082	
Total	11,904	Hours
11,904 divided by 2206 = 5.40 Designer Years		

[fol. 8121]

Chief Draftsman		Entire year
Assistant Chief Draftsman—1 for each 15 Draftsmen		
Draftsmen years	49.76	years
49.76 divided by 15 = 3.32 Assistant Chief Draftsmen years		
Draftsmen as shown in detail	99,783	Hours
Plus 10% Omissions and Contingencies	9,978	
Total	109,761	Hours

Defendant's Exhibit No. 28—Continued

109,761 divided by 2206 = 49.76 Draftsmen Years
File Clerks—1 for each 15 Draftsmen
49.76 divided by 15 = 3.32 File Clerk Years
Photostat Operator.....Entire year
Blueprint Operator.....Entire year
Blueprint-Photostat Helper.....Entire year

(Note.) In the estimated man years for computers, inventory men, stenographers, designers and draftsmen, 2206 hours of work per man per year has been used as effective. This figure was obtained as follows:

Days per year		365.00
Sundays	52.00	
Saturdays 52 half days or	26.00	
Holidays	7.00	
Time lost account of sickness (1930 and 1931 experience)	4.25	
		89.25
Effective Days		275.75
275.75 at 8 hours per day		2,206.00 Hours

(Note.) In the estimated man days for field engineers 255 days of work per man per year has been used as an effective year. This figure was obtained as follows:

Days per year		365.00
Sundays	52.00	
Saturdays 52 half days or	26.00	
Holidays	7.00	
Sickness	4.00	
Bad weather and travelling	21.00	
		110.00
Effective Days		255.00

[fol. 8122] First Year Details

(Note.) In connection with all details wherein quantities are designated Preliminary and Final, in each of the three years the Preliminary quantities are applicable to the engineering year under which they are shown while the Final quantities are applicable to the following years engineering.

For example, in the detail of First Year Statistical Engineer, the preliminary time spent by inventory men is applicable to the first year's engineering while the final time for inventory men shown in detail of First Year Statistical Engineer is applicable to second year's engineering.

Defendant's Exhibit No. 28—Continued

[fol. 8123]

First Year Statistical Engineer

	Computers Prelim.	Inventory Men Prelim.	Inventory Men Final	Stenographers Prelim.	Stenographers Final
K Line system including telephone line, bridges and other structures	671	678	71	495	153
J Line system including telephone line and other structures	133	61	7	54	17
O Line system including telephone line and other structures	430	256	50	265	72
L Line system including all structures	79	85	5	46	16
B Line system including telephone line and other structures	242	214	10	125	54
C Line system including telephone line and other structures	205	73	5	70	27
H Line system including telephone line, bridges and other structures	948	288	23	314	83
A Line system including telephone line and other structures	76	34	5	38	10
G Line system including telephone line, bridges and other structures	297	252	20	239	60
E Line system including all structures	119	86	12	59	15
Numbered line system including all structures	737	476	104	475	93
All Well Lines	2028	808	733	1012	226
Railroad crossings, checking and transmitting preliminary alignments	134	....	....	226	....
Miscellaneous fuel, water, and telephone lines	75	20	35	60	18
Mineral Wells, Joshua, Comanche, Moran and Eastland Warehouses	459	60	....	116	25
Dallas Machine Shop, Lakes and Pump Station	497	118	....	241	29
Leases and gas purchase contracts	1280	327	....	30	....
Miscellaneous main line sale measuring station	38	15	....	17	4
Petrolia Compressor Station	1748	126	....	439	85
Gas City Compressor Station	526	55	....	225	28
Fox Central Compressor Station	907	72	....	286	37
Joshua Compressor Station	1123	117	....	467	84
[fol. 8124]					
Caddo Compressor Station	476	72	....	225	41
Breckenridge Compressor Station	586	61	....	260	42
Ibex Compressor Station	490	72	....	228	40
Ranger No. 3 Compressor Station	615	62	....	263	47
Ranger No. 4 Compressor Station	375	52	....	163	21
Pueblo Compressor Station	406	55	....	202	45
Sipe Springs Compressor Station	456	72	....	218	40
Filing (All Engineering Department except notes and drawings)	....	....	....	550	550
Total Hours	16,156	4,667	1,080	7,683	1,958

Defendant's Exhibit No. 28—Continued

[fol. 8125] House Count and All Other Data for Calculating Loads

First Year

Town	Field Engr. days	Number of Helpers	Helpers Man Days
Abilene	3	9	27
Albany	1	2	2
Baird	1	2	2
Cleburne	2	9	18
Clyde	1	1	1
Dallas	14	16	224
Denison	2	10	20
Eastland	2	3	6
Fort Worth	14	18	252
Moran	1	1	1
Putnam	1	1	0
Sherman	2	10	20
Waco	4	9	36
Wichita Falls	4	8	32
Gainesville	1	7	7
Cisco	1	9	9
Brazos	1	0	0
Sedwick	1	0	0
Forrest Hill	1	0	0
Total	57		657
Plus 10% for investigating towns and communities that would not be served	6		66
Total	63		723

Defendant's Exhibit No. 28—Continued

[fol. 8126] First Year Surveying Party Days

	Prelim.	Final
K Line system including telephone lines, bridges, and other structures	434	304
J Line system including telephone lines, and other structures	31	35
O Line system including telephone lines, and other structures	145	143
L Line system including all structures	46	34
B Line system including telephone lines and other structures	113	108
C Line system including telephone lines, and other structures	46	55
H Line system including telephone lines, bridges, and other structures	296	165
A Line system including telephone lines, and other structures	17	21
G Line system including telephone lines, bridges, and other structures	261	119
E Line system including all structures	40	30
Numbered lines including all structures	228	186
All well lines, including all structures	66	452
Miscellaneous fuel, water and telephone lines	50	35
Mineral Wells, Joshua, Comanche, Moran, and Eastland Warehouses	12	50
Dallas Machine Shop, Lakes and Pump Stations	38	57
Leases	470	
Miscellaneous main line sale measuring stations		8
Petrolia Compressor Station	117	169
Gas City Compressor Station	51	57
Fox Central Compressor Station	63	74
Joshua Compressor Station	112	159
Caddo Compressor Station	58	82
Breckenridge Compressor Station	55	81
Ibex Compressor Station	53	80
Ranger Number 3 Compressor Station	63	95
Ranger Number 4 Compressor Station	31	42

Defendant's Exhibit No. 28—Continued

	Prelim.	Final
Pueblo Compressor Station	60	90
Sipe Springs Compressor Station	57	79
	3,013	2,810
Plus 10% Omissions and Contingencies	301	281
Total	3,314	3,091

[fol. 8127] First Year Designing Time

	Hours
Measuring stations	2,415
River Crossings	144
Warehouses, Pump Stations, and Camp Sites	1,273
Standard Drawings	814
Telephone Booths, and Miscellaneous Drawings	182
Petrolia Compressor Station	1,292
Gas City Compressor Station	409
Fox Central Compressor Station	675
Joshua Compressor Station	942
Breckenridge Compressor Station	351
Ibex Compressor Station	354
Caddo Compressor Station	434
Ranger Number 3 Compressor Station	481
Ranger Number 4 Compressor Station	287
Pueblo Compressor Station	378
Sipe Springs Compressor Station	391
Total	10,822

[fols. 8128-8192]

Maps, Plans, and Drawings—First Year

Labor—Draftsmen Only

No.	Alignment Sheets Drawing	Size in Inches	Preliminary Hours	Final Hours
19	Line K—Ibex to Joshua	15.5x36	855	956
6	Line J—Joshua to C Line	15.5x36	270	304
8	Line O—Joshua to Dallas	15.5x36	400	440
11	Line L—Joshua to Waco	15.5x36	550	600
18	Line B—Petrolia to Fort Worth	15.5x36	850	950
18	Line B—Telephone Line	15.5x36	756	846
15	Line C—Fort Worth to Dallas	15.5x36	760	850
9	Line H—Gas City to Petrolia	15.5x36	380	468
8	Line H—Telephone Line	15.5x36	340	390
3	Line A—Petrolia to Wichita Falls	15.5x36	145	165
3	Line A—Telephone Line	15.5x36	110	132

Defendant's Exhibit No. 28—Continued

No.	Alignment Sheets Drawing	Size in Inches	Preliminary Hours	Final Hours
14	Line KC—K Line to Abilene	15.5x36	725	629
2	Line KC—Telephone Line	15.5x36	94	104
11	Line G—Fox to Gainesville	15.5x36	510	580
8	Line E—Gainesville to Denison	15.5x36	200	409
1	Line E-1—Denison Tap	15.5x36	45	52
2	Line E-2—Sherman Tap	15.5x36	90	105
1	Line E-9—Gainesville Tap	15.5x36	48	55
4	Line G-A	15.5x36	180	202
8	Line G-B	15.5x36	310	346
2	Line G-B-A	15.5x36	93	105
1	Line G-C	15.5x36	40	44
6	Line 2nd H	15.5x36	244	285
1	Line HA	15.5x36	40	46
2	Line HF	15.5x36	90	104
1	Line 2nd HF	15.5x36	45	52
1	Line HG	15.5x36	47	54
1	Line HM	15.5x36	44	50
1	Line HN	15.5x36	40	47
1	Line HO	15.5x36	60	70
1	Line HR	15.5x36	35	40
2	Line HS	15.5x36	76	87
1	Line HT	15.5x36	46	50
1	Line HU	15.5x36	42	45
1	Line J-8	15.5x36	48	54
3	Line KA	15.5x36	140	160
7	Line KB	15.5x36	325	368
2	Line KB—Telephone Line	15.5x36	80	92
4	Line KBA	15.5x36	175	200
4	Line KBA—Telephone Line	15.5x36	153	168
1	Line KBAA	15.5x36	40	46
1	Line KBAB	15.5x36	44	50
2	Line KBAC	15.5x36	85	100
1	Line KBB	15.5x36	44	50
1	Line GDB	15.5x36	55	52
1	2nd H Telephone Line	15.5x36	260	288

• • • • • • •

[fols. 8193-8194]

No.	Miscellaneous Drawings (Cont'd) Drawing	Size in Inches	Preliminary Hours	Final Hours
1	Standard Legend and location for Telephone Alignment Sheets	8.5x11	....	8
1	Standard for Revision Blocks on Alignment Sheets	8.5x11	....	10
1	Chart Showing injuries to Employees	8.5x11	....	12
1	Car Numbers	8.5x11	....	2
1	Standard for Company's name on Alignment Sheets	8.5x11	....	8
3	Details for System Maps	8.5x11	....	24
1	Location for Field Maps (West Texas Field)	8.5x11	....	4
1	Location for Field Maps (Okla.)	8.5x11	....	4
	Mounting System Map	.....	96	....
	Total		99,873	83,898

• • • • • • •

Defendant's Exhibit No. 28—Continued

[fol. 8195] General Expense

Summary

General Engineering Cost

Item	Amount
Office Equipment *	$1,693.61
County Maps	942.50
Office and Field Supplies	5,962.71
Surveying Equipment Cost *	2,398.10
Telephones	712.80
Toll Charges	4,945.00
Telegrams	824.00
Total	$17,478.72

* Depreciation Only.

[fol. 8196] First Year Details

[fol. 8197] Engineering Department Office Equipment Cost—First Year

No. In Use	Item	Total Value Each	Total Value and Depreciation	Amount Charged to First Year
1	Golden oak desk—glass top 60 x 36 inches	$79.10	$79.10 at 8%	$6.33
1	Golden oak desk—glass top 72 x 36 inches	58.50	58.50 at 8%	4.68
4	Golden oak swivel arm chairs—leather seat	22.00	88.00 at 8%	7.04
12	Golden oak arm chairs—straight	11.85	142.20 at 8%	11.38
5	Golden oak—4 section book cases with top and base	43.90	219.50 at 8%	17.56
1	Golden oak telephone table	10.80	10.80 at 8%	.86
15	Golden oak costumers	7.40	111.00 at 8%	8.88
9	Golden oak globe letter trays—single	1.60	14.40 at 8%	1.15
1	Rug—14 x 16 feet	212.50	212.50 at 8%	17.00
2	Smoking stands	6.34	12.68 at 8%	1.01
2	Shaeffer double fountain pen desk sets	20.00	40.00 at 8%	3.20
8	Golden oak system map frames	12.50	100.00 at 8%	8.00
2	Thermos bottles with tray and glasses	11.40	22.80 at 8%	1.82
58	Steel mesh waste baskets	.90	52.20 at 15%	7.83
2	Brass Cuspidors	2.07	4.14 at 8%	.33
59	Enameled steel cuspidors	.85	50.15 at 8%	4.01
61	Rubber cuspidor mats	.42	25.62 at 25%	6.40
10	Staffords self-inking stamp pads	.29	2.90 at 25%	.73

Defendant's Exhibit No. 28—Continued

No. In Use	Item	Total Value Each	Total Value and Depreciation	Amount Charged to First Year
..	Rubber stamps.....	.....	$45.75 at 20%	$9.15
2	Bostich staple machines—executive type.....	$7.50	15.00 at 8%	1.20
58	Autopoint Bakelite pencils....	.40	23.20 at 8%	1.86
12	Engineer's scales—12 inches..	3.24	38.88 at 8%	3.11
11	Architect's scales—12 inches..	3.24	35.64 at 8%	2.85
6	Polyphase duplex slide rules 10 inches in case.....	8.42	50.52 at 8%	4.04
5	Golden oak typewriter desks—60 x 34 inches.....	54.60	272.00 at 8%	21.84
5	Adjustable steel chairs—leather back and seat.....	17.43	87.15 at 8%	6.97
1	Golden oak settee—48 inches..	42.00	42.00 at 8%	3.36
18	Berloy steel filing cabinets.....	27.30	491.40 at 8%	39.31
5	Royal standard typewriters...	83.03	415.15 at 8%	33.21
5	Remington Line-A-Times.....	21.00	105.00 at 8%	8.40
2	Globe letter trays—double....	4.00	8.00 at 8%	.64
4	Shaeffers single fountain pen desk sets.....	12.00	48.00 at 8%	3.84
1	Rug—10 x 14 feet.....	132.00	132.00 at 8%	10.65
[fol. 8198]				
2	Secretary's Handbooks.....	3.50	7.00 at 8%	.56
2	Dictionaries.....	5.00	10.00 at 8%	.80
30	Bostich Staple machines—standard.....	3.02	90.60 at 8%	7.25
5	Card Index cases.....	.60	3.00 at 8%	.24
1	Desk blotter holder.....	5.50	5.50 at 8%	.44
72	Sets alphabetical indexes for files.....	.95	68.40 at 25%	17.10
6	Dexter pencil sharpeners No. 2.	3.93	23.58 at 8%	1.89
1	Golden oak desk with glass top —66 x 36 inches.....	84.00	84.00 at 8%	6.72
1	Golden oak table with glass top —72 x 34 inches.....	58.00	58.00 at 8%	4.64
1	Rug—12 x 14 feet.....	158.70	158.70 at 8%	12.70
20	Golden oak desks—60 x 34 inches.....	54.60	1,092.00 at 8%	87.36
20	Golden oak swivel chairs—leather seats.....	18.50	370.00 at 8%	29.60
2	Golden oak tables—60 x 34 inches.....	30.80	61.60 at 8%	4.93
4	Golden oak chairs.....	7.50	30.00 at 8%	2.40
1	Planimeter.....	45.00	45.00 at 8%	3.60
3	Merchants Electric Calculators	425.00	1,275.00 at 8%	102.00
2	Walraven extension binders No. L-5840.....	7.20	14.40 at 8%	1.15
1	Walraven extension binder No. L-5888.....	8.44	8.44 at 8%	.67
4	Vance K. Miller Binders No. 541-A.....	1.25	5.00 at 8%	.40
1	Underwood Typewriter—26 inch carriage.....	137.70	137.70 at 8%	11.02
2	Golden oak tables—72 x 34 inches.....	35.00	70.00 at 8%	5.60
6	Sheridan Adjustable Drawing Tables No. 2263.5-B.....	65.00	325.00 at 8%	26.00
6	Golden oak desk chairs—Leather seat.....	18.50	111.00 at 8%	8.88

Defendant's Exhibit No. 28—Continued

No. In Use	Item	Total Value Each	Total Value and Depreciation	Amount Charged to First Year
10	Tee Squares — Adjustable heads—42 inches	$5.94	$59.40 at 8%	$4.75
10	45 Degree Triangles—18 inches	3.06	30.60 at 8%	2.45
10	30–60 triangles—18 inches	4.41	44.10 at 8%	3.53
..	Steel Shelving	.....	182.25 at 8%	14.58
54	Drafting tables—60 x 34 inches with drawers	26.25	1,417.50 at 8%	113.40
54	Adjustable wooden drafting stools	12.92	697.68 at 8%	55.81
50	Tee Squares—42 inches	2.86	143.00 at 8%	11.44
1	Globe Wernicke Filing Cabinet No. 7310-C	1.20	1.20 at 8%	.10
2	Beam Compasses in case	12.25	24.50 at 8%	1.96
[fol. 8199]				
3	Sets Proportional Dividers	12.50	37.50 at 8%	3.00
1	Set Wrico Lettering Guides	35.00	35.00 at 8%	2.80
4	Steel Straight edges—48 inches	7.56	30.24 at 8%	2.42
4	Vernier Protractors	9.00	36.00 at 8%	2.88
1	Golden oak tables—88 x 30 inches	48.50	48.50 at 8%	3.88
2	Hamilton File drawer bases 32 x 42 inches	6.00	12.00 at 8%	.96
13	Hamilton—5 drawer files 32 x 42 inches	28.50	370.50 at 8%	29.64
3	Hamilton File Drawer tops 32 x 42 inches	6.00	18.00 at 8%	1.44
1	Hamilton file drawer 32 x 42 inches with base	18.70	18.70 at 8%	1.50
1	Hamilton 1-file drawer 32 x 42 inches	12.00	12.00 at 8%	.96
1	Vertical steel map file	300.00	300.00 at 8%	24.00
1	Steel supply cabinet	32.00	32.00 at 8%	2.56
2	Pigeon hole horizontal map files	65.00	130.00 at 8%	10.40
1	Steel mesh waste basket, 30 inches high	3.15	3.15 at 15%	.47
7	File cases for scout tickets double	10.00	70.00 at 8%	5.60
4	Scissors—14 inches	3.75	15.00 at 20%	3.00
2	Step ladders—3 feet high	2.00	4.00 at 8%	.32
10	Oil cans — with spouts — for cleaning fluid	.25	2.50 at 20%	.50
1	Pease blueprint machine—54-inches	1,716.00	1,716.00 at 8%	137.28
1	Photostat machine—18 x 22 inches	1,188.00	1,188.00 at 8%	95.04
1	Paragon blueprint dryer 54 inches	759.00	759.00 at 8%	60.72
1	Pako Photo dryer	176.00	176.00 at 8%	14.08
2	Cooper-Hewitt mercury tube lights	80.00	160.00 at 8%	12.80
1	Photostat Washer	82.50	82.50 at 8%	6.60
1	Blueprint washer—54 inches	68.00	68.00 at 8%	5.44
1	Drying rack for negatives	41.80	41.80 at 8%	3.34
1	Blueprint table—45 x 66 inches	38.50	38.50 at 8%	3.08
1	Table—32 x 60 inches for dryer.	3.85	3.85 at 8%	.31
1	Straight oak chair	5.00	5.00 at 8%	.40
1	Galvanized iron waste paper can	2.50	2.50 at 20%	.50

Defendant's Exhibit No. 28—Continued

No. In Use	Item	Total Value Each	Total Value and Depreciation	Amount Charged to First Year
1	Blueprint paper can—8 x 55 inches	$5.00	$5.00 at 8%	$ .40
1	Photo trimmer — Eastman — 18 x 18 inches	35.00	35.00 at 8%	2.80
[fol. 8200]				
2	Loose leaf folders 8.5 x 11 inches	.88	1.76 at 25%	2.80
1	Peice plate glass 24 x 30 Gr. edge	4.50	4.50 at 25%	1.13
4	Golden oak map cases	1,309.00	5,236.00 at 8%	418.88
1	No. 60 Marvel Punch	1.65	1.65 at 8%	.13
1	Improved Hummer punch with four heads	9.90	9.90 at 8%	.79
	Technical reference books	382.50	382.50 at 8%	30.60
	Totals		$20,803.88	$1,693.61

[fol. 8201] County Maps Purchased First Year

Texas	No. Maps	Cost Each	Amount
Shackelford	6	$6.00	$36.00
Jones	3	6.00	18.00
Taylor	3	6.00	18.00
Callahan	6	6.00	36.00
Stephens	10	6.00	60.00
Palo Pinto	10	6.00	60.00
Parker	3	3.50	10.50
Hood	4	3.50	14.00
Erath	10	3.50	35.00
Eastland	10	6.00	60.00
Jack	4	6.00	24.00
Clay	10	6.00	60.00
Montague	3	6.00	18.00
Wise	3	6.00	18.00
Tarrant	3	5.00	15.00
Johnson	3	2.00	6.00
Ellis	3	2.00	6.00
Hill	3	2.00	6.00
McLennan	3	5.00	15.00
Dallas	3	2.00	6.00
Cooke	3	6.00	18.00
Grayson	4	2.00	8.00
Young	6	6.00	36.00
Throckmorton	3	3.50	10.50
Wichita	4	6.00	24.00
Comanche	10	3.50	35.00
Archer	3	6.00	18.00
Oklahoma			
Cotton	10	5.00	50.00
Stephens	10	5.00	50.00
Jefferson	10	5.00	50.00
Love	3	3.50	10.50
Carter	4	5.00	20.00
Murray	3	3.50	10.50
Garvin	3	3.50	10.50
McLain	3	3.50	10.50
Marshall	1	3.50	3.50
Bryan	3	3.50	10.50
Comanche	3	3.50	10.50
Grady	10	3.50	35.00
Total			$942.50

Defendant's Exhibit No. 28—Continued

[fol. 8202]

Engineering Department Supply Cost

First Year

General Engineering Cost

No. Units Used	Unit	Items	Unit Cost	Amount
235	Boxes	Gem Clips	$.02	$4.70
22	Pounds	Rubber Bands	.40	8.80
141	Boxes	Autopoint pencil leads	.26	36.66
21	Boxes	Bank pins	.36	7.56
7	Quarts	Blue-black fountain pen ink	.90	6.30
1	Quart	Red fountain pen ink	1.20	1.20
6	Each	Memorandum and date pads	.50	3.00
43	Boxes	Bostich Staples	1.28	55.04
1,540	Each	Autopoint pencil erasers	.0087	13.40
425	Each	Fiberstock Pockets No. 1514-C	.136	57.80
40	Boxes	Carbon Paper—8.5 x 11 inches	1.80	72.00
2,050	Each	Letterheads—Printed	.0035	7.17
6,400	Each	Yellow copy sheets	.0004	2.56
12,000	Each	Thin copy sheets	.0009	10.80
1,300	Each	Interoffice letterheads	.0008	1.04
260	Each	Interoffice envelopes	.005	1.30
6,500	Each	Letterheads—plain	.0028	18.20
6,100	Each	Small envelopes—stamped	.0322	196.42
2,400	Each	Large envelopes—stamped	.0329	78.96
31	Each	Typewriter ribbons	.46	14.26
21	Each	Typewriter erasers	.06	1.26
6	Boxes	Type cleaner—Norta	.28	1.68
1,000	Each	Manila folders	.0135	13.50
20	Boxes	Mak-Ur-On tabs	1.613	32.26
28	Dozen	No. 2 pencils	.28	7.84
288	Pads	Dietzgen No. 375 Cross Section paper	.39	112.32
180	Pads	Yellow cross section paper	.177	31.86
320	Sheets	Inventory book paper	.05	16.00
105	Sheets	Summary book paper	.0418	4.39
4	Pads	Wilson-Jones Columnar Pads No. 7025	1.00	4.00
250	Each	Pen Points	.008	2.00
26	Each	Pen staffs	.029	.75
105	Pads	Requisition on Purchasing Agent	.1103	11.58
625	Each	Karlton Klasp Envelopes 10 x 13 inches	.011	6.88
4,400	Each	Timesheets	.00135	5.94
26,250	Each	Time tickets	.0004	10.50
59	Rolls-50 Yds.	36 inch Economy Paper	3.00	177.00
315	Rolls-50 Yds.	50% 42 inch Blue print Paper	3.15	992.25

[fol. 8203]

9	Rolls-50 Yds.	42 Inch white print cloth	$40.00	$360.00
69	Rolls-50 Yds.	100% White print paper	5.15	355.35
11	Rolls-50 Yds.	Negative Paper	9.00	99.00
2,000	Pads	Scratch Pads	.01	20.00
53	Rolls-50 Yds.	36# Detail paper	4.48	237.44
233	Yards	Cheese Cloth	.0253	5.89
130	Gross	Drawing Pencils	7.20	936.00
41	Dozen	Pencil Extenders	.90	12.60
50	Gross	Lettering Pens—No. 170, 303, and 404	1.51	72.50

Defendant's Exhibit No. 28—Continued

No. Units Used	Unit	Items	Unit Cost	Amount
21	Dozen	Pen Staffs (Lettering)	$ .48	$10.08
42	Each	Crow Quill pen holders	.075	3.15
16	Gross	Crow Quill pens No. 659	6.75	108.00
126	Dozen	Ruby Erasers	.33	41.58
124	Dozen	Art Gum Erasers	.38	47.12
6	Bottles	Hyperion Eradicator	.25	1.50
26	Rolls	Transparent mending tape	.0375	.97
8	Rolls	Gummed cloth mending tape	.1996	1.60
32	Dozen	Pencil pointers	.90	28.80
13	Gallons	Carbon tetrachloride	2.00	26.00
2,100	Each	File backs—8.5 x 11 inches	.0044	9.24
1	Set (12)	Show card colors	3.00	3.00
6	Each	Show card color brushes	.30	1.80
24	Bottles	Mucilage	.375	9.00
233	Boxes (100)	Thumb Tacks	.4096	95.44
6	Each	Water color saucers	.05	.30
12	Tubes	Water colors	.15	1.80
4	Each	Water color brushes	.30	1.20
12	Bottles	Drawing Ink—Black	7.50	90.00
3	Bottles	Drawing Ink—Blue	6.00	18.00
3	Bottles	Drawing Ink—Red	6.00	18.00
6	Bottles	Drawing Ink—Yellow	6.00	36.00
3	Bottles	Drawing Ink—Orange	6.00	18.00
2	Bottles	Drawing Ink—Green	6.00	12.00
38	Cans	Tracing powder	.225	8.55
4	Balls	Heavy white twine	.1123	.45
3	Sets	Mongol Indelible colored pencils	1.00	3.00
157	Dozen	Colored pencils	.52	81.64
1	Box–100	No. 6 Brad Fasteners	.44	.44
4	Boxes–100	No. 1 Brad Fasteners	.07	.28
4	Boxes–100	No. 2 Brad Fasteners	.08	.32
4	Boxes–100	Gummed Reinforcements	.04	.16
4	Jars	Opague	.50	2.00
3,200	Each	Blotters	.0025	.....
4	Jars	Cico Paste	.2736	1.09
10	Rolls	Photostat Paper	19.30	193.00
98	Dozen	Blueprint Arc Carbons	.84	82.32
100	Pounds	Potassium Bichromate	.45	45.00
[fol. 8204]				
12	Pounds	Negative Hypo	.40	4.80
270	Boxes	Photostat Hypo	.2125	57.37
140	Boxes	Photostat Developer—Large	.6804	95.26
14	Each	Blueprint Lamp globes	1.00	14.00
4	Each	Mercury Vapor lamps	13.50	54.00
7,500	Sheets	Lefax paper—Transit	.0046	34.50
1,500	Sheets	Lefax Economy paper	.0012	1.80
7	Gross	Pencil Tip Erasers	1.07	7.49
63	Pads–100	Daily progress reports	.0781	4.92
27	Pads–100	Draft Receipts	.625	16.87
27	Pads–100	Draft Report blanks	.0839	3.02
27	Each	Draft Books (100 drafts)	.4375	11.82
215	Each	Accident report blanks	.0064	1.38
165	Each	Automobile Reports	.0724	11.95
83	Each	Local supply order books	.1089	9.04
215	Each	Expense Account blanks	.005936	1.28
		Postage	.....	60.00
166	Each	Blue lumber crayon	.07	11.62
16	Rolls–24 Yds.	42 inch tracing cloth	26.55	424.80
		Total		$5,962.71

[fol. 8205]

General Engineering Cost

First Year Surveying Equipment Cost

No.	Item	Initial Cost Each	Initial Value and Depreciation	Depreciation—First Year	Investment First Year
8	Transits complete with tripods and cases	$420.70	$3,365.60 at 25%	$841.40	$3,365.60
5	Transits complete with tripods and cases	420.70	2,103.50 at 20%	420.70	2,103.50
4	Wye levels complete with tripods and cases	215.00	860.00 at 25%	215.00	860.00
2	Wye levels complete with tripods and cases	215.00	430.00 at 15%	64.50	430.00
14	Steel tapes, 200 feet long	9.45	132.30 at 100%	132.30	132.30
12	Steel tapes, 100 feet long	5.40	64.80 at 100%	64.80	64.80
26	Range poles, 8 feet long, jointed	3.24	84.25 at 100%	84.24	84.24
6	Leveling rods—13 feet long—adjustable	14.40	86.40 at 50%	43.20	86.40
20	Sets of chaining pins 12 inches long	1.80	36.00 at 100%	36.00	[illegible].00
27	Machetes—22 inches in leather cases	3.24	87.48 at 50%	43.74	[illegible].48
1	Binoculars—32 power in leather case	22.95	22.95 at 40%	9.18	[illegible].95
4	Binoculars—32 power in leather cases	22.95	91.80 at 25%	22.95	91.80
2	Binoculars—32 power in leather cases	22.95	45.90 at 15%	6.89	45.90
14	Axes—Double Bit	1.94	27.16 at 100%	27.16	27.16
20	Axes—Pole	1.56	31.20 at 100%	31.20	31.20
26	Thermos Jug—2 gallon capacity	4.90	127.40 at 100%	127.40	127.40
57	Loose Leaf Covers—Lefax canvas back	.94	53.58 at 50%	26.79	53.58
9	Brief Cases—Engineers large	15.50	139.50 at 25%	34.88	139.50
9	Brief Cases—Engineers large	15.50	139.50 at 20%	27.90	139.50
18	First Aid Kits	3.27	58.86 at 100%	58.86	58.86
13	Protractors—6 inch Semi-circle	.45	5.85 at 50%	2.92	5.85
9	Engineers Scales—6 inches flat—in case	1.85	16.65 at 35%	5.83	16.65
9	Engineers Scales—6 inches flat—in case	1.85	16.65 at 30%	4.99	16.65
8	Surveyors Handbooks	2.50	20.00 at 25%	5.00	20.00
5	Surveyors Handbooks	2.50	12.50 at 20%	2.50	12.50
18	Loose Leaf Folders—Canvas back for 8.5x11 inch sheets	.88	15.84 at 50%	7.92	15.84
8	Surveyors Drawing Kits	1.25	10.00 at 25%	2.50	10.00
[fol. 8206]					
5	Surveyors Drawing Kits	1.25	6.25 at 20%	1.25	6.25
2	Brunton Pocket Compasses—in case	28.50	57.00 at 25%	14.25	57.00
3	Brunton Pocket Compasses—in case	28.50	85.50 at 20%	17.10	85.50
5	Thermos Jugs—1 gallon capacity	2.95	14.75 at 100%	14.75	14.75
	Total		$8,249.16	$2,398.10	$8,249.16

[redacted]

Defendant's Exhibit No. 28—Continued

[fol. 8207] First Year Blueprinting—Preliminary

Quantities in Square Feet

	Blue Prints	White Prints	Cloth Prints	Negatives
Alignment Sheets	32,268	0	0	0
Main Line Cleaners, Measuring and Regulator Stations, etc	7,098	0	0	0
Linewalker's Houses, telephone booths	235	0	0	0
Junctions, gate boxes	268	0	0	0
City Gate Stations	1,721	0	0	0
Railroad and Highway Crossings	625	0	0	0
River Crossings	1,879	0	0	0
Petrolia Compressor Station	12,390	0	0	0
Gas City Compressor Station	2,872	0	0	0
Fox Central Compressor Station	4,712	0	0	0
Joshua Compressor Station	6,098	0	0	0
Caddo Compressor Station	2,207	0	0	0
Breckenridge Compressor Station	2,779	0	0	0
Ibex Compressor Station	1,828	0	0	0
Ranger Number 3 Compressor Station	1,923	0	0	0
Ranger Number 4 Compressor Station	2,042	0	0	0
Pueblo Compressor Station	2,103	0	0	0
Sipe Springs Compressor Station	2,424	0	0	0
Camps, Warehouse, Pump Station	3,882	0	0	0
Standard Drawings	26,664	0	0	0
Lease Plats	6,103	0	0	0
County Maps	0	9,205	1,311	1,311
Sectional Maps	0	9,533	1,467	1,467
System Maps	0	3,976	0	986
Co-operative Maps	0	4,076	627	627
Totals	122,117	26,790	3,405	4,301

[fol. 8208] First Year Blueprinting—Final

Alignment Sheets	13,983	0	0	0
Main Line Cleaners, Measuring and Regulator Stations, etc	3,574	0	0	0
Linewalker's Houses, telephone booth	84	0	0	0
Junctions, Gate Boxes	175	0	0	0
City Gate Stations	738	0	0	0
River Crossings	594	0	0	0
Well Line Inventory Sheets	3,008	0	0	0
Petrolia Compressor Station	4,614	0	0	0
Gas City Compressor Station	1,077	0	0	0
Fox Central Compressor Station	1,741	0	0	0
Joshua Compressor Station	2,284	0	0	0
Caddo Compressor Station	877	0	0	0
Breckenridge Compressor Station	1,017	0	0	0
Ibex Compressor Station	689	0	0	0
Ranger Number 3 Compressor Station	723	0	0	0
Ranger Number 3 Compressor Station	766	0	0	0
Pueblo Compressor Station	789	0	0	0
Sipe Springs Compressor Station	908	0	0	0
Camps, Warehouses, Pump Stations	2,086	0	0	0
County Maps	0	4,565	808	808
Sectional Maps	0	4,766	733	733
System Maps	0	2,541	0	795
CO-operative Maps	0	2,037	314	314
Field Maps	0	5,953	1,100	1,134
Total	38,938	19,862	2,989	3,784

Defendant's Exhibit No. 28—Continued

[fol. 8209] First Year Photostating

Full Sheets

	Preliminary	Final
Land and Legal Department	991	0
Accounting Department	898	165
Treasury Department	110	88
Engineering Department	330	0
Statistical Department	330	330
Operating Department	110	110
Safety Department	55	0
Geological Department	165	55
Executive Department	82	82
Industrial Department	82	0
Stargas Department	137	0
Total	3,290	830

[fol. 8210] Floor Space Requirement

		Square Feet	
Personnel	Number	Each	Total
Chief Engineer	1	323	323
Secretary of Chief Engineer	1	209	209
Office Engineer	1	228	228
Statistical Engineer	1	200	200
Computers	8	90	720
Inventory men	3	90	270
Stenographers	4	60	240
Field Engineers	2	60	120
Designing Engineer	1	200	200
Designers	6	80	480
Chief Draftsman	1	200	200
Assistant Chief Draftsmen	4	80	320
Draftsmen	52	60	3,120
File Room	1	329	329
Blueprint and Photostat Room	1	418	418
Engineering Supply Room	1	52	52
Blueprint Supply Room	1	28	28
Map Room	1	323	323
Total Square Feet			7,600

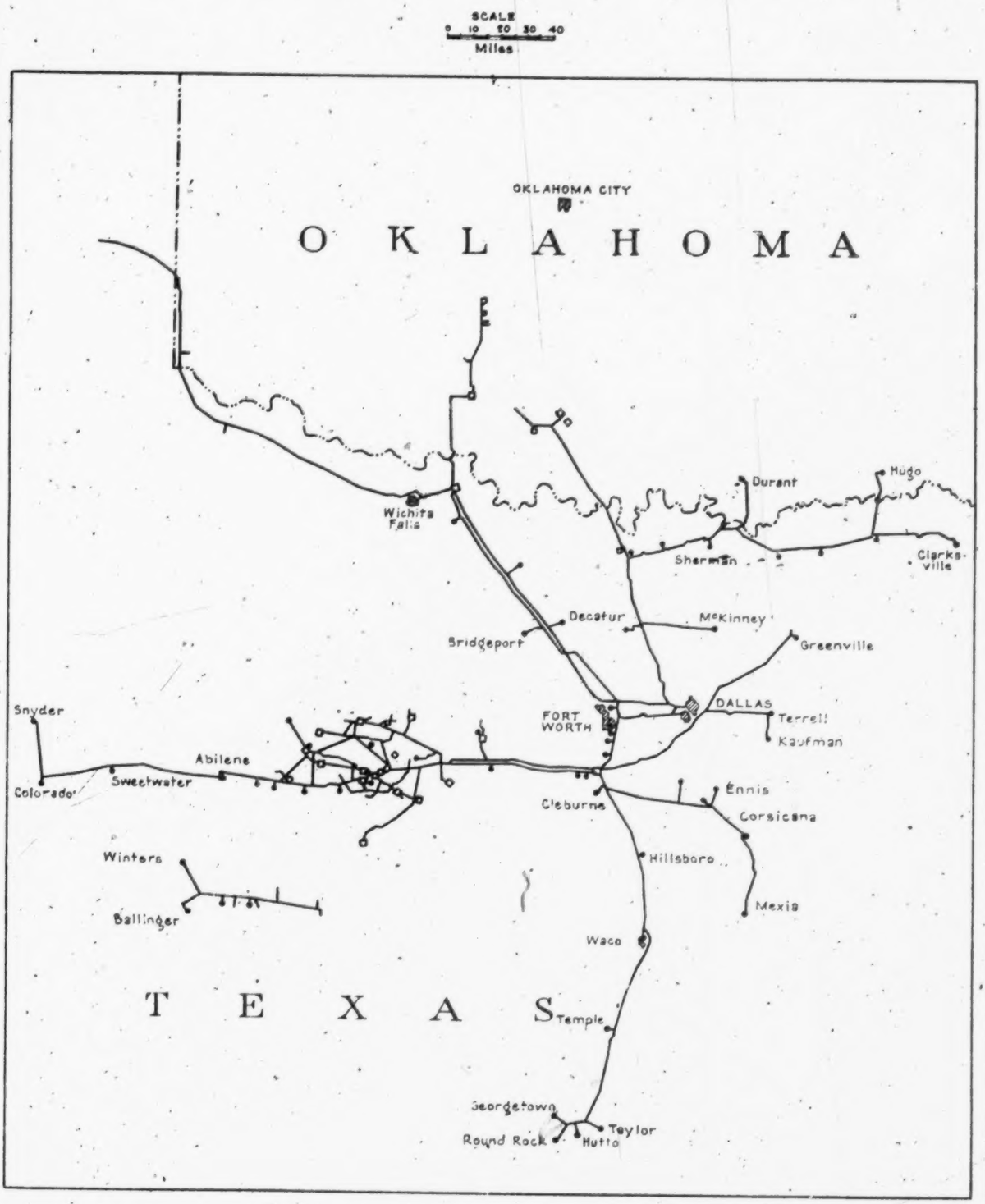
[fol. 8211] Second Year Engineering

(Here follows 1 photolithograph, side folio 8212)

BLANK

PAGE

LONE STAR GAS CO. 8212
-CONSTRUCTION PERIOD-
SECOND YEAR



2804A

BLANK

PAGE

Defendant's Exhibit No. 28—Continued

[fol. 8213]

Traveling Expenses, Fees, and Pay Roll for Second Year of Engineering

General Engineering Cost

Chief Engineer	$12,000.00	
Secretary of Chief Engineer	2,100.00	
Office Engineer .51 year at $4,800.00	2,448.00	
		$16,548.00
Statistical Engineer .86 year at $3,600.00	3,096.00	
Computers 4.68 at $2,400.00	11,232.00	
Inventory Men 1.70 at $2,040.00	3,468.00	
Stenographer (Head of Group)	1,620.00	
Stenographers 1.93 at $1,500.00	2,895.00	
		22,311.00
Field Engineer (Head of Group)	3,600.00	
Field Engineers 2.59 at $3,300.00	8,547.00	
		12,147.00
Designing Engineer	3,600.00	
Designers 3.54 at $3,000.00	10,620.00	
		14,220.00
Chief Draftsman .44 year at $3,600.00	1,548.00	
Ass't Chief Draftsman (Head of Group)	3,300.00	
Ass't Chief Draftsman 1.14 at $3,000.00	3,420.00	
Draftsmen 32.11 at $2,040.00	65,504.40	
File Clerk (Head of Group)	1,800.00	
File Clerks 1.14 at $1,500.00	1,710.00	
Photostat Operator .80 at $1,920.00	1,536.00	
Blueprint Operator .58 at $1,920.00	1,113.60	
Blueprint-Photostat Helper .69 year at $1,800.00	1,242.00	81,210.00
Car Cost 4.59 at $2,100.00		9,639.00
Expenses 4.59 men at $1,500.00		6,885.00
Helpers counting houses—216 days at $4.00		864.00
Consulting Fees		10,000.00
Total		$173,824.00

[fol. 8214]

Traveling Expenses and Payroll for Second Year of Engineering

Reproduction Cost of Final Engineering Records

Office Engineer .49 year at $4,800.00		$ 2,352.00
Statistical Engineer .14 at $3,600.00	504.00	
Inventory men .55 at $2,030.00	1,122.00	
Stenographers 1.00 at $1,500.00	1,500.00	
		3,126.00
Field Engineers 4.06 at $3,300.00		13,398.00

Defendant's Exhibit No. 28—Continued

Chief Draftsman .56 year at $3,600.00	$2,016.00	
Ass't Chief Draftsman 2.82 at $3,000.00	8,460.00	
Draftsman 42.34 at $2,040.00	86,373.60	
File Clerks 2.82 at $1,500.00	4,230.00	
Photostat Operator .20 year at $1,920.00	384.00	
Blueprint Operator .42 year at $1,920.00	806.40	
Blueprint-Photostat Helper .31 year at $1,800.00	558.00	
		$102,828.00
Car Cost 4.06 at $2,100.00		8,526.00
Expenses 4.06 men at $1,500.00		6,090.00
Total		$136,320.00

[fol. 8215]

Engineering Personnel Required for the Second Year of Engineering

General Engineering Costs

Chief Engineer		Entire year
Secretary of Chief Engineer		Entire year
Office Engineer		
Total work done under his supervision Second Year	112.42	Years
Work done, general engineering cost, under his supervision, Second Year	57.20	Years
57.20 divided by 112.42 = .51 Office Engineer Years.		
Statistical Engineer		
Total work done under his supervision Second Year	10.86	Years
Work done, general engineering cost, under his supervision, Second Year	9.31	Years
9.31 divided by 10.86 = .86 Statistical Engineer Cost		
Computers as shown in detail	9,020	Hours
Plus 10% Omissions and Contingencies	902	
Total	9,922	Hours
90% of 8.06 = 7.25		
7.25 x 2118 = 15,355 which is more than sufficient for Second Year		
9.922 divided by 2118 = 4.68 Computers Years		
Inventory Men, as shown in detail	3,278	Hours
Preliminary Second Year		
Plus 10% Omissions and Contingencies	328	
Total	3,606	Hours
3,606 divided by 2118 = 1.70 Inventory Men Years		
Stenographers as shown in detail	5,643	Hours
Preliminary Second Year		
Plus 10% Omissions and Contingencies	564	
Total	6,207	Hours
6,207 divided by 2118 = 2.93 Stenographer Years		

Defendant's Exhibit No. 28—Continued

Field Engineers
Survey Party Days—Preliminary Second Year.... 2,465 Days
2,465 divided by 3 = 822 Field Engineer Days
Obtaining Data for Calculating pressure and volumes..... 54
Total..... 876 Days
876 divided by 244 = 3.59 Field Engineer Years

[fol. 8216]

Designing Engineer..... Entire year
Designers as shown in detail..... 6,811 Hours
Plus 10% Omissions and Contingencies..... 681
Total..... 7,492 Hours
90% of 5.40 = 4.86
4.86 x 2118 = 10,293 Hours
which is more than sufficient for Second Year
7,492 divided by 2118 = 3.54 Designer Years
Chief Draftsman
Total work done under his supervision Second Year. 87.37 Years
Work done, general engineering cost, under his supervision—second year..... 38.46
38.46 divided by 87.37 = .44 Chief Draftsman Years
Assistant Chief Draftsmen—1 for each 15 draftsmen
32.11 divided by 15 = 2.44 Assistant Chief Draftsmen Years
Draftsmen as shown in detail..... 61,836 Hours
Plus 10% Omissions and Contingencies..... 6,184
Total..... 68,020 Hours
68,020 divided by 2118 = 32.11 Draftsmen Years
File Clerks—1 for each 15 Draftsmen
32.11 divided by 15 = 2.14 File Clerk Years
Photostat Operator—3290 divided by 4120 = .80 Year
Blueprint Operator—92,062 divided by 157,635 = .58 Year
Blueprint-Photostat Helper .69 Year

[fol. 8217] Engineering Personnel Required for the Second Year of Engineering

Reproduction Cost of Final Engineering Records

Office Engineer
Total Work done under his supervision, Second Year..... 112.42 Years
Work done under his supervision, Reproduction cost of Final Engineering Records, Second Year.. 55.22 Years
55.23 divided by 112.43 = .49 Office Engineer Years

Defendant's Exhibit No. 28—Continued

Statistical Engineer	
Total work done under his supervision, Second Year	10.86 Years
Work done under his supervision, Reproduction cost of Final Engineering Records, Second Year	1.55 Years
1.55 divided by 10.86 = .14 Statistical Engineer Years	
Inventory Men, as shown in Detail	
Final First Year	1,080 Hours
Plus 10% Omissions and Contingencies	108
Total	1,188 Hours
90% of 2.33 = 2.10	
2.10 less 1.70 (No. employed in General Engineering Cost Work) = .40	
.40 × 2118 =	847 Hours
Total	341 Hours
341 divided by 2206 = .15	
.40 plus .15 = .55 Inventory men years	
Stenographers as shown in detail	
Final First Year	1,958 Hours
Plus 10% Omissions and Contingencies	196
Total	2,154 Hours
90% of 3.83 = 3.45	
3.45 less 2.93 (No. employed in General Engineering Cost Work) = .52	
.52 × 2118 =	1,101
Total	1,053 Hours
1,053 divided by 2206 = .48	
.52 plus .48 = 1.00 Stenographer Years	
Field Engineers	
Survey party days in detail Final first Year	3,091 Days
3,091 divided by 3 = 1,030 Field Engineer Days	
90% of 4.58 = 4.12	
[fol. 8218] 4.12 less 3.59 (No. employed in General Engineering Cost Work) = .53	
.53 × 244 = 129	
Total	901
901 divided by 255 = 3.53	
.53 plus 3.53 = 4.06 Field Engineer Years	
Chief Draftsman	
Total work done under his supervision, Second Year	87.37 Years
Work done under his supervision, Reproduction cost of Final Engineering Records, Second Year	48.91 Years
48.91 divided by 87.37 = .56 Chief Draftsmen Years	
Assistant Chief Draftsmen—1 for each 15 Draftsmen	
42.34 divided by 15 = 2.82 Assistant Chief Draftsmen Years	

Defendant's Exhibit No. 28—Continued

Draftsmen as shown in detail		
Final First Year	83,898	Hours
Plus 10% Omissions and Contingencies	8,390	
Total	92,288	Hours
90% of 49.76 = 44.78		
44.78 less 32.11 (No. employed in General Engineering Cost Work) = 12.67		
12.67×2118 =	26,835	
Total	65,453	Hours
65,453 divided by 2206 = 29.67		
12.67 plus 29.67 = 42.34 Draftsmen Years		
File Clerks—1 for each 15 Draftsmen		
42.34 divided by 15 = 2.82 File Clerk Years		
Photostat Operator	20	Years
Blueprint Operator	42	Years
Blueprint-Photostat Helper	31	Years

(NOTE.) In the estimated man years for computers, inventory men and stenographers, 2118 hours of work per man has been used as effective for 90% of the men employed the previous year. This figure was obtained as follows:

Days per year	365.00	
Sundays	52.00	
Saturdays 52 half days or	26.00	
Holidays	7.00	
Sickness	4.25	
Vacations	11.00	
	100.25	
Effective Days	264.75	
264.75 at 8 hours per day	2,118.00	Hours

[fol. 8219]

(NOTE.) In the estimated man days for field engineers, 244 days of work per man has been used as an effective year for 90% of the men employed the previous year. This figure was obtained as follows:

Days per year	365.00	
Sundays	52.00	
Saturdays 52 half days or	26.00	
Holidays	7.00	
Sickness	4.00	
Bad weather and traveling	21.00	
Vacation	11.00	
	121.00	
Effective Days	244.00	

Defendant's Exhibit No. 28—Continued

[fol. 8220] Second Year Details

[fol. 8221] Statistical Engineer—Second Year

	Computers	Inventory	Men	Stenographers	
	Prelim.	Prelim.	Final	Prelim.	Final
T. P. U. System	112	95	8	79	20
F Line system including telephone line and other structures	189	123	9	110	44
E Line system including all structures	263	210	15	158	50
G-1, J-3, J-7, J-6 taps and measuring stations	81	8	4	35	6
O Line system, including all structures	203	195	15	130	45
J-2, J-2-8, C-2, J-2 lines including all structures	252	52	7	79	19
A Line system including telephone line, bridges, and other structures	475	545	37	394	126
2nd B Line system and B line taps, and other structures	207	170	19	135	41
L Line, 2nd 1 and M Line system including telephone line, bridges, etc	677	367	30	417	95
K Line system including all structures	202	143	22	143	35
A-13, A-14, 2nd C Lines and all structures	86	25	7	39	8
R Line system, including all structures	149	133	21	110	31
All Well Lines	684	272	257	357	171
Leases	406	87	0	210	0
Water Lines and structures	86	43	0	52	6
Railroad and highway crossings, checking and transmitting preliminary alignments	153	0	0	153	0
Shamrock, Waco, Richland and Abilene Warehouses	376	70	0	136	17
Massie, Forbes, Alvord, and Tiffin Lakes	198	88	0	79	11
Fox East Compressor Station	447	55	0	222	40
Loco Compressor Station	408	72	0	201	37
Brazos Compressor Station	406	55	0	214	45
X-ray Compressor Station	263	35	0	154	20
Brad Compressor Station	297	55	0	184	36
Ranger No. 1 Compressor Station	352	50	0	171	34
Ranger No. 2 Compressor Station	294	47	0	159	30
Eastland Compressor Station	269	50	0	159	33
Moran Compressor Station	175	29	0	92	15
Alvord Compressor Station	48	9	0	23	5
[fol. 8222]					
Cheaney Compressor Station	439	55	0	206	40
Desdemona Compressor Station	260	36	0	152	20
Gainesville Compressor Station	297	55	0	184	36
Tiffin Compressor Station	266	50	0	156	30
Filing (All Engineering Department except notes and drawings)	.....	.....	.....	550	550
Total	9,020	3,278	451	5,643	1,696

Defendant's Exhibit No. 28—Continued

[fol. 8223] House Count and All Other Data for Calculating Loads

Second Year

Town	Field Engr. Days	Number of Helpers	Helpers Man Days
Ballinger	2	3	6
Birdville	1	1	1
Bonham	2	2	4
Burleson	1	1	1
Clarksville	1	1	1
Colorado	1	1	1
Everman	1	0	0
Georgetown	1	2	2
Godley	1	0	0
Greenville	2	9	18
Henrietta	1	2	2
Honey Grove	1	2	2
Hutto	1	0	0
Joshua	1	0	0
Kaufman	1	1	1
Lipan	1	0	0
Mexia	2	2	4
Oaklawn (Fort Worth)	1	1	1
Round Rock	1	0	0
Snyder, Texas	1	2	2
Sweetwater	1	9	9
Strawn	1	1	1
Talpa	1	0	0
Taylor	1	9	9
Temple, Texas	2	9	18
Terrell	1	6	6
Valera	1	0	0
Winters	1	3	3
Durant	1	9	9
Hugo	1	3	3
Paris	1	14	14
Bowie	1	1	1
Decatur	1	2	2
Bridgeport	1	1	1

Defendant's Exhibit No. 28—Continued

Town	Field Engr. Days	Number of Helpers	Helpers Man Days
Denton	2	9	18
Whitesboro	1	1	1
McKinney	1	12	12
Hillsboro	1	10	10
Waxahachie	1	11	11
Ennis	1	10	10
Corsicana	2	10	10
Wayland	1	0	0
Total	49		196
Plus 10% for investigating towns and communities that would not be served	5		20
Total	54		216

[fol. 8224] Second Year Surveying Party Days

	Prelim.	Final
T. P. U. System, including telephone line and all structures	54	39
E Line system including all structures	108	100
F Line system including telephone line and all structures	86	87
G-1, J-3, J-7, J-6 taps and measuring stations	7	11
O Line system including all structures	104	90
J-2, C-2, J-4, J-2-8, including all structures	25	38
A Line system, including telephone lines, bridges, including all structures	413	251
2nd B Line system, B line taps, and measuring station, including all structures	95	82
L, 2nd L, and M Line system, including telephone line, bridges, including all structures	263	190
K Line system and measuring stations, including all structures	74	68
A-13, A-14, and 2nd C lines, including all structures	9	15
R Line system including all structures	71	62
All Well Lines	5	171

Defendant's Exhibit No. 28—Continued

	Prelim.	Final
Leases	290	
Water Lines and structures	12	12
Shamrock, Waco, Richland, and Abilene Warehouses	4	34
Massie, Forbes, Alvord and Tiffin Lakes	26	22
Fox East Compressor Station	57	80
Loco Compressor Station	53	74
Brazos Compressor Station	60	90
X-ray Compressor Station	30	40
Brad Compressor Station	54	72
Ranger Number 1 Compressor Station	42	68
Ranger Number 2 Compressor Station	40	60
Eastland Compressor Station	42	66
Moran Compressor Station	25	30
Alvord Compressor Station	6	9
Cheaney Compressor Station	57	80
Desdemona Compressor Station	30	40
Gainesville Compressor Station	45	60
Tiffin Compressor Station	54	72
	2,241	2,113
Plus 10% Omissions and Contingencies	224	211
Total	2,465	2,324

[fol. 8225] Second Year Designing Time

	Hours
Measuring Stations	1,554
River Crossings	76
Warehouses and Camp Sites	610
Standard Drawings	160
Miscellaneous Drawings	130
Fox East Compressor Station	377
Loco Compressor Station	263
Brazos Compressor Station	328
X-ray Compressor Station	240
Brad Compressor Station	268
Ranger Number 1 Compressor Station	408
Ranger Number 2 Compressor Station	364
Eastland Compressor Station	320
Moran Compressor Station	156

Defendant's Exhibit No. 28—Continued

	Hours
Alvord Compressor Station	68
Cheaney Compressor Station	377
Desdemona Compressor Station	324
Gainesville Compressor Station	374
Tiffin Compressor Station	414
Total	6,811

[fols. 8226-8263]

Maps, Plans, and Drawings—2nd Year

Labor—Draftsmen Only

Alignment Sheets No.	Drawing	Size in Inches	Preliminary Hours	Final Hours
10	Line F—Gainesville to Irving	15.5x26	540	490
11	Line F—Telephone Line	15.5x36	550	495
1	Line F-1—Denton Tap	15.5x36	54	48
5	Line F-2—F Line to McKinney	15.5x36	260	236
1	Line F-8—Acme Brick Tap	15.5x36	54	48
16	Line E—Denison to Clarksville	15.5x36	960	870
1	Line E-3—Whitesboro Tap	15.5x36	51	46
1	Line E-4—Girls Training School Tap	15.5x26	52	48
4	Line E-5—E Line to Durant, Oklahoma	15.5x36	215	192
1	Line E-7—Honey Grove Tap	15.5x36	51	46
5	Line E-16—E Line to Hugo, Oklahoma	15.5x36	320	288
6	Line O—Dallas to Greenville	15.5x36	375	336
10	Line O—Telephone—Joshua to Gordon	15.5x36	550	500
4	Line O-3—O Line to Terrell	15.5x36	230	204
9	Line O—Gordon to Joshua	15.5x36	530	480
1	Line OA-1—Strawn Tap	15.5x36	40	48
2	Line O-3-3—Kaufman Tap	15.5x36	90	82
10	Line J-2—J Line to Dallas	15.5x36	530	480
1	Line J-2-8	15.5x36	35	40
1	Line J-3—Burleson Tap	15.5x36	47	42
1	Line J-6—Oaklawn Tap	15.5x36	47	42
1	Line J-7—Birdville Tap	15.5x36	45	40
2	Line C-2—J-2 Line to Irving	15.5x36	110	98
3	Line 2nd C—Irving to Dallas	15.5x36	165	148
29	Line A—Shamrock to Wichita Falls	15.5x36	1640	1485
29	Line A—Telephone Line	15.5x36	1334	1247
1	Line A-A	15.5x36	55	48
1	Line A-B	15.5x36	55	48
1	Line A-B-A	15.5x36	50	46
1	Line A-C	15.5x36	55	50
1	Line A-C-B	15.5x36	52	46
1	Line A-D	15.5x36	54	48
1	Line A-E	15.5x36	54	48
1	Line A-F	15.5x36	56	50
1	Line A-F-A	15.5x36	54	48
1	Line A-F-A	15.5x36	52	46
1	Line A-F-B	15.5x36	54	48
1	Line A-F-C	15.5x36	....	35
1	Line A-G	15.5x36	53	48
1	Line A-H	15.5x36	53	48
1	Line A-J	15.5x36	53	48
2	Line A-K	15.5x36	106	96
1	Line A-K-A	15.5x36	50	46

• • • • • • •

Defendant's Exhibit No. 28—Continued

[fol. 8264]

Alignment Sheets No.	Drawing	Size in Inches	Preliminary Hours	Final Hours
1	Gas Cleaner plans	20x30	26	22
1	Furnace and Air Heater	8.5x11	15	.....
1	Diagrammatic sketch showing EX Line to Durant, Oklahoma	8.5x11	7	.....
1	Durant 6 inch Line crossing Island Bayou	8.5x11	....	7
1	Oil Separator	8.5x11	12	9
1	Plan and Elevation of Piping for Measuring Station	20x30	.....	33
1	Meter House—Tiffin Line 8 inch Building and Installation	20x30	16	14
1	Gas Separator—Line W.T. 305	20x30	26	24
3	Texas Electric Service Company Measing Station—Building and Installation	20x30	92	.....
1	Lewis Poultry Colony Measuring Station—General Layout	20x30	8	5
1	Trinity Portland Cement Company Measuring Station—Building and Installation	20x30	12	10
1	Intermediate Accumulator—Plan and Section	8.5x11	14	8
1	10-foot-10-inch Storage Tank	8.5x11	14	8
1	High Pressure Accumulator	8.5x11	12	8
1	6 inch Line crossing T. & P. ½ miles East of Denton	8.5x21	20	15
1	Cooper Compressor Cylinder-Standards —Serial Number Plate	8.5x21	.....	.....
Mounting System Maps		.....	112	4
	Total		61,836	47,973

[fol. 8265] General Expense

[fol. 8266] Summary

General Engineering Costs

Item	Amount
Office Equipment*	$925.00
County Maps	602.00
Office and Field Supplies	4,553.87
Surveying Equipment Cost*	1,785.40
Telephones	520.34
Toll Charges	2,543.40
Telegrams	423.90
Total	$11,354.51

* Depreciation Only.

Defendant's Exhibit No. 28—Continued

[fol. 8267] General Expense

Summary

Reproduction Cost of Final Engineering Records

Item	Amount
Office Equipment*	$854.40
Office and Field Supplies	4,375.29
Surveying Equipment Cost*	2,182.15
Telephones	192.46
Toll Charges	3,108.60
Telegrams	518.10
Total	$11,231.00

* Depreciation Only.

[fol. 8268] Second Year Details

[fol. 8269] Engineering Department Office Equipment Cost—Second Year

No. In Use	Item	Total Value Each	Total Value and Depreciation	Amount Charged to Second Year
1	Golden oak desk—glass top 60x36 inches	$79.10	$79.10 at 8%	$6.33
1	Golden oak desk—glass top 72x35 inches	58.50	58.50 at 8%	4.68
4	Golden oak, swivel arm chairs, leather seat	22.00	88.00 at 8%	7.04
12	Golden oak arm chairs, straight	11.85	142.20 at 8%	11.38
5	Golden oak—4 Section Book cases with top and base	43.90	219.50 at 8%	17.56
1	Golden oak telephone table	10.80	10.80 at 8%	.86
14	Golden oak costumers	7.40	103.60 at 8%	8.29
10	Golden oak globe letter trays—single	1.60	16.00 at 8%	1.28
1	Rug—14x16 foot	212.50	212.50 at 8%	17.00
2	Smoking Stands	6.34	12.68 at 8%	1.01
2	Sheaffer double fountain pen desk sets	20.00	40.00 at 8%	3.20
8	Golden oak system map frames	12.50	100.00 at 8%	8.00
2	Thermos bottles with tray and glasses	11.40	22.80 at 8%	1.82
69	Steel mesh waste baskets	.90	62.10 at 15%	9.31
2	Brass cuspidors	2.07	4.14 at 8%	.33
68	Enameled steel cuspidors	.85	57.80 at 8%	4.62
70	Rubber cuspidor mats	.42	29.40 at 25%	7.35
11	Staffords self-inking stamp pads	.29	3.19 at 25%	.80
..	Rubber Stamps	.....	48.50 at 20%	9.70
2	Bostich staple machine—Executive type	7.50	15.00 at 8%	1.20
51	Auto Bakelite Pencils	.40	20.40 at 8%	1.63
12	Engineers Scales—12 inches	3.24	38.88 at 8%	3.11
11	Architects Scales—12 inches	3.24	35.64 at 8%	2.85
7	Polyphase Duplex Slide Rules —10 inches in case	8.42	58.94 at 8%	4.72

Defendant's Exhibit No. 28—Continued

No. In Use	Item	Total Value Each	Total Value and Depreciation	Amount Charged to Second Year
6	Golden oak typewriter desk 60x34 inches	$54.60	$327.60 at 8%	$26.21
6	Adjustable steel chairs—Leather back and seat	17.43	104.58 at 8%	6.97
1	Golden oak Settee—48 inches	42.00	42.00 at 8%	3.36
19	Berloy Steel Filing cabinets	27.30	518.70 at 8%	41.50
6	Royal Standard typewriters	83.03	498.18 at 8%	39.85
6	Remington Line-A-Times	21.00	126.00 at 8%	10.08
2	Globe Letter trays—double	4.40	8.00 at 8%	.64
4	Sheaffers single fountain pen desk sets	12.00	48.00 at 8%	3.84
1	Rug—10x14 feet	132.00	132.00 at 8%	10.56
[fol. 8270]				
2	Secretary's Handbooks	3.50	7.00 at 8%	.56
2	Dictionaries	5.00	10.00 at 8%	.80
31	Bostich Staple Machines standard	3.02	93.62 at 8%	7.49
6	Card Index cases	.60	3.60 at 8%	.29
1	Desk blotter holder	5.50	5.50 at 8%	.44
76	Sets Alphabetical indexes—for files	.95	72.20 at 25%	18.05
6	Dexter pencil sharpeners No. 2	3.95	23.58 at 8%	1.89
1	Golden oak desk with glass top, 66 x 36 inches	84.00	84.00 at 8%	6.72
1	Golden oak desk with glass top, 72 x 34 inches	58.00	58.00 at 8%	4.64
1	Rug—12 x 14 feet	158.70	158.70 at 8%	12.70
19	Golden oak desks—60x34 inches	54.60	1,037.40 at 8%	82.99
20	Golden oak swivel chairs—leather seats	18.50	370.00 at 8%	29.60
2	Golden oak tables—60 x 34 inches	30.80	61.60 at 8%	4.93
5	Golden oak chairs	7.50	37.50 at 8%	3.00
1	Planimeter	45.00	45.00 at 8%	3.60
3	Marchant Electric Calculators	425.00	1,275.00 at 8%	102.00
2	Walraven extension binders No. L-5840	7.20	14.40 at 8%	1.15
1	Walraven extension binder No. L-5888	8.44	8.44 at 8%	.67
4	Vance K. Miller Binders No. 541-A	1.25	5.00 at 8%	.40
1	Underwood Typewriter — 26 inch carriage	137.70	137.70 at 8%	11.02
2	Golden oak tables 72 x 34 inches	35.00	70.00 at 8%	5.60
4	Sheridan adjustable drawing tables No. 2263.5-B	65.00	260.00 at 8%	20.80
4	Golden oak desk chairs—leather seats	18.50	74.00 at 8%	5.92
8	Tee Squares—adjustable heads 42 inches	5.94	47.52 at 8%	3.80
8	45 degree Triangles, 18 in	4.41	35.28 at 8%	2.82
8	30-60 Triangles—18 inches	3.06	24.48 at 8%	1.96
	Steel Shelving	.....	182.25 at 8%	14.58
78	Drafting tables—60 x 34 inches with drawers	26.25	2,047.50 at 8%	163.80
78	Adjustable wooden drafting stools	12.92	1,007.76 at 8%	80.62
74	Tee Squares—42 inches	2.86	211.64 at 8%	16.93
1	Globe Wernicke filing cabinet No. 7310-C	1.20	1.20 at 8%	.10
2	Beam compasses in case	12.25	24.50 at 8%	1.96

Defendant's Exhibit No. 28—Continued

[fol. 8271]

No. In Use	Item	Total Value Each	Total Value and Depreciation	Amount Charged to Second Year
3	Sets proportional dividers	$12.50	$37.50 at 8%	$3.00
1	Set Wrice lettering guides	35.00	35.00 at 8%	2.80
4	Steel straight edges—48 inches.	7.56	30.24 at 8%	2.42
4	Vernier Protractors	9.00	36.00 at 8%	2.88
1	Golden oak table—88 x 30 inches	48.50	48.50 at 8%	3.88
2	Hamilton file drawer bases 32 x 42 inches	6.00	12.00 at 8%	.96
13	Hamilton 5 drawer files—32 x 42 inches	28.50	370.50 at 8%	29.64
3	Hamilton file drawer tops—32 x 42 inches	6.00	18.00 at 8%	1.44
1	Hamilton file drawer—32 x 42 inches with base	18.70	18.70 at 8%	1.50
1	Hamilton 1 file drawer—32 x 42 inches	12.00	12.00 at 8%	.96
1	Vertical steel map file	300.00	300.00 at 8%	24.00
1	Steel supply cabinet	32.00	32.00 at 8%	2.56
2	Pigeon hole horizontal map files	65.00	130.00 at 8%	10.40
1	Steel mesh waste basket—30 inches high	3.15	3.15 at 15%	.47
7	File cases—for scout tickets Double	10.00	70.00 at 8%	5.60
4	Scissors—14 inches	3.75	15.00 at 20%	3.00
2	Step ladders—3 feet high	2.00	4.00 at 8%	.32
10	Oil cans — with spouts — for cleaning fluid	.25	2.50 at 20%	.50
1	Pease blueprint machine—54 inches	1,716.00	1,716.00 at 8%	137.28
1	Photostat Machine — 18 x 22 inches	1,188.00	1,188.00 at 8%	85.04
1	Paragon Blueprint Dryer—54 inches	759.00	759.00 at 8%	60.72
1	Pako Photo Dryer	176.00	176.00 at 8%	14.08
2	Cooper-Hewitt Mercury Tube Lights	80.00	160.00 at 8%	12.80
1	Photostat Washer	82.50	82.50 at 8%	6.50
1	Blueprint washer	68.00	68.00 at 8%	5.44
1	Drying rack for negatives	41.80	41.80 at 8%	3.34
1	Blueprint table—45 x 66 inches.	38.50	38.50 at 8%	3.08
1	Table—32 x 60 inches for dryer.	3.85	3.85 at 8%	.31
1	Straight oak chair	5.00	5.00 at 8%	.40
1	Galvanized iron waste paper can	2.50	2.50 at 20%	.50
1	Blueprint paper can—8 x 55 inches	5.00	5.00 at 8%	.40
1	Photo trimmer — Eastman — 18 x 18 inches	35.00	35.00 at 8%	2.80

[fol. 8272]

2	Loose leaf folders 8.5 x 11 inches.	.88	1.76 at 25%	.44
1	Piece plate glass 24 x 30 inches—Gr. edge	4.50	4.50 at 25%	1.13
4	Golden oak map cases	1,309.00	5,236.00 at 8%	418.88
1	No. 60 Marvel punch	1.65	1.65 at 8%	.13
1	Improved hummer punch with 4 heads	9.90	9.90 at 8%	.79
	Technical Reference Books	382.50	382.50 at 8%	30.60
	Totals	$21,871.65		$1,780.00

52% for General Engineering Cost $925.60
48% for Reproduction Cost of Final Engineering Records 854.40

Defendant's Exhibit No. 28—Continued

[fol. 8273] County Maps Purchased—Second Year

Texas	No. Maps	Cost Each	Amount
Brown	4	$6.00	$24.00
Falls	4	2.00	8.00
Bell	3	2.00	6.00
Williamson	3	2.00	6.00
Limestone	4	6.00	24.00
Navarro	4	5.00	20.00
Kaufman	3	2.00	6.00
Rockwall	3	2.00	6.00
Collin	3	2.00	6.00
Denton	3	6.00	18.00
Hunt	3	2.00	6.00
Fannin	6	2.00	12.00
Lamar	3	2.00	6.00
Red River	3	2.00	6.00
Wilbarger	4	3.50	14.00
Hardeman	3	3.50	10.50
Collingsworth	6	6.00	36.00
Wheeler	10	6.00	60.00
Nolan	3	6.00	18.00
Scurry	3	6.00	18.00
Fisher	3	6.00	18.00
Mitchell	3	6.00	18.00
Donley	1	6.00	6.00
Gray	5	6.00	30.00
Freestone	4	2.00	8.00
Childress	1	6.00	6.00
Runnels	6	6.00	36.00
Coleman	6	6.00	36.00
Carson	5	6.00	30.00
Moore	5	6.00	30.00
Oklahoma			
Washita	5	3.50	17.50
Beckham	5	3.50	17.50
Harmon	3	3.50	10.50
Jackson	1	3.50	3.50
Choctaw	3	3.50	10.50
Greer	1	3.50	3.50
Tillman	3	3.50	10.50
Total			$602.00

[fol. 8274] Engineering Department Supply Cost

Second Year

No. Units Used	Unit	Items	Unit Cost	Amount
257	Boxes	Gem Clips	$.02	$5.14
23	Pounds	Rubber bands	.40	9.20
117	Boxes	Autopoint pencil leads	.26	30.42
19	Boxes	Bank Pins	.36	6.84
7	Quarts	Blue-Black Fountain Pen Ink	.90	6.30
1	Quart	Red Fountain Pen Ink	1.20	1.20
6	Each	Memorandum and date pads	.50	3.00
42	Boxes	Bostich Staples	1.28	53.76
1,400	Each	Autopoint pencil erasers	.0087	12.19
375	Each	Fiberstock Pockets No. 1514-C	.136	51.00
38	Boxes	Carbon Paper—8.5x11 Inches	1.80	68.40

Defendant's Exhibit No. 28—Continued

No. Units Used	Unit	Items	Unit Cost	Amount
2,200	Each	Letterheads—Printed	.0035	7.69
8,000	Each	Yellow copy sheets	.0004	3.20
13,575	Each	Thin Copy sheets	.0009	12.22
1,400	Each	Interoffice letterheads	.0008	1.12
275	Each	Interoffice envelopes	.005	1.37
8,000	Each	Letterheads—plain	.0028	22.40
9,500	Each	Small envelopes—stamped	.0322	305.90
3,700	Each	Large envelopes—stamped	.0329	121.73
33	Each	Typewriter ribbons	.46	15.18
22	Each	Typewriter erasers	.06	1.32
6	Boxes	Type cleaner—Norta	.28	1.68
1,200	Each	Manila Folders	.0135	16.20
20	Boxes	Mak-Ur-On-Table Tabs	1.613	32.26
23	Dozen	No. 2 Pencils	.28	6.44
150	Pads	Yellow cross section paper	.177	26.55
700	Pads	Dietzgen No. 375 Cross Section paper	.39	273.00
550	Sheets	Inventory book paper	.05	27.50
110	Sheets	Summary book paper	.0418	4.60
4	Pads	Wilson Jones Columnar Pads No. 7025	1.00	4.00
220	Each	Pen Points	.008	1.76
40	Each	Pen staffs	.029	1.16
75	Pads	Requisition on Purchasing Agent	.1103	8.27
1,025	Each	Karlton Klasp Envelopes—10 x 13 inches	.011	11.28
5,700	Each	Time sheets	.00135	7.69
4,000	Each	Time tickets	.0004	16.00
75	Rolls–50 Yds.	36 inch Economy Paper	3.00	225.00
61	Rolls–24 Yds.	30 inch Tracing Cloth	19.35	1,180.35
30	Rolls–24 Yds.	36 inch Tracing Cloth	22.30	669.00
[fol. 8275]				
9	Rolls–24 Yds.	54 inch Tracing Cloth	$42.10	$378.90
4	Gallons	Frisket Cement	2.60	10.40
5	Gallons	Wall paper paste	1.25	6.25
281	Rolls–50 Yds.	50% 42 Inch Blueprint paper	3.15	885.15
12	Rolls–50 Yds.	42 inch White print cloth	40.00	480.00
87	Rolls–50 Yds.	100% 42 inch Whiteprint Paper	5.15	448.05
16	Rolls–50 Yds.	Negative Paper	9.00	144.00
2,648	Pads	Scratch Pads	.01	26.48
70	Rolls–50 Yds.	36 inch Detail Paper	4.48	31.36
321	Yards	Cheese Cloth	.0253	8.12
182	Gross	Drawing pencils	7.201	310.40
18	Dozen	Pencil extenders	.90	16.20
78	Gross	Lettering pens No. 170, 303, and 404	1.51	117.78
27	Dozen	Pen Staffs (Lettering)	.48	12.96
59	Each	Crow Quill pen holders	.075	4.42
22	Gross	Crow quill pens No. 659	6.75	148.50
159	Dozen	Ruby Erasers	.33	52.47
157	Dozen	Art Gum erasers	.38	59.66
5	Bottles	Hyperion eradicator	.25	1.25
26	Rolls	Transparent mending tape	.0375	.97
9	Rolls	Gummed cloth mending tape	.1996	1.80
41	Dozen	Pencil pointers	.90	36.90
19	Gallons	Carbon tetrachloride	2.00	38.00
3,300	Each	File baks—8.5 x 11 inches	.0044	14.52
1	Set (12)	Show card colors	3.00	3.00

Defendant's Exhibit No. 28—Continued

No. Units Used	Unit	Items	Unit Cost	Amount
6	Each	Show card color brushes	.30	1.80
26	Bottles	Mucilage	.375	9.75
304	Boxes (100)	Thumb tacks	.4096	124.46
12	Tubes	Water colors	.15	1.80
4	Each	Water color brushes	.30	1.20
15	Bottles	Drawing ink—Black	7.50	112.50
3	Bottles	Drawing ink—Blue	6.00	18.00
3	Bottles	Drawing ink—Red	6.00	18.00
9	Bottles	Drawing ink—Yellow	6.00	54.00
4	Bottles	Drawing ink—Orange	6.00	24.00
3	Bottles	Drawing ink—Green	6.00	18.00
53	Cans	Tracing powder	.225	11.92
4	Rolls	Heavy White Twine	.1123	.45
2	Sets	Mongol Indelible colored Pencils	1.00	2.00
154	Dozen	Colored pencils	.52	80.08
1	Box–100	No. 6 Brad Fasteners	.44	.44
5	Boxes–100	No. 1 Brad Fasteners	.07	.35
5	Boxes–100	No. 2 Brad Fasteners	.08	.40
5	Boxes–100	Gummed reinforcements	.04	.20
5	Jars	Opague	.50	2.50
4,500	Each	Blotters	.0025	11.25
5	Jars	Cico Paste	.2736	1.37
[fol. 8276]				
12	Rolls	Photostat paper	$19.30	$231.60
90	Dozen	Blueprint arc carbons	.84	7.56
100	Pounds	Potassium Bichromate	.45	45.00
12	Pounds	Negative Hypo	.40	4.80
280	Boxes	Photostat Hypo	.2125	59.50
140	Boxes	Photostat developer—large	.6804	95.26
14	Boxes	Blueprint lamp globes	1.00	14.00
1	Each	Paragon Dryer belt—54 inches	60.00	60.00
1	Each	Pako Dryer belt	19.29	19.29
4	Each	Mercury vapor lamps	13.50	54.00
14,700	Sheets	Lefax paper—Transit	.0046	67.62
2,900	Sheets	Lefax economy paper	.0012	3.48
12	Gross	Pencil tip erasers	1.07	12.84
107	Pads–100	Daily progress Reports	.0781	8.36
46	Pads–100	Draft Receipts	.625	28.75
46	Pads–100	Draft Report Blanks	.0839	3.86
46	Each	Draft Books (100 drafts)	.4375	20.12
330	Each	Accident Report Blanks	.0064	2.11
277	Each	Automobile Reports	.0724	20.05
139	Each	Local Supply Order Books	.1089	15.14
330	Each	Expense Account Blanks	.005936	1.96
		Postage		150.00
279	Each	Blue lumber crayon	.07	19.53
Total				$8,929.16

51% for General Engineering Cost $4,553.87

49% for Reproduction Cost of Final Engineering Records 4,375.29

Defendant's Exhibit No. 28—Continued

[fol. 8277]

Second Year Surveying Equipment Cost

No.	Item	Initial Cost Each	Initial Value and Depreciation	Depreciation 2nd Year	Additional Investment Second Year
4	Transits complete with tripods and cases	$420.70	$1,682.80 at 25%	841.00	$1,682.80
6	Transits complete with tripods and cases	420.70	2,524.20 at 15%	378.63	2.524.20
5	Transits complete with tripods and cases	420.70	2,103.50 at 20%	420.70	.....
8	Transits complete with tripods and cases	420.70	3,365.60 at 25%	841.40	.....
4	Wye levels complete with tripods and cases	215.00	860.00 at 25%	215.00	.....
2	Wye levels complete with tripods and cases	215.00	430.00 at 15%	64.50	.....
34	Steel tapes 200 ft.	9.45	321.30 at 100%	321.30	321.30
12	Steel tapes 100 ft.	5.40	64.80 at 100%	64.80	64.80
46	Range poles 8 feet long—jointed	3.24	149.04 at 100%	149.04	149.04
6	Levelling rods 13 ft. long—adjustable	14.40	86.40 at 50%	43.20	.....
40	Sets chaining pins, 12 inches	1.80	72.00 at 100%	72.00	72.00
27	Machetes—22 inches in leather case	3.24	87.48 at 50%	43.74	.....
18	Machetes—22 inches in leather case	3.24	58.32 at 50%	29.16	58.32
15	Machetes—22 inches in leather case	3.24	48.60 at 60%	29.16	48.60
4	Binoculars—32 power in leather case	22.95	91.80 at 25%	22.95	.....
2	Binoculars—32 power in leather case	22.95	45.90 at 15%	6.89	.....
14	Axes—Double bit	1.94	27.16 at 100%	27.16	27.16
24	Axes—Pole	1.56	37.44 at 100%	37.44	37.44
44	Thermos jugs—2 gallon capacity	4.90	215.60 at 100%	215.60	215.60
57	Loose leaf covers—Canvas back	.94	53.58 at 50%	26.79	.....
44	Loose leaf covers—Canvas back	.94	41.36 at 50%	20.68	41.36
9	Brief Cases—Engineers' Large	15.50	139.50 at 25%	34.88	.....
9	Brief Cases—Engineers' Large	15.50	139.50 at 20%	27.90	.....
4	Brief Cases—Engineers' Large	15.50	62.00 at 25%	15.50	62.00
9	Brief Cases—Engineers' Large	15.50	139.50 at 15%	20.93	139.50
32	First aid kits	3.27	104.64 at 100%	104.64	104.64
13	Protractors—6 inch semi-circle	.45	5.85 at 50%	2.92	.....

Defendant's Exhibit No. 28—Continued

[fol. 8278]

No.	Item	Initial Cost Each	Initial Value and Depreciation	Depreciation 2nd Year	Additional Investment Second Year
10	Protractors—6 inch semi-circle	$.45	4.50 at 50%	$2.25	$4.50
9	Engineer's Scales	1.85	16.65 at 35%	5.83	.....
9	Engineer's Scales	1.85	16.65 at 30%	4.99	.....
5	Engineer's Scales	1.85	9.25 at 35%	3.24	9.25
9	Engineer's Scales	1.85	16.65 at 25%	4.16	16.65
18	Loose leaf folders for 8.5x11 in. sheets Canvas Back	.88	15.84 at 50%	7.92	.....
14	Loose leaf folders for 8.5x11 in. sheets Canvas Backs	.88	12.32 at 50%	6.16	12.32
8	Surveyor's Handbooks	2.50	17.50 at 25%	4.38	.....
5	Surveyor's Handbooks	2.50	12.50 at 20%	2.50	.....
4	Surveyor's Handbooks	2.50	10.00 at 25%	2.50	10.00
6	Surveyor's Handbooks	2.50	15.00 at 15%	2.25	15.00
8	Surveyor's Drawing Kits	1.25	10.00 at 25%	2.50	.....
5	Surveyor's Kits	1.25	6.25 at 20%	1.25	.....
4	Surveyor's Kits	1.25	5.00 at 20%	1.00	5.00
6	Surveyor's Kits	1.25	7.50 at 15%	1.13	7.50
3	Brunton Pocket compasses in case	28.50	85.50 at 15%	12.83	85.50
3	Brunton Pocket compasses in case	28.50	85.50 at 20%	17.10	.....
2	Brunton Pocket compasses in case	28.50	57.00 at 25%	14.25	.....
1	Brunton Pocket compasses in case	28.50	28.50 at 25%	7.12	28.50
8	Thermos Jugs—1 Gallon capacity	2.95	23.60 at 100%	23.60	23.60
81	Rules—6 feet long, Zig Zag	.45	36.45 at 100%	36.45	33.75
22	Steel tapes—50 feet long on reel—in leather case	5.40	118.80 at 100%	118.80	118.80
5	Prodding rods	2.50	12.50 at 50%	6.25	12.50
6	Prodding rods	2.50	15.00 at 55%	5.25	15.00
12	Prodding rods	2.50	30.00 at 25%	7.50	30.00
5	Drain spades	1.15	5.75 at 50%	2.87	5.75
6	Drain spades	1.15	6.90 at 35%	2.41	6.90
11	Drain spades	1.15	13.80 at 25%	3.45	13.80
	Total		$13,652.78	$3,967.55	$6,005.78
	45% for General Engineering Cost				$1,785.40
	55% for Reproduction Cost of Final Engineering Records				2,182.15

Defendant's Exhibit No. 28—Continued

[fol. 8279] Second Year Blueprinting—Preliminary
Quantities in Square Feet

	Blue Prints	White Prints	Cloth Prints	Negatives
Alignment sheets	23,270	0	0	0
Main line measuring and regulating stations.	1,700	0	0	0
Linewalker's lot	175	0	0	0
Junctions	300	0	0	0
City Gate Stations	5,346	0	0	0
Railroad and Highway Crossings	689	0	0	0
River crossings	1,876	0	0	0
Fox East Compressor Station	1,800	0	0	0
Loco Compressor Station	2,000	0	0	0
Brazos Compressor Station	2,015	0	0	0
X-ray Compressor Station	1,571	0	0	0
Brad Compressor Station	1,347	0	0	0
Ranger Number 1 Compressor Station	1,601	0	0	0
Ranger Number 2 Compressor Station	1,271	0	0	0
Eastland Compressor Station	1,918	0	0	0
Moran Compressor Station	700	0	0	0
Alvord Compressor Station	834	0	0	0
Cheaney Compressor Station	2,518	0	0	0
Desdemona Compressor Station	1,600	0	0	0
Gainesville Compressor Station	1,145	0	0	0
Tiffin Compressor Station	1,733	0	0	0
Warehouses	1,400	0	0	0
Standard drawings	12,875	0	0	0
Lease plats	5,065	0	0	0
County Maps	0	9,673	1,546	1,546
System Maps	0	4,093	0	955
Totals	74,249	13,766	1,546	2,501

[fol. 8280] Second Year Blueprinting—Final

Alignment sheets	10,486	0	0	0
Main line measuring and regulating stations, etc.	900	0	0	0
Linewalker's lot, cottages	175	0	0	0
Junctions	150	0	0	0
City Gate stations	2,300	0	0	0
River Crossings	588	0	0	0
Well Line inventory sheets	1,000	0	0	0
Fox East Compressor Station	828	0	0	0
Loco Compressor Station	929	0	0	0
Brazos Compressor Station	762	0	0	0
X-ray Compressor Station	620	0	0	0
Brad Compressor Station	500	0	0	0
Ranger Number 1 Compressor Station	601	0	0	0
Ranger Number 2 Compressor Station	500	0	0	0
Eastland Compressor Station	1,244	0	0	0
Moran Compressor Station	263	0	0	0
Alvord Compressor Station	125	0	0	0
Cheaney Compressor Staton	944	0	0	0
Desdemona Compressor Station	635	0	0	0
Gainesville Compressor Station	430	0	0	0
Tiffin Compressor Station	650	0	0	0
Warehouses	1,200	0	0	0
County Maps	0	6,499	1,097	1,097
Sectional Maps	0	4,766	733	733
System Maps	0	2,657	0	854
Co-operative Maps	0	2,038	314	314
Field Maps	0	6,475	1,233	1,233
Totals	25,830	22,435	3,377	4,231

Defendant's Exhibit No. 28—Continued

[fol. 8281] Second Year Photostating

Full Sheets

	Preliminary	Final
Land and Legal Department	496	0
Accounting Department	898	165
Treasury Department	110	88
Engineering Department	330	0
Statistical Department	330	330
Operating Department	110	110
Safety Department	55	0
Geological Department	165	55
Executive Department	82	82
Industrial Department	82	0
Stargas Department	137	0
Total	2,795	830

[fol. 8282] Floor Space Requirement

Personnel	Number	Square Feet Each	Total
Chief Engineer	1	323	323
Secretary of Chief Engineer	1	209	209
Office Engineer	1	228	228
Statistical Engineer	1	200	200
Computers	5	90	450
Inventory men	3	90	270
Stenographers	5	60	300
Field Engineers	3	60	180
Designing Engineer	1	200	200
Designers	4	80	320
Chief Draftsman	1	200	200
Assistant Chief Draftsmen	5	80	400
Draftsmen	76	60	4,560
File Room	1	329	329
Blueprint and Photostat Room	1	418	418
Engineering Supply Room	1	52	52
Blueprint Supply Room	1	28	28
Map Room	1	323	323
Total Square Feet			8,990

[fol. 8283] Third Year Engineering

(Here follows 1 photolithograph, side folio 8284)

BLANK

PAGE

LONE STAR GAS CO.
-CONSTRUCTION PERIOD-
THIRD YEAR COMPLETE

8284

SCALE
0 10 20 30 40
Miles

KEUFFEL & ESSER CO., N. Y. NO. 358-5
10 × 10 to the inch.

8284A

BLANK

PAGE

Defendant's Exhibit No. 28—Continued

[fol. 8285]

Traveling Expenses, Fees, and Payroll for Third Year of Engineering General Engineering Cost

Chief Engineer		$12,000.00	
Secretary of Chief Engineer		2,100.00	
Office Engineer			
.52 year at	$4,800.00	2,496.00	$16,596.00
Statistical Engineer			
.83 year at	3,600.00	2,988.00	
Computers 2.53 at	2,400.00	6,072.00	
Inventory Men			
1.24 at	2,040.00	2,529.60	
Stenographer (Head of Group)		1,620.00	
Stenographers			
.73 year at	1,500.00	1,095.00	14,304.60
Field Engineer (Head of Group)		3,600.00	
Field Engineers			
1.70 at	3,300.00	5,610.00	9,210.00
Designing Engineer		3,600.00	
Designers 2.06 at	3,000.00	6,180.00	9,780.00
Chief Draftsman			
.46 year at	3,600.00	1,656.00	
Ass't Chief Draftsman (Head of Group)		3,300.00	
Ass't Chief Draftsmen			
.36 year at	3,000.00	1,080.00	
Draftsmen 20.36 at	2,040.00	41,534.40	
File Clerk (Head of Group)		1,800.00	
File Clerk			
.36 year at	1,500.00	540.00	
Photostat Operator			
.51 year at	1,920.00	979.20	
Blueprint Operator			
.74 year at	1,920.00	1,420.00	
Blueprint-Photostat Helper			
.31 year at	1,800.00	558.00	52,868.40
Car cost 3.70 at	2,100.00		7,770.00
Expenses 3.70 men at	1,500.00		5,550.00
Helpers counting houses—145 days at $4.00			580.00
Consulting fees			10,000.00
Total			$126,659.00

[fol. 8286]

Traveling Expenses and Payroll for Third Year of Engineering Reproduction Cost of Final Engineering Records

Office Engineer			
.48 year at	$4,800.00		$2,304.00
Statistical Engineer			
.17 year at	3,600.00	$612.00	
Inventory men			
.23 year at	2,040.00	469.20	
Stenographers			
.88 year at	1,500.00	1,320.00	2,401.20
Field Engineers			
3.18 at	3,300.00		10,494.00

Defendant's Exhibit No. 28—Continued

Chief Draftsman .54 year at	3,600.00	1,944.00	
Ass't Chief Draftsman 1.66 year at	3,000.00	4,980.00	
Draftsmen 24.91 at	2,040.00	50,816.40	
Photostat Operator .49 at	1,920.00	940.80	
Blueprint Operator .26 year at	1,920.00	499.20	
Blueprint-Photostat Helper .19 year at	1,800.00	342.00	
			62,012.40
Car Cost 3.18 year at	2,100.00		6,678.00
Expenses 3.18 man at	1,500.00		4,770.00
Total			$88,659.60

[fol. 8287]

Engineering Personnel Required for the Third Year of Engineering General Engineering Cost

Chief Engineer ..... Entire year
Secretary of Chief Engineer ..... Entire year

Office Engineer

Total work done under his supervision, Third Year	71.86 Years
Work done under his supervision, general engineering cost, Third Year	37.50 Years

37.50 divided by 71.86 = .52 Office Engineer Years

Statistical Engineer

Total work done under his supervision, Third Year	6.62 Years
Work done under his supervision, general engineering cost, Third Year	5.50 Years

5.50 divided by 6.62 = .83 Statistical Engineer Years

Computers as shown in detail	4,879 Hours
Plus 10% Omissions and Contingencies	488
Total	5,367 Hours

5,367 divided by 2118 = 2.53 Computer Years

Inventory men, as shown in detail, Preliminary Third Year	2,394 Hours
Plus 10% Omissions and Contingencies	239
Total	2,633 Hours

2,633 divided by 2118 = 1.24 Inventory men Years

Stenographers as shown in detail, Preliminary Third Year	3,325 Hours
Plus 10% Omissions and Contingencies	332
Total	3,657 Hours

3,657 divided by 2118 = 1.73 Stenographer Years

Defendant's Exhibit No. 28—Continued

Field Engineers

Survey Party Days, as shown in Detail, Preliminary Third Year	1,283 Days
1,283 divided by 3 = 428 Field Engineer Days	
Obtaining data for calculating Pressure, volumes, etc., 231 plus 428 =	659 Days
659 divided by 244 = 2.70 Field Engineer Years	
Designing Engineer	Entire year

[fol. 8288]

Designers, as shown in detail	3,981 Hours
Plus 10% Omissions and Contingencies	398
Total	4,379 Hours
4,379 divided by 2118 = 2.06 Designer Years	

Chief Draftsman

Total work done under his supervision, Third Year	54.31 Years
Work done under his supervision, general engineering cost, Third Year	24.95 Years
24.95 divided by 54.31 = .46 Chief Draftsman Years	
Assistant Chief Draftsman—1 for each 15 Draftsmen	
20.36 divided by 15 = 1.36 Ass't Chief Draftsmen Years	

Draftsmen as shown in detail,

Preliminary Third Year	39,198 Hours
Plus 10% Omissions and Contingencies	3,920
Total	43,118 Hours
43,118 divided by 2118 = 20.36 Draftsmen Years	

File Clerks—1 for each 15 Draftsmen	
20.36 divided by 15 = 1.36 File Clerk Years	
Photostat Operator	.51 Years
Blueprint Operator	.74 Years
Blueprint-Photostat Helper	.31 Years

[fol. 8289] Engineering Personnel Required for the Third Year of Engineering

Reproduction Cost of Final Engineering Records

Office Engineer

Total work done under his supervision Third Year	71.86 Years
Work done under his supervision, Reproduction cost of Final Engineering Records	34.36 Years
34.36 divided by 71.86 = .48 Office Engineer Years	

Statistical Engineer

Total work done under his supervision, Third Year	6.62 Years
Work done under his supervision, Reproduction cost of Final Engineering Records	1.11 Years
1.11 divided by 6.62 = .16 Statistical Engineer Years	

Defendant's Exhibit No. 28—Continued

Inventory Men, as shown in detail,

Final Second Year	451 Hours
Plus 10% Omissions and Contingencies	45
Total	496 Hours

496 divided by 2118 = .23 Inventory men Years

Stenographers, as shown in detail,

Final Second Year	1,696 Hours
Plus 10% Omissions and Contingencies	170
Total	1,866 Hours

1,866 divided by 2118 = .88 Stenographer Years

Field Engineers

Survey Party days as shown in detail,

Final Second Year	2,324 Days

2,324 divided by 3 = 775 Field Engineer Days
775 divided by 244 = 3.18 Field Engineer Days

Chief Draftsman

Total work done under his supervision Third Year	54.31 Years
Work done under his supervision, Reproduction cost of Final Engineering Records	29.36 Years

29.36 divided by 54.31 = .54 Chief Draftsman Years

Assistant Chief Draftsmen—1 for each 15 Draftsmen

24.91 divided by 15 = 1.66 Ass't Chief Draftsmen Years

Draftsmen, as shown in detail,

Final Second Year	47,973 Hours
Plus 10% Omissions and Contingencies	4,797
Total	52,770 Hours

52,770 divided by 2118 = 24.91 Draftsmen Years

[fol. 8290]

File Clerks—1 for each 15 Draftsmen

24.91 divided by 15 = 1.66 File Clerk Years

Photostat Operator	.49 Year
Blueprint Operator	.26 Year
Blueprint-Photostat Helper	.19 Year

Defendant's Exhibit No. 28—Continued

[fol. 8291] Third Year Details

[fol. 8292] Statistical Engineer—Third Year

	Computers	Inventory Men		Stenographers	
	Prelim.	Prelim.	Final	Prelim.	Final
A Line taps, measuring Stations, and other Structures	342	114	26	149	36
B Line taps, measuring stations, and other Structures	178	46	12	74	15
C Line taps, measuring Stations, and other Structures	69	16	6	31	5
E Line taps, measuring Stations, and other Structures	395	207	41	223	57
F Line taps, measuring Stations, and other Structures	249	101	18	119	28
G Line taps, measuring Stations, and other Structures	371	239	29	217	63
H Line taps, measuring Stations, and other Structures	206	130	17	109	32
J-2 Line taps, measuring Stations, and other Structures	116	25	12	53	11
K Line taps, measuring Stations, and other Structures	410	185	29	171	50
L Line taps, measuring Stations, and other Structures	78	382	71	403	102
M Line taps, measuring Stations, and other Structures	559	275	56	340	74
O Line taps, measuring Stations, and other Structures	891	442	89	534	136
Well Lines	124	51	47	58	31
U. S. Navy Line	67	121	5	56	24
Hollis Warehouse and Camp	39	10	0	16	4
Railroad and Highway Crossings, checking and transmitting preliminary alignments	145	0	0	222	0
Filing (All Engineering Department except Notes and Drawings)	0	0	0	550	550
Total	4,879	2,394	458	3,325	1,218

[fol. 8293] House Count and All Other Data for Calculating Loads

Third Year

Town	Field Engr. Days	Number of Helpers	Helpers Man Days
Abbott	1	0	0
Allen	1	0	0
Alvarado	1	1	1
Anna	1	0	0
Athens	1	2	2

Defendant's Exhibit No. 28—Continued

Town	Field Engr. Days	Number of Helpers	Helpers Man Days
Aubrey	1	0	0
Bagwell	1	0	0
Bardwell	1	0	0
Barry	1	0	0
Bartlett	1	1	1
Bells	1	0	0
Belton	1	2	2
Blooming Grove	1	0	0
Blossom	1	0	0
Bremond	1	0	0
Britton	1	0	0
Brookston	1	0	0
Bryan	1	6	6
Buckholts	1	0	0
Buckner's O. H.	1	0	0
Buffalo Gap	1	0	0
Belle Meade	1	0	0
Caddo Mills	1	0	0
Calvert	1	1	1
Cameron	1	3	3
Campbell	1	0	0
Carrollton	1	0	0
Cedar Hill	1	0	0
Celeste	1	0	0
Celina	1	0	0
Chico	1	0	0
Chillicothe	1	1	1
Clifton	1	1	1
Chilton	1	0	0
College Station	2	1	2
Collinsville	1	0	0
Commerce	1	4	4
Cooledge	1	0	0
Cooper	1	1	1
Covington	1	0	0
Crandall	1	0	0
Cumby	1	0	0
Dawson	1	1	1
Deport	1	0	0
Detroit	1	0	0

Defendant's Exhibit No. 28—Continued

Town	Field Engr. Days	Number of Helpers	Helpers Man Days
Dodd City	1	0	0
Duncanville	1	0	0
Ector	1	0	0
[fol. 8294] Eddy	1	0	0
Electra	1	6	6
Elm Mott	1	0	0
Emhouse	1	0	0
Enloe	1	0	0
Fairlie	1	0	0
Farmersville	1	1	1
Fatel	1	0	0
Ferris	1	1	1
Forney	1	1	1
Forreston	1	0	0
Frisco	1	1	1
Frost	1	0	0
Fulbright	1	0	0
Gatesville	1	3	3
Garland	1	2	2
Glen Rose	1	0	0
Granbury	1	1	1
Grandview	1	0	0
Granger	1	1	1
Grapevine	1	1	1
Gordon	1	0	0
Grosebeck	1	1	1
Hamilton	1	2	2
Handley	1	4	4
Harrold	1	0	0
Hearne	1	2	2
Holland	1	0	0
Howe	1	0	0
Hubbard	1	1	1
Hutchins	1	0	0
Iredell	1	0	0
Irving	1	0	0
Italy	1	1	1
Itasca	1	2	2
Josephine	1	0	0

Defendant's Exhibit No. 28—Continued

Town	Field Engr. Days	Number of Helpers	Helpers Man Days
Keene	1	0	0
Kemp	1	0	0
Kerens	1	1	1
Ladonia	1	0	0
Lancaster	1	1	1
Lawn	1	0	0
Leonard	1	0	0
Lewis Poultry Colony	1	0	0
Lewisville	1	0	0
Lillian	1	0	0
Lindsay	1	0	0
Little River	1	0	0
Loraine	1	0	0
Lorena	1	0	0
Lott	1	0	0
Mabank	1	0	0
[fol. 8295] Malakoff	1	0	0
Malone	1	0	0
Mansfield	1	0	0
Marlin	1	5	5
Mart	1	2	2
May Pearl	1	0	0
Melissa	1	0	0
Meridian	1	0	0
Merkel	1	0	0
Mesquite	1	0	0
Midlothian	1	0	0
Milford	1	0	0
Moody	1	0	0
Morgan	1	0	0
McGregor	1	1	1
Meunster	1	0	0
Myra	1	0	0
Nevada	1	0	0
Newark	1	0	0
Oglesby	1	0	0
Oklaunion	1	0	0
Osceola	1	0	0
Ovalo	1	0	0
Palmer	1	0	0

Defendant's Exhibit No. 28—Continued

Town	Field Engr. Days	Number of Helpers	Helpers Man Days
Pecan Gap	1	0	0
Penelope	1	0	0
Peniel	1	0	0
Petty	1	0	0
Pilot Point	1	0	0
Plano	1	1	1
Powell	1	0	0
Prosper	1	0	0
Ravenna	1	0	0
Reagan	1	0	0
Rhome	1	0	0
Richardson	1	0	0
Reisel	1	0	0
Rockdale	1	1	1
Rockwall	1	1	1
Rogers	1	0	0
Roscoe	1	0	0
Rosebud	1	0	0
Rowlett	1	0	0
Royse City	1	0	0
Roxton	1	0	0
Saginaw	1	0	0
Saint Jo	1	0	0
Sanger	1	1	1
Savoy	1	0	0
Seagoville	1	0	0
Scurry	1	0	0
Sulphur Springs	1	4	4
Streetman	1	0	0
[fol. 8296] Teague	1	2	2
Tehuacana	1	0	0
Tioga	1	0	0
Tolbert	1	0	0
Trent	1	0	0
Trenton	1	0	0
Troy	1	0	0
Tuscola	1	0	0
Urbandale	1	0	0
Valley Mills	1	0	0
Valley View	1	0	0
Van Alstyne	1	1	1

Defendant's Exhibit No. 28—Continued

Town	Field Engr. Days	Number of Helpers	Helpers Man Days
Venus	1	0	0
Vernon	2	7	14
Walnut Springs	1	0	0
West	1	2	2
Westminster	1	0	0
Whitewright	1	1	1
Whitney	1	1	1
Wilmer	1	0	0
Windom	1	0	0
Wolfe City	1	0	0
Wortham	1	1	1
Wylie	1	0	0
Achille	1	0	0
Caddo	1	0	0
Davidson	1	0	0
Davis	1	1	1
Elmore City	1	0	0
Frederick	1	6	6
Hastings	1	0	0
Hollis	1	3	3
Loco	1	0	0
Manitou	1	0	0
Marietta	1	1	1
Maysville	1	0	0
Mountain Park	1	0	0
Pauls Valley	1	5	5
Paoli	1	0	0
Purcell	1	2	2
Ryan	1	1	1
Snyder, Oklahoma	1	2	2
Sulphur	1	3	3
Tipton	1	1	1
Walters	1	3	3
Waurika	1	4	4
Wayne	1	0	0
Wynnewood	1	2	2
Byers	1	0	0
Petrolia	1	0	0
Bellevue	1	0	0
Sunset	1	0	0
Alvord	1	0	0

Defendant's Exhibit No. 28—Continued

[fol. 8297]

Town	Field Engr. Days	Number of Helpers	Helpers Man Days
Iowa Park	1	1	1
Temple, Oklahoma	1	0	0
Total	210		132
Plus 10% for investigating towns and communities that would not be served	21		13
Total	231		145

[fol. 8298] Third Year Surveying Party Days

	Prelim.	Final
A Line taps, measuring stations and all Structures	63	71
B Line taps, measuring stations and all Structures	21	30
C Line taps, measuring stations, and all Structures	5	9
E Line taps, measuring stations, and all Structures	109	113
F Line taps, measuring stations, and all Structures	50	56
G Line taps, measuring stations, and all Structures	128	125
H Line taps, measuring stations, and all Structures	68	64
J-2 Line taps, measuring stations, and all Structures	7	21
K Line taps, measuring stations, and all Structures	106	100
L Line taps, measuring station, and all Structures	202	204
M Line taps, measuring stations, and all Structures	142	147
O Line taps, measuring stations, and all Structures	263	271
Well lines	.....	31
U. S. Navy Line and all structures	.....	48
Hollis Warehouse and Pernell Camp	2	8
	1,166	1,298
Plus 10% Omissions and Contingencies	117	130
Total	1,283	1,428

[fol. 8299] Third Year Designing Time

	Hours
Measuring Stations	3,941
River Crossings	24
Camp Sites	14
Miscellaneous	2
Total	3,981

Defendant's Exhibit No. 28—Continued

[fols. 8300-8334]

Maps, Plans, and Drawings—3rd Year

Labor—Draftsmen Only

Alignment Sheets No.	Drawing	Size in Inches	Preliminary Hours	Final Hours
6	Line A-1	15.5x36	320	290
5	Line A-1-4	15.5x36	265	238
1	Line A-2—Iowa Park Tap	15.5x36	40	48
1	Line A-3—Harrold Tap	15.5x36	40	45
1	Line A-4—Vernon Tap	15.5x36	40	45
1	Line A-6—Chillicothe Tap	15.5x36	40	45
1	Line A-8—Hollis Tap	15.5x36	52	48
1	Line A-10—Electra Tap	15.5x36	40	45
1	Line A-15—Bartex Pipe Line Company Tap	15.5x36	40	45
1	Line B-1—Bellevue Tap	15.5x36	53	48
1	Line B-3—Sunset Tap	15.5x36	53	48
1	Line B-4—Alvord Tap	15.5x36	50	46
1	Line B-6—Rhome Tap	15.5x36	50	46
1	Line B-9—Texas Company Tap	15.5x36	50	46
1	Line B-10—Saginaw Tap	15.5x36	50	46
1	Line B-11—Newark Tap	15.5x36	50	46
1	Line B-13—Chico Tap	15.5x36	52	48
17	U. S. Navy Line	15.5x36	900	816
1	Line C-1	15.5x36	40	45
1	Line C-5—Riverside Tap	15.5x36	55	50
1	Line C-7	15.5x36	26	30
1	Line E-1-A—Simpson Fell Well No. 1	15.5x36	54	50
1	Line 2nd E-1-A—Pottsboro Field	15.5x36	54	50
2	Line E-5—Durant to Caddo	15.5x36	105	96
1	Line E-8—Dodd City Tap	15.5x36	53	48
6	Line E-10—E Line to Melissa	15.5x36	320	290
1	Line E-10-3—Trenton Tap	15.5x36	52	48
1	Line E-10-4—Westminster Tap	15.5x36	50	46
2	Line E-10-5—E-10 Line to Howe	15.5x36	103	94
1	Line E-10-6—E Line to Bells	15.5x36	52	48
1	Line E-11—Windom Tap	15.5x36	50	46
1	Line E-12—Brookston Tap	15.5x36	35	45
1	Line E-13—Petty Tap	15.5x36	35	45
1	Line E-14—Roxton Tap	15.5x36	50	46
1	Line E-15—Collingsville Tap	15.5x36	52	48
1	Line E-17—Ravenna Tap	15.5x36	50	46
1	Line E-19—Blossom Tap	15.5x36	35	45
1	Line E-20—Detroit Tap	15.5x36	35	45
1	Line E-21—Bagwell Tap	15.5x36	35	45
2	Line E-22	15.5x36	105	96
1	Line E-22-1—Deport Tap	15.5x36	53	48
2	Line F-2-1—F-2 Line to Celina	15.5x36	105	96

• • • • • • •

Defendant's Exhibit No. 28—Continued

[fol. 8335]

Field Maps No.	Drawing	Size in Inches	Preliminary Hours	Final Hours
1	Pottsboro Field Lines, cloth print for office records	30x40	2	.....
1	Pottsboro Field Lines	30x40	96	.....
4	Leeray Field Maps	.....	520	.....
1	Eastland Field Map	.....	82	.....
2	Mingus and East Mingus Maps	.....	143	.....
1	Breckenridge Field Map	.....	70	.....
1	Cheaney Field Map	.....	88	.....
1	Desdemona Field Map	.....	66	.....
1	Fox Field Map	.....	66	.....
1	East Fox Field Map	.....	55	.....
1	Wheeler County Field	.....	240	.....
4	Northwest Shamrock Field, Northeast Shamrock Field, Southeast Shamrock Field, and Southwest Shamrock Field Maps	.....	234	.....
1	South Robberson Field	30x40	.....	55
1	South Robberson Field Map for office records	.....	3	.....
150	System Maps	30x40	6000	.....
	Miscellaneous Drawings			
1	Line E-10 on Scott Dumas property	8.5x11	6	.....
1	Riverside line to Transcontinental Oil Company, Fort Worth, Texas	8.5x11	4	.....
2	Bridgeport Brick Company—Ferris Layout	8.5x11	5	.....
1	Typical drawing of Plan and Elevation of Piping and Location of measuring station	20x30	.....	22
1	Typical drawing of 4 inch measuring station with 2 inch high pressure regulators	20x30	.....	17
1	Typical drawing of Plan and Elevation for measuring Station	20x30	37	33
1	Typical drawing of piping plan for measuring station	20x30	37	33
	Mounting System Map	.....	368	.....
	Total		39,198	30,449

Defendant's Exhibit No. 28—Continued

[fol. 8336] General Expense

[fol. 8337] Summary

General Engineering Cost

Item	Amount
Office Equipment *	$842.21
County Maps	246.00
Office and Field Supplies	3,031.43
Surveying Equipment Cost*	838.18
Telephones	520.34
Toll Charges	1,291.68
Telegrams	215.28
Total	$6,985.12

[fol. 8338] General Expense

Summary

Reproduction Cost of Final Engineering Records

Item	Amount
Office Equipment *	$717.44
Office and Field Supplies	2,912.55
Surveying Equipment Cost *	1,490.10
Telephones	192.46
Toll Charges	2,296.32
Telephones	382.72
Total	$7,991.59

* Depreciation Only.

Defendant's Exhibit No. 28—Continued

[fol. 8339] / Third Year Details

[fol. 8340] Engineering Department Office Equipment Cost—Third Year

No. In Use	Item	Total Value Each	Total Value and Depreciation	Amount Charged to Third Year
1	Golden oak desk—glass top 60x30 inches	$79.10	$79.10 at 8%	$6.33
1	Golden oak table—glass top 72x36 inches	58.50	58.50 at 8%	4.68
4	Golden oak swivel arm chairs leather seats	22.00	88.00 at 8%	7.04
12	Golden oak arm chairs—straight	11.85	142.20 at 8%	11.38
5	Golden oak—4 Section Book cases with top base	43.90	219.50 at 8%	17.56
1	Golden Oak telephone table	10.80	10.80 at 8%	.86
13	Golden oak costumers	7.40	96.20 at 8%	7.70
8	Golden oak globe letter trays single	1.60	12.80 at 8%	1.02
1	Rug—14x16 feet	212.50	212.50 at 8%	17.00
2	Smoking Stands	6.34	12.68 at 8%	1.01
2	Sheaffer double fountain pen desk sets	20.00	40.00 at 8%	3.20
8	Golden oak system map frames	12.50	100.00 at 8%	8.00
2	Thermos Bottles with tray and glasses	11.40	22.80 at 8%	1.82
47	Steel mesh waste baskets	.90	42.30 at 15%	6.35
2	Brass cuspidors	2.07	4.14 at 8%	.33
47	Enameled steel cuspidors	.85	39.95 at 8%	3.20
49	Rubber cuspidor mats	.42	20.58 at 25%	5.15
8	Staffords Self inking stamp pads	.29	2.32 at 25%	.58
	Rubber stamps	.....	38.25 at 20%	7.65
2	Bostich staple machine—Exec. type	7.50	15.00 at 8%	1.20
35	Autopoint bakelite pencils	.40	14.00 at 8%	1.12
9	Engineer's Scales—12 inches	3.24	29.16 at 8%	2.33
8	Architect's Scales—12 inches	3.24	25.92 at 8%	2.07
6	Polyphase Duplex slide rules—10 inches in case	8.42	50.52 at 8%	4.04
4	Golden oak typewriter desks—60x34 inches	54.60	218.40 at 8%	17.47
5	Adjustable steel chairs—leather back and seat	17.43	69.72 at 8%	5.58
1	Golden oak settee—48 inches	42.00	42.00 at 8%	3.36
18	Berloy steel filing cabinets	27.30	491.40 at 8%	39.31
4	Royal Standard typewriters	83.03	332.12 at 8%	26.57
4	Remington Line-A-Times	21.00	84.00 at 8%	6.72
4	Sheaffer single fountain pen desk sets	12.00	48.00 at 8%	3.84
1	Rug—10x14 feet	132.00	132.00 at 8%	10.56
2	Secretary's Handbooks	3.50	7.00 at 8%	.56
2	Dictionaries	5.00	10.00 at 8%	.80
21	Bostich staple machines—standard	3.02	63.42 at 8%	5.07

Defendant's Exhibit No. 28—Continued

[fol. 8341]

Engineering Department Office Equipment Cost—Third Year

No. In Use	Item	Total Value Each	Total Value and Depreciation	Amount Charged to Third Year
4	Card Index Cases	.60	2.40 at 8%	.19
1	Desk blotter holder	5.50	5.50 at 8%	.44
72	Sets alphabetical indexes for files	.95	68.40 at 25%	17.10
5	Dexter Pencil Sharpeners—No. 2	3.93	16.65 at 8%	1.57
1	Golden oak desk with glass top—66x36 inches	84.00	84.00 at 8%	6.72
1	Golden oak table with glass top—72x34 inches	58.00	58.00 at 8%	4.64
1	Rug—12x14 feet	158.70	158.70 at 8%	12.70
13	Golden oak desks—60x34 inches	54.60	709.80 at 8%	56.78
12	Golden oak swivel chairs—leather seats	18.50	222.00 at 8%	17.76
2	Golden oak tables—60x34 inches	30.80	61.60 at 8%	4.93
4	Golden oak chairs	7.50	22.50 at 8%	1.80
1	Plainimeter	45.00	45.00 at 8%	3.60
2	Marchant Electric Calculators	425.00	850.00 at 8%	68.00
2	Walraven Extension Binders No. L-5840	7.20	14.40 at 8%	1.15
1	Walraven Extension Binders No. L-5888	8.44	8.44 at 8%	.67
4	Vance K. Miller Binders No. 541-A	1.25	5.00 at 8%	.40
1	Underwood Typewriter—26 inch carriage	137.70	137.70 at 8%	11.02
2	Golden oak tables 72x34 inches	35.00	70.00 at 8%	5.60
3	Sheridan Adjustable drawing tables No. 2263.5-B	65.00	195.00 at 8%	15.60
3	Golden oak desk chairs—leather seats	18.50	55.50 at 8%	4.44
7	Tee squares — adjustable heads 42 inches	5.94	41.58 at 8%	3.33
7	45 degree Triangles—18 in.	5.41	30.87 at 8%	2.47
7	30-60 Triangles—18 in.	3.06	21.42 at 8%	1.71
	Steel Shelving		182.25 at 8%	14.58
50	Drafting tables—60x34 inches with drawers	26.25	1,312.50 at 8%	105.00
50	Adjustable wooden drafting stools	12.92	646.00 at 8%	51.68
46	Tee Squares—42 inches	2.86	131.56 at 8%	10.52
1	Globe Wernicke filing cabinet No. 7310-C	1.20	1.20 at 8%	.10
2	Beam compasses in case	12.25	24.50 at 8%	1.96
3	Sets proportional dividers	12.50	37.50 at 8%	3.00
1	Set Wrice lettering guides	35.00	35.00 at 8%	2.80
4	Steel straight edges—48 in.	7.56	30.24 at 8%	2.42
4	Vernier Protractors	9.00	36.00 at 8%	2.88
1	Golden oak table—88x30 in.	48.50	48.50 at 8%	.388

Defendant's Exhibit No. 28—Continued

342]

Engineering Department Office Equipment Cost—Third Year

Item	Total Value Each	Total Value and Depreciation	Amount Charged to Third Year
Hamilton File Drawer Bases..	6.00	12.00 at 8%	.96
Hamilton 5 Drawer files.....	28.50	370.50 at 8%	29.64
Hamilton file drawer tops....	6.00	18.00 at 8%	1.44
Hamilton file drawer—with base.....	18.70	18.70 at 8%	1.50
Hamilton file drawer.....	12.00	12.00 at 8%	.96
Vertical steel map file.....	300.00	300.00 at 8%	24.00
Steel Supply cabinet.....	32.00	32.00 at 8%	2.56
Pigeon hole horizontal map files.....	65.00	130.00 at 8%	10.40
Steel mesh waste basket—30 inches high.....	3.15	3.15 at 15%	.47
File cases for scout tickets—double.....	10.00	70.00 at 8%	5.60
Scissors—14 inches.....	3.75	15.00 at 20%	3.00
Step ladders—3 feet high.....	2.00	4.00 at 8%	.32
Oil cans—with spouts—for cleaning fluid.....	.25	2.50 at 20%	.50
Pease blueprint machine—54 inches.....	1,716.00	1,716.00 at 8%	137.28
Photostat machine.....	1,188.00	1,188.00 at 8%	95.04
Paragon blueprint dryer—54 inches.....	759.00	759.00 at 8%	60.72
Pako Photo Dryer.....	176.00	176.00 at 8%	14.08
Cooper-Hewitt Mercury Tube lights.....	80.00	160.00 at 8%	12.80
Photostat Washer.....	82.50	82.50 at 8%	6.60
Blueprint Washer—54 inches..	68.00	68.00 at 8%	5.44
Drying rack for negatives.....	41.80	41.80 at 8%	3.34
Blueprint table 45x66 inches..	38.50	38.50 at 8%	3.08
Table—32x60 inches for dryer.	3.85	3.85 at 8%	.31
Straight oak chair.....	5.00	5.00 at 8%	.40
G. I. Waste paper can.....	2.50	2.50 at 20%	.50
Blueprint paper can.....	5.00	5.00 at 8%	.40
Photo Trimmer — Eastman—18x18 Inches.....	35.00	35.00 at 8%	2.80
Loose-Leaf Folders 8.5x11 in..	.88	1.76 at 25%	.44
Piece Plate Glass—24x30 inches—Gr. Edge.....	4.50	4.50 at 25%	1.13
Golden oak map cases.....	1,309.00	5,236.00 at 8%	418.88
No. 60 Marvel Punch.....	1.65	1.65 at 8%	.13
Improved Hummer punch—4 heads.....	9.90	9.90 at 8%	.79
Technical Reference Books...	382.50	382.50 at 8%	30.60
Totals.....		$19,161.10	$1,559.65
for General Engineering Cost.....			$842.21
for Reproduction Cost of Final Engineering Records.....			717.44

Defendant's Exhibit No. 28—Continued

[fol. 8343] County Maps Purchased—Third Year

Texas	No. Maps	Cost Each	Amount
Rains	1	$2.00	$2.00
Van Zandt	1	2.00	2.00
Henderson	3	2.00	6.00
Anderson	1	2.00	2.00
Leon	1	2.00	2.00
Robertson	3	2.00	6.00
Brazos	3	2.00	6.00
Grimes	5	3.50	17.50
Milam	4	5.00	20.00
Burleson	1	2.00	2.00
Lee	1	2.00	2.00
Travis	1	2.00	2.00
Burnett	1	2.00	2.00
Lampasas	1	2.00	2.00
Corvell	3	2.00	6.00
Bosque	3	2.00	6.00
Hamilton	3	2.00	6.00
Mills	1	2.00	2.00
Concho	1	3.50	3.50
Tom Green	1	6.00	6.00
Coke	1	6.00	6.00
Stonewell	1	6.00	6.00
Baylor	1	6.00	6.00
Knox	1	6.00	6.00
Foard	1	6.00	6.00
Hall	1	6.00	6.00
McCulloch	1	6.00	6.00
San Saba	1	2.00	2.00
King	1	6.00	6.00
Cottle	1	6.00	6.00
Sommervell	3	2.00	6.00
Haskell	1	6.00	6.00
Delta	3	2.00	6.00
Hopkins	3	2.00	6.00
Oklahoma			
Grady	3	3.50	10.50
Johnston	1	3.50	3.50
Atoka	1	3.50	3.50
Coal	1	3.50	3.50
Pontotoc	1	3.50	3.50
Kiowa	3	3.50	10.50
Caddo	3	3.50	10.50
Pittsburg	5	3.50	17.50
Total			$246.00

Defendant's Exhibit No. 28—Continued

[fol. 8344]

Engineering Department Supply Cost
Third Year

No. Units Used	Unit	Items	Unit Cost	Amount
208	Boxes	Gem Clips	$.02	$4.16
16	Pounds	Rubber Bands	.40	6.40
80	Boxes	Autopoint Pencil leads	.26	20.80
15	Boxes	Blank Pins	.36	5.40
5	Quarts	Blue-Black Fountain Pen ink	.90	4.50
1	Quart	Red Fountain Pen Ink	1.20	1.20
6	Each	Memorandum and date pads	.50	3.00
29	Boxes	Bostich staples	1.28	37.12
825	Each	Autopoint pencil erasers	.0087	7.18
375	Each	Fiberstock Pockets No. 1514-C	.136	51.00
24	Boxes	Carbon Paper—8.5x11 Inches	1.80	43.20
1,950	Each	Letterheads—printed	.0035	6.83
5,550	Each	Yellow Copy sheets	.004	2.22
10,375	Each	Thin Copy sheets	.0009	9.34
1,250	Each	Interoffice letterheads	.0008	1.00
250	Each	Interoffice envelopes	.005	1.25
5,000	Each	Letterheads—plain	.0028	13.44
7,000	Each	Small envelopes—stamped	.0322	225.40
2,800	Each	Large envelopes—stamped	.0329	92.12
24	Each	Typewriter ribbons	.46	11.04
16	Each	Typewriter erasers	.06	.96
1,000	Each	Manila folders	.0135	13.50
17	Boxes	Mak-Ur-On Tabs	1.613	27.42
14	Dozen	No. 2 Pencils	.28	3.92
105	Pads	Yellow cross section paper	.177	18.59
470	Pads	Dietzgen No. 375 Cross section paper	.39	183.30
500	Sheets	Inventory book paper	.05	25.00
100	Sheets	Summary book paper	.0418	4.18
2	Pads	Wilson-Jones Columnar Pads No. 7025	1.00	2.00
150	Each	Pen Points	.008	1.20
20	Each	Pen Staffs	.029	.58
30	Pads	Requisition on Purchasing Agent	.1103	3.31
875	Each	Karlton Klasp Envelopes 10x13 inches	.011	9.63
3,700	Each	Time Sheets	.00135	5.00
22,500	Each	Time Tickets	.0004	9.00
53	Rolls-50 Yds.	36 Inch Economy Paper	3.00	159.00
34	Rolls-24 Yds.	30 inch Tracing Cloth	19.35	657.90
4	Rolls-24 Yds.	36 inch Tracing Cloth	22.30	89.20
5	Rolls-24 Yds.	54 inch Tracing Cloth	42.10	210.50
6	Gallons	Frisket Cement	2.60	15.60
2	Gallons	Wall paper paste	1.25	2.50

[fol. 8345]

163	Rolls-50 Yds.	50% 42 in. Blue Print paper	3.15	513.45
11	Rolls-50 Yds.	42 In. White Print Cloth	40.00	440.00
86	Rolls-50 Yds.	100% 42 in. White Print Paper	5.15	442.90
19	Rolls-50 Yds.	Negative Paper	9.00	171.00
1,350	Pads	Scratch Pads	.01	13.50
4	Boxes	Type Cleaner—Norta	.28	1.12
44	Rolls-50 Yds.	36 in. Detail Paper	4.48	197.12
190	Yards	Cheese Cloth	.0253	4.81
108	Gross	Drawing pencils	7.20	777.60
10	Dozen	Pencil Extenders	.90	9.00
48	Gross	Lettering pens—No. 170, 303, and 404	1.50	72.48
22	Dozen	Pen Staffs (Lettering)	.48	10.56

Defendant's Exhibit No. 28—Continued

Engineering Department Supply Cost
Third Year

No. Units Used	Unit	Items	Unit Cost	Amount
42	Each	Crow Quill pen holders	.075	3.15
16	Gross	Crow Quill pens No. 659	6.75	108.00
111	Dozen	Ruby erasers	.33	36.63
110	Dozen	Art Gum erasers	.38	41.80
4	Bottles	Hyperion eradicator	.25	1.00
26	Rolls	Transparent mending tape	.0375	.97
12	Rolls	Gummed mending tape (Cloth)	.1996	2.40
28	Dozen	Pencil Pointers	.90	25.20
13	Gallons	Carbon tetrachloride	2.00	26.00
2,100	Each	File back—8.5x11 inches	.0044	8.24
1	Set (12)	Show card colors	4.00	4.00
6	Each	Show card color brushes	.30	1.80
24	Bottles	Mucilage	.375	9.00
200	Boxes	Thumb Tacks	.4096	81.92
12	Tubes	Water colors	.15	1.80
4	Each	Water color brushes	.30	1.20
11	Each	Drawing Ink—Black	7.50	82.50
3	Bottles	Drawing Ink—Blue	6.00	18.00
3	Bottles	Drawing Ink—Red	6.00	18.00
6	Bottles	Drawing Ink—Yellow	6.00	36.00
3	Bottles	Drawing Ink—Orange	6.00	18.00
2	Bottles	Drawing Ink—Green	6.00	12.00
38	Cans	Tracing powder	.225	8.55
4	Balls	Heavy White Twine	.1123	.45
80	Dozen	Colored pencils	.52	41.60
1	Box-100	No. 6 Brad fasteners	.44	.44
4	Boxes-100	No. 1 Brad fasteners	.07	.28
4	Boxes-100	No. 2 Brad fasteners	.08	.32
4	Boxes-100	Gummed reinforcements	.04	.16
4	Jars	Opague	.50	2.00
2,850	Blotters	Each	.0025	7.12
4	Jars	Cico Paste	.2736	1.09
10	Rolls	Photostat Paper	19.30	193.00
68	Dozen	Blueprint Arc Carbons	.84	47.12
60	Pounds	Potassium Bichromate	.45	27.00
12	Pounds	Negative Hypo	.40	4.80
[fol. 8346]				
255	Boxes	Photostat Hypo	.2125	$54.19
128	Boxes	Photostat Developer—Large	.6804	87.09
12	Each	Blueprint lamp globes	1.00	12.00
6	Each	Blueprint dash pots	2.50	15.00
6	Each	Blueprint carbon holders upper	.25	1.50
6	Each	Blueprint carbon holders lower	.25	1.50
4	Each	Mercury Vapor lamps	13.50	54.00
13,000	Sheets	Lefax paper—Transit	.0046	59.80
3,000	Sheets	Lefax economy paper	.0012	3.60
8	Gross	Pencil tip erasers	1.07	8.56
66	Pads-100	Daily progress reports	.0781	5.15
30	Pads-100	Draft Receipts	.625	18.75
30	Pads-100	Draft Report Blanks	.0839	2.52
30	Each	Draft Books (100 Drafts)	.4375	13.13
250	Each	Accident report blanks	.0064	1.60
180	Each	Automobile Reports	.0724	13.03
90	Each	Local Supply Order books	.1089	9.80
200	Each	Expense account blanks postage		45.00
180	Each	Blue lumber crayon	.07	12.60
Total				$5,943.98
51% for General Engineering Cost				$3,031.43
49% for Reproduction Cost of Final Engineering Records				2,912.55

Defendant's Exhibit No. 28—Continued

[fol. 8347]

Third Year Surveying Equipment

No.	Item	Initial Cost Each	Initial Value and Depreciation	Depreciation 3rd Year	Additional Investment Third Year
4	Transits complete with tripods and cases	$420.70	$1,682.80 at 25%	$420.70	.....
5	Transits complete with tripods and cases	420.70	2,103.50 at 20%	420.70	.....
6	Transits complete with tripods and cases	420.70	2,524.20 at 15%	378.63	.....
2	Wye levels complete with tripods	215.00	430.00 at 15%	64.50	.....
21	Steel tapes, 200 ft.	9.45	198.45 at 100%	198.45	$198.45
9	Steel tapes, 100 ft.	5.40	48.60 at 100%	48.60	48.60
30	Range poles, 8 ft. long, jointed	3.24	97.20 at 100%	97.20	97.20
2	Levelling rods—13 feet long, adjustable	14.40	28.80 at 50%	14.40	28.00
30	Sets chaining pins—12 inches long	1.80	54.00 at 100%	54.00	54.00
18	Machetes—22 inches long in case	3.24	58.32 at 50%	29.16	.....
2	Binoculars—32 power in case	22.95	45.90 at 15%	6.89	.....
12	Axes—Double bit	1.94	23.28 at 100%	23.28	23.28
21	Axes—Pole	1.56	32.76 at 100%	32.76	32.76
30	Thermos jugs—2 gallon capacity	4.90	147.00 at 100%	147.00	147.00
40	Loose leaf covers—Canvas back	.94	37.60 at 50%	18.80	.....
27	Loose leaf covers—Canvas back	.94	25.38 at 50%	12.69	25.38
8	Brief Cases—Engineer's large	15.50	124.00 at 20%	24.80	.....
4	Brief Cases—Engineer's large	15.50	62.00 at 25%	15.50	.....
9	Brief Cases—Engineer's large	15.50	139.50 at 15%	20.93	.....
22	First Aid Kits	3.27	71.94 at 100%	71.94	71.94
9	Protractors—6 in. Semi-circle	.45	4.05 at 50%	2.03	.....
6	Protractors—6 in. Semi-circle	.45	2.70 at 50%	1.35	2.70
9	Engineer's scales—6 in. in case	1.85	16.65 at 30%	4.99	.....
9	Engineer's Scales—6 in. in case	1.85	16.65 at 25%	4.16	.....
4	Engineer's Scales—6 in. in case	1.85	7.40 at 35%	2.59	.....
13	Loose leaf folders—canvas back for 8.5x11 in. sheets	.88	11.44 at 50%	5.72	.....
9	Loose leaf folders—canvas back for 8.5x11 in. sheets	.88	7.04 at 50%	3.52	7.04

2847

Defendant's Exhibit No. 28—Continued

[fol. 8348]

Third Year Surveying Equipment—Continued

No.	Item	Initial Cost Each	Initial Value and Depreciation	Depreciation 3rd Year	Additional Investment Third Year
6	Surveyors Handbooks	2.50	15.00 at 20%	3.00	.....
3	Surveyors Handbooks	2.50	7.50 at 25%	1.87	.....
6	Surveyors Handbooks	2.50	15.00 at 15%	2.25	.....
6	Surveyors Drawing Kits	1.25	7.50 at 20%	1.50	.....
3	Surveyors Drawing Kits	1.25	3.75 at 25%	.93	.....
6	Surveyors Drawing Kits	1.25	7.50 at 15%	1.13	.....
3	Brunton Pocket Compasses in case	28.50	85.50 at 15%	12.83	.....
2	Brunton Pocket Compasses in case	28.50	57.00 at 20%	11.40	.....
1	Brunton Pocket Compass in case	28.50	28.50 at 25%	7.12	.....
6	Thermos jugs—1 gallon capacity	2.95	17.70 at 100%	17.70	17.70
61	Rules—6 foot long Zig Zag	.45	27.45 at 100%	27.45	27.45
18	Steel tapes—50 feet long—on reel—in leather case	5.40	97.20 at 100%	97.20	97.20
6	Prodding rods	2.50	15.00 at 35%	5.25	.....
12	Prodding rods	2.50	30.00 at 25%	7.50	.....
6	Drain spades	1.15	6.90 at 35%	2.41	.....
12	Drain spades	1.15	13.80 at 25%	3.45	.....
	Totals		$8,484.29	$2,328.28	$879.50
	36% for General Engineering Cost				$838.18
	64% for Reproduction Cost of Final Engineering Records				1,490.10

Defendant's Exhibit No. 28—Continued

[fol. 8349] Third Year Blueprinting—Preliminary

Quantities in Square Feet

	Blue Prints	White Prints	Cloth Prints	Negatives
Alignment sheets	17,844	0	0	0
City gate measuring stations	13,680	0	0	0
Main line measuring and regulating stations	1,800	0	0	0
Railroad and highway crossings	653	0	0	0
River crossings	205	0	0	0
Standard drawings	8,078	0	0	0
County Maps	0	2,748	597	458
System Maps	0	8,143	0	2,979
Totals	42,260	10,891	597	3,437

Final

	Blue Prints	White Prints	Cloth Prints	Negatives
Alignment sheets	8,328	0	0	0
City Gate Stations	5,863	0	0	0
Main Line Measuring and regulating stations, etc.	900	0	0	0
River Crossings	102	0	0	0
County Maps	0	7,079	1,185	1,185
Co-operative Maps	0	2,038	314	314
Sectional maps	0	4,766	733	733
System maps	0	5,099	0	2,879
Field maps	0	6,650	1,267	1,267
Totals	15,193	25,632	3,499	6,378

[fol. 8350] Third Year Photostating

Full Sheets

	Preliminary	Final
Land and Legal Department	218	0
Accounting Department	816	150
Treasury Department	100	80
Engineering Department	300	0
Statistical Department	300	300
Operating Department	100	100
Safety Department	50	0
Geological Department	150	50
Executive Department	75	75
Industrial Department	75	0
Stargas Department	125	0
Total	2,309	755

Defendant's Exhibit No. 28—Continued

[fol. 8351] Floor Space Requirements

Personnel	Number	Square Feet Each	Total
Chief Engineer	1	323	323
Secretary of Chief Engineer	1	209	209
Office Engineer	1	228	228
Statistical Engineer	1	200	200
Computers	3	90	270
Inventory men	2	90	180
Stenographers	3	60	180
Field Engineers	3	60	180
Designing Engineer	1	200	200
Designers	3	80	240
Chief Draftsman	1	200	200
Assistant Chief Draftsmen	3	80	240
Draftsmen	48	60	2,880
File Room	1	329	329
Blueprint and Photostat Room	1	418	418
Engineering Supply Room	1	52	52
Blueprint Supply Room	1	28	28
Map Room	1	323	323
Total Square Feet			6,680

[fol. 8352] Fourth Year Engineering

[fol. 8353] Traveling Expenses and Payroll for Fourth Year of Engineering

General Engineering Cost

Chief Engineer	$12,000.00
Secretary of Chief Engineer	2,100.00
Car Cost—1 at $2,100.00	2,100.00
Expenses—1 man at $1,500.00	1,500.00
Total	$17,700.00

Defendant's Exhibit No. 28—Continued

[fol. 8354] Traveling Expenses and Payroll for Fourth Year of Engineering

Reproduction Cost of Final Engineering Records

Office Engineer			$4,800.00
Statistical Engineer		$3,600.00	
Inventory man .24 year at	$2,040.00	489.60	
Stenographer .63 year at	1,500.00	945.00	5,034.60
Field Engineers 1.95 at	3,300.00		6,435.00
Chief Draftsman		3,600.00	
Ass't Chief Draftsman (Head of Group)		3,300.00	
Ass't Chief Draftsman .05 year at	3,000.00	150.00	
Draftsmen 15.81 at	2,040.00	32,252.40	
File Clerk (Head of Group)		1,800.00	
File Clerk .05 year at	1,500.00	75.00	
Photostat operator		1,920.00	
Blueprint operator		1,920.00	45,017.40
Car Cost—1.95 at	2,100.00		4,095.00
Expenses—1.95 men at	1,500.00		2,925.00
Total			$68,307.00

[fol. 8355] Engineering Personnel Required for Fourth Year of Engineering

General Engineering Costs

Chief Engineer	Entire Year
Secretary of Chief Engineer	Entire Year

[fol. 8356] Engineering Personnel Required for Fourth Year of Engineering

Reproduction Cost of Final Engineering Records

Office Engineer	Entire Year
Statistical Engineer	Entire Year
Inventory men as shown in detail (Final third year)	458 Hours
Plus 10% Omissions and Contingencies	46
Total	504 Hours

504 divided by 2118 = .24 Inventory men Years

Stenographers as shown in detail (Final Third Year)	1,218 Hours
Plus 10% Omissions and Contingencies	122
Total	1,340 Hours

1,340 divided by 2118 = .63 Stenographer Years

Defendant's Exhibit No. 28—Continued

Field Engineers:	
Survey party days shown in detail (Final third year)	1,426 Days
1,428 divided by 3 = 476 Field Engineer Days	
476 divided by 244 = 1.95 Field Engineer Years	
Chief Draftsman	Entire Year
Ass't Chief Draftsmen—1 for each 15 draftsmen	
15.81 divided by 15 = 1.05 Assistant Chief Draftsmen Years	
Draftsmen as shown in detail (Final third year)	30,449 Hours
Plus 10% Omissions and Contingencies	3,045
Total	33,494 Hours
33,494 divided by 2118 = 15.81 Draftsmen Years	
File Clerks—1 for each 15 Draftsmen	
15.81 divided by 15 = 1.05 File Clerk Years	
Photostat Operator	Entire Year
Blueprint Operator	Entire Year

[fol. 8357] General Expense

[fol. 8358] Summary

General Engineering Costs

Item	Amount
Office Equipment *	$83.93
Office Supplies	37.86
Telephones	158.40
Total	$280.19

* Depreciation Only.

[fol. 8359] General Expense

Summary

Reproduction Cost of Final Engineering Records

Item	Amount
Office Equipment *	$3,614.71
Office and Field Supplies	3,227.60
Surveying Equipment Cost*	894.40
Telephones	396.00
Toll Charges	1,077.00
Telephones	180.00
Total	$9,389.71

* Depreciation and Loss on Disposition.

Defendant's Exhibit No. 28—Continued

[fol. 8360] Fourth Year Details

[fol. 8361] Engineering Department Office Equipment Cost—Fourth Year

No. In Use	Item	Total Value Each	Total Value and Depreciation	Amount Charged to Fourth Year
1	Golden oak desk—glass top 60x36 inches	$79.10	$79.10 at 8%	$6.33
1	Golden oak table—glass top 72x36 inches	58.50	58.50 at 8%	4.68
3	Golden oak swivel arm chairs—leather seat	22.00	66.00 at 8%	5.28
11	Golden oak arm chairs—straight	11.85	130.35 at 8%	10.43
4	Golden oak—4 Section Book cases—with top and base	43.90	175.60 at 8%	14.05
1	Golden oak telephone table	10.80	10.80 at 8%	.86
10	Golden oak costumer	7.40	74.00 at 8%	5.92
5	Golden oak globe letter trays single	1.60	8.00 at 8%	.64
1	Rug—14x16 foot	212.50	212.50 at 8%	17.00
2	Smoking stands	6.34	12.68 at 8%	1.01
2	Sheaffer double fountain pen desk set	20.00	40.00 at 8%	3.20
7	Golden oak system map frames	12.40	87.50 at 8%	7.00
2	Thermos bottles with tray and glasses	11.40	22.80 at 8%	1.82
20	Steel mesh waste baskets	.90	18.00 at 15%	2.70
2	Brass cuspidors	2.07	4.14 at 8%	.33
18	Enameled steel cuspidors	.85	15.30 at 8%	1.22
20	Rubber cuspidor mats	.42	8.40 at 25%	2.10
8	Staffords self-inking pads	.29	2.32 at 25%	.58
	Rubber stamps	.....	38.25 at 20%	7.65
2	Bostich staple machines—Exec. Type	7.50	15.00 at 8%	1.20
17	Autopoint Bakelite pencils	.40	6.80 at 8%	.54
6	Engineers scales—12 inches	3.42	19.44 at 8%	1.56
5	Architects scales—12 inches	3.24	16.20 at 8%	1.30
3	Polyphase Duplex slide rules 10 inches—in case	8.42	25.26 at 8%	2.02
2	Golden oak typewriter desks—60x34 inches	54.60	109.20 at 8%	8.74
2	Adjustable steel chairs—leather back and seat	17.43	34.86 at 8%	2.79
1	Golden oak settee—48 in	42.00	42.00 at 8%	3.36
15	Berloy steel filing cabinets	27.30	409.50 at 8%	32.76
2	Royal Standard typewriters	83.03	166.06 at 8%	13.28
2	Remington Line-A-Times	21.00	42.00 at 8%	3.36
2	Globe letter trays—double	4.00	8.00 at 8%	.64
3	Sheaffers single fountain pen desk set	12.00	36.00 at 8%	2.88
1	Rug—18x14 feet	132.00	132.00 at 8%	10.56
2	Secretary's handbooks	3.50	7.00 at 8%	.56
2	Dictionaries	5.00	10.00 at 8%	.80
11	Bostich staple machines—Standard	3.02	33.22 at 8%	2.66
[fol. 8362]				
2	Card index cases	.60	1.20 at 8%	.10
1	Desk blotter holder	5.50	5.50 at 8%	.44
60	Sets alphabetical indexes for files	.95	57.00 at 25%	19.25

Defendant's Exhibit No. 28—Continued

Engineering Department Office Equipment Cost—Fourth Year—Continued

No. In Use	Item	Total Value Each	Total Value and Depreciation	Amount Charged to Fourth Year
4	Dexeter pencil Sharpeners	3.93	15.72 at 8%	1.26
1	Golden oak desk with glass top —66x36 inches	84.00	84.00 at 8%	6.72
1	Golden oak table with glass top —72x34 inches	58.00	58.00 at 8%	4.64
1	Rug—12x14 foot	158.70	158.70 at 8%	12.70
6	Golden oak desks—60x34 in.	54.60	327.60 at 8%	26.21
6	Golden oak swivel chairs—leather seats	18.50	111.00 at 8%	8.88
2	Golden oak tables—60x34 in.	30.80	61.60 at 8%	4.93
3	Golden oak chairs	7.50	22.50 at 8%	1.80
1	Planimeter	45.00	45.00 at 8%	3.60
1	Marchant Electric Calculator	425.00	425.00 at 8%	34.00
2	Walraven Extension Binder No. L-5840	7.20	14.40 at 8%	1.15
1	Walraven Extension Binder No. L-5888	8.44	8.44 at 8%	.67
4	Vance K Miller Binders No. 541-A	1.25	5.00 at 8%	.40
1	Underwood typewriter—26 inch carriage	137.70	137.70 at 8%	11.02
1	Golden oak table 72x34 in.	35.00	35.00 at 8%	2.80
4	Tee Squares — Adjustable heads—42 inches	5.93	23.76 at 8%	1.90
4	45 degree Triangles—18 in.	4.41	17.64 at 8%	1.41
4	30-60 Triangles—18 in.	3.06	12.24 at 8%	.98
	Steel shelving		152.25 at 8%	12.18
19	Drafting tables—60x34 inches with drawers	26.25	498.75 at 8%	39.90
19	Adjustable wooden drafting stools	12.92	245.48 at 8%	19.64
15	Tee Squares—42 inches	2.86	42.90 at 8%	3.43
1	Globe Wernicke filing cabinet No. 7310-C	1.20	1.20 at 8%	.10
2	Beam compasses—in case	12.25	24.50 at 8%	1.96
3	Sets proportional dividers	12.50	37.50 at 8%	3.00
1	Sets Wrico lettering guides	35.00	35.00 at 8%	2.80
4	Steel straight edges—48 in.	7.56	30.24 at 8%	2.42
4	Vernier protractors	9.00	36.00 at 8%	2.88
1	Golden oak table—88x30 inches	48.50	48.50 at 8%	3.88
2	Hamilton file drawer bases 32x42 inches	6.00	12.00 at 8%	.96
13	Hamilton 5 drawer files	28.50	370. at 8%	29.64
3	Hamilton File drawer tops	6.00	18.00 at 8%	1.44
1	Hamilton File drawer	18.70	18.70 at 8%	1.50
1	Hamilton 1 file drawer	12.00	12.00 at 8%	.96
1	Vertical steel map file	300.00	300.00 at 8%	24.00
[fol. 8363]				
1	Steel supply cabinet	32.00	32.00 at 8%	2.56
2	Pigeon hole horizontal map files	65.00	130.00 at 8%	10.40
1	Steel mesh waste basket—30 inches high	3.15	3.15 at 15%	.47
7	File cases for scout tickets—double	10.00	70.00 at 8%	5.60
4	Scissors—14 inches	3.75	15.00 at 20%	3.00

Defendant's Exhibit No. 28—Continued

Engineering Department Office Equipment Cost—Fourth Year—Continued

No. In Use	Item	Total Value Each	Total Value and Depreciation	Amount Charged to Fourth Year
2	Step ladders—3 feet high	2.00	4.00 at 8%	.32
10	Oil cans with spouts—for cleaning fluid	.25	2.50 at 20%	.50
1	Pease Blueprint Machine—54 inches	1,716.00	1,716.00 at 8%	137.28
1	Photostat machine—18x22 inches	1,188.00	1,188.00 at 8%	95.04
1	Paragon Blueprint dryer	759.00	759.00 at 8%	60.72
1	Pako Photo Dryer	176.00	176.00 at 8%	14.08
2	Cooper-Hewitt Mercury tube lights	80.00	160.00 at 8%	12.80
1	Photostat washer	82.50	82.50 at 8%	6.60
1	Blueprint washer—54 in.	68.00	68.00 at 8%	5.44
1	Drying rack for negatives	41.80	41.80 at 8%	3.34
1	Blueprint table—45x66 inches.	38.50	38.50 at 8%	3.08
1	Table—32x60 inches for dryer.	3.85	3.85 at 8%	.31
1	Straight oak chair	5.00	5.00 at 8%	.40
1	G. I. Waste paper can	2.50	2.50 at 20%	.50
1	Blueprint paper can—8x55 in.	5.00	5.00 at 8%	.40
1	Photo trimmer—Eastman—18x18 inches	35.00	35.00 at 8%	2.80
2	Loose leaf folders	.88	1.76 at 25%	.44
1	Piece plate glass—24x30 inches—Gr. edge	4.50	4.50 at 25%	1.13
4	Golden oak map cases	1,309.00	5,236.00 at 8%	418.88
1	No. 60 Marvel punch	1.65	1.65 at 8%	.13
1	Improved Hummer punch—4 heads	9.90	9.90 at 8%	.79
	Technical Reference books	382.50	382.50 at 8%	30.60
			$15,861.41	$1,294.97
	Loss on disposition of equipment			2,403.67
	Totals		$15,861.41	$3,698.64
	General Engineering Cost			$83.93
	Reproduction Cost of Final Engineering Records			3,614.71

[fol. 8364] Engineering Department Supply Cost

Fourth Year

No. Units Used	Units	Items	Unit Cost	Amount
110	Boxes	Gem clips	$.02	$2.20
12	Pounds	Rubber bands	.40	4.80
36	Boxes	Autopoint pencil leads	.26	9.36
11	Boxes	Bank pins	.36	3.96
4	Quarts	Blue-black fountain pen ink	.90	3.60
1	Quart	Red Fountain pen ink	1.20	1.20
5	Each	Memorandum and date pads	.50	2.50
18	Boxes	Bostich staples	1.28	23.04
375	Each	Autopoint pencil erasers	.0087	3.26
200	Each	Fiberstock Pockets No. 1514-C	.136	27.20
8	Boxes	Carbon paper	1.80	14.40
1,950	Each	Letterheads—printed	.0035	6.83
2,950	Each	Yellow copy sheets	.0004	1.18

Defendant's Exhibit No. 28—Continued

Engineering Department Supply Cost—Continued

Fourth Year

No. Units Used	Units	Items	Unit Cost	Amount
2,575	Each	Thin copy sheets	.0009	2.32
1,250	Each	Interoffice letterheads	.0008	1.00
250	Each	Interoffice envelopes	.005	1.25
1,000	Each	Letterheads—plain	.0028	2.80
3,300	Each	Small envelopes—stamped	.0322	106.26
1,500	Each	Large envelopes—stamped	.0329	49.35
12	Each	Typewriter ribbons	.46	5.52
8	Each	Typewriter erasers	.06	.48
2	Boxes	Type cleaner—Norta	.28	.56
600	Each	Manila folders	.0135	8.10
9	Boxes	Mak-Ur-On Tabs	1.613	14.52
4	Dozen	No. 2 pencils	.28	1.12
8	Pads	Yellow cross section paper	.177	1.42
150	Pads	Dietzgen No. 375 cross-section paper	.39	58.50
500	Sheets	Inventory book paper	.05	25.00
100	Sheets	Summary Book paper	.0418	4.18
1	Pad	Wilson-Jones columnar pads No. 7025	1.00	1.00
100	Each	Pen points	.008	.80
10	Each	Pen staffs	.029	.29
4	Pads	Requisition on Purchasing Agent	.1103	.44
450	Each	Karlton Klasp Envelopes 10x13 inches	.011	4.95
1,700	Each	Time sheets	.00135	2.30
10,000	Each	Time tickets	.0004	4.00
22	Rolls–50 Yds.	36 in. Economy paper	3.00	66.00
23	Rolls–24 Yds.	30 inl Tracing cloth	19.35	445.05
11	Rolls–24 Yds.	36 in. Tracing cloth	22.30	245.30
1	Roll–24 Yd.	54 in. Tracing cloth	42.10	42.10
14	Gallons	Frisket Cement	2.60	36.40
10	Gallons	Wall paper paste	1.25	12.50
[fol. 8365]				
31	Rolls–50 Yds.	50% 42 in. Blueprint paper	3.15	97.65
9	Rolls–50 Yds.	42 in. White print Cloth	40.00	360.00
66	Rolls–50 Yds.	42 in. 100% White print paper	5.15	339.90
16	Rolls–50 Yds.	Negative paper	9.00	144.00
576	Pads	Scratch paper	.01	5.76
15	Rolls–50 Yds.	36 in. Detail paper	4.48	67.20
144	Yards	Cheese cloth	.0253	3.64
37	Gross	Drawing pencils	7.20	266.40
4	Dozen	Pencil extenders	.90	3.60
21	Gross	Lettering pens—No. 170, 303, and 404	1.51	31.71
8	Dozen	Pen staffs (Lettering)	.48	3.84
16	Each	Crow Quill pen holders	.075	1.20
7	Gross	Crow Quill pens No. 659	6.75	47.25
40	Dozen	Ruby erasers	.33	13.20
39	Dozen	Art gum erasers	.38	14.82
2	Bottles	Hyperion eradicator	.25	.50
12	Rolls	Transparent mending tape	.0375	.45
4	Rolls	Gummed cloth mending tape	.1996	.80
10	Dozen	Pencil pointers	.90	9.00
6	Gallons	Carbon tetrachloride	2.00	12.00
1,000	Each	File backs—8.5x11 in	.0044	4.40
1	Set (12)	Show Card colors	3.00	3.00

Defendant's Exhibit No. 28—Continued

Engineering Department Supply Cost—Continued

Fourth Year

No. Units Used	Units	Items	Unit Cost	Amount
3	Each	Show card color brushes	.30	.90
12	Bottles	Mucilage	.375	4.50
68	Boxes (100)	Thumb tacks	.4096	27.85
4	Bottles	Drawing ink—Black	7.50	30.00
1	Bottle	Drawing ink—Blue	6.00	6.00
1	Bottle	Drawing ink—Red	6.00	6.00
3	Bottles	Drawing ink—Yellow	6.00	18.00
2	Bottles	Drawing ink—Orange	6.00	12.00
1	Bottle	Drawing ink—Green	6.00	6.00
18	Cans	Tracing powder	.225	4.05
4	Balls	Heavy white twine	.1123	.45
24	Dozen	Colored pencils	.52	12.48
1	Boxes (100)	No. 6 Brad fasteners	.44	.44
2	Boxes (100)	No. 1 Brad fasteners	.07	.14
2	Boxes (100)	No. 2 Brad fasteners	.08	.16
2	Boxes (100)	Gummed reinforcements	.04	.08
4	Jars	Opague	.50	2.00
900	Each	Blotters	.0025	2.25
2	Jars	Cico Paste	.02736	.55
3	Rolls	Photostat paper	19.30	57.90
58	Dozen	Blueprint arc carbons	.84	48.72
55	Pounds	Potassium Bichromate	.45	24.75
12	Pounds	Negative Hypo	.40	4.80
255	Boxes	Photostat Hypo	.2125	54.19
128	Boxes	Photostat developer—large	.6804	87.09
6	Each	Blueprint lamp globes	1.00	6.00
1	Each	Paragon Dryer velt	60.00	60.00
[fol. 8366]				
1	Each	Pako dryer belt	19.29	60.00
4	Each	Mercury vapor lamps	13.50	54.00
6,400	Sheets	Lefax paper—Transit	.0046	29.44
1,400	Sheets	Lefax paper—Economy	.0012	1.68
3	Gross	Pencil tip erasers	1.07	3.21
26	Pads–100	Daily Progress Reports	.0781	2.03
12	Pads–100	Draft Receipts	.625	7.50
12	Pads–100	Draft Report blanks	.0839	1.00
12	Each	Draft books (100 drafts)	.4375	5.25
100	Each	Accident report blanks	.0064	.64
72	Each	Automobile reports	.0724	5.21
36	Each	Local supply order books	.1089	3.92
100	Each	Expense account blanks	.005936	.59
		Postage	.....	20.00
72	Each	Blue lumber crayon	.07	5.04
Total				$3,265.46
General Engineering Cost				$37.86
Reproduction Cost of Final Engineering Records				3,227.60

Defendant's Exhibit No. 28—Continued

[fol. 8367]

Reproduction Cost of Final Engineering Records

Fourth Year Surveying Equipment Cost

No.	Item	Initial Cost Each	Initial Value and Depreciation	Depreciation 4th Year	Additional Investment Fourth Year
6	Transits complete with tripods and cases	$420.70	$2,524.20 at 15%	$378.63	.....
2	Wye levels complete with tripods and cases	215.00	430.00 at 15%	64.50	.....
6	Steel tapes, 200 ft.	9.45	56.70 at 100%	56.70	$56.70
6	Steel tapes, 100 ft.	5.40	32.40 at 100%	32.40	32.40
12	Range poles—8 ft.	3.24	38.88 at 100%	38.88	38.88
2	Levelling rods 13 ft.	14.40	28.80 at 50%	14.40	.....
12	Sets chaining pins 12 inches long	1.80	21.60 at 100%	21.60	21.60
6	Machets—22 inches long in case	3.24	19.44 at 50%	9.72	19.44
2	Binoculars—32 power—in leather case	22.95	45.90 at 15%	6.89	.....
6	Axes—Double bit	1.94	11.64 at 100%	11.64	11.64
6	Axes—Pole	1.56	9.36 at 100%	9.36	9.36
12	Thermos jugs—2 gallon capacity	4.90	58.80 at 100%	58.80	58.80
27	Loose leaf covers—Canvas back	.94	25.38 at 50%	12.69	.....
9	Brief cases—Engineer's large	15.50	139.50 at 15%	20.93	.....
9	First aid kits	3.27	29.43 at 100%	29.43	29.43
6	Protractors—6 inch Semi-circle	.45	2.70 at 50%	1.35	.....
9	Engineer's Scales—6 inches in case	1.85	16.65 at 25%	4.16	.....
9	Loose leaf folders—Canvas back	.88	7.92 at 50%	3.96	.....
6	Surveyor's Handbooks	2.50	15.00 at 15%	2.25	.....
6	Surveyor's Drawing Kits	1.25	7.50 at 15%	1.13	.....
3	Brunton Pocket Compasses in case	28.50	85.50 at 15%	12.83	.....
3	Thermos jugs—1 gallon capacity	2.95	8.85 at 100%	8.85	8.85
39	Rules—6 feet long Zig Zag	.45	17.55 at 100%	17.55	17.55
12	Steel tapes, 50 feet long on reel, in leather case	5.40	64.80 at 100%	64.80	64.80
12	Prodding rods	2.50	30.00 at 25%	7.50	.....
12	Drain spades	1.15	13.80 at 25%	3.45	.....
	Totals		$3,742.30	$894.40	$369.45

Defendant's Exhibit No. 28—Continued

[fols. 8368-8369] Floor Space Requirement

Personnel	Number	Square Feet Each	Total
Chief Engineer	1	323	323
Secretary of Chief Engineer	1	209	209
Office Engineer	1	228	228
Statistical Engineer	1	200	200
Inventory men	1	90	90
Stenographer	1	60	60
Field Engineers	1	60	60
Chief Draftsman	1	200	200
Assistant Chief Draftsmen	2	80	160
Draftsmen	17	60	1,040
File Room	1	329	329
Blueprint and Photostat Room	1	418	418
Engineering Supply room	1	52	52
Blueprint Supply room	1	28	28
Map room	1	323	323
Total Square Feet			3,720

[fol. 8370] Field Engineering Costs

Definition:

The definition and development of General Engineering Costs specifically eliminated all charges for engineering services incurred prior to the incorporation of the company, all fees for special structures, and all charges for engineering included in direct structural costs.

No engineering costs have been included in direct structural costs except those involved in fees for special structures.

Field Engineering Costs as used in this estimate of the reproduction cost of the property and business of Lone Star Gas Company are intended to include the salaries and expenses of the party chief, instrument men, rod men, chain men, bridge inspectors and their helpers who would be engaged in the necessary field work incident to the reproduction of the various units of physical property of Lone Star Gas Company as of January 1, 1933.

The field party equipment cost has been included in General Engineering Expenses.

Survey Parties and Personnel Analysis:

The number of survey party days shown in the detail by years refers to each day's work on each project that would require a survey party consisting of one or more members.

That is, a party making a lease survey or a preliminary survey for a pipe line or telephone line would consist of a party chief, an instrument man, a flagman, a head and rear chainman, and an average of two axemen; a party making a preliminary survey for a compressor station, warehouse, camp site, or a pipe line bridge would consist of a party chief, an instrument man, a rodman, a head and [fol. 8371] rear chainman, and an average of one axeman; while the inspection of a pipe line bridge would require only one bridge inspector.

Likewise a party making a final survey of a pipe line or telephone line would consist of a party chief, an instrument man, and a head and rear chainman, while a party making a final survey of a compressor station, warehouse, camp site, or a pipe line bridge would consist of a party chief, an instrument man, a rodman, and a head and rear chainman.

The chiefs of parties would report to the field engineers. They would lay out and supervise the work of their parties, and would employ locally as many axemen as the work would require, pay them on a day basis. They would be responsible for the proper keeping of the time and expenses of their parties, and also their parties discipline, as well as the accuracy of the work of their parties.

The bridge inspectors would report to the field engineers. They would supervise the work of the bridge contractors and would decide any and all questions as to the quality or acceptability of the materials furnished and work performed, and as to the manner of performance and rate of progress of the work, and they would decide all questions which might arise as to the interpretation of the plans and specifications and to the acceptable fulfillment of the contract by the contractor. They would be authorized to approve any additional work occasioned by unfor-seen local conditions, or work necessary to complete the bridge which is not called for in the plans and specifications.

The instrumentmen would do all level and transit work and would keep sets of accurate, legible, and intelligible

[fol. 8372] notes, and they would help make sketches of equipment on the final survey. In the absence of the party chief, they would assume his responsibility. They would also be responsible for the care and upkeep of the instruments which they would use.

The rodmen would work with the instrumentmen and would be able to make correct rod readings and to understand the instrumentmen's signals, and when required to do so, would be able to keep notes for the instrumentmen. They would be responsible for the care and upkeep of the rods and other equipment they would use.

The flagmen would work with the instrumentmen and would be able to understand the instrumentmen's signals and to make proper set-up points for the instrumentmen.

The chainmen would be responsible for the accurate measurement of all distances, and the head chainman would be able to keep sets of accurate, legible, and intelligible chain notes, and they would help make sketches of equipment on the final survey.

The axemen, who would be employed locally by the party chief, would do all of the necessary clearing for the party, and also carry and drive all stakes.

[fol. 8373] First Year Field Engineering

[fol. 8374] Survey Party Salaries

Personnel	Month	Year
Chief of Party	$250.00	$3,000.00
Chief of Party	225.00	2,700.00
Bridge Inspector	200.00	2,400.00
Instrument Man	200.00	2,400.00
Instrument Man	175.00	2,100.00
Rodman—average	140.00	1,680.00
Flagman—average	140.00	1,680.00
Head Chainman—average	125.00	1,500.00
Rear Chainman—average	110.00	1,320.00
Car Cost	175.00	2,100.00
Expenses per man	106.46	1,277.50

Axemen—employed locally at $4.00 per day.

Defendant's Exhibit No. 28—Continued

[fol. 8375] First Year Engineering

Survey Party Days According to Type of Work

General Engineering Costs

Pipe Line and Telephone Line Survey Days—Preliminary First Year	1,380 Days
Gas Lease Survey Days	470
Total	1,850 Days
Compressor Station, Warehouse, and Camp Site Survey Days—	
Preliminary First Year	[illegible] Days
Pipe Line Bridge Survey Days—	
Preliminary First Year	48
Total	863 Days
Pipe Line Bridge Inspection Days	300 Days

[fol. 8376] Survey Party Personnel Required for First Year of Engineering

General Engineering Costs

Party Chiefs as shown in detail—1,850 plus 863	2,713 Days
Plus 10% Omissions and Contingencies	271
Total	2,984 Days
2,984 divided by 255 = 11.70 Party Chief Years	
Bridge Inspectors as shown in detail—	300 Days
Plus 10% Omissions and Contingencies	30
Total	330 Days
330 divided by 255 = 1.29 Bridge Inspector Years	
Instrumentmen as shown in detail—1,850 plus 863	2,713 Days
Plus 10% Omissions and Contingencies	271
Total	2,984 Days
2,984 divided by 255 = 11.70 Instrumentmen Years	
Rodmen as shown in detail—	863 Days
Plus 10% Omissions and Contingencies	86
Total	949 Days
949 divided by 255 = 3.72 Rodmen Years	
Flagmen as shown in detail—	1,850 Days
Plus 10% Omissions and Contingencies	185
Total	2,035 Days

Defendant's Exhibit No. 28—Continued

General Engineering Costs—Continued

2,035 divided by 255 = 7.98 Flagmen Years	
Head Chainman as shown in detail—1,850 plus 863	2,713 Days
Plus 10% Omissions and Contingencies	271
Total	2,984 Days
Rear Chainman as shown in detail—1,850 plus 863	2,713 Days
Plus 10% Omissions and Contingencies	271
Total	2,984 Days
2,984 divided by 255 = 11.70 Rear Chainman Years	
Axemen as shown in detail (2 x 1,850) plus 863	4,563 Days
Plus 10% Omissions and Contingencies	456
Total	5,019 Days

[fol. 8377] Survey Party Payroll First Year

Chief of Parties		
6.00 at $3,000.00	$18,000.00	
5.70 at 2,700.00	15,390.00	
		$33,390.00
Bridge Inspectors		
1.29 to 2,400.00		3,096.00
Instrument Men		
6.00 at 2,400.00	14,400.00	
5.70 at 2,100.00	11,970.00	
		26,370.00
Rodmen		
3.72 at 1,680.00		6,249.60
Flagmen		
7.98 at 1,680.00		13,406.40
Head Chainmen		
11.70 at 1,500.00		17,550.00
Rear Chainmen		
11.70 at 1,320.00		15,444.00
Car Cost		
12.99 at 2,100.00		27,279.00
Expenses		
59.79 at 1,277.50		76,381.72
Axemen		
5,019 Days at $4.00		20,076.00
Total		$239,242.72

Defendant's Exhibit No. 28—Continued

[fol. 8378] Second Year Field Engineering

[fol. 8379] Second Year Engineering

Survey Party Days According to Type of Work

General Engineering Costs

Pipe Line and Telephone Line Survey Party Days-Preliminary—Second Year	1,006 Days
Gas Lease Survey Days—Second Year	290
Total	1,296 Days
Compressor Station, Warehouse, Camp Site Survey Days, Preliminary Second Year	625 Days
Pipe Line Bridge Survey Days, Preliminary Second Year	50
Total	675 Days
Pipe Line Bridge Inspection Days	270 Days

[fol. 8380] Second Year Engineering

Survey Party Days According to Type of Work

Reproduction Cost of Final Engineering Records

Pipe Line and Telephone Line Survey Days—Final First Year	1,687 Days
Compressor Station, Warehouse, Camp Site, and Pipe Line Bridge Survey Days—Final First Year	1,123
Total	2,810 Days

[fol. 8381] Survey Party Personnel Required for Second Year of Engineering

General Engineering Costs

Party Chiefs as shown in detail—	
Preliminary Second Year—1,296 plus 675	1,971 Days
Plus 10% Omissions and Contingencies	197
Total	2,168 Days
2,168 divided by 244 = 8.89 Party Chief Years	
Bridge Inspectors, as shown in detail	270 Days
Plus 10% Omissions and Contingencies	27
Total	297 Days

Defendant's Exhibit No. 28—Continued

General Engineering Costs—Continued

90% of 1.29 = 1.16 Bridge Inspectors will work 244 days each the Second Year
1.16 × 244 = 283 Days 297 less 283 = 14 Days
14 divided by 255 = .05 Inspector will work 255 days each the Second Year
1.16 plus .05 = 1.21 Bridge Inspector Years

Instrument Men as shown in detail—	
Preliminary Second Year—1,296 plus 675	1,971 Days
Plus 10% Omissions and Contingencies	197
Total	2,168 Days
2,168 divided by 244 = 8.89 Instrument Men Years.	
Rodmen as shown in detail	
Preliminary Second Year	675 Days
Plus 10% Omissions and Contingencies	67
Total	742 Days
742 divided by 244 = 3.04 Rodmen Years	
Flagmen as shown in detail	
Preliminary Second Year	1,296 Days
Plus 10% Omissions and Contingencies	130
Total	1,426 Days
1,426 divided by 244 = 5.84 Flagmen Years	
Head Chainmen as shown in detail	
Preliminary Second Year 1,296 plus 675	1,971 Days
Plus 10% Omissions and Contingencies	197
Total	2,168 Days
2,168 divided by 244 = 8.89 Head Chainmen Years	

[fol. 8382]

Rear Chainmen as shown in detail	
Preliminary Second Year 1,296 plus 675	1,971 Days
Plus 10% Omission and Contingencies	197
Total	2,168 Days
2,168 divided by 244 = 8.89 Rear Chainmen Years	
Axemen as shown in detail (2 × 1,296) plus 675	3,267 Days
Plus 10% Omissions and Contingencies	327
Total	3,594 Days

Defendant's Exhibit No. 28—Continued

[fol. 8383] Survey Party Personnel Required for Second Year of Engineering

Reproduction Cost of Final Engineering Records

Party Chiefs as shown in detail

Final First Year	2,810 Days
Plus 10% Omissions and Contingencies	281
Total	3,091 Days

90% of 11.70 = 10.53 Party Chiefs will work 244 days each the Second Year
10.53 − 8.89 (No. employed in General Eng. Cost Work) = 1.64
1.64 × 244 = 400 Days
3,091 − 400 = 2,691 Days
2,691 divided by 244 = 10.55 Party Chiefs will work 255 days the Second Year
1.64 plus 10.55 = 12.19 Party Chief Years

Instrument men as shown in detail

Final First Year	2,810 Days
Plus 10% Omissions and Contingencies	281
Total	3,091 Days

90% of 11.70 = 10.53 Instrument men will work 244 days each the Second Year
10.53 − 8.89 (No. employed in General Eng. Cost Work) = 1.64
1.64 × 244 = 400 Days
3,091 − 400 = 2,691 Days
2,691 divided by 255 = 10.55 Instrument men will work 255 days each the Second Year
1.64 plus 10.55 = 12.19 Instrument Men Years

Rodmen as shown in detail

Final First Year	1,123 Days
Plus 10% Omissions and Contingencies	112
Total	1,235 Days

90% of 3.72 = 3.35 Rodmen will work 244 days each the second Year
3.35 − 3.04 (No. employed in General Eng. Cost) = .31
.31 × 244 = .75
1,235 − 75 = 1,160 Days
1,160 divided by 255 = 4.55 Rodmen will work 255 days each the Second Year
.31 plus 4.55 = 4.86 Rodmen Years

Defendant's Exhibit No. 28—Continued

Reproduction Cost of Final Engineering Records—Continued

Head Chainmen as shown in detail	
Final First Year	2,810 Days
Plus 10% Omissions and Contingencies	281
Total	3,091 Days
90% of 11.70 = 10.53 Head Chainmen will work 244 days each the Second Year	

[fol. 8384]

10.53 − 889 (No. employed in General Eng. Cost) = 1.64
1.64 × 244 = 400 Days
3,091 − 400 = 2,691 Days
2,691 divided by 255 = Head Chainman will work 255 days each the Second Year
1.64 plus 10.55 = 12.19 Head Chainmen Years

Rear Chainmen as shown in detail	
Final First Year	2,810 Days
Plus 10% Omissions and Contingencies	281
Total	3,091 Days

90% of 11.70 = 10.53 Rear Chainmen will work 244 days each the Second Year
10.53 − 8.89 (No. employed in General Eng. Work) = 1.64
1.64 × 244 = 400 Days
3,091 − 400 = 2,691 Days
2,691 divided by 255 = 10.55 Rear Chainmen will work 255 days each the Second Year
1.64 plus 10.55 = 12.19 Rear Chainmen Years

[fol. 8385] Survey Party Payroll Second Year

General Engineering Costs

Chiefs of Parties		
4 at $3,000.00	$12,000.00	
4.89 at 2,700.00	13,203.00	
		$25,203.00
Bridge Inspectors—		
1.21 at 2,400.00		2,904.00
Instrument Men		
4.00 at 2,400.00	9,600.00	
4.89 at 2,100.00	10,269.00	
		19,869.00
Rodmen		
3.04 at 1,680.00		5,107.20

Defendant's Exhibit No. 28—Continued

General Engineering Costs—Continued

Flagmen	
5.84 at 1,680.00	9,811.20
Head Chainmen	
8.89 at 1,500.00	13,335.00
Rear Chainmen	
8.89 at 1,320.00	11,734.80
Car Cost	
10.10 at 2,100.00	21,210.00
Expense	
45.65 at 1,277.50	58,317.87
Axemen	
3,594 days at $4.00	14,376.00
Total	$181,868.07

[fol. 8386] Survey Party Payroll Second Year

Reproduction Cost of Final Engineering Records

Chiefs of Parties		
6.00 at $3,000.00	$18,000.00	
6.19 at 2,700.00	16,713.00	
		$34,713.00
Instrument Men		
6.00 at 2,400.00	14,400.00	
6.19 at 2,100.00	12,999.00	
		27,399.00
Rodmen		
4.86 at 1,680.00		8,164.80
Head Chainmen		
12.19 at 1,500.00		18,285.00
Rear Chainmen		
12.19 at 1,320.00		16,090.80
Car Cost		
12.19 at 2,100.00		25,599.00
Expenses		
53.62 men at $1,277.50		68,499.55
Total		$198,751.15

Defendant's Exhibit No. 28—Continued

[fol. 8387] Third Year Field Engineering

[fol. 8388] Survey Party Days According to Type of Work

General Engineering Costs

Pipe Line and Telephone Line Survey Days	
Preliminary Third Year	1,166 Days

[fol. 8389] Third Year Engineering

Survey Party Days According to Type of Work

Reproduction Cost of Final Engineering Records

Pipe Line and Telephone Line Survey Days	
Final Second Year	1,191 Days
Compressor Station, Warehouse, Camp Site, and Pipe Line Bridge Survey Days Final Second Year	922
Total	2,113 Days

[fol. 8390] Survey Party Personnel Required for Third Year of Engineering

General Engineering Costs

Party Chiefs as shown in Detail	
Preliminary Third Year	1,166 Days
Plus 10% Omissions and Contingencies	117
Total	1,283 Days
1,283 divided by 244 = 5.26 Party Chief Years	
Instrument Men as shown in detail	
Preliminary Third Year	1,166 Days
Plus 10% Omissions and Contingencies	117
Total	1,283 Days
1,283 divided by 244 = 5.26 Instrument Men Years	
Flagmen as shown in detail	
Preliminary Third Year	1,166 Days
Plus 10% Omissions and Contingencies	117
Total	1,283 Days
1,283 divided by 244 = 5.26 Flagmen Years	
Head Chainmen as shown in detail	
Preliminary Third Year	1,166 Days
Plus 10% Omissions and Contingencies	117
Total	1,283 Days
1,283 divided by 244 = 5.26 Head Chainmen Years	

Defendant's Exhibit No. 28—Continued

General Engineering Costs—Continued

Rear Chainmen as shown in detail	
Preliminary Third Year	1,166 Days
Plus 10% Omissions and Contingencies	117
Total	1,283 Days
1,283 divided by 244 = 5.26 Rear Chainmen Years	
Axemen as shown in detail (2 × 1,166)	2,332 Days
Plus 10% Omissions and Contingencies	233
Total	2,565 Days

[fol. 8391] Survey Party Personnel Required for Third Year of Engineering

Reproduction Cost of Final Engineering Records

Party Chiefs as shown in detail	
Final Second Year	2,113 Days
Plus 10% Omissions and Contingencies	211
Total	2,324 Days
2,324 divided by 244 = 9.52 Party Chief Years	
Instrument Men as shown in detail	
Final Second Year	2,113 Days
Plus 10% Omissions and Contingencies	211
Total	2,324 Days
2,324 divided by 244 = 9.52 Instrument Men Years	
Rodmen as shown in detail	
Final Second Year	922 Days
Plus 10% Omissions and Contingencies	92
Total	1,014 Days
1,014 divided by 244 = 4.16 Rodmen Years	
Head Chainmen as shown in detail	
Final Second Year	2,113 Days
Plus 10% Omissions and Contingencies	211
Total	2,324 Days
2,324 divided by 244 = 9.52 Head Chainmen Years	
Rear Chainmen as shown in detail	
Final Second Year	2,113 Days
Plus 10% Omissions and Contingencies	211
Total	2,324 Days
2,324 divided by 244 = — Rear Chainmen Years	

Defendant's Exhibit No. 28—Continued

[fol. 8392] Survey Party Payroll Third Year

General Engineering Costs

Chiefs of Parties		
3.00 at $3,000.00	$9,000.00	
2.26 at 2,700.00	6,102.00	
		$15,102.00
Instrument Men		
3.00 at 2,400.00	7,200.00	
2.26 at 2,100.00	4,746.00	
		11,946.00
Flagmen		
5.26 at 1,680.00		8,836.80
Head Chainmen		
5.26 at 1,500.00		7,890.00
Rear Chainmen		
5.26 at 1,320.00		6,943.20
Car Cost		
5.26 at 2,100.00	11,046.00	
		11,046.00
Expenses		
26.30 men at $1,277.50		33,598.25
Axemen		
2,565 days at 4.00		10,260.00
Total		$105,622.25

[fol. 8393] Survey Party Payroll Third Year

Reproduction Cost of Final Engineering Records

Chiefs of Parties		
5.00 at $3,000.00	$15,000.00	
4.52 at 2,700.00	12,204.00	
		$27,204.00
Instrumentmen		
5.00 at 2,400.00	12,000.00	
4.52 at 2,100.00	9,492.00	
		21,492.00
Rodmen		
4.16 at 1,680.00		6,988.80
Head Chainmen		
9.52 at 1,500.00		14,280.00
Rear Chainmen		
9.52 at 1,320.00		12,566.40

Defendant's Exhibit No. 28—Continued

Reproduction Cost of Final Engineering Records—Continued

Car Cost	
9.52 at 2,100.00	19,992.00
Expenses	
42.24 men at $1,277.50	53,961.60
Total	$156,484.80

[fol. 8394] Second Year Engineering

Survey Party Days According to Type of Work

Reproduction Cost of Final Engineering Records

Pipe Line and Telephone Line Survey Days	
Final Third Year	1,298 Days

[fol. 8395] Survey Party Personnel Required for Fourth Year of Engineering

Reproduction Cost of Final Engineering Records

Party Chiefs as shown in detail	
Final Third Year	1,298 Days
Plus 10% Omissions and Contingencies	130
Total	1,428 Days
1,428 divided by 244 = 5.85 Party Chief Years	
Instrumentmen as shown in detail	
Final Third Year	1,298 Days
Plus 10% Omissions and Contingencies	130
Total	1,428 Days
1,428 divided by 244 = 5.85 Instrument Men Years	
Head Chainmen as shown in detail	
Final Third Year	1,298 Days
Plus 10% Omissions and Contingencies	130
Total	1,428 Days
1,428 divided by 244 = 5.85 Head Chainmen Years	
Rear Chainmen as shown in detail	
Final Third Year	1,298 Days
Plus 10% Omissions and Contingencies	130
Total	1,428 Days
1,428 divided by 244 = 5.85 Rear Chainmen Years	

Defendant's Exhibit No. 28—Continued

[fol. 8396] Survey Party Payroll Fourth Year

Reproduction Cost of Final Engineering Records—Continued

Chiefs of Parties		
3.00 at $3,000.00	$9,000.00	
2.85 at 2,700.00	7,695.00	
		$16,695.00
Instrument Men		
3.00 at 2,400.00	7,200.00	
2.85 at 2,100.00	5,985.00	
		13,185.00
Head Chainmen		
5.85 at 1,500.00		8,775.00
Rear Chainmen		
5.85 at 1,320.00		7,722.00
Car Cost		
5.85 at 2,100.00		12,285.00
Expenses		
23.40 men at $1,277.50		29,893.50
Total		$88,555.50

Job No. 3104. Supreme Court Record No. —

[fol. 8397] First Year Engineering Survey Parties

General Engineering Costs

Surveying party days as shown in detail, preliminary first year—3,314. Being the first year of work, the surveying parties will work the entire 255 days per year, therefore, 3,314 divided by 255 = 13.00 Surveying parties will be required for the first year's work.

[fol. 8398] Second Year Engineering Survey Parties

General Engineering Costs

Surveying days as shown in detail:

Preliminary Second Year ..... 2,465 Days.

2,465 divided by 244=10.10 Survey Parties.

Defendant's Exhibit No. 28—Continued

[fol. 8399] Second Year Engineering Survey Parties

Reproduction Cost of Final Engineering Records

Surveying Days as shown in detail:

Final First Year ..... 3,091 Days.

90% of the parties working the First Year will also work the Second Year.

90% of 13 = 11.70 Parties.

11.70 less 10.10 (No. employed in General Eng. Cost) = 1.60.

1.60 × 244=390.

3,091 less 390 = 2,701 days will be utilized by parties working 255 days.

2,701 divided by 255 = 10.59 additional parties will be required.

1.60 plus 10.59 = 12.10 Parties.

[fol. 8400] Third Year Engineering Survey Parties

General Engineering Costs

Surveying Party days as shown in detail:

Preliminary Third Year ..... 1,283 Days.

1,283 divided by 244 = 5.26 Survey Parties.

[fol. 8401] Third Year Engineering Survey Parties

Reproduction Cost of Final Engineering Records

Surveying Party days as shown in detail:

Final Second Year ..... 2,324 Days.

2,324 divided by 244 = 9.52 Survey Parties.

[fols. 8402-8403] Fourth Year Engineering Survey Parties

Reproduction Cost of Final Engineering Records

Surveying Party days as shown in detail:

Final Third Year ..... 1,428 Days.

90% of the parties working the third year would also work the Fourth Year.

90% of 14.78 = 13.30 parties. These parties would work only 244 days the fourth year. They would, therefore, work

13.30 × 244 = 3,245 days the Fourth Year, which is more than enough to take care of the Fourth year's work.

Hence, all surveying parties will work only 244 days during the Fourth Year. Therefore,

1,428 divided by 244 = 5.85 parties will be required for the Fourth Year's work.

[fol. 8404] General Supervision Costs

General Summary

Salaries	$255,610
Stationery and Office Supplies	11,936
Transportation (Cost of Operation plus Depreciation)	63,060
Traveling Expenses	46,915
Communication Expenses	22,834
Office Furniture and Fixtures (Depreciation Only)	1,638
Special Medical Equipment	12,500
Total	$414,493

[fol. 8405] General Supervision Costs

Summary of Costs

Pre-Construction Period

Salaries:		
Office of General Superintendent	$11,235	
Division of Plant and Equipment	2,225	
Division of Safety and Medical Examination	2,930	$16,390
Stationery and Office Supplies:		
Office of General Superintendent	339	
Division of Plant and Equipment	113	
Division of Safety and Medical Examination	57	509

Defendant's Exhibit No. 28—Continued

Transportation Expense:		
Office of General Superintendent	1,386	
Division of Plant and Equipment	678	
Division of Safety and Medical Examination		
		2,064
Traveling Expense:		
Office of General Superintendent	630	
Division of Plant and Equipment	345	
Division of Safety and Medical Examination	220	
		1,195
Communication Expense:		
Office of General Superintendent	1,619	
Division of Plant and Equipment	265	
Division of Safety and Medical Examination	88	
		1,972
Office Furniture and Fixtures—Depreciation Only:		
Office of General Superintendent	132	
Division of Plant and Equipment	56	
Division of Safety and Medical Examination	46	
		234
Total Pre-Construction Period		$22,364
Construction Period—First Year		
Salaries:		
Office of General Superintendent	$27,480	
Division of Plant and Equipment	17,100	
Division of Safety and Medical Examination	35,160	
		$79,740

Defendant's Exhibit No. 28—Continued

[fol. 8406]

Stationery and Office Supplies:		
Office of General Superintendent	$1,180	
Division of Plant and Equipment	933	
Division of Safety and Medical Examination	1,696	
		$3,809
Transportation Expense:		
Office of General Superintendent	2,292	
Division of Plant and Equipment	6,312	
Division of Safety and Medical Examination	11,728	
		20,332
Traveling Expense:		
Office of General Superintendent	840	
Division of Plant and Equipment	4,200	
Division of Safety and Medical Examination	10,200	
		15,240
Communication Expense:		
Office of General Superintendent	4,738	
Division of Plant and Equipment	1,058	
Division of Safety and Medical Examination	1,658	
		7,454
Office Furniture and Fixtures—Depreciation Only:		
Office of General Superintendent	263	
Division of Plant and Equipment	112	
Division of Safety and Medical Examination	93	
		468
Special Medical Equipment:		
Division of Safety and Medical Examination	4,167	
		4,167
Total Construction Period—First Year		$131,210

Defendant's Exhibit No. 28—Continued

Construction Period—Second Year

Salaries:		
Office of General Superintendent	$27,480	
Division of Plant and Equipment	17,100	
Division of Safety and Medical Examination	35,160	
		$79,740
Stationery and Office Supplies:		
Office of General Superintendent	1,180	
Division of Plant and Equipment	933	
Division of Safety and Medical Examination	1,696	
		3,809
[fol. 8407] Transportation Expense:		
Office of General Superintendent	$2,292	
Division of Plant and Equipment	6,312	
Division of Safety and Medical Examination	11,728	
		$20,332
Traveling Expense:		
Office of General Superintendent	840	
Division of Plant and Equipment	4,200	
Division of Safety and Medical Examination	10,200	
		15,240
Communication Expense:		
Office of General Superintendent	4,738	
Division of Plant and Equipment	1,058	
Division of Safety and Medical Examination	1,658	
		7,454
Office Furniture and Fixtures—Depreciation Only		
Office of General Superintendent	263	
Division of Plant and Equipment	112	
Division of Safety and Medical Examination	93	
		468

Defendant's Exhibit No. 28—Continued

Special Medical Equipment:		
Division of Safety and Medical Examination	4,167	
		4,167
Total Construction Period—Second Year		$131,210
Construction Period—Third Year		
Salaries:		
Office of General Superintendent	$27,480	
Division of Plant and Equipment	17,100	
Division of Safety and Medical Examination	35,160	
		$79,740
Stationery and Office Supplies:		
Office of General Superintendent	1,180	
Division of Plant and Equipment	933	
Division of Safety and Medical Examination	1,696	
		3,809
Transportation Expense:		
Office of General Superintendent	2,292	
Division of Plant and Equipment	6,312	
Division of Safety and Medical Examination	11,728	
		20,332
[fol. 8408] Traveling Expense:		
Office of General Superintendent	$840	
Division of Plant and Equipment	4,200	
Division of Safety and Medical Examination	10,200	
		$15,240
Communication Expense:		
Office of General Superintendent	3,238	
Division of Plant and Equipment	1,058	
Division of Safety and Medical Examination	1,658	
		5,954

Defendant's Exhibit No. 28—Continued

Office Furniture and Fixtures—Depreciation Only		
Office of General Superintendent	263	
Division of Plant and Equipment	112	
Division of Safety and Medical Examination	93	
		468
Special Medical Equipment:		
Division of Safety and Medical Examination	4,167	
		4,167
Total Construction Period—Third Year		$129,710

[fol. 8409] Supervision Costs Allocated to Specific Property Accounts

General Summary

Salaries	$260,440
Stationery and Office Supplies	10,216
Transportation (Cost of Operation plus Depreciation)	79,612
Traveling Expense	44,075
Communication Expense	30,400
Office Furniture and Fixtures (Depreciation Only)	891
Total	$425,634

[fol. 8410] Supervision Costs Allocated to Specific Property Accounts

Pre-Construction Period

Division of Pipe Line Construction:		
Salaries	$3,785	
Stationery and Office Supplies	127	
Transportation Expense	2,438	
Traveling Expense	600	
Communication Expense	415	
Office Furniture and Fixtures—Depreciation only	38	

Defendant's Exhibit No. 28—Continued

Division of Compressor Station Construction:		
Salaries	5,970	
Stationery and Office Supplies	198	
Transportation Expense	1,151	
Traveling Expense	700	
Communication Expense	1,053	
Office Furniture and Fixtures—Depreciation only	39	
		9,111
Division of Telephone Line Construction:		
Salaries	1,955	
Stationery and Office Supplies	99	
Transportation Expense	1,038	
Traveling Expense	325	
Communication Expense	415	
Office Furniture and Fixtures—Depreciation only	23	
		3,855
Division of Drilling and Production:		
Salaries	12,510	
Stationery and Office Supplies	381	
Transportation Expense	4,470	
Traveling Expense	2,250	
Communication Expense	1,579	
Office Furniture and Fixtures—Depreciation only	38	
		21,228
Total Pre-Construction Period		$41,597

Defendant's Exhibit No. 28—Continued

Construction Period—First Year

Division of Pipe Line Construction:		
Salaries	$25,620	
[fol. 8411] Stationery and Office Supplies	1,102	
Transportation Expense	7,752	
Traveling Expense	4,500	
Communication Expense	3,158	
Office Furniture and Fixtures—Depreciation only	77	
		$42,209
Division of Compressor Station Construction:		
Salaries	25,320	
Stationery and Office Supplies	1,020	
Transportation Expense	5,004	
Traveling Expense	3,000	
Communication Expense	3,158	
Office Furniture and Fixtures—Depreciation only	78	
		37,580
Division of Telephone Line Construction:		
Salaries	11,220	
Stationery and Office Supplies	593	
Transportation Expense	3,477	
Traveling Expense	2,400	
Communication Expense	1,058	
Office Furniture and Fixtures—Depreciation only	46	
		18,794

Defendant's Exhibit No. 28—Continued

Division of Drilling and Production:		
Salaries	25,020	
Stationery and Office Supplies	762	
Transportation Expense	8,940	
Traveling Expense	4,500	
Communication Expense	3,158	
Office Furniture and Fixtures—Depreciation only	76	
		42,456
Total Construction Period—First Year		$141,039

Construction Period—Second Year

Division of Pipe Line Construction:		
Salaries	$25,620	
Stationery and Office Supplies	1,102	
Transportation Expense	7,752	
Traveling Expense	4,500	
Communication Expense	3,158	
Office Furniture and Fixtures—Depreciation only	77	
		42,209
[fol. 8412] Division of Compressor Station Construction:		
Salaries	$25,320	
Stationery and Office Supplies	1,020	
Transportation Expense	5,004	
Traveling Expense	3,000	
Communication Expense	3,158	
Office Furniture and Fixtures—Depreciation only	78	
		$37,580

Defendant's Exhibit No. 28—Continued

Division of Telephone Line Construction:		
Salaries	11,220	
Stationery and Office Supplies	593	
Transportation Expense	3,477	
Traveling Expense	2,400	
Communication Expense	1,058	
Office Furniture and Fixtures—Depreciation only	46	
		18,794
Division of Drilling and Production:		
Salaries	25,020	
Stationery and Supplies	762	
Transportation Expense	8,940	
Traveling Expense	4,500	
Communication Expense	3,158	
Office Furniture and Fixtures—Depreciation only	76	
Total Construction Period—Second Year		$141,032
Construction Period—Third Year		
Division of Pipe Line Construction:		
Salaries	$25,620	
Stationery and Office Supplies	1,102	
Transportation Expense	7,752	
Traveling Expense	4,500	
Communication Expense	1,658	
Office Furniture and Fixtures—Depreciation only	77	
		$40,709

Defendant's Exhibit No. 28—Continued

Division of Telephone Line Construction:		
Salaries	11,220	
Stationery and Office Supplies	593	
Transportation Expense	3,477	
Traveling Expense	2,400	
Communication Expense	1,058	
Office Furniture and Fixtures—Depreciation only	46	
		18,794
[fol. 8413] Division of Drilling and Production:		
Salaries	$25,020	
Stationery and Office Supplies	762	
Transportation Expense	8,940	
Traveling Expense	4,500	
Communication Expense	3,158	
Office Furniture and Fixtures—Depreciation only	76	
		42,456
Total Construction Period—Third Year		$101,959

[fol. 8414] General Supervision of Construction Costs and Supervision Costs Allocated to Specific Property Accounts

Definition:

As used in this estimate of the reproduction cost of the property and business of Lone Star Gas Company, General Supervision of Construction Costs are intended to cover the salaries and expenses of the general superintendent of construction, the superintendent of automotive and construction equipment and the engineer in charge of the safety and medical examination department. Also the cost of all supplies, the salaries and expenses of assistants, physicians and examiners, clerks and stenographers, office rent or its equivalent cost, tolls, telephones and telegrams, automobile expense, depreciation on furniture, fixtures and equipment and all other charges that would be attributable to the general su-

pervision of construction, the maintenance and care of automotive and construction equipment, and the safety work and medical examination in the reproduction of the physical property of Lone Star Gas Company as of January 1, 1933.

As used in this estimate, supervision costs allocated to specific property accounts are intended to cover the salaries and expenses of the superintendent of pipe line construction, the superintendent of drilling operations and gas production, the superintendent of compressor station construction and the superintendent of telephone line construction. Also the cost of all supplies, the salaries and expenses of their assistants, clerks and stenographers, office rent or its equivalent cost, tolls, telephones, telegrams, automobile expenses, depreciation on furniture, fixtures and equipment and all other charges that would be attributable to the construction of lines and appurtenant equipment, compressor stations, [fol. 8415] telephone lines and the drilling of wells and the production of gas in the reproduction of the physical property of Lone Star Gas Company as of January 1, 1933.

This estimate of the Cost of General Supervision of Construction and Supervision Cost allocated to specific property accounts does not include the cost of supervision and inspection allocated to specific property accounts and included in the unit costs applied to items of physical property.

While the estimate of Supervision Costs allocated to specific property accounts is set out in this section of the report, it is shown as a part of the cost of reproduction in connection with the general summaries of the reproduction cost of the various property accounts in Volume I of the report.

It is obvious that the duties of the general superintendent and his office organization, the superintendent of automotive and construction equipment and his organization, and the engineer in charge of safety and medical examination together with his staff would be so general in their nature as to prevent the rational distribution of the salaries and expenses of these groups to specific property accounts. For this reason, the salaries and expenses of the general superintendent and his organization, the superintendent of automotive and construction equipment and his organization and the engineer in charge of safety and medical examination and his staff have been separately determined and set out as a part of Undistributed General Costs.

General Organization Plan and Duties of the Construction Section:

In the development of Supervision of Construction Costs that would be involved in the reproduction of Lone Star Gas [fol. 8416] Company as of January 1, 1933, the actual construction organization of the company during recent years in which the company was actually constructing portions of its plant costing more than $20,000,000, has been followed in detail. In no other section of the company's general organization does the history of its own operations furnish a more definite basis for estimate.

In the reproduction of the property of Lone Star Gas Company, the responsible head of the Construction Section would be the general superintendent. Following the division of responsibility set out in the general organization plan, the general superintendent would conduct and direct the work of the Construction Section under the general supervision of the vice-president and general manager of the company.

The Construction Section would be divided into six construction divisions, each division being directly responsible for a definite part of the construction program. The Construction Division would be as follows:

1. Division of Pipe Line Construction.
2. Division of Compressor Station Construction.
3. Division of Telephone Construction.
4. Division of Plant and Equipment.
5. Division of Drilling and Production.
6. Division of Safety and Medical Examination.

Each of the above construction divisions would be in charge of a division superintendent who would report, and be directly responsible to the general superintendent.

In addition to the heads of the Construction Division, the chief engineer, whose specific duties are set out in detail under General Engineering Costs, would report to the general superintendent.

In connection with its general duties, the office of the [fol. 8417] general superintendent would:

1. Direct the general operations of each of the construction Divisions

2. Co-ordinate the work of the Construction Divisions

3. Plan the work from a construction standpoint, and authorize its execution by the proper Division

4. Correlate the progress reports of the various Divisions into a consolidated report for the office of the general manager

5. Approve all plans for construction prepared by the Engineering Section

6. Inspect and approve pipe line routes in different territory

7. Inspect and approve final bridge and under-river crossings

8. Inspect and approve final locations of compressor stations

9. Approve final size of all transmission lines

10. Approve all requisitions for the purchase of materials and equipment

11. Approve well locations and drilling operations.

12. Prepare estimates of progress and probable cash requirements for use by the Treasury Section

The Construction Section would be organized immediately upon the completion of corporate organization by the employment of the general superintendent who in turn would begin the organization of his Construction Divisions by the employment of the Division superintendent in the order that the progress of the work would require.

Personnel Analysis

General Superintendent:

The general and specific duties of the general superintendent have been set out under the discussion of the duties of the office of the general superintendent.

Chief Clerk to the General Superintendent:

The general office of the Construction Section would require a chief clerk whose duties would be confined solely to

the details of the office of the general suprintendent. The routine work of the general superintendent would require his presence in the field at frequent intervals, and at such [fol. 8418] times all office routines would be in charge of the chief clerk.

The chief clerk would also direct the work of the stenographic group in the preparation of all progress reports and other necessary construction reports.

In order to properly perform the duties of his office, the chief clerk would necessarily be a man who had had previous experience in similar work. His duties would require a general familiarity with each phase of the construction in progress, and a familiarity with the office routines of a large construction organization.

Stenographic Group:

The large number of detailed reports that would originate in the office of the general superintendent, together with the large amount of inter-departmental and outside correspondence that the construction program would entail, would require the services of not less than five stenographers during the period of actual construction.

In connection with the office personnel of the general superintendent, it is estimated that the chief clerk would be engaged immediately upon the employment of the general superintendent, that one stenographer would be engaged at the same time, that two additional stenographers would be engaged three months prior to the beginning of construction, and that the organization would be complete at the date of the beginning of actual construction.

Division of Pipe Line Construction

Superintendent of Pipe Line Construction:

The superintendent of pipe line construction would be directly responsible for the construction of all lines including main transmission lines, gathering lines, well lines and [fol. 8419] tap lines, together with all the collateral equipment including measuring station structures and equipment, and regulator station structures and equipment. He would be directly responsible for the progress of the work and the costs of construction. He would also prepare for the gen-

eral superintendent complete progress reports covering the amount of work performed and the cost of same.

A man qualified for this position would necessarily be a man with wide experience in pipe line construction in all of its phases and would also posses- qualities of leadership and executive ability.

Assistant Pipe Line Superintendent:

Owing to the extent of the pipe line construction that would be simultaneously in progress, not less than three assistant superintendents who would have charge of divisional activities would be required for the proper co-ordination and progress of the work. These assistant superintendents would remain constantly in the field and would provide the necessary contacts between the pipe line superintendent and his office and actual construction.

Each of these men would be experienced pipe line constructors, and would also posses- the necessary executive qualifications the co-ordination of the work of the large personnel of direct construction employees would require.

Chief Clerk:

The chief clerk would have responsible charge of the office routines of the pipe line superintendent. He would assist in the preparation of reports and the filing of the same, and also have responsible charge of the office and subordinate employees in the absence of the pipe line superintendent.

The chief clerk would be required to have a general [fol. 8420] knowledge of all matters pertaining to pipe line construction.

Assistant Clerk:

Due to the volume of details that would be handled by the office of the pipe line superintendent during a three year construction period that involved the construction of approximately four thousand miles of pipe lines within a three year construction period, the services of an assistant clerk would be required.

The assistant clerk would assist the chief clerk in all routine matters, summarize the daily progress reports of the

assistant superintendents and construction foremen, keep cost data, assist in filing, and have charge of the work of the stenographers.

Stenographic Group:

Two stenographers would be required for the typing of reports, and the writing of inter-divisional and outside correspondence.

It is estimated that the pipe line superintendent, the chief clerk and one stenographer would be employed three months prior to the beginning of construction, that the assistant superintendents, the assistant clerk and the second stenographer would be employed one month prior to the beginning of construction.

Division of Compressor Station Construction

Superintendent of Compressor Station Construction:

The superintendent of compressor station construction would be directly responsible for the progress and costs of all compressor station construction. He would also be in responsible charge of his office organization and field personnel. He would assist in the preparation of design, the selection of equipment and materials of construction. Together with the general superintendent and chief engineer, he would assist in the selection of compressor station sites, [fol. 8421] sources of water supply, and in other similar matters.

As the construction progressed, he would be responsible for changes in plans and specifications that would be brought about by the contingencies of construction or unfor-seen conditions.

The superintendent of compressor station construction would be a mechanical engineer thoroughly familiar with all details of compressor station construction and operation.

Assistant Superintendents of Compressor Station Construction:

The construction program adopted that contemplates that the compressor stations of Lone Star Gas Company as of January 1, 1933, would be completed during the first and

second construction years would require that four or more stations be under construction simultaneously. An assistant superintendent of construction would be placed in general charge of two or more stations as the progress of the work required. These assistants would remain in the field and keep the office in contact with the field operations. They would also keep accurate records of all construction costs and decide on minor changes in construction requiring prompt attention.

Each of the assistant superintendents would be men experienced in compressor station construction and operation.

The duties of the assistant superintendents can be classified by an outline of the building sequence that the construction program imposes.

Assistant Superintendent Number 1			
First Year			
Unit Number 1	Petrolia	Seven	Months
	Joshua	Three	Months
Unit Number 2	Gas City	Four	Months
[fol. 8422]			
	Fox Central	Three	Months
	Caddo	Five	Months
Second Year			
Unit Number 1	Fox East	Four	Months
	Eastland	Five	Months
	Joshua No. 2	Three	Months
Unit Number 2	Loco	Four	Months
	Ranger No. 1	Four	Months
	Ranger No. 2	Four	Months
Assistant Superintendent Number 2			
First Year			
Unit Number 3	Pueblo	Three	Months
	Breckenridge	Five	Months
	Ibex	Four	Months
Unit Number 4	Ranger No. 4	Three	Months
	Ranger No. 3	Five	Months
	Sipe Springs	Four	Months
Second Year			
Unit Number 3	Brad	Three	Months
	Brazos	Three	Months
	Tiffin	Three	Months
	Alvord	Three	Months
Unit Number 4	x-ray	Three	Months
	Cheaney	Five	Months
	Desdemona	Four	Months

Office Engineer:

The office engineer would assist in the selection of and make requisitions for all materials, plot progress and cost on all units under construction. He would have responsible charge of the office and its routines when the super-

intendent was in the field. He would make such changes in the original designs as actual construction conditions required, and would keep a complete record of such changes. He would check the delivery of all materials, and make estimates for future requirements.

Draftsman:

[fol. 8423] An office draftsman would be required for the purpose of currently maintaining a complete graphic record of each installation, setting out in detail all deviations from original designs and plans.

Stenographic Group:

Two stenographers would be required to prepare and file progress reports, and handle the current correspondence of the office.

It is estimated that the superintendent of compressor station construction and one stenographer would be employed four months prior to the beginning of construction. The assistant superintendents, office engineer, draftsman, and one stenographer would be employed two months prior to the beginning of construction.

Division of Telephone System Construction

Superintendent of Telephone System Construction:

The superintendent of telephone system construction would have responsible charge of the construction of the entire telephone system of Lone Star Gas Company as of January 1, 1933. He would be directly responsible for the progress and cost of the work. He would prepare for the information of the general superintendent progress reports and cost data, and would be generally responsible for the personnel engaged in his division.

The nature of his work would demand that he be experienced in construction, and have specific knowledge of the details of telephone line construction and operation.

Assistant Superintendent:

For the purpose of establishing inter-communication between the field and general office as quickly and as com-[fol. 8424] pletely as possible, it would be necessary to

maintain telephone line construction crews at various points in the system. This construction program would require the employment of — assistant superintendent who would remain in the field and co-ordinate the work of the various construction organizations. He would furnish the general office full information covering progress and cost data.

Clerk:

One office clerk would be required to tabulate and file all information relative to progress and costs. He would also have charge of the office routines in the absence of the superintendent.

Stenographer:

One stenographer would be required for the typing of reports and the maintenance of inter-departmental and outside correspondence.

The superintendent of telephone system construction and stenographer would be employed three months prior to the beginning of construction, and the assistant superintendent and clerk one month prior to the beginning of construction.

Division of Plant and Equipment

Superintendent of Plant and Equipment:

Under the organization plan of Lone Star Gas Company, the superintendent of plant and equipment would be generally responsible for the selection of all automotive and construction equipment. He would also be responsible for the maintenance of cost records of operation and repairs. He would have a general supervision over all shops and equipment used for the repair and maintenance of automotive and construction equipment. He would direct supervision of his office organization, shop foreman, and traveling inspectors.

A man qualified for this position would be familiar with [fol. 8425] all types of equipment used in construction, the normal costs of operation and maintenance of all types of automotive and construction equipment. He would also be required to be expert in cost accounting methods.

Clerks:

Two office clerks and one typist clerk would be required to maintain operating and repair cost records on the equipment in service.

Field Inspectors:

Three field or traveling inspectors would be employed for the purpose of making periodic checks on all equipment in service for the purpose of preventing serious break-downs. They would also report on all improper use of equipment, and instruct all operators with reference to the proper care of equipment.

The superintendent of plant and equipment would be employed three months prior to the beginning of construction, and the office clerks and inspectors would be employed one month prior to construction.

Division of Drilling and Production,

Superintendent of Drilling and Production:

The superintendent of drilling and production would be directly responsible for the letting of all drilling contracts, and would have responsible charge of all drilling operations.

In connection with actual field operations, he would be generally responsible for the setting of pipe and the finishing of wells, the ordering of material used in drilling operations, and the arranging for water and fuel. He would also be directly responsible for the letting of contracts for the construction of rigs and the handling of [fol. 8426] material.

In connection with the Geological Section, he would be responsible for the abandonment of drilling. He would be directly responsible for the routines of his office, the maintenance of drilling records and costs, and the direction of the personnel of the Division.

Assistant Superintendents:

In view of the fact that the reproduction program contemplates the completion of all producing gas wells owned by Lone Star Gas Company as of January 1, 1933, with the exception of the fifty eight wells assumed to have been completed prior to organization during a three and one-

half year period, it would be necessary to have three assistant superintendents in the field, one in direct charge of operations in West Texas, one in direct charge of operations in the Panhandle, and one in direct charge of operations in Southern Oklahoma. They would keep in constant contact with all drilling within their respective areas, keep the office advised as to progress and cost, and assist the foremen in direct charge of the individual rigs.

Clerk:

One office clerk would be required to maintain records and files, and assume responsible charge of the office routines during the absence of the superintendent of drilling and production.

Stenographer:

One stenographer would be required for the typing of progress reports and cost data, and for the maintenance of inter-departmental and outside correspondence.

The entire organization of the Division of Drilling and [fol. 8427] Production would be engaged from the date of incorporation to the end of the construction period.

Each of the superintendents would be men with a wide experience in the drilling for and production of gas, the care of wells after completion, and specific knowledge with reference to the problems encountered in the territories in which Lone Star Gas Company owns producing wells.

Division of Safety and Medical Examination

Supervisor of Safety:

The supervisor of safety would have general supervision over all safety activities and the physical examination of all prospective employees. He would also act as personal officer for the Construction Section. It would be his duty to select competent safety engineers, doctors and personnel men, provide the necessary equipment and supplies for carrying on all safety work and physical examinations, and provide the various construction crews with an adequate supply of labor.

Safety Engineers:

In addition to the supervisor of safety, three safety engineers would be employed. The safety engineers would be located at the most advantageous points where they could best serve the greatest number of employees. It would be their duty to make regular inspection of tools, equipment, and the work as it progressed, making suggestions and recommendations for the correction of or eliminating hazards, see that all first aid kits are kept stocked, to conduct safety meetings, and various other work which might arise in the course of construction work.

Chief Medical Examiner:

[fol. 8428] It would be the duty of the chief medical examiner to select, in co-operation with the supervisor of safety, the examining physicians, to detail and supervise their work, locating them so that they would be able to take care of the greatest number of men. It would also be the duty of the chief medical examiner to decide upon certain questions of a man's physical fitness in the event one of the junior or assistant examiners was unable to decide. In addition to the duties as outlined above, we would also expect for the chief medical examiner to go from place to place, as the occasion demanded, to examine small groups of men where the number would not justify the location of a resident or assistant examiner.

Examining Physicians:

Four examining physicians would be required. It would be the duty of the examining physicians to examine all prospective employees to determine their physical fitness for the work to be required of them, and to render first aid in case of accidents. We would not, however, require them to do more than render first aid to the injured, as the expense of all medical and hospital treatment is taken case of by the compensation insurance carriers. The examining physicians, as already mentioned, would be located at points where they would be able to take care of the greatest number of employees.

Personnel Man:

The personnel man will be in charge of all personnel records, will keep in touch with the various construction foremen, and keep them supplied with labor. It will be his duty to contact the Chamber of Commerce and employment bureau officials in the various towns along the proposed lines to secure their assistance in supplying local labor for the construction crews and to scout boarding house ac- [fol. 8429] com-odations for workmen.

Office Group:

One chief clerk and three stenographers would be required to maintain records, files and current correspondence.

The Division of Safety and Medical Examination would be organized one month prior to the beginning of construction.

Schedule of Salaries:

In fixing the salaries of the various responsible members of the Construction Section, consideration has been given to the obvious fact that each of them would necessarily be a man possessed of outstanding qualifications in his particular line of work. This fact is reflected in the unit costs of construction applied to the individual items of physical property in the section of this report dealing with the reproduction cost of the physical items. These costs have been based in a large measure upon the actual construction costs of Lone Star Gas Company. The organization responsible for these costs was secured by a process of the survival of the fittest extending over a period of twenty years.

In order to secure such an organization for the purpose of reproducing the property of Lone Star Gas Company within a construction period of three years, the personnels of other large companies would be drawn upon, and only the most competent men engaged. It would be impossible to develop and train such men as is normally done in companies in the process of gradual growth.

Defendant's Exhibit No. 28—Continued

Office of General Superintendent

Position	Rate Per Month	Rate Per Annum
General Superintendent	$1,250	$15,000
Chief Clerk	300	3,600
Assistant Clerk	175	2,100

[fol. 8430]

One Stenographer	125	1,500
Four Stenographers (Each)	110	1,320

Division of Pipe Line Construction

Position		
Superintendent	500	6,000
Three Assistant Superintendents (Each)	350	4,200
Chief Clerk	200	2,400
Assistant Clerk	150	1,800
Stenographer	125	1,500
Stenographer	110	1,320

Division of Compressor Station Construction

Position		
Superintendent	750	9,000
Two Assistant Superintendents (Each)	350	4,200
Office Engineer	250	3,000
Draftsman	175	2,100
Stenographer	125	1,500
Stenographer	110	1,320

Division of Telephone Line Construction

Position		
Superintendent	400	4,800
Assistant Superintendent	250	3,000
Clerk	175	2,100
Stenographer	110	1,320

Division of Plant and Equipment

Position		
Superintendent	400	4,800
Three Inspectors (Each)	200	2,400
Two Clerks and Cost Accountants (Each)	150	1,800
Typist Clerk	125	1,500

Division of Drilling and Production

Position		
Superintendent	750	9,000
Three Assistant Superintendents (Each)	350	4,200
Clerk	175	2,100
Stenographer	110	1,320

Defendant's Exhibit No. 28—Continued

[fol. 8431]

Division of Safety and Medical Examination Position	Rate Per Month	Rate Per Annum
Supervisor	$400	$4,800
Three Engineers (Each)	225	2,700
Chief Examiner	300	3,600
Four Assistant Examiners (Each)	200	2,400
Personnel man	250	3,000
Chief Clerk	175	2,100
Three Stenographers (Each)	110	1,320

Distribution of Salaries by Periods

Office of General Superintendent

Pre-Construction Period

General Superintendent, Six months at $1,250	$7,500
Chief Clerk, Six months at $300	1,800
Stenographer, Six months at $125	750
Assistant Clerk, Three months at $175	525
Stenographer, Three months at $110	330
Stenographer, Three months at $110	330
Total	$11,400

First Construction Year

General Superintendent	$15,000
Chief Clerk	3,600
Assistant Clerk	2,100
One Stenographer ($125.00)	1,500
Four Stenographers ($110.00)	5,280
Total	$27,480
Second Construction Year	$27,480
Third Construction Year	$27,480

Division of Pipe Line Construction

Pre-Construction Period

Superintendent, Three months at $500	$1,500
Chief Clerk, Three months at $200	600
Stenographer, Three months at $125	375
Assistant Supt., One month at $350	350
Assistant Supt., One month at $350	350
Assistant Supt., One month at $350	350
Clerk, One month at $150	150

Defendant's Exhibit No. 28—Continued

[fol. 8432]

Pre-Construction Period	
Stenographer, One month at $110	$110
Total	$3,785
First Construction Year	
Superintendent	$6,000
Assistant Superintendent	4,200
Assistant Superintendent	4,200
Assistant Superintendent	4,200
Chief Clerk	2,400
Clerk	1,800
Stenographer	1,500
Stenographer	1,320
Total	$25,620
Second Construction Year	$25,620
Third Construction Year	$25,620
Division of Compressor Station Construction	
Pre-Construction Period	
Superintendent, Four months at $750	$3,000
Stenographer, Four months at $125	500
Assistant Supt., Two months at $350	700
Assistant Supt., Two months at $350	700
Office Engineer, Two Months at $250	500
Draftsman, Two months at $175	350
Stenographer, Two months at $110	220
Total	$5,970
First Construction Year	
Superintendent	$9,000
Assistant Superintendent	4,200
Assistant Superintendent	4,200
Office Engineer	3,000
Draftsman	2,100
Stenographer	1,500
Stenographer	1,320
Total	$25,320

[fol. 8433]

Second Construction Year	$25,320

Defendant's Exhibit No. 28—Continued

Division of Telephone Line Construction

Pre-Construction Period

Superintendent, Three months at $400	$1,200
Stenographer, Three months at $110	330
Assistant Supt., One month at $250	250
Clerk, One month at $175	175
Total	$1,955

First Construction Year

Superintendent	$4,800
Assistant Superintendent	3,000
Clerk	2,100
Stenographer	1,320
Total	$11,220
Second Construction Year	$11,220
Third Construction Year	$11,220

Division of Plant and Equipment

Pre-Construction Period

Superintendent, Three months at $400	$1,200
Inspector, One month at $200	200
Inspector, One month at $200	200
Inspector, One month at $200	200
Clerk, One month at $150	150
Clerk, One month at $150	150
Typist Clerk, One month at $125	125
Total	$2,225

First Construction Year

Superintendent	$4,800
Inspector	2,400
Inspector	2,400
Inspector	2,400
Clerk	1,800
Clerk	1,800
Typist Clerk	1,500
Total	$17,100

[fol. 8434]

Second Construction Year	$17,000
Third Construction Year	17,000

Defendant's Exhibit No. 28—Continued

Division of Drilling and Production

Pre-Construction Period

Superintendent, Six months at $750	$4,500
Assistant Supt., Six months at $350	2,100
Assistant Supt., Six months at $350	2,100
Assistant Supt., Six months at $350	2,100
Clerk, Six months at $175	1,050
Stenographer, Six months at $110	660
Total	$12,510

First Construction Year

Superintendent	$9,000
Assistant Superintendent	4,200
Assistant Superintendent	4,200
Assistant Superintendent	4,200
Clerk	2,100
Stenographer	1,320
Total	$25,020
Second Construction Year	$25,020
Third Construction Year	$25,020

Division of Safety and Medical Examination

Pre-Construction Period

Supervisor, One month at $400	$400
Engineer, One month at $225	225
Engineer, One month at $225	225
Engineer, One month at $225	225
Engineer, One month at $225	225
Chief Examiner, One month at $300	300
Assistant Examiner, One month at $200	200
Assistant Examiner, One month at $200	200
Assistant Examiner, One month at $200	200
Assistant Examiner, One month at $200	200
Personnel Man, One month at $250	250

[fol. 8435]

Pre-Construction Period

Chief Clerk, One month at $175	$175
Stenographer, One month at $110	110
Stenographer, One month at $110	110
Stenographer, One month at $110	110
Total	$2,930

Defendant's Exhibit No. 28—Continued

First Construction Year

Supervisor	$4,800
Engineer	2,700
Engineer	2,700
Engineer	2,700
Chief Examiner	3,600
Assistant Examiner	2,400
Assistant Examiner	2,400
Assistant Examiner	2,400
Assistant Examiner	2,400
Personnel man	3,000
Chief Clerk	2,100
Stenographer	1,320
Stenographer	1,320
Stenographer	1,320
Total	$35,160
Second Construction Year	$35,160
Third Construction Year	$35,160

* * * * *

Stationery and Office Supplies—By Periods

Office of General Superintendent

Pre-Construction Period	$339
First Construction Year	1,180
Second Construction Year	1,180
Third Construction Year	1,180

Division of Pipe Line Construction

Pre-Construction Period	$127
First Construction Year	1,102
Second Construction Year	1,102
Third Construction Year	1,102

[fol. 8436]

Division of Compressor Station Construction

Pre-Construction Period	$198
First Construction Year	1,020
Second Construction Year	1,020

Division of Telephone System Construction

Pre-Construction Period	$99
First Construction Year	593
Second Construction Year	593
Third Construction Year	593

Defendant's Exhibit No. 28—Continued

Division of Plant and Equipment	
Pre-Construction Period	$113
First Construction Year	933
Second Construction Year	933
Third Construction Year	933
Division of Drilling and Production	
Pre-Construction Period	$381
First Construction Year	762
Second Construction Year	762
Third Construction Year	762
Division of Safety and Medical Examination	
Pre-Construction Period	$57
First Construction Year	1,696
Second Construction Year	1,696
Third Construction Year	1,696

* * * * * * *

Transportation Expense—By Periods

Office of General Superintendent

Equipment
One Packard Sedan—Cost $2,970
Operation per mile, 8 cents

Pre-Construction Period	
Depreciation at $71.00 per month	$426
Operation 12,000 miles at 8 cents per mile	960
Total	$1,386
First Construction Year	
Depreciation at $71.00 per month	$852

[fol. 8437]

Office of General Superintendent

First Construction Year	
Operation 18,000 miles at 8 cents per mile	$1,440
Total	$2,292
Second Construction Year	$2,292
Third Construction Year	$2,292

Division of Pipe Line Construction

Equipment
One Master Buick and
Three Standard Buicks

Defendant's Exhibit No. 28—Continued

Cost $5,800
Operation per Mile 5 cents

Pre-Construction Period

Depreciation at $146.00 per month	$438
Operation 40,000 miles at 5 cents per mile	2,000
Total	$2,438

First Construction Year

Depreciation at $146.00 per month	$1,752
Operation 120,000 miles at 5 cents per mile	6,000
Total	$7,752
Second Construction Year	$7,752
Third Construction Year	$7,752

Division of Compressor Station Construction

Equipment

One Master Buick, Two Standard
Buicks—Cost $4,560
Operation per mile 5 cents

Pre-Construction Period

Depreciation at $117.00 per month	$351
Operation 16,000 miles at 5 cents per mile	800
Total	$1,151

[fol. 8438]

Division of Compressor Station Construction

First Construction Year

Depreciation at $117.00 per month	$1,404
Operation 72,000 miles at 5 Cents per mile	3,600
Total	$5,004
Second Construction Year	$5,004

Defendant's Exhibit No. 28—Continued

Division of Telephone Line Construction

Equipment
One Standard Buick
One Chevrolet—Cost $1,806
Operation per mile 4.5 cents

Pre-Construction Period	
Depreciation at $46.00 per month	$138
Operation 20,000 miles at 4.5 cents per mile	900
Total	$1,038
First Construction Year	
Depreciation at $46.00 per month	$552
Operation 65,000 miles at 4.5 cents per mile	2,925
Total	$3,477
Second Construction Year	$3,477

Division of Plant and Equipment

Equipment
One Standard Buick—Three
Chevrolets—Cost $2,970
Operation per mile 4.5 cents

Pre-Construction Period	
Depreciation Period $76.00 per month	$228
Operation 10,000 miles at 4.5 cents per mile	450
Total	$678
First Construction Year	
Depreciation at $76.00 per month	$912
Operation 120,000 miles at 4.5 cents per mile	5,400
Total	$6,312

[fol. 8439]

Division of Plant and Equipment

Second Construction Year	$6,312
Third Construction Year	$6,312

Division of Drilling and Production

Equipment
One Master Buick—Three
Standard Buicks—Cost $5,800
Operation per mile 5.5 cents

Defendant's Exhibit No. 28—Continued

Pre-Construction Period	
Depreciation at $140.00 per month	$840
Operation 66,000 miles at 5.5 cents per mile	3,630
Total	$4,470
First Construction Year	
Depreciation at $140.00 per month	$1,680
Operation 132,000 miles at 5.5 cents per mile	7,260
Total	$8,940
Second Construction Year	$8,940
Third Construction Year	$8,940

Division of Safety and Medical Examination

Equipment

Nine Chevrolets—Cost 5,220
Operation per mile 4 cents

Pre-Construction Period	
First Construction Year	
Depreciation at $144.00 per month	$1,728
Operation 250,000 miles at 4 cents per mile	10,000
Total	$11,728
Second Construction Year	$11,728
Third Construction Year	$11,728

[fol. 8440] Traveling Expense—By Periods

Office of General Superintendent

Pre-Construction Period	
General Superintendent 90 days at $7.00 per day	$630
First Construction Year	
General Superintendent 120 days at $7.00 per day	$840
Second Construction Year	$840
Third Construction Year	$840

Defendant's Exhibit No. 28—Continued

Division of Pipe Line Construction	
Pre-Construction Period	
Superintendent 60 days at $5.00 per day	$300
Assistant Superintendent 75 Days at $4.00 per day	300
Total	$600
First Construction Year	
Superintendent 180 days at $5.00 per day	$900
Assistant Superintendent 900 days at $4.00 per day	3,600
Total	$4,500
Second Construction Year	$4,500
Third Construction Year	$4,500
Division of Compressor Station Construction	
Pre-Construction Period	
Superintendent 60 days at $5.00 per day	$300
Assistant Superintendents 100 days at $4.00 per day	400
Total	$700
First Construction Year	
Superintendent 120 days at $5.00 per day	$600
Assistant Superintendents 600 days at $4.00 per day	2,400
Total	$3,000

[fol. 8441]

Division of Compressor Station Construction	
Second Construction Year	$3,000
Division of Telephone Line Construction	
Pre-Construction Period	
Superintendent 45 days at $5.00 per day	$225
Assistant Superintendent 25 days at $4.00 per day	100
Total	$325
First Construction Year	
Superintendent 240 days at $5.00 per day	$1,200
Assistant Superintendent 300 days at $4.00 per day	1,200
Total	$2,400

2909

Defendant's Exhibit No. 28—Continued

Second Construction Year	$2,400
Third Construction Year	$2,400
Division of Plant and Equipment	
Pre-Construction Period	
Superintendent 45 days at $5.00 per day	$225
Inspectors 30 days at $4.00 per day	120
Total	$345
First Construction Year	
Superintendent 120 days at $5.00 per day	$600
Inspectors 900 days at $4.00 per day	3,600
Total	$4,200
Second Construction Year	$4,200
Third Construction Year	$4,200
Division of Drilling and Production	
Pre-Construction Period	
Superintendent 90 days at $5.00 per day	$450
Assistant Superintendents 450 days at $4.00 per day	1,800
Total	$2,250

[fol. 8442]

Division of Drilling and Production	
First Construction Year	
Superintendent 180 days at $5.00 per day	$900
Assistant Superintendents 900 days at $4.00 per day	3,600
Total	$4,500
Second Construction Year	$4,500
Third Construction Year	$4,500
Division of Safety and Medical Examination	
Pre-Construction Period	
Supervisor	
Engineers and Examiners, 40 days at $4.00 per day	$160
Personnel man, 15 days at $4.00 per day	75
Total	$220

Defendant's Exhibit No. 28—Continued

First Construction Year	
Supervisor, 120 days at $5.00 per day	$600
Chief Examiner, 180 days at $4.00 per day	720
Assistant Examiners, 1200 days at $4.00 per day	4,800
Engineers, 900 days at $4.00 per day	3,600
Personnel man, 120 days at $4.00 per day	480
Total	$10,200
Second Construction Year	$10,200
Third Construction Year	$10,200

* * * * * * *

Communication Expense—By Periods

Office of General Superintendent

Pre-Construction Period	
Telephone—3 for 6 months at $6.60 per month	$119
Telegrams and Tolls, $10.00 per day for 150 days	1,500
Total	$1,619

[fol. 8443]

Communication Expense—By Periods

Office of General Superintendent

First Construction Year	
Telephones—3 for 12 months at $6.60 per month	$238
Telegrams and Tolls $15.00 per day for 300 days	4,500
Total	$4,738
Second Construction Year	$4,738
Third Construction Year	$3,238

Division of Pipe Line Construction

Pre-Construction Period	
Telephones—2 for 3 months at $6.60 per Month	$40
Telegrams and Tolls, $5.00 per day for 75 days	375
Total	$415

Defendant's Exhibit No. 28—Continued

First Construction Year	
Telephones—2 for 12 months at $6.60 per Month	$158
Telegrams and Tolls, $10.00 per day for 300 days	3,000
Total	$3,158
Second Construction Year	$3,158
Third Construction Year	$1,658

Division of Compressor Station Construction

Pre-Construction Period	
Telephones—2 for 4 months at $6.60 per month	$53
Telegrams and Tolls, $10.00 per day for 100 days	1,000
Total	$1,053
First Construction Year	
Telephones—2 for 12 months at $6.60 per month	$158
Telegrams and Tolls, $10.00 per day for 300 days	3,000
Total	$3,158
Second Construction Year	$3,158

[fol. 8444]

Division of Telephone Line Construction

Pre-Construction Period	
Telephones—2 for 3 months at $6.60 per month	$40
Telegrams and Tolls, $5.00 per day for 75 days	375
Total	$415
First Construction Year	
Telephones—2 for 12 months at $6.60 per month	$158
Telegrams and Tolls $3.00 per day for 300 days	900
Total	$1,058
Second Construction Year	$1,058
Third Construction Year	$1,058

Division of Plant and Equipment

Pre-Construction Period	
Telephones—2 for 3 months at $6.60 per month	$40
Telegrams and Tolls, $3.00 per day for 75 days	225
Total	$265

Defendant's Exhibit No. 28—Continued

First Construction Year	
Telephones—2 for 12 months at $6.60 per month	$158
Telegrams and Tolls, $3.00 per day for 300 days	900
Total	$1,058
Second Construction Year	$1,058
Third Construction Year	$1,058
Division of Drilling and Production	
Pre-Construction Period	
Telephones for 6 months—2 at $6.60 per month	$79
Telegrams and Tolls, $10.00 per day for 150 days	1,500
Total	$1,579
First Construction Year	
Telephones—2 for 12 months at $6.60 per month	$158

[fol. 8445]

Division of Drilling and Production	
First Construction Year	
Telegrams and Tolls, $10.00 per day for 300 days	$3,000
Total	$3,158
Second Construction Year	$3,158
Third Construction Year	$3,158
Division of Safety and Medical Examination	
Pre-Construction Period	
Telephones—2 for 1 month at $6.60 per month	$13
Telegrams and Tolls, $3.00 per day for 25 days	75
Total	$88
First, Second and Third Construction Year	
Telephones—2 for 12 months at $6.60 per month	$158
Telegrams and Tolls, $5.00 per day for 300 days	1,500
Total	$1,658
Office Furniture and Fixtures as per Detailed Inventory	
Office of General Superintendent	$1,229

Defendant's Exhibit No. 28—Continued

Waiting Room and Office of Chief Clerk, Assistant Chief Clerk, and five Stenographers assisting General Superintendent	$2,062
Office of Superintendent of Pipe Line Division	211
Office of Two Clerks and Two Stenographers Assisting Superintendent of Pipe Line Division	750
Office of Superintendent of Compressor Stations	256
Office of One Clerk, One Draftsman, and Two Stenographers Assisting Superintendent of Compressor Stations	720
Office of Superintendent of Telephone Division	211
Office of One Clerk and One Stenographer Assisting Superintendent of Telephone Division	366
Office of Superintendent of Safety and Personnel Division	211
Office of Two Clerks and Three Stenographers Assisting Superintendent of Safety and Personnel Division	948
Office of Superintendent of Automotive Equipment Division	211

[fols. 8446–8449]

Office of Two Clerks and One Stenographer Assisting Superintendent of Automotive Equipment Division	1,184
Office of Superintendent of Production Division	566
Office of One Clerk and one Stenographer Assisting Superintendent of Production Division	384
Total	$9,309

[fols. 8450-8458] Lone Star Gas Company

Appraisal

Cost of Reproduction New

January 1, 1933

Public Service Plant, Property and Business

Exclusive of Fort Worth Division

P. McDonald Biddison, E. A. Steinberger, Ed. C. Connor, Engineers, Dallas, Texas

[fol. 8459] The Relation Between Interest and Taxes During Construction and Fixed Charges on Inactive Plant (in Operation) During the Construction and Development Periods

[fol. 8460] In the preparation of this estimate of the reproduction cost of the property and business of Lone Star Gas

Company as of January 1, 1933, a careful study has been made of a hypothetical construction program, covering three years of actual construction that would conform to the logical process of placing the constructed plant in position to serve the center of gravity of the existing market at the earliest practical date. In the subsequent development of the estimates of the cost of Interest During Construction, Taxes During Construction, and the Cost of Business Development, effect has been given to the attachment of markets concurrently with the completion of the various sections of the physical property that would grow out of the application of the plan adopted.

The application of this plan to the estimate of the cost of the fixed charges, interest, taxes, and depreciation during the construction period, had the practical effect of reducing the estimated cost of Interest and Taxes during Construction substantially below the charges that would normally be estimated for these items in reproduction cost appraisals wherein less care had been exercised in determining the time at which specific markets would be attached as the section of the system when completed would pass from construction to operation.

Interest on the sum of money represented by advances for construction and all other expenses attributable to property under construction before the "coming into service" of the property under construction is a capital expense recognized by all regulatory bodies, and provision has been made for its capitalization in all standard uniform classification [fol. 8461] of accounts. The same is true of the cost of taxes (except certain special benefit assessments) levied on property under construction.

There is an extremely close relation between the cost of Interest and Taxes During Construction and the cost of interest, taxes and depreciation on that portion of the plant under construction that would come into service during the construction period, but that would, by reason of the inherent characteristics of the business, fail to be fully operative during a substantial period of time following the initiation of service. This relation will be developed in the subsequent analyses.

If the definition of Interest and Taxes During Construction used by the Interstate Commerce Commission and generally adopted for uniform classifications of accounts for

public utilities is interpreted to mean (and it is so interpreted) that interest and taxes cease to be proper capital charges as Interest During Construction and Taxes During Construction the instant of the "coming into service" of the property without regard to the extent of the use of the property at the time of its coming into service measured by its ultimate use, then it is obvious that some substitute capital charges must be provided to cover the accruals of fixed charges on inactive property during the period of business development in order to prevent substantial capital losses in properties subject to public regulation.

This fact can be clearly demonstrated by means of a comparative analysis of two assumed conditions, the second assumption being typical of actual conditions that would be met in the reproduction of any large natural gas pipe line system serving a large number of domestic consumers.

[fol. 8462] Assumption No. 1

Pre-construction Period	Six Months
Construction Period	Three Years
Cash requirements for construction and other expenses	
Pre-construction Period	5.00 Per Cent of total
First construction Year	40.00 Per Cent of total
Second construction Year	30.00 Per Cent of total
Third construction Year	25.00 Per Cent of total
Interest rate	8.00 Per Cent per Annum
Taxes	2.00 Per Cent per Annum

For simplicity of calculation, it will be assumed that the cash requirements will be secured at the beginning of each period, and that no earnings on unexpended balances would be credited to the interest account.

If it is further assumed that no portion of the property would become operative, or come into service until the end of the construction period, the calculation for Interest During Construction would be as follows:

5.00 Per Cent of total for 3.50 years at 8 Per Cent = 1.40%
40.00 Per Cent of total for 3.00 years at 8 Per Cent = 9.60%
30.00 Per Cent of total for 2.00 years at 8 Per Cent = 4.80%
25.00 Per Cent of total for 1.00 year at 8 Per Cent = 2.00%

Total Interest Charges on Total Expenditures 17.80%

In the case of Taxes During Construction the results of the calculation would depend upon the date at which construction is assumed to begin. For simplicity of calculation, it will be assumed that the construction period would begin July 1 of the Calendar year. Under this assumption, the calculated Taxes During Construction would be as follows:

25.00 Per Cent of total for 3.00 years at 2 Per Cent = 1.50%
60.00 Per Cent of total for 2.00 years at 2 Per Cent = 2.40%
87.50 Per Cent of total for 1.00 year at 2 Per Cent = 1.75%

Total Taxes on Total Expenditures 5.65%

[fol. 8463] The calculations for both Interest During Construction and Taxes During Construction are shown in graphic form as Graphic Illustration of the Application of Interest During Construction—Assumption No. 1, and Graphic Illustration of the Application of Taxes During Construction—Assumption No. 1.

Assumption No. 2

Pre-construction Period	Six Months
Construction Period	Three Years
Cash requirements for construction and other expenses	
Pre-construction Period	5.00 Per cent of Total
First construction Year	40.00 Per cent of total
Second construction Year	30.00 Per cent of total
Third construction Year	25.00 Per cent of total
Interest rate	8.00 Per cent per Annum
Taxes	2.00 Per cent per Annum
Depreciation (average)	5.00 Per cent per Annum
Per cent of plant in service at end of First Construction Year	40.00 Per cent of total
Per cent of plant in service at end of Second Construction Year	75.00 Per cent of total
Per cent of plant in service at end of Construction Period	100.00 Per cent of total
Per cent of plant inactive during Second Construction Year	85.00 Per cent of total
Per cent of plant inactive during Third Construction Year	65.00 Per cent of total

Inasmuch as only forty per cent of the total plant has been assumed to have passed into service at the end of the first

construction year, the percentage of the total plant inactive during the second construction year, in terms of plant in service, would be forty per cent minus fifteen per cent, or twenty five per cent of the total plant.

Inasmuch as only seventy five per cent of the total plant has been assumed to have passed into service at the end of the second construction year, the percentage of the total [fol. 8464] plant inactive *inactive* during the third construction year, in terms of plant in service would be seventy five per cent minus thirty five per cent, or forty per cent of the total plant. Under the conditions outlined in Assumption No. 2, the calculation for Interest During Construction would be as follows:

5.00 Per cent of total for 1.50 years at 8 per cent =	.60%
40.00 Per cent of total for 1.00 year at 8 per cent =	3.20%
35.00 Per cent of total for 1.00 year at 8 per cent =	2.80%
25.00 Per cent of total for 1.00 year at 8 per cent =	2.00%
Total Interest Charges on Total Expenditures	8.60%

The calculation for Taxes During Construction upon the assumption that construction would begin July 1, of the Calendar year would be as follows:

25.00 Per cent of total for 1.00 year at 2 per cent =	.50%
20.00 Per cent of total for 1.00 year at 2 per cent =	.40%
12.50 Per cent of total for 1.00 year at 2 per cent =	.25%
Total Taxes on Total Expenditures.....	1.15%

The calculations for both Interest During Construction and Taxes During Construction are shown in graphic form as Graphic Illustration of the Application of Interest During Construction—Assumption No. 2, and Graphic Illustration of the Application of Taxes During Construction—Assumption No. 2.

It has been previously determined for Assumption No. 2 that for the portion of the plant "passing into service" at the beginning of the second construction year, such a proportion would be inactive compared to ultimate domestic use, as to be equal to twenty five per cent of the total plant. For the portion of the plant passing into service at the beginning of the third construction year, together with the portion that passed into service during the previous year,

uch a portion would be inactive, compared to ultimate do-
nestic use, as to equal forty per cent of the total plant.
fol. 8465] These percentages were determined by the ap-
lication of the normal percentage of the ultimate customer
aturation and customer use (domestic basis) that would be
cquired during the first and second year of natural gas
ervice to the per cent of the total plant in service in the
econd and third construction years.

Therefore, for the second and third construction years,
here would be an aggregate of sixty five per cent of the
otal plant that would be inactive (one year basis) and upon
vhich no charges for interest and taxes during construc-
ion would be set up as capital items under the accepted
lefinition of these items.

This situation is set out in graphic form as Graphic Illus-
ration of the Relation of Inactive Plant to Plant in Service,
Construction Period Only—Assumption No. 2.

It will be clear from the foregoing analyses that unless
ome provision is made in the reproduction cost estimate to
over the fixed charges, which in the case of operative prop-
rty include depreciation as well as taxes and interest, on
his proportionate part of the cost of the total property
vhich has passed from construction into service but which
n reality is operative only to a limited degree, then the esti-
nate to this extent fails to reflect the actual reproduction
ost.

The proper calculations to cover this cost (construction
eriod only) under the conditions set out in Assumption No.
2 are as follows:

Second Construction Year

Interest	8 Per cent of 25 per cent—one year	= 2.00 Per cent.
Taxes	2 Per cent of 25 per cent—one year	= .50 Per cent.
Depreciation	5 Per cent of 25 per cent—one year	= 1.25 Per cent.

[fol. 8466] Third Construction Year

Interest	8 per cent of 40 per cent—one year	= 3.20 per cent.
Taxes	2 per cent of 40 per cent—one year	= .80 per cent.
Depreciation	5 per cent of 40 per cent—one year	= 2.00 per cent.
Fixed Charges on Total Expenditures*		9.75 per cent.

* Theoretically in service but actually inactive during the construction period.

The discussion up to this point has dealt with the fixed charges upon the proportionate part of the total plant that would have passed into service, but that would have been

inactive during the construction peirod only. The same methods and the same reasoning would apply to the proportionate part of the total plant that would be in service, but partially inactive during the years immediately following the completion of construction. The ratio of the inactive plant to the total plant would decrease by successive steps as the business existing at the date of the reproduction cost estimate would gradually be acquired. However, the fixed charges, interest, taxes and depreciation, on the inactive portion of the total plant during this time would be an inescapable part of the cost of reproduction, and should therefore be made a part of any estimate that fully reflects the actual costs that would be encountered in reproduction.

In fixing the estimated amounts for the closely inter-related elements of cost, interest and taxes on property wholly in construction and interest, taxes and depreciation on the inactive part of plant in service during the construction and development periods, care should be exercised to avoid any hypotheses or assumptions that would not conform to the logical processes of construction and business acquisition applicable to the particular property being appraised.

[fol. 8467] As stated at the beginning of these analyses, and as will be developed in the detailed estimates of the cost of Interest During Construction, the cost of Taxes During Construction, and the cost of Business Development in the subsequent sections of the appraisal, the conditions assumed conform as nearly as is practicable in a reproduction cost estimate to the conditions that would be met in the reproduction of the property and business of Lone Star Gas Company as of January 1, 1933.

In concluding this general discussion preliminary to the detailed estimates of the costs of the fixed charges that are included in the subsequent section of the report, consideration will be given to certain basic factors that have a direct bearing upon the methods employed.

A natural gas pipe line system, with the exception of certain items that constitute a relatively small proportion of the system as a whole, should be initially designed and constructed to meet the anticipated demands of the market served. The use of such a program would necessarily result in a substantial part of the constructed system being inactive during the period in which the anticipated demands of the market were being developed. This condition would be emphasized where the anticipated demands would be, in

a large measure, the cumulative demands of a large number of individual domestic consumers.

The ultimate cost of such a program, after giving full effect to the proper capitalization of the fixed charges on the inactive portion of the system during the period of business acquisition, would be substantially less than the ultimate cost of a system built by the installation of units of [fol. 8468] property commensurate with the existing demand at the date of installation. A specific example will clarify this statement.

Under similar conditions the cost installed of steel pipe four inches in diameter would be approximately one fourth the cost installed of steel pipe sixteen inches in diameter. The delivery capacity of the four inch pipe with equal length of line and equal intake and discharge pressures for each size pipe, would be approximately one thirty fifth the delivery capacity of the sixteen inch pipe. There is little variation from the rule that the installed cost of steel pipe increases directly with diameter increase, while the delivery capacity increases with the 2.667th power of the diameter increase.

On account of this basic engineering fact, natural gas pipe line systems serving large domestic markets are constructed with initial capacities largely in excess of initial demands and reproduction cost estimates that reflect normal conditions must give effect to this fact.

Initial domestic rates for natural gas service could not be fixed at a price that would yield the pipe line company interest, taxes and depreciation above the variable operating charges on the cost of those portions of the property "passing into service" with only a relatively small proportion of their capacity absorbed by the demands of the service. High initial rates would discourage use and delay the date of ultimate saturation. For this reason, the domestic rates assumed in the appraisal are identical with domestic rates in force at the date of the appraisal and the loss of fixed charges on the proportionate part of the plant estimated to be inactive at the various stages of the development period has not been adjusted to give effect to any [fol. 8469] modified rate schedules.

(Note.) All percentages used in the calculations are hypothetical and have been assumed for the purpose of illustration and ease of calculation.

.(Here follows 5 photolithographs, side folios 8470-8474)

BLANK

PAGE

GRAPHIC ILLUSTRATION OF THE APPLICATION OF INTEREST DURING CONSTRUCTION

ASSUMPTION I

MONEY SECURED - PRE-CONSTRUCTION EXPENSE

PER CENT OF TOTAL COST

MONEY SECURED - 1ST CONSTRUCTION YEARS EXPENSES

MONEY SECURED - 2ND CONSTRUCTION YEARS EXPENSES

MONEY SECURED 3RD CONSTRUCTION YEARS EXPENSES

1ST CONSTRUCTION YEAR

2ND CONSTRUCTION YEAR

3RD CONSTRUCTION YEAR

8470

GRAPHIC ILLUSTRATION OF THE APPLICATION OF INTEREST DURING CONSTRUCTION

ASSUMPTION II

100
90
80
70
60
50
40
30
20
10

MONEY SECURED 1ST CONSTRUCTION EXPENSE

MONEY SECURED 1ST CONSTRUCTION YEARS EXPENSES

MONEY SECURED 2ND CONSTRUCTION YEAR'S EXPENSES

MONEY SECURED 3RD CONSTRUCTION YEARS EXPENSES

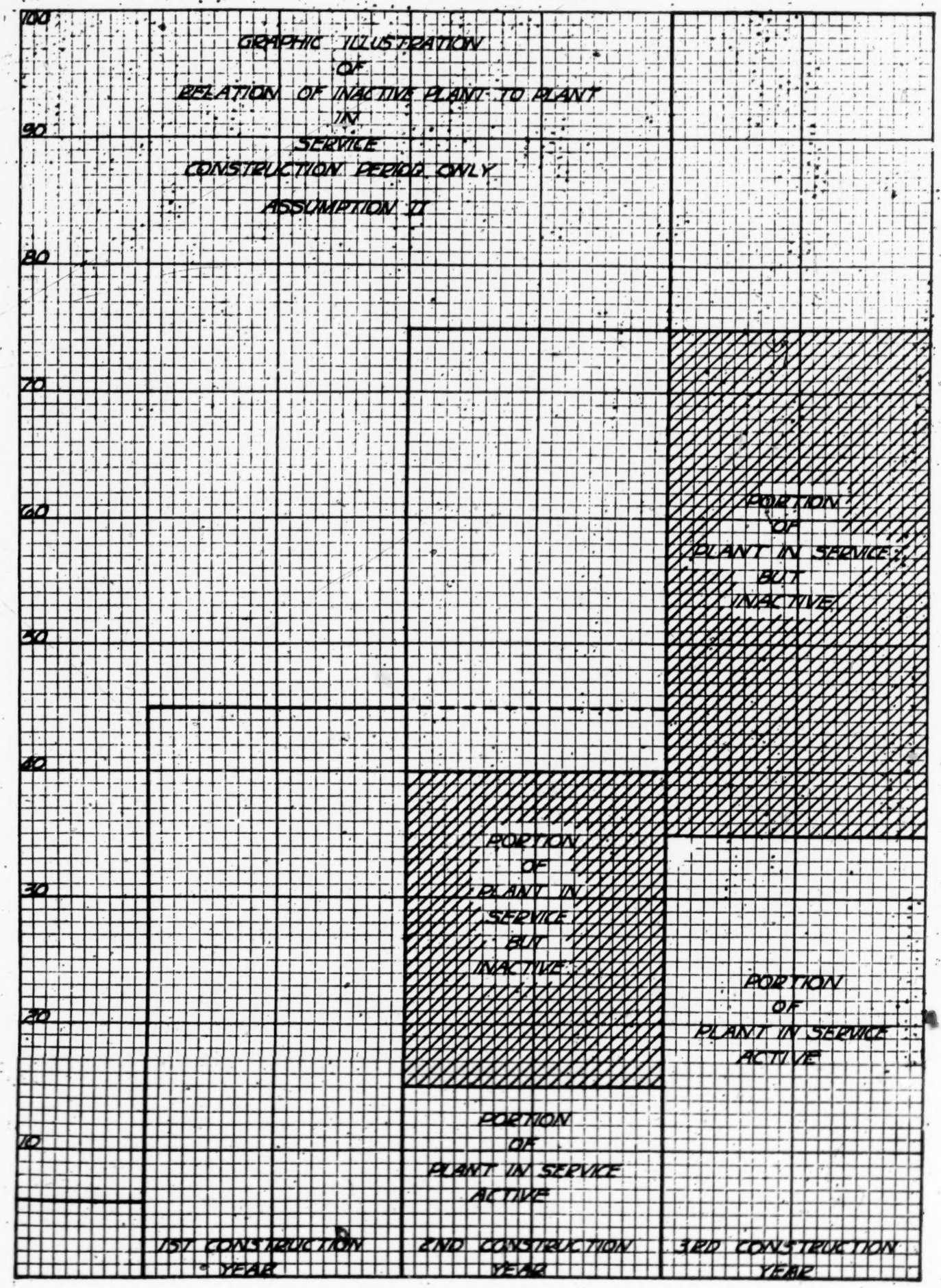
NO INTEREST CHARGE

NO INTEREST CHARGE

1ST CONSTRUCTION YEAR

2ND CONSTRUCTION YEAR

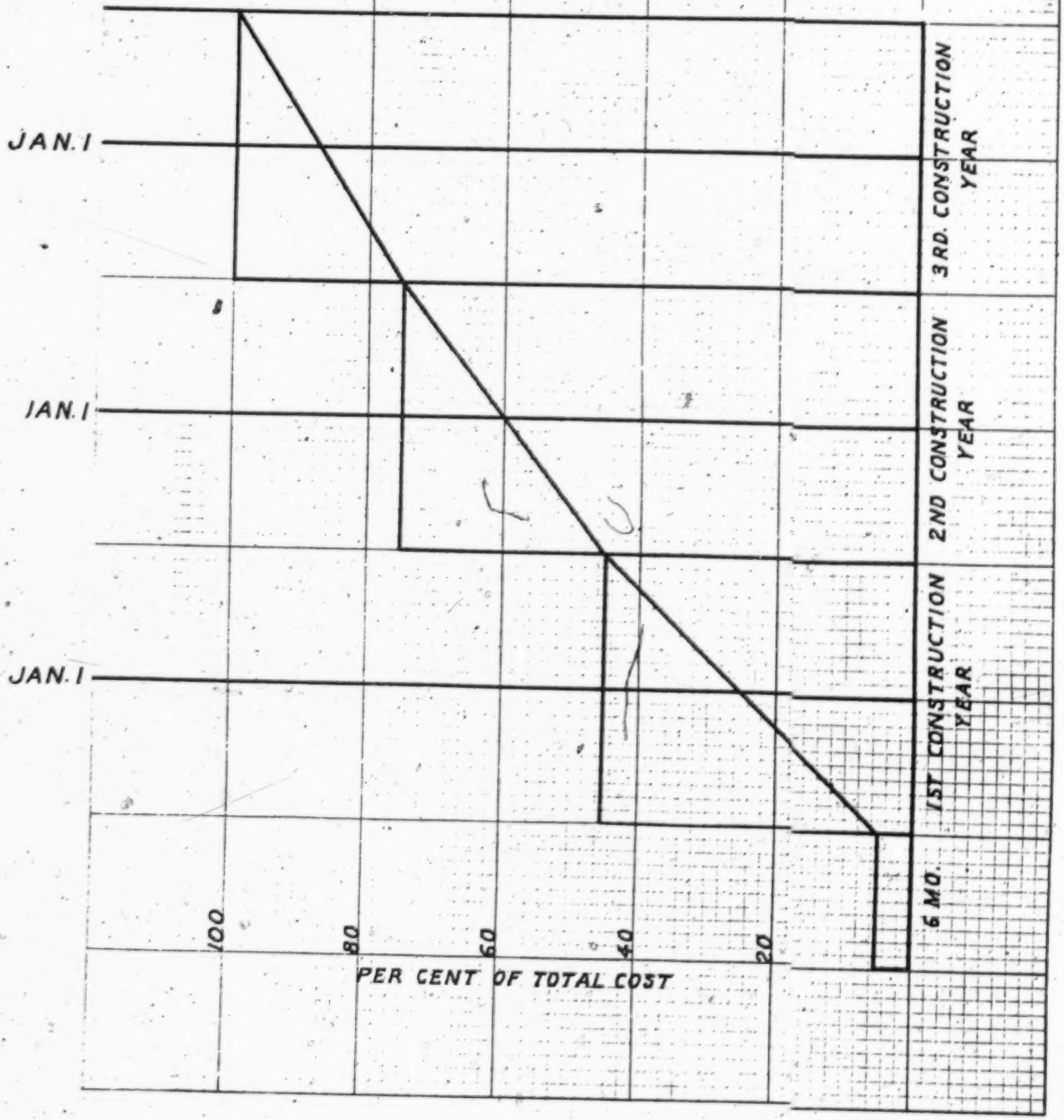
3RD CONSTRUCTION YEAR



KEUFFEL & ESSER CO., N. Y. NO. 358-6
10 X 10-to the inch.

22962

GRAPHIC ILLUSTRATION OF THE APPLICATION OF TAXES DURING CONSTRUCTION ASSUMPTION I

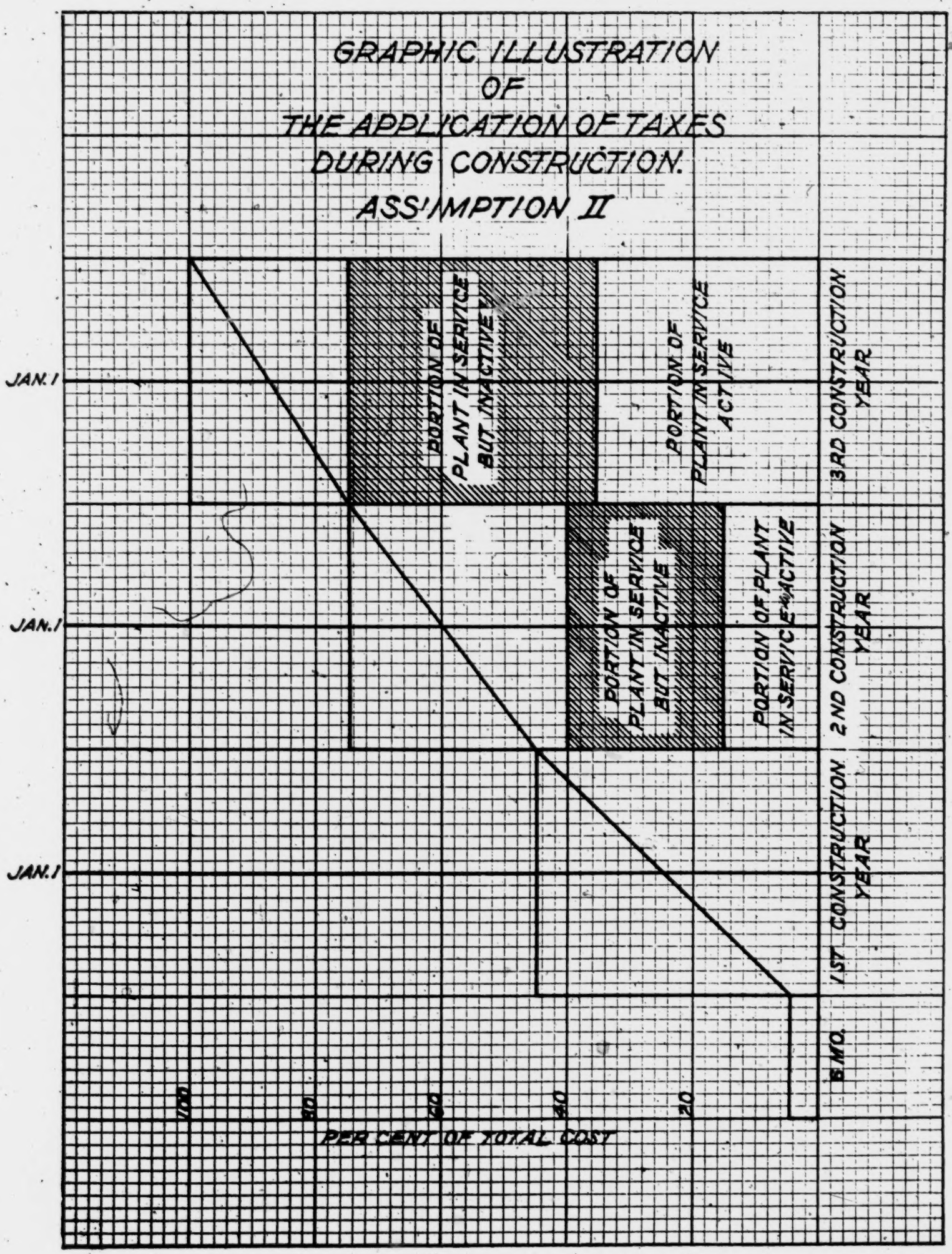


KEUFFEL & ESSER CO., N. Y. NO. 358-6
10 X 10 to the inch.

U2262

GRAPHIC ILLUSTRATION OF THE APPLICATION OF TAXES DURING CONSTRUCTION.

ASSUMPTION II



KEUFFEL & ESSER CO., N. Y. NO. 366-5
10 × 10 to the inch.

12262

BLANK

PAGE

[fols. 8475-8478] Expenditures by Periods

* * * * * * *

[fol. 8479] In order to arrive at an estimate of the cost of Taxes During Construction, Interest During Construction, and Fixed Charges on Idle Plant, three basic determinations must be made.

1. The amount of expenditures that would be made in the reproduction of Lone Star Gas Company During the Pre-Construction Period, and during each of the construction years

2. The proper classification of these expenditures by investment accounts

3. The proportionate amount of the total reproduction cost that would pass into service during the construction period

It has been previously stated that in the preparation of this estimate, a careful study has been made of logical construction program that would be followed in reproduction. The essential details of the hypothetical construction program that was developed as a result of this study are shown in the three maps which for convenience and reference, are again introduced into the body of the report.

The estimated reproduction cost of each element of the physical property included in the program for each yeas has been set out in detail and made a part of the construction cost for each year. In this section of the report which deals strictly with Preliminary Development and Organization Costs, Undistributed General Costs, and Going Value, the costs attributable to the various undistributed expenses have been properly allocated to the Pre-Construction period, and the construction years.

With reference to the various items of physical property, the major items, the reproduction cost of transmission, tap and gathering lines and equipment, and compressor stations, equipment and land, have been analyzed in detail and the [fol. 8480] proportionate amount allocated to each construction year in conformity with the construction program. Other items such as the value of gas leases and reserves, and the reproduction cost of gas well construction and equipment have, insofar as that portion of the reproduction cost is attributable to the construction period, been equally divided

between the three years. This allocation is in conformity with the normal procedure that would occur in reproduction.

Of the general costs, marketing costs have been allocated to each period in proportion to the total expenditures in each period.

The necessity for the classification of these expenditures by investment accounts grows out of the fact that while Interest During Construction would be fixed by the date and the amount of expenditures without reference to their classifications, Taxes During Construction would accrue largely upon the basis of the cost of the physical property installed as distinguished from concurrent expenditures for Undistributed General Costs.

The necessity for the determination of the proportionate amount of the total reproduction cost that would pass into service at intervals during the construction period grows out of the fact that both Taxes During Construction and Interest During Construction would cease insofar as the property items passing into service were concerned, and would be superseded by the corresponding charges on the portion of this plant in service but inactive or idle during the period of business development.

It will be noted from an inspection of the schedule that all Preliminary Development and Organization Costs, with the exception of the marketing costs of securities are estimated [fol. 8481] to have been incurred in the Pre-Construction Period, and that certain other capital expenditures as the cost of the General Office Land and General Office Structure have also been ascribed to the same period. These expenditures would be an essential part of the cost of the system as a whole. For this reason, in fixing the reproduction cost of the property going into service at the end of the First Construction Year, and at the end of the Second Construction Year, the costs incurred in the Pre-Construction Period have been allocated and added to these construction period costs in proportion to the total costs incurred in the First and Second Construction Periods respectively, to the total costs incurred during the entire construction period.

From the Schedule of Expenditures by Periods, the following determinations have been made:

Taxes During Construction

After deducting from Direct Structural Costs the items included in the Pre-Construction Period on which taxes have

been included in Other General Costs, the taxable expenditures were found to be as follows:

Pre-Construction Period	$3,049,057
Construction Period—First Year	20,519,270
Construction Period—Second Year	17,485,239
Construction Period—Third Year	9,128,368
Total	$50,181,934

These amounts have been used in the calculation of Taxes During Construction.

Interest During Construction

From the Schedule of Expenditures by Periods, including the distributed calculation of Taxes During Construction, the [fol. 8482] total expenditures by periods was found to be as follows:

Pre-Construction Period	$6,895,832
Construction Period—First Year	22,673,380
Construction Period—Second Year	19,326,719
Construction Period—Third Year	10,617,053
Total	$59,512,984

In order to determine the amount of these expenditures that would pass into service at the end of the First and Second Construction Years, the following steps were taken:

1. The percentage of the total amount included in the construction period, $52,617,152, was determined for the expenditures made in each construction year

$$\frac{22,673,380}{52,617,152} = 43.09\%$$

$$\frac{19,326,719}{52,617,152} = 36.73\%$$

$$\frac{10,617,053}{52,617,152} = 20.18\%$$

2. These percentages were then applied to the expenditures made in the Pre-Construction Period for the purpose of distributing these expenditures to the property going into service during the Construction Period.

The application of these percentages resulted as follows:

Pre-Construction expense attributable to First-Construction Year	$2,971,414
Pre-Construction expense attributable to Second-Construction Year	2,532,839
Pre-Construction expense attributable to Third-Construction Year	1,391,579

The application of these calculations is shown in detail in Interest During Construction.

Fixed Charges on Idle Plant

As shown by the Schedule of Expenditures by Periods, the total reproduction cost of the property including Interest During Construction was found to be $64,488,917, and the expenditures by periods as follows:

[fol. 8483] Pre-Construction Period	$7,171,665
Construction Period—First Year	24,817,147
Construction Period—Second Year	21,012,426
Construction Period—Third Year	11,487,679
Total	$64,488,917

In order to estimate the percentage of this total expenditure that would pass into service at the end of the First and Second Construction Periods, the following step was taken:

The sum of the expenditures during the three construction periods was:

$$\frac{24,817,147}{57,317,252} = 43.30\%$$

$$\frac{21,012,426}{57,317,252} = 36.66\%$$

$$\frac{11,487,679}{57,317,252} = 20.04\%$$

It is estimated that the above percentage of the total expenditures, $64,488,917, would pass into service successively at the end of each construction period. The application of these calculations is shown in detail in the development of Fixed Charges on Idle Plant.

Defendant's Exhibit No. 28—Continued

[fol. 8484]

Schedule of Distribution of Expenditures by Periods

Direct Structural Costs

Production System	Total Physical Property	Pre-Construction	Construction First Year	Construction Second Year	Construction Third Year
Gas Wells	$4,014,229	$.....	$.....	$.....	$.....
Other Structures	9,711	.....	.....	.....	.....
Other Production System Equipment (Drill Tools)	98,350	1,079,555	1,014,245	1,014,245	1,014,245
Gathering System					
Rights-of-way	11,184	.....	.....	.....	.....
Field Measuring Station Structures	37,304	.....	.....	.....	.....
Field Measuring Station Equipment	130,223	.....	.....	.....	.....
Field Line Equipment	1,329,447	.....	1,118,450	297,710	91,998
Transmission System	34,096,799	.....	13,436,305	13,690,145	6,970,349
Compressor Stations	4,994,213	.....	3,684,088	1,310,125	.....
General					
General Office Land	44,545	44,545	.....	.....	.....
Other General Land	49,274	49,274	.....	.....	.....
General Office Structures	321,438	321,438	.....	.....	.....
Other General Structures	46,790	46,790	.....	.....	.....
[fol. 8485] General Office Furniture and Fixtures	207,602	147,086	.....	.....	60,516
Other General Furniture and Fixtures	12,060	.....	.....	.....	12,060
General Shop Equipment	104,000	104,000	.....	.....	.....
General Tools	131,550	.....	32,888	32,887	65,775
Automotive and Construction Equipment	423,718	.....	105,930	105,929	211,859
General Telephone System	370,464	.....	185,232	185,232	.....
Engineering Records	765,690	.....	346,302	253,136	166,252
Lands and Undeveloped Leases	893,291	446,645	148,882	148,882	148,882
Gas Reserves	2,681,689	1,340,845	446,948	446,948	446,948
Total Physical Property	$50,773,571	$3,580,178	$20,519,270	$17,485,239	$9,188,884

* $39,944 of Production System Cost has been included as a part of preliminary development and Organization Costs.

Defendant's Exhibit No. 28—Continued

[fol. 8486]

Schedule of Distribution of Expenditures by Periods

General and Undistributed Costs

Preliminary Development and Organization Costs	Total General and Undistributed Costs	Pre Construction	Construction First Year	Construction Second Year	Construction Third Year
Preliminary Geological Investigation	$144,444	$114,444	$.....	$.....	$.....
Preliminary Engineering Investigation	49,695	49,695	.....	.....	.....
Detail Geological Work	78,420	78,420	.....	.....	.....
Fiscal Agent's Geological Check	15,000	15,000	.....	.....	.....
Fiscal Agent's Engineering Check	15,000	15,000	.....	.....	.....
Fiscal Agent's Title Certification	25,000	25,000	.....	.....	.....
Undistributed Production Expenses	39,944	39,944	.....	.....	.....
Organization and Corporate Expenses	141,769	141,769	.....	.....	.....
Marketing Costs—Preferred Stock	855,000	106,875	310,792	275,310	162,023
Marketing Costs—Mortgage Bonds	1,140,000	142,500	414,390	367,080	216,030
Remuneration of Originating Group	2,000,000	2,000,000	.....	.....	.....
Administrative and Legal Costs					
Executive Section	503,487	91,543	183,086	137,315	91,543
Legal Section	490,576	49,920	133,997	130,454	176,205
Accounting Section	192,320	14,927	66,460	54,526	56,407
Treasury Section	97,509	9,331	36,931	27,853	23,394

[fol. 8487]

Land Section	$277,138	$37,867	$79,757	$79,757	$79,757
Geological Section	255,929	41,179	76,838	76,838	61,074
Purchasing Section	530,636	39,395	147,808	147,812	195,621
Other General Costs					
Office Building Costs	134,820	19,260	38,520	38,520	38,520
Fidelity Bonds	10,717	1,531	3,062	3,062	3,062
Compensation Insurance	9,487	1,357	2,710	2,710	2,710
Certification of Expenditures	35,000	5,000	10,000	10,000	10,000
Mail Clerks	11,550	1,650	3,300	3,300	3,300
Engineering Costs	1,127,661	251,684	435,207	303,156	137,614
Supervision Costs	414,493	22,363	131,210	131,210	129,710
Taxes During Construction*	173,818	.....	80,042	52,577	41,199
Interest During Construction**	4,975,933	275,833	2,143,767	1,685,707	870,626
Totals	$13,715,346	$3,591,487	$4,297,877	$3,527,187	$2,298,795

* Calculated in Taxes During Construction.
** Calculated in Interest During Construction.

Defendant's Exhibit No. 28—Continued

[fol. 8488] Detail of Reproduction Cost by Construction Periods

Transmission, Tap and Gathering Lines and Compressor Stations

[fol. 8489] Compressor Stations—First Year

Petrolia	$1,056,638.41
Gas City	281,623.34
Fox Central	244,286.35
Joshua No. 1 & 2	510,658.32
Caddo	261,986.25
Breckenridge	290,099.28
Ibex	249,130.72
Ranger No. 3	291,650.92
Ranger No. 4	165,904.20
Pueblo	87,367.65
Sipe Springs	182,576.20
General Supervision—Allocated	62,166.72
Total	$3,684,088.36

[fol. 8490] Detail of Reproduction Cost by Construction Periods

Compressor Stations—Second Year

Fox-East	$101,215.88
Loco	136,705.11
Brazos	89,622.32
X-Ray	69,240.16
Brad	162,192.74
Ranger No. 1	128,855.56
Ranger No. 2	113,004.96
Eastland	130,994.31
Alvord	14,504.68
Cheaney	137,093.05
Desdemona	77,229.85
Gainesville	76,295.28
Tiffin	51,066.71
General Supervision—Allocated	22,104.28
Total	$1,310,124.89

Defendant's Exhibit No. 28—Continued

[fol. 8491] Detail of Reproduction Cost by Construction Periods

Transmission, Tap and Gathering Lines

Summary

System	Year First	Second	Third	Total
A	$314,018.49	$3,383,796.73	$296,133.69	$3,993,948.91
B	1,381,217.39	1,945,753.59	51,821.37	3,378,792.35
C	493,018.70	127,388.51	18,719.49	639,126.70
E	428,018.42	1,072,389.13	457,446.54	1,958,354.09
F		953,781.29	186,773.50	1,140,554.79
G	1,148,774.82	4,689.65	808,143.50	1,961,607.97
H	1,167,271.23	132.24	654,249.15	1,821,652.62
J	399,066.19	188,559.41		587,625.60
K	3,999,227.14	764,518.91	642,495.64	5,406,241.69
L	754,595.76	1,192,641.68	1,268,271.97	3,215,509.41
M		781,748.84	827,665.56	1,609,414.40
O	1,846,333.70	1,821,300.17	1,732,616.81	5,400,250.68
R		679,132.43		679,132.43
Numbered	1,454,622.32			1,454,622.32
U. S. Gov't.		1,036.37		1,036.37
T. P. U.		721,686.92		721,686.92
Totals	$13,386,164.16	$13,639,055.87	$6,944,337.22	$33,969,557.25
General Supervision—Allocated	$50,141.11	$51,088.94	$26,011.95	$127,242.00
	$13,436,305.27	$13,690,144.81	$6,970,349.17	$34,096,799.25

[fol. 8492]

Line				
A	$307,506.22	$2,984,851.58		$3,292,357.80
A-1			$133,674.39	133,674.39
A-1-1			2,613.40	2,613.40
A-1-2			2,157.70	2,157.70
A-1-3			3,355.77	3,355.77
A-1-4			119,576.72	119,576.72
A-1-4-1			2,828.69	2,828.69
A-1-4-2			2,677.27	2,677.27
A-2			3,434.33	3,434.33
A-3			3,373.80	3,373.80
A-4			3,644.46	3,644.46
A-5			789.74	789.74
A-6			3,266.70	3,266.70
A-8			9,826.94	9,826.94
A-10			2,932.65	2,932.65
A-11			1,812.52	1,812.52
A-12	6,512.27			6,512.27
A-13		435.26		435.26
A-14		26,199.67		26,199.67
A-15			168.61	168.61
Madge Gin		363.90		363.90
A-A		10,112.89		10,112.89
A-B		21,029.74		21,029.74
A-B-A		12,501.10		12,501.10
A-C		23,792.68		23,792.68
A-C-A		29,121.78		29,121.78

Defendant's Exhibit No. 28—Continued

Line	Year First	Second	Third	Total
A-C-B		$6,897.18		$6,897.18
A-D		18,517.37		18,517.37
A-E		14,190.08		14,190.08
A-F		39,817.58		39,817.58
A-F-A		11,908.51		11,908.51
A-F-A-A		5,262.04		5,262.04
A-F-B		8,727.42		8,727.42
A-F-C		13,389.74		13,389.74
A-G		27,584.40		27,584.40
A-H		42,327.34		42,327.34
A-J		22,537.18		22,537.18
A-K		53,827.94		53,827.94
A-K-A		10,401.35		10,401.35
Totals	$314,018.49	$3,383,796.73	$296,133.69	$3,993,948.91
[fol. 8493]				
B	$1,366,347.97			$1,366,347.97
B-1			$5,470.39	5,470.39
B-2		$9,822.16		9,822.16
B-3			5,523.09	5,523.09
B-4			4,657.26	4,657.26
B-5		4,805.20		4,805.20
B-6			3,285.88	3,285.88
B-7	14,869.42			14,869.42
B-8		30,664.62		30,664.62
B-9		20,041.59		20,041.59
B-9-1			4,815.82	4,815.82
B-10			3,586.42	3,586.42
B-11			4,174.68	4,174.68
B-12		9,828.52		9,828.52
B-13			20,307.83	20,307.83
Holloway Line		3,968.62		3,968.62
2nd B		1,866,622.88		1,866,622.88
Totals	$1,381,217.39	$1,945,753.59	$51,821.37	$3,378,792.35
[fol. 8494]				
C	$493,018.70			$493,018.70
2nd C		$84,882.26		84,882.26
C-1			$2,055.32	2,055.32
C-2		42,506.25		42,506.25
C-5			13,928.48	13,928.48
C-5-1			965.00	965.00
C-7			1,770.69	1,770.69
Totals	$493,018.70	$127,388.51	$18,719.49	$639,126.70
[fol. 8495]				
E	$333,335.34	$783,365.98		$1,116,701.32
E-1	23,627.74			23,627.74
E-1-A			$14,983.78	14,983.78
2nd E-1-A			33,867.97	33,867.97
E-2	55,871.47			55,871.47
E-3		5,377.00		5,377.00
E-4		7,981.25		7,981.25
E-5		98,233.93	54,019.53	152,253.46

Defendant's Exhibit No. 28—Continued

Line	Year First	Second	Third	Total
E-5-1			$2,033.05	$2,033.05
E-5-2		$3,512.43		3,512.43
E-6		6,726.02		6,726.02
E-7		6,661.77		6,661.77
E-8			7,096.88	7,096.88
E-9	$15,183.87			15,183.87
E-10			128,340.40	128,340.40
E-10-1			4,259.40	4,259.40
E-10-2			2,881.14	2,881.14
E-10-3			16,717.95	16,717.95
E-10-4			8,259.65	8,259.65
E-10-5			35,073.16	35,073.16
E-10-5-1			2,089.74	2,089.74
E-10-6			18,913.50	18,913.50
E-10-6-1			1,472.44	1,472.44
E-10-7			1,350.22	1,350.22
E-11			11,709.41	11,709.41
E-12			2,122.97	2,122.97
E-13			4,119.21	4,119.21
E-14			17,513.29	17,513.29
E-15			16,431.69	16,431.69
E-16		156,845.07		156,845.07
E-17			11,548.39	11,548.39
E-18		4,185.68		4,185.68
E-19			2,513.89	2,513.89
E-20			2,767.09	2,767.09
E-21			1,935.85	1,935.85
E-22			40,497.78	40,497.78
E-22-1			11,023.10	11,023.10
E-22-2			3,905.06	3,905.06
Totals	$428,018.42	$1,072,889.13	$457,446.54	$1,958,354.09
[fol. 8496]				
F		769,791.81		769,791.81
F-1		16,733.16		16,733.16
F-2		149,578.71		149,578.71
F-2-1			$27,213.57	27,213.57
F-2-1-1			795.77	795.77
F-2-2			14,878.95	14,878.95
F-2-3			27,004.08	27,004.08
F-5			2,743.27	2,743.27
F-6			1,698.62	1,698.62
F-7			11,342.78	11,342.78
F-8		17,677.61		17,677.61
F-9			13,173.52	13,173.52
F-10			62,798.98	62,798.98
F-10-1			1,551.96	1,551.96
F-10-2			1,769.72	1,769.72
F-11			21,802.28	21,802.28
Totals		$953,781.29	$186,773.50	$1,140,554.79
[fol. 8497]				
G	839,493.40			839,493.40
G-1		4,689.65		4,689.65
G-2			$40,879.31	40,879.31
G-3			73,031.38	73,031.38

Defendant's Exhibit No. 28—Continued

Line	Year First	Second	Third	Total
G-3-1			$1,792.03	$1,792.03
G-3-2			1,722.49	1,722.49
G-3-3			1,961.49	1,961.49
GA	$70,590.19			70,590.19
GB	177,136.14			177,136.14
GB-1			7,544.28	7,544.28
GBA	52,782.17			52,782.17
GC	8,772.92			8,772.92
GD			472,949.20	472,949.20
GD-1			77,601.46	77,601.46
GD-1-1			2,810.05	2,810.05
GD-1-2			11,285.25	11,285.25
GD-2			5,615.78	5,615.78
Pecos Valley Mills			501.41	501.41
GD-3			2,893.53	2,893.53
GD-4			2,655.87	2,655.87
GD-5			9,094.26	9,094.26
GD-6			24,151.48	24,151.48
GDB			38,860.31	38,860.31
GDC			28,916.22	28,916.22
GDD			3,877.70	3,877.70
Totals	$1,148,774.82	$4,689.65	$808,143.50	$1,961,607.97
[fol. 8498]				
H	$610,921.28			$610,921.28
H-1			$4,145.58	4,145.58
H-2			1,133.97	1,333.97
H-3			45,663.18	45,663.18
H-3-1			37,469.69	37,469.69
H-3-2			14,573.00	14,573.00
H-4			15,338.36	15,338.36
H-5			2,742.78	2,742.78
2nd H	344,857.72		523,801.52	868,659.24
2nd H Service			9,181.07	9,181.07
H-A	5,063.55			5,063.55
H-F	69,082.17			69,082.17
2nd H-F	9,646.12			9,646.12
H-G	11,650.84			11,650.84
H-M	16,305.66			16,305.66
H-N	32,680.31			32,680.31
Farwell Whse Line		$132.24		132.24
H-O	11,560.62			11,560.62
H-R	8,046.04			8,046.04
H-S	14,056.14			14,056.14
H-T	19,944.90			19,944.90
H-U	13,455.88			13,455.88
Total	$1,167,271.23	$132.24	$654,249.15	$1,821,652.62
[fol. 8499]				
J	$379,653.56			$379,653.56
J-2		$159,539.97		159,539.97
J-2-1		696.45		696.45
J-2-2		2,183.71		2,183.71

Defendant's Exhibit No. 28—Continued

Line	Year First	Second	Third	Total
J-2-3		$3,388.04		$3,388.04
J-2-4		2,393.42		2,393.42
J-2-5		598.39		598.39
J-2-6		1,159.94		1,159.94
J-2-7		988.86		988.86
J-2-8		3,872.88		3,872.88
J-3		2,227.69		2,227.69
J-4		1,778.28		1,778.28
J-6		6,666.94		6,666.94
J-7		3,064.84		3,064.84
J-8	19,412.63			19,412.63
Total	$399,066.19	$188,559.41		$587,625.60

[fol. 8500]

K	$1,889,563.25			1,889,563.25
K-1		1,745.55		1,745.55
K-2		1,772.36		1,772.36
K-3		5,636.15		5,636.15
K-4		588.93		588.93
K-5			$349,226.12	349,226.12
K-5-1			151,796.05	151,796.05
K-5-1-1			2,094.98	2,094.98
K-5-2			18,041.34	18,041.34
K-5-3			2,336.58	2,336.58
K-5-4			2,630.57	2,630.57
K-5-5			2,639.85	2,639.85
K-5-6			4,516.94	4,516.94
K-5-7			2,839.32	2,839.32
K-A	215,188.27			215,188.27
K-B	540,234.20			540,234.20
K-B-A	80,797.59			80,797.59
K-B-A-A	14,368.00			14,368.00
K-B-A-B	9,932.93			9,932.93
K-B-A-C	18,318.91			18,318.91
K-B-B	6,207.47			6,207.47
K-B-C	3,319.30			3,319.30
K-C	604,344.45	625,998.48		1,230,342.93
2nd K-C	183,948.05			183,948.05
K-C-1			2,020.98	2,020.98
K-C-2			1,359.07	1,359.07
K-C-3		3,989.71		3,989.71
K-C-4			2,102.58	2,102.58
K-C-5			1,502.36	1,502.36
K-C-6		2,799.99		2,799.99
K-C-7		115,121.80		115,121.80
K-C-8			75,280.57	75,280.57
K-C-8-1			1,551.12	1,551.12
K-C-8-2			1,763.28	1,763.28
K-C-8-3			1,734.27	1,734.27
Abilene Airport Tap			2,345.95	2,345.95
K-C-A	10,101.59			10,101.59
K-C-B	28,881.24			28,881.24
K-C-D	88,495.88			88,495.88
K-C-D-A	4,031.39			4,031.39
K-C-D-B	2,333.64			2,333.64
K-C-D-C	862.95			862.95

Defendant's Exhibit No. 28—Continued

Line	Year First	Second	Third	Total
K-C-E	$50,624.17			$50,624.17
K-C-E-A	31,488.65			31,488.65
K-C-F	7,695.38			7,695.38
K-C-G	3,055.80			3,055.80
[fol. 8501]				
K-C-H	1,850.43			1,850.43
K-C-H-A	2,237.65			2,237.65
K-C-H-B	3,414.55			3,414.55
K-C-J		$4,420.21		4,420.21
K-C-J-A		2,445.73		2,445.73
K-C-K	22,318.70			22,318.70
K-C-K-A	4,651.15			4,651.15
K-D	20,236.09			21,236.09
K-G	12,008.17			12,008.17
K-H	24,271.93			24,271.93
K-N	19,379.70			19,379.70
K-N-By-pass			$16,638.95	16,638.95
K-P	88,158.81			88,158.81
K-P-A	5,906.85			5,906.85
Cheaney Suction Line			2.80	2.80
U. S. Gypsum Tap			71.96	71.96
Totals	$3,999,227.14	$764,518.91	$642,495.64	$5,406,241.69
[fol. 8502]				
L	701,902.34	989,836.24		1,691,738.58
L-1	19,845.65			19,845.65
L-2			3,375.57	3,375.57
L-3			11,089.68	11,089.68
L-4		7,234.57		7,234.57
L-5			5,623.09	5,623.09
L-6			2,074.28	2,074.28
L-7			6,242.43	6,242.43
L-8			492,016.21	492,016.21
L-8-1			30,365.48	30,365.48
L-8-1-1			1,844.44	1,844.44
L-8-2			3,270.12	3,270.12
L-8-3			1,841.26	1,841.26
L-8-4			4,864.54	4,864.54
L-8-5			2,416.41	2,416.41
L-8-6			3,006.97	3,006.97
L-8-7			2,508.96	2,508.96
Perry Gin			1,477.94	1,477.94
L-9	32,847.77			32,847.77
L-10			25,782.84	25,782.84
L-11		5,392.93		5,392.93
L-12			4,278.74	4,278.74
L-13			2,533.12	2,533.12
L-14			136,093.30	136,093.30
L-14-1			46,340.29	46,340.29
L-14-2			1,957.46	1,957.46
L-14-3			1,450.61	1,450.61
L-15			192,361.51	192,361.51
L-15-1			2,375.33	2,375.33

Defendant's Exhibit No. 28—Continued

Line	Year First	Second	Third	Total
L-15-2			$1,970.66	$1,970.66
L-15-3			19,270.96	19,270.96
L-15-4			14,177.44	14,177.44
L-16			2,053.21	2,053.21
L-17			3,197.04	3,197.04
L-18			3,239.65	3,239.65
L-19		$33,360.91		33,360.91
L-20		23,557.25		23,557.25
L-21		15,182.04		15,182.04
L-22			2,204.42	2,204.42
L-23			2,500.84	2,500.84
L-24			46,510.58	46,510.58
L-24-1			506.94	506.94
L-25			33,820.56	33,820.56
L-26			109,462.00	109,462.00
L-26-1			1,945.03	1,945.03
L-26-2			15,663.85	15,663.85
L-26-A			17,528.31	17,528.31
[fol. 8503]				
L-27		7,374.46		7,374.46
L-28			9,029.90	9,029.90
2nd L		110,703.28		110,703.28
Totals	$754,595.76	$1,192,641.68	$1,268,271.97	$3,215,509.41
[fol. 8504]				
M		692,819.31		692,819.31
M-2		32,843.53		32,843.53
M-3		47,599.57		47,599.57
M-4			9,397.74	9,397.74
M-5			3,553.04	3,553.04
M-6			52,689.99	52,689.99
M-6-1			1,560.57	1,560.57
M-6-2			1,821.35	1,821.35
M-6-3			1,230.84	1,230.84
M-7			3,294.82	3,294.82
M-8			2,996.93	2,996.93
M-9			13,128.66	13,128.66
M-10			34.56	34.56
M-11			396,637.68	396,637.68
M-11-1			2,967.34	2,967.34
M-11-2			1,685.82	1,685.82
M-11-3			1,932.30	1,932.30
M-11-4			12,369.33	12,369.33
M-11-5			11,457.52	11,457.52
M-11-6			1,907.44	1,907.44
M-11-7			61,961.97	61,961.97
M-11-8			8,557.07	8,557.07
M-12			3,276.76	3,276.76
M-13		8,486.43		8,486.43
M-14			42,931.12	42,931.12
M-14-1			2,304.14	2,304.14
M-15			9,145.19	9,145.19
M-15-1			1,304.48	1,304.48
M-15-2			16,156.11	16,156.11
M-15-4			351.75	351.75
M-16			943.29	943.29
M-17			1,444.75	1,444.75

Defendant's Exhibit No. 28—Continued

Line	Year First	Second	Third	Total
M-18			$75,417.84	$75,417.84
M-19			54,088.42	54,088.42
M-19-1			1,801.59	1,801.59
M-20			19,220.60	19,220.60
M-21			5,252.13	5,252.13
M-21-4			334.09	334.09
M-22			4,429.67	4,429.67
Humble O & R Tap			78.66	78.66
Totals		$781,748.84	$827,665.56	$1,609,414.40
[fol. 8505]				
O	$1,252,909.05	$1,624,077.31	582,177.23	3,459,163.59
O-1			118,748.79	118,748.79
O-1-1			7,868.38	7,868.38
O-1-2			7,403.84	7,403.84
O-1-3			3,852.19	3,852.19
O-1-4			2,242.94	2,242.94
O-1-5			2,014.29	2,014.29
Barren Brick Tap No. 1			384.02	384.02
Barren Brick Tap No. 2			841.86	841.86
Ferris Brick Tap No. 3			379.13	379.13
O-2			46,719.20	46,719.20
O-2-1			4,572.48	4,572.58
O-2-2			7,012.38	7,012.38
O-3		147,091.09		147,091.09
O-3-1			2,179.28	2,179.28
O-3-2			2,915.30	2,915.30
O-3-3		40,109.36		40,109.36
O-3-4			5.98	5.98
O-4	28,315.90			28,315.90
O-5			91.99	91.99
O-6		7,774.87		7,774.87
O-7			13,797.30	13,797.30
O-8			13,490.96	13,490.96
O-9			2,735.56	2,735.56
O-10			2,319.85	2,319.85
O-11			3,727.79	3,727.79
O-12			1,797.75	1,797.75
O-13			36,816.32	36,816.32
O-13-1			11,322.02	11,322.02
O-13-2			1,313.63	1,313.63
O-14			18.49	18.49
O-15			1,207.80	1,207.80
O-16			143,710.77	143,710.77
O-16-1			3,792.12	3,792.12
O-16-2			64,519.86	64,519.86
O-16-2-1			33,335.46	33,335.46
O-16-2-1-1			1,749.41	1,749.41
O-16-2-2			1,598.24	1,598.24
O-16-3			2,337.10	2,337.10
O-17			4,471.13	4,471.13
O-18			18,287.82	18,287.82
O-19			2,493.17	2,493.17
O-20			3,518.93	3,518.93

Defendant's Exhibit No. 28—Continued

[fol. 8506]

Line	Year First	Second	Third	Total
O-21			$81,432.45	$81,432.45
O-21-1			1,993.49	1,993.49
O-21-2			1,414.99	1,414.99
O-22			5,225.89	5,225.89
O-23			11,611.18	11,611.18
O-24			1,505.81	1,505.81
O-25			6,166.09	6,166.09
O-26			5,282.10	5,282.10
O-27			1,183.18	1,183.18
O-28			22,886.27	22,886.27
O-29			382,588.39	382,588.39
O-29-1			29,363.46	29,363.46
O-29-3			608.21	608.21
O-29-4			1,703.15	1,703.15
O-29-5			1,810.34	1,810.34
O-29-6			2,414.80	2,414.80
O-29-7			125.00	125.00
O-29-8			1,673.38	1,673.38
O-29-9			1,640.29	1,640.29
O-29-10			5,538.53	5,538.53
O-29-10-1			1,346.02	1,346.02
O-29-10-2			568.61	568.61
O-29-11			1,598.19	1,598.19
O-30			3,173.08	3,173.08
O-31			1,993.05	1,993.05
O-A	$28,766.68			28,766.68
2nd O-A	56,634.00			56,634.00
O-A-1		$2,247.54		2,247.54
O-B	19,342.64			19,342.64
O-B-A	358.51			358.51
O-B-B	282.37			282.37
O-C	8,807.35			8,807.35
O-D	20,874.01			20,874.01
O-D-A	6,499.15			6,499.15
O-D A-A	166.40			166.40
O-D-B	203.46			203.46
O-D-C	2,805.62			2,805.62
O-E	43,831.62			43,831.62
O-E-A	46,446.85			46,446.85
O-E-A-A	19,421.77			19,421.77
O-E-B	56,064.00			56,064.00
O-E-B-A	6,354.39			6,354.39
O-E-C	6,233.37			6,233.37
O-G	25,349.44			25,349.44
O-H	65,513.17			65,513.17
[fol. 8507]				
O-K	16,034.81			16,034.81
O-L	84,184.98			84,184.98
O-L-A	6,064.32			6,064.32
O-L-A-A	9,296.28			9,296.28
O-L-B	14,894.26			14,894.26
O-M	1,380.96			1,380.96
O-N	7,913.74			7,913.74
O-O	5,777.57			5,777.57
T & P Coal & Oil Co.	1,011.33			1,011.33
O-O-1	4,595.70			4,595.70
Totals	$1,846,333.70	$1,821,300.17	$1,732,616.81	$5,400,250.68

Defendant's Exhibit No. 28—Continued

[fol. 8508]

Line	Year First	Second	Third	Total
R		$497,037.25		$497,037.25
R-1		45,448.34		45,448.34
R-2		3,410.22		3,410.22
R-3		4,195.67		4,195.67
R-4		5,684.13		5,684.13
R-A		28,081.05		28,081.05
R-B		16,509.87		16,509.87
R-C		28,185.86		28,185.86
R-D		14,640.84		14,640.84
R-E		35,939.20		35,939.20
Totals		$679,132.43		$679,132.43

[fol. 8509]

16	51,087.76			51,087.76
17	55,524.12			55,524.12
17-1	2,437.61			2,437.61
18	284,555.84			284,555.84
18-1	2,859.01			2,859.01
18-2	2,860.72			2,860.72
18-3	2,226.58			2,226.58
18-4	3,100.66			3,100.66
18-A	56,411.02			56,411.02
20	116,613.25			116,613.25
21	47,358.37			47,358.37
24	1,615.36			1,615.36
25	177,798.55			177,798.55
25-A	7,926.23			7,926.23
25-B	13,213.35			13,213.35
25-C	1,443.86			1,443.86
25-D	825.66			825.66
25-E	502.82			502.82
26	13,004.38			13,004.38
28	43,407.75			43,407.75
28-A	17,099.23			17,099.23
29	27,409.62			27,409.62
30	119,645.59			119,645.59
30-A	14,605.86			14,605.86
33	2,496.35			2,496.35
34	5,681.70			5,681.70
39	2,570.07			2,570.07
45	72,407.76			72,407.76
51	105,269.54			105,269.54
51-A	172.15			172.15
51-B	187.00			187.00
68	2,998.66			2,998.66
86	438.05			438.05
87	2,954.06			2,954.06
110	97,065.63			97,065.63
110-A	14,200.79			14,200.79
133	9,100.04			9,100.04
140	27,087.26			27,087.26
153	4,732.09			4,732.09
174	10,615.16			10,615.16
174-A	1,621.45			1,621.45
189	6,899.02			6,899.02
213	8,989.08			8,989.08

Defendant's Exhibit No. 28—Continued

Line	Year First	Second	Third	Total
224	$6,752.81			$6,752.81
232	2,121.63			2,121.63
234	3,654.20			3,654.20
237	1,126.89			1,126.89
241	1,947.73			1,947.73
Totals	$1,454,622.32			$1,454,622.32

[fol. 8510]

Line	Year First	Second	Third	Total
T.P.U.				
Arkansas		$29,157.64		$29,157.64
Chesley				
6 in.		6,983.49		6,983.49
8 in.		125,967.53		125,967.53
C. & S. 107		61,961.16		61,961.16
C. & S. 108		22,582.39		22,582.39
C. & S. 109		79,303.86		79,303.86
Consolidated				
No. 1		22,749.53		22,749.53
No. 2		23,145.15		23,145.15
Oakland 6 in.		17,976.85		17,976.85
Sibley		83,833.72		83,833.72
Strawn		182,643.40		182,643.40
Tiffin		60,329.38		60,329.38
Woodlawn 8 & 6 in.		5,052.82		5,052.82
Total		$721,686.92		$721,686.92

[fol. 8511-8512]

Alvord		$213.48		$213.48
North Fort Worth		330.14		330.14
Petrolia		492.75		492.75
Totals		$1,036.37		$1,036.37

[fol. 8513] Taxes During Construction

General Summary

Construction Period—First Year	$80,042
Construction Period—Second Year	52,577
Construction Period—Third Year	27,466
Post Construction Period	13,733
Total	$173,818

[fol. 8514] Definition:

As used in this estimate of the reproduction cost of the property and business of Lone Star Gas Company as of

January 1, 1933, Taxes During Construction is intended to include all State, County, Township, City, School, Road, Annual franchise, and all other taxes that would be levied and paid on the property of the company during construction and before the facilities would be used for operation, except special benefit assessments.

Taxes Paid:

For the year 1932, Lone Star Gas Company paid or accrued ad valorem taxes in the amount of $299,676, corporation license fees of $3,395 in the State of Oklahoma, and franchise taxes of $17,784 in the State of Texas. These amounts include the ad valorem taxes, license fee and franchise taxes on the non-public service as well as the public service property of the company. Based upon an analysis made of the ratio of public service property of the company to its non-public service property, it has been determined that 96.4 per cent of taxes paid or accrued by Lone Star Gas Company in 1932 were attributable to its public service property. The total ad valorem taxes, license fees and franchise taxes paid or accrued by Lone Star Gas Company in 1932, and attributable to its public service property were as follows:

Ad valorem taxes	$288,888
Franchise tax (Texas)	17,144
Corporation license fee (Oklahoma)	3,273
Total	$309,305

[fol. 8515] Included in the estimate of Other General Costs were the following ad valorem taxes:

General Office and General Office Structure	$6,851
Other General Land (Parking Lot)	288
Furniture and Fixtures	346
Total	$7,485

Deducting this total from $309,305 there remains $301,820 as the annual tax factor to be used in the calculation of Taxes During Construction.

Bases of the Estimate:

Any calculation of Taxes During Construction for a property in reproduction will be controlled by the following factors:

1. Total taxes attributable to a property in construction paid upon the completed plant at the date of inquiry.

2. The rate at which the property subject to taxation would be constructed.

3. The date at which construction is assumed to have been started.

4. The rate at which the property subject to taxation in construction passes into service during the construction period.

Factor I:

The total taxes paid by Lone Star Gas Company and attributable to the property in construction have been previously fixed at $301,820 per annum.

Factor II:

In the analysis of total expenditures by periods, a complete break down has been made of the rate at which the various items of the property would normally be constructed in reproduction. Also a distribution has been made by con- [fol. 8516] struction periods of the incurrence of the undistributed general costs, with the exception of Taxes During Construction and Interest During Construction, which items are in a measure dependent upon the results of the primary analysis.

The major portion of the taxes attributable to construction and paid or accrued by the company in the sum of $301,820, is based upon the value of the physical elements of the property as distinguished from elements of value represented by Undistributed General Costs. For this reason, the direct structural costs, together with the reproduction costs of the physical items subject to taxation found in each construction period have been used for the basis for the calculation of Taxes During Construction.

From the analysis of estimated expenditures by periods, the following data has been secured:

Defendant's Exhibit No. 28—Continued

Physical Property—Pre-Construction Period	$3,049,057
Physical Property—Construction Period—First Year	20,519,270
Physical Property—Construction Period—Second Year	17,485,239
Physical Property—Construction Period—Third Year	9,128,368
Total	$50,181,934

(NOTE.) From the physical property Pre-Construction Period, General Office Land, General Office Structure, Parking Lot, and Furniture and Fixtures have been deducted. The taxes on these items have been included in Other General Costs.

Per cent of Total—Pre-Construction Period	6.08
Per cent of Total—Construction Period—First Year	40.89
Per cent of Total—Construction Period—Second Year	34.84
Per cent of Total—Construction Period—Third Year	18.19

Factor III:

It is evident that by a manipulation of the date at which it is assumed that construction would be started, it would be possible to materially affect the estimate of the costs of Taxes During Construction. The fairest and most logical method of approach to a solution of the problem is to as- [fol. 8517] sume that actual construction would begin July 1, and that the taxable property would be installed at a uniform rate thereafter.

Factor IV:

In conformity with the classification of investment accounts prescribed by the Interstate Commerce Commission, this estimate of Taxes During Construction is based upon the assumption that Taxes During Construction would cease to be proper charges to investment whenever the property subject to taxation would in the normal progress of reproduction, pass from property in construction to property in operation. This has been done without consideration of the percentage of the plant designated as operative

that would be idle or inactive with reference to its capacity for service or its actual service performance at the date of inquiry.

This basic assumption necessitates the determination of the rate at which the property in construction would pass into partial operation. As will be more fully developed in the discussion of Going Value, or the Cost of Fixed Charges on Idle Plant, it has been assumed that the property constructed during the first construction year would become operative at the beginning of the Second Construction Year; that the property constructed during the Second Construction Year would become operative at the beginning of the Third Construction Year, and that at the end of the third Construction Year the property would be wholly operative. These assumptions have no reference to the percentage of such portions of the plant as are deemed to be operative that would in fact be idle, and therefore idle or non-operative from the standpoint of earning fixed charges.

From the previous determination of the percentage of [fol. 8518] taxable property completed in each period, and in conformity with the assumption that construction would begin July 1, and would be carried on uniformly thereafter, the following estimate has been made:

Pre-Construction Period:

Begun January 1.		
Taxable Expenditures for the Period		$3,580,178
Less:		
General Office Structure	$321,438	
General Office Land	44,545	
Parking Lot	18,052	
Furniture and Fixtures	147,086	531,121
Total Taxable Expenditures as of July 1 Beginning of First Construction Year		$3,049,057

Construction Period—First Year:

Begun July 1	
Taxable Expenditures Pre-Construction Period	$3,049,057
Taxable Expenditure for the Period	20,519,270
	23,568,327

Defendant's Exhibit No. 28—Continued

Less:		
One half Expenditure for the Period		10,259,635
Total Taxable Expenditures Applicable to Taxes During Construction January 1, First Construction Year		$13,308,692
Per cent of Total Taxable Property		26.52
Construction Period—Second Year:		
Begun July 1		
Taxable Expenditures Pre-Construction Period		$3,049,057
Taxable Expenditures First Construction Year		20,519,270
Taxable Expenditures for the Period		17,485,239
		41,053,566
Less:		
One half Expenditures for the Period	$8,742,620	
Taxable Expenditures Property Operative	23,568,327	32,310,947
Total Taxable Expenditures Applicable to Taxes During Construction January 1, Second Construction Year		$8,742,619
Per cent of Total Taxable Property		17.42
[fol. 8519] Construction Period—Third Year:		
Begun July 1.		
Taxable Expenditures Pre-Construction Period		$3,049,057
Taxable Expenditures First Construction Year		20,519,270
Taxable Expenditures Second Construction Year		17,485,239
Taxable Expenditures for the Period		9,128,368
		$50,181,934
Less:		
One half Expenditures for the Period	$4,564,184	
Taxable Expenditures Property Operative	41,053,566	45,617,750

Defendant's Exhibit No. 28—Continued

Total Taxable Expenditures Applicable to Taxes During Construction January 1, Third Construction Year	$4,564,184
Per cent of Total Taxable Property	9.10

Post-Construction Period:

During the first year following the completion of construction which in this estimate is assumed to have taken place on July 1, taxes would be paid on the property of the company as of January 1, which in this case would be the total property found by the reproduction cost estimate. Of the taxes paid on the property as of January 1, following completion of construction, the taxes accrued during the last six months of construction would have accrued in part upon the average property in construction during the six months period. Expressed in terms of taxable property for one year, this would be one-fourth of the taxable property in the Third Construction year, or $2,282,092, or 4.55 per cent of the total taxable property.

Upon figures from the foregoing calculation, it has been determined that an equivalent of 57.59 per cent of the total taxable property would have accrued taxes as property in [fol. 8520] construction. The application of this percentage to the sum $301,820 results in a total cost of Taxes During Construction of $173,818, distributed as follows:

First Construction Year, 26.52% of $301,820	$80,042
Second Construction Year, 17.42% of 301,820	52,577
Third Construction Year, 9.10% of 301,820	27,466
Post-Construction Period, 4.55% of 301,820	13,733
Total	$173,818

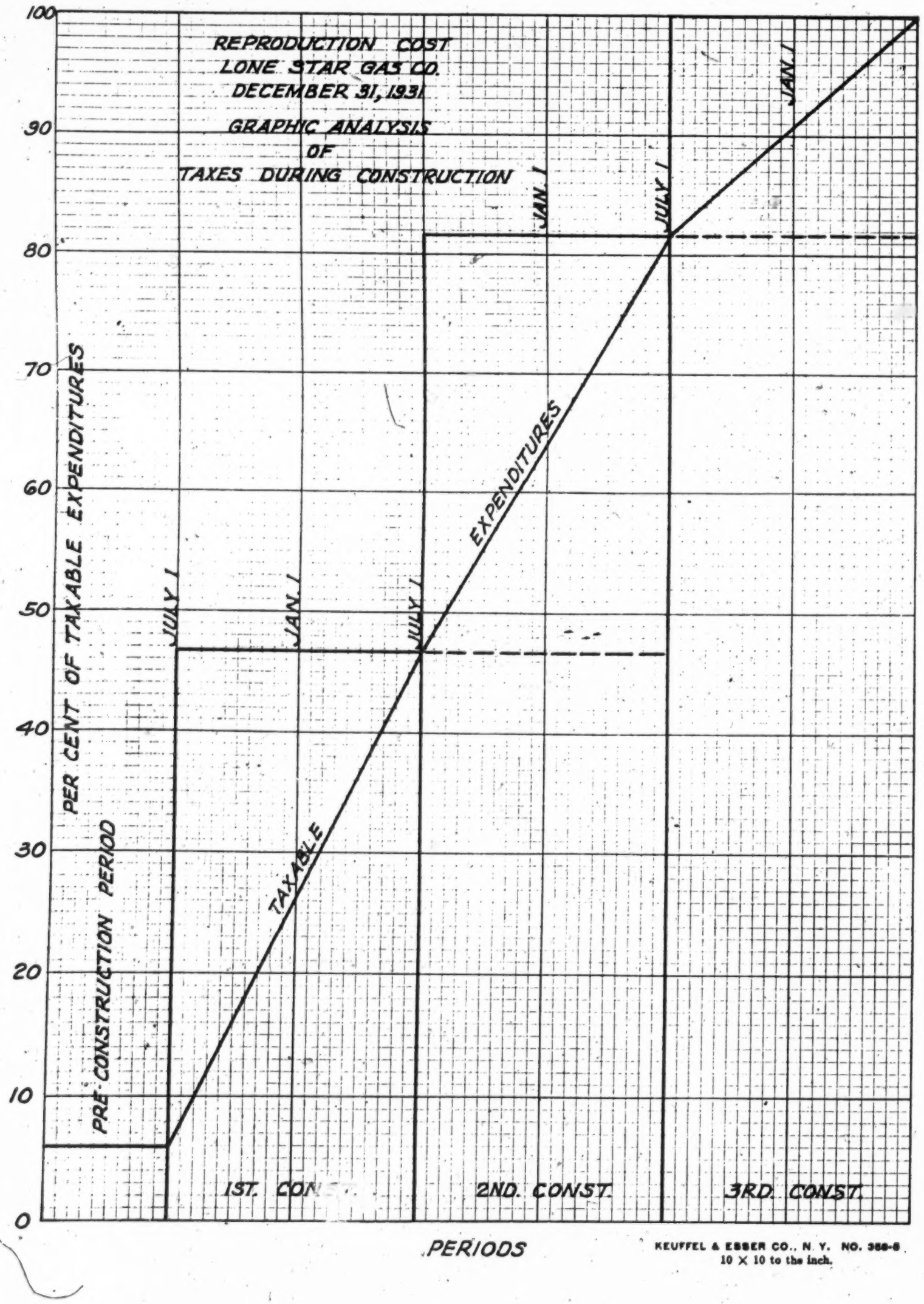
(Here follows 1 photolithograph, side folio 8521)

BLANK

PAGE

REPRODUCTION COST
LONE STAR GAS CO.
DECEMBER 31, 1931

GRAPHIC ANALYSIS
OF
TAXES DURING CONSTRUCTION



KEUFFEL & ESSER CO., N. Y. NO. 388-6
10 X 10 to the inch.

BLANK

PAGE

Defendant's Exhibit No. 28—Continued

[fols. 8522-8523] Interest During Construction

Summary

Pre-Construction Period	$275,833
Construction Period—First Year	2,143,767
Construction Period—Second Year	1,685,707
Construction Period—Third Year	870,626
Total	$4,975,933

[fol. 8524] Interest During Construction

Definition:

As used in this estimate of the reproduction cost of the property and business of Lone Star Gas Company, Interest During Construction is intended to cover the cost of interest on all expenditures that would be made in connection with the reproduction of the corporate entity, and the physical property together with the expenditures for undistributed general costs, from the date of the incorporation of the company until such time as the property items representing these expenditures would pass from construction to operation.

In the classification of investment (fixed capital account) in road and equipment of steam roads prescribed by the Interstate Commerce Commission, Interest During Construction is defined as follows:

"When any bonds, notes, or other evidences of indebtedness are sold, or any interest-bearing debt is incurred for acquisition and construction of original road and equipment, extensions, additions, and betterments, the interest accruing on the part of the debt representing the cost of property chargeable to road and equipment accounts (less interest, if any, allowed by depositaries on unexpended balances) after such funds become available for use and before the receipt or the completion or coming into service of the property so acquired shall be charged to this account.

When such securities are sold at a premium, the proportion of such premium assignable to the time between the date of the actual issuance of the securities and the time when the property acquired or the improvement made be-

comes available for service shall be credited to this account.

This account shall also include such proportion of the [fol. 8525] discount and expense on funded debt issued for the acquisition of original road, original equipment, road extensions, additions, and betterments, as is equitable assignable to the period between the date of the actual issuance of securities and the time when the property acquired or the improvement made becomes available for the service for which it is intended. The proportion of discount and expenses thus chargeable shall be determined by the ratio between the period prior to the completion or coming into service of the facilities or improvements acquired and the period of the entire life of the securities issued.

This account shall also include reasonable charges for interest, during the construction period before the property becomes available for service, on the carrier's own funds expended for construction purposes."

Basic Factors of the Estimate:

In the calculation of Interest During Construction, insofar as this element of expense would be incurred in the reproduction of the Property of Lone Star Gas Company as of January 1, 1933, the following basic factors would be involved:

1. The time assigned to the pre-construction, construction, and post-construction periods.

2. The rate of interest charged for funds advanced for construction and other expenditures.

3. The requirements of the fiscal agents with reference to the sums advanced at stated intervals.

4. The amount of interest earned on unexpended balances.

5. The time at which expenditures would be made from the date of incorporation until such time as expenditures would not be attributable to construction.

[fol. 8526] 6. The rate during the period of construction at which the various elements of property would become operative.

(1.) Time assigned to the pre-construction, construction and post-construction periods.

The pre-construction period has been fixed at six months and includes the time from date of incorporation to the time at which actual construction would begin.

The construction period has been fixed at three years and includes the time from the beginning of actual construction to the time at which the physical elements of the property would be complete.

The post-construction period has been fixed at six months and includes the time from the end of construction to the time when engineering, accounting and other records attributable to construction would be complete.

The duration of each of the foregoing periods has been determined as the minimum time that would be required in which to economically do the work that would necessarily be done in connection with the reproduction of the property of Lone Star Gas Company as of January 1, 1933.

(2.) The rate of interest charged for funds advanced for construction and other expenditures.

In fixing the rate of interest that would be paid for funds advanced for construction and other expenditures in the reproduction of Lone Star Gas Company, consideration must be given to several factors that would have a direct bearing upon the rate paid.

(a) In a reproduction cost estimate the rate should be based not on the financial credit of the property at the time of the appraisal but on the assumption that the property is a new property and without operating history.

[fol. 8527] (b) Consideration must be given to financial conditions existing at the date of the appraisal. In fixing the unit costs of the various elements of the physical property, consideration has been given to the current market prices for both labor and materials. There is a close relation between the downward trend of commodity prices and the upward trend of the cost of money. It would be irrational in an estimate of this character to give effect to spot prices for the materials of construction without giving some weight to the current cost of money. In this estimate no attempt has been made to give full effect to the unusual financial conditions existing as of January 1, 1933. Nevertheless, interest rates that might have been applicable during the years preceding 1929 could not be used as the basis for an estimate at the date of this appraisal.

1951

(c) Consideration must be given to the financial structure adopted provided this financial structure conforms to that, which in practice, would result in the minimum cost of money to the company.

In the analysis of Preliminary Development and Organization Costs, it was assumed that 50% of the total money required by the company would be secured from sale of mortgage bonds, 25% from the sale of preferred stock, and 25% from the sale of equity stock. This structure or financial plan is one that would be favorable to the company, particularly in view of the fact that it has been assumed that the equity money would be provided by the originating group.

The following tabulation sets out the estimated cost of [fol. 8528] money to the company (interest basis) using the financial structure above outlined.

Type of Security	Rate	Net to Company	Rate	Weighted Rate
50% bonds	6.5%	90	7.22%	3.61%
25% preferred	8.0%	90	8.89%	2.22%
25% common	10.0%	Par	10.00%	2.50%
Weighted Average Annual Rate				8.33%
Annual Rate Adopted				8.00%

The rate adopted for the purpose of calculating Interest During Construction does not give full effect to financial conditions existing at the date of the appraisal. It would have been impossible at that time, and it would be impossible now to secure funds for any new natural gas enterprise upon terms as favorable as those used in the calculation of the interest rate adopted.

(3.) The requirements of the fiscal agents with reference to the sums advanced at stated periods.

In the construction of large projects such as Lone Star Gas Company, funds must be provided well in advance of immediate requirements. In many cases the fiscal agents require of the Company the assumption of the entire issue before any advances will be made. In this estimate an extremely favorable condition, from the standpoint of cost to the company, has been assumed. As one of the bases for the calculation of Interest During Construction, it has been assumed that an amount representing the estimated ex-

penditures for each successive period of construction would be advanced by the fiscal agents. Under present financial conditions this is the most favorable arrangement that could be made.

(4.) Amount of interest earned on unexpended balances.

It is evident that a certain proportion of advances cover- [fol. 8529] ing the estimated expenditures for the Pre-Construction Period, the three construction years, and the Post-Construction Period would remain unexpended during a portion of the time. In order to provide for this fact, it has been assumed that for each advance, except that provided for the Pre-Construction Period, 75 per cent of the total sum would remain as an unexpended balance for three months; that 50 per cent would remain as an unexpended balance for three months, and that 25 per cent of the total sum advanced would remain as an expended balance for three months. It is further assumed that interest would be allowed at the rate of two per cent per annum on the amounts represented by unexpended balances, and that such interest as would accrue from this source would be credited to the cost of Interest During Construction. This allowance of two per cent per annum on unexpended cash balances has not been borne out by recent experience of Lone Star Gas Corporation in its fiscal arrangements.

Exception to the above method has been made in the case of the advances for the Pre-Construction Period for the reason that a very large proportion of the expenditure attributable to this period would be made immediately upon the perfection of corporate organization. All of the preliminary and organization costs, including the remuneration of the services of the originating group, would be liquidated immediately upon incorporation, and the general office building and general office land would be acquired immediately thereafter.

In the subsequent construction years, the rate of expenditure would be fairly uniform during each year, and no material error will grow out of the assumption that such would be the case.

[fol. 8530] The money required for Post-Construction expenses has been included in the expenditures of the last construction year.

(5) The time at which expenditures would be made from the date of inforporation until such time as expenditures would not be attributable to construction.

As previously developed under Expenditures by Period, the total expenditures, $59,512,984, would be divided by periods as follows:

Pre-Construction Period	$6,895,832
Construction Period—First Year	22,673,380
Construction Period—Second Year	19,326,719
Construction Period—Third Year	10,617,053

The expenditures during the Pre-Construction Period were allocated to the construction period as follows:

Construction Period—First Year	$2,971,414
Construction Period—Second Year	2,532,839
Construction Period—Third Year	1,391,579

Calculation

Pre-Construction Period

$6,895,832 at 8% for six months		$275,833

Construction Period—First Year

Expenditures

Pre-Construction	$6,895,832	
This Period	22,673,380	
Total	$29,569,212	
$29,569,212 at 8% for one year		$2,365,537
Less:		
75% of $29,569,212 at 2% for three months	$110,885	
50% of 29,569,212 at 2% for three months	73,923	
25% of 29,569,212 at 2% for three months	36,962	221,770
Total		$2,143,767

Defendant's Exhibit No. 28—Continued

[fol. 8531]

Construction Period—Second Year			
Expenditures			
Previous Expenditures		$29,569,212	
This Period		19,326,719	
		48,895,931	
Less:	$22,673,380		
	2,971,414	$25,644,794*	
Net for Period		$23,251,137	

* Plant in Service Second Year

$23,251,137 at 8% for one year		$1,860,091
Less:		
75% of $23,251,137 at 2% for three months	$87,192	
50% of 23,251,137 at 2% for three months	58,128	
25% of 23,251,137 at 2% for three months	29,064	174,384
Total		$1,685,707

Construction Period—Third Year			
Expenditures			
Previous Expenditures		$48,895,931	
This Period		10,617,053	
		$59,512,984	
Less:	$22,673,380		
	2,971,414		
	19,326,719		
	2,532,839	47,504,352*	
Net for Period		$12,008,632	

* Plant in Service third year

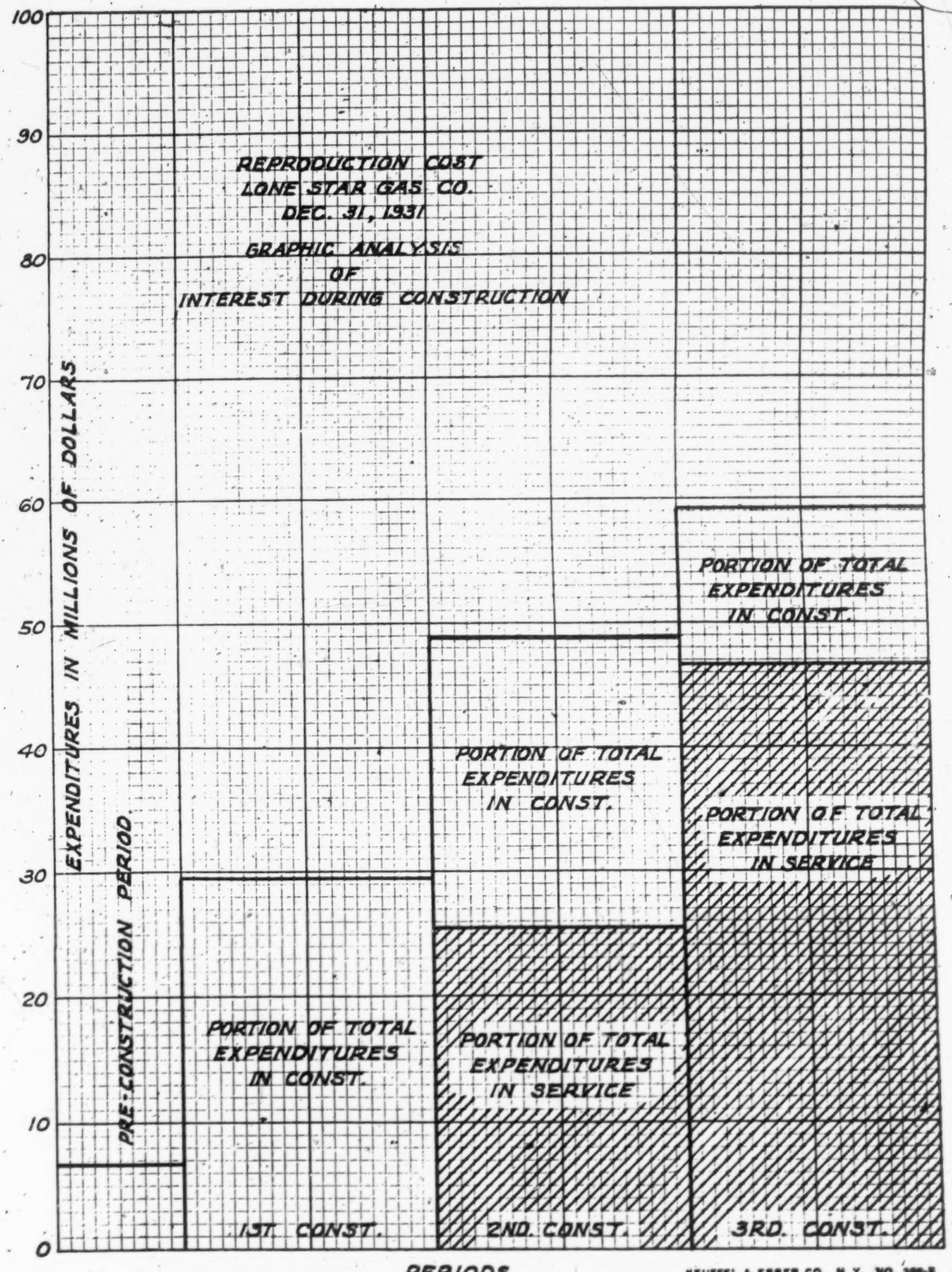
$12,008,632 at 8% for one year		$960,691
Less:		
75% of $12,008,632 at 2% for three months	$45,032	
50% of 12,008,632 at 2% for three months	30,022	
25% of 12,008,632 at 2% for three months	15,011	90,065
Total		$870,626

(Here follows 1 photolithograph, side folio 8532)

BLANK

PAGE

8532



KEUFFEL & ESSER CO., N. Y. NO. 389-S
10 X 10 to the Inch.

2956A

BLANK

PAGE

Defendant's Exhibit No. 28—Continued

[fols. 8533-8534] Going Value or Cost of Business Development

Fixed Charges on Idle Plant—Development Periods

Interest and Return	$8,042,414
Depreciation	3,111,610
Taxes	435,044
Personnel Costs	200,000
	$11,789,068
Less:	
Credits for Net Industrial Revenue	3,996,180
Total	$7,792,888

[fol. 8535] Going Value Based on Reproduction Cost of Business Development

Definitions:

As used in this estimate of the reproduction cost of the property and business of Lone Star Gas Company as of January 1, 1933, Going Value is intended to cover the reproduction cost of those elements of worth or value not developed by an appraisal of the physical property, but inherent in the property and business of the company as of that date by reason of the following facts:

1. That approximately 230,000 domestic consumers received their supply of natural gas from the facilities afforded by the property of Lone Star Gas Company.

2. That these domestic consumers by the purchase of equipment and appliances representing an investment of more than $40,000,000 and by a knowledge of the value of natural gas service, acquired over a period of years, had developed an average annual consumption of approximately 80 M cubic feet per domestic meter installed.

3. That approximately 1,400 industrial consumers with diversified requirements received their fuel supply from the facilities afforded by the property of Lone Star Gas Company, and that the annual sales resulting from this use was approximately 15,000,000 M cubic feet.

4. That in addition to the active industrial accounts, other large industrial consumers were attached to the company's system. That those consumers had the equipment required for the use of natural gas installed at their plants, were familiar with the use and advantages of natural gas, and had temporarily discontinued the use of natural gas solely on account of unusual conditions in the fuel market.

5. That the company by the purchase and development of leases and by the consummation of advantageous gas purchase contracts, had available to its transportation system a supply of gas substantially in excess of the present maximum requirements of its markets. That this supply of gas was highly diversified with reference to the load center of the market as to assure economical transportation to the market.

[fol. 8536] 6. That the company over a period of more than twenty years had developed a highly trained and efficient operating personnel consisting of executives, counsel, technicians, departmental heads, and other employees familiar with all phases of the natural gas business. That such a trained organization had peculiar value by reason of the fact that the natural gas business is not a universal utility service such as water, light and power, transportation, or telephone service, but is confined to specific geographic areas and the supply of experienced gas executives and technicians is therefore limited and correspondingly difficult to secure.

7. That the company over a period of more than twenty years operating experience had developed and had in use efficient operating routines. That valuable operating records and statistical and technical data has been accumulated and that such routines, records and data were specifically applicable to the property and business of Lone Star Gas Company.

8. That by the application of rate schedules for the sale of domestic gas that would have been less than the value of the services and would not have encountered the application of the law of diminishing returns, the company could have earned in addition to operating charges a reasonable return on the value of its property determined by this appraisal including the estimate for Going Value and a proper

annual allowance to cover depreciation, amortization, dry hole expense, and cancelled and surrendered leases.

Of the foregoing, items 1 to 7, inclusive, may be defined as the specific elements that contributed to and in the aggregate made up the Going Value of Lone Star Gas Company as of January 1, 1933.

From the standpoint of a reproduction cost estimate of the property and business of the company, these items can be evaluated upon the basis of what it would have cost a new company identical with Lone Star Gas Company insofar as all of its physical elements were concerned to have secured the trained operating personnel, established the efficient operating routines, and acquired the volume of sales of Lone Star Gas Company as of January 1, 1933.

Item 8 may be defined as the factor that establishes the propriety of attributing value to these costs as well as to the cost of reproducing the physical property. This is true [fol. 8537] for the reason that the value of a utility property, no matter what the cost of reproduction may be, can never be greater than that sum, expressed in dollars, upon which the utility can earn its return and depreciation through the application of rates for its service that do not exceed the value of that service.

In this connection the converse is also true, and the existence of Going Value cannot be denied by reason of the fact that earnings are inadequate under rate schedules that are substantially below the value of the service and are substantially less than those that might bring into operation the law of diminishing returns.

Basic Assumptions:

In the estimate, the costs that would be incurred in reproduction in connection with items 5, 6 and 7 have been included in Preliminary Development and Organization and Undistributed General Costs.

The inclusion in the appraisal of the physical property of gas leases and rights at their fair market value, and the inclusion in the preliminary and undistributed costs of the cost of a geological and a land and lease personnel that would be able within the comparatively short time ascribed to the preliminary development construction periods, to reproduce the geological records and data, and secure the land

and leases of Lone Star Gas Company as of January 1, 1933, provides in a general way for the cost of consolidating the gas supply.

The estimated cost of securing a trained personnel for the construction period will be developed in a subsequent section of the report. All construction costs used in the [fol. 8538] development of the unit costs of the physical property have been based upon the supervision of the work by the trained executive and supervisory organization of Lone Star Gas Company. The organization was secured and trained over a twenty three year operating and construction experience. That it would cost a substantial sum of money to assemble and organize this type of executive and supervisory personnel is obvious.

It seems reasonable to assume in this connection that this personnel would gradually change in its functions as the property passed from construction to operation, and that during the three and one half years ascribed to construction and preliminary work that such an organization would develop efficient operating routines.

The cost of reproducing the final engineering records of Lone Star Gas Company as of January 1, 1933 has been specifically appraised and included as a part of Direct Structural Costs and the estimated cost of the collection of geological records has been included under Administration and Legal Costs.

It is certain that the adoption of the methods above outlined, and which seemed the most practical in this case, has resulted in use of a figure that fails to represent the full value of the elements under consideration. The value to a going concern of a group of highly trained men, most of whom have had the advantage of having been associated with the property over a long period of time, and who have by this association acquired an intimate knowledge of every phase of its affairs, cannot be adequately appraised by the estimated cost of securing the services of hypothetical substitutes.

[fol. 8539] With these elements of cost and value elsewhere provided for in the estimate, there remains the problem of fixing the value as of January 1, 1933 of the factors included in items 1, 2, 3 and 4 as set out under Definitions. These four items, as factors contributing to the value of Lone Star Gas Company have to do with the value of a busi-

ness of the company as distinguished from the value of its physical property. In conformity with the plan of fixing the present value of the physical property by means of the estimated cost of its reproduction, the present value of the business has been determined by the estimated cost of reproducing it.

A basic assumption of all reproduction cost estimates of physical property is that the property is non-existent at the date of the appraisal. A direct corollary of this basic proposition is the assumption that the business that has been created as the direct result of the historical operations of the company is non-existent at the date of the appraisal.

In the subsequent calculations, it has been assumed that the business of Lone Star Gas Company that has been the result of the operations of Lone Star Gas Company as a marketing agency for the sale of natural gas was non-existent at the initiation of the project in reproduction.

Any utility property in operation must meet three so-called fixed charges. They are so designated in order to distinguish them from the more or less fluctuating costs of operation and for the further reason that the amount of the accruals to meet these charges has little or no relation to the volume of business done by the company. These so-called fixed charges are:

[fol. 8540] 1. Return on over-all cost of the property.

2. Depreciation on the depreciable property.

3. Ad Valorem taxes.

(1) Return:

The instant that a property item passes from construction into operation, Interest During Construction as applied to the over-all cost of this item ceases to be a proper charge to capital account. The changed status of this property item from an item in construction to an item in operation in no way affects the continuity of the interest charge if mere interest alone is to be considered. In the case of a going concern, this interest charge becomes a reasonable return for the use of the property and is therefore greater than mere interest inasmuch as it must also cover the reward for operation and management. It is also true that the volume

of business handled by this item of property affects neither the continuity nor the amount of this charge.

(2) Depreciation:

The instant that a property item passes from construction to operation, depreciation accruals must be set up if the lessening worth of the item is to be offset and the liability for its ultimate replacement met. Unlike properties in which depreciation is, in a measure, a function of amount of use to which the equipment is put (street railways and the like) the depreciable property of a natural gas pipe line company suffers physical depreciation without regard to the amount [fol. 8541] of business done. This statement does not apply to the depletion of gas reserves and the charges for amortization and abandonment that must be accrued on account of the depletion of reserves.

(3) Taxes:

The instant that a property item passes from construction into operation, Taxes During Construction as represented by the taxes attributable to this item ceases to be a proper charge to capital account. As in the case of return, the liability of the owner for the payment of taxes and the necessity for an accrual to meet this payment is in no way affected by the changed status of the property item. It is also true that the amount of the tax attributable to this property item would be fixed on taxable value, and not upon the volume of business handled.

It is evident from the foregoing analysis that in connection with the reproduction of Lone Star Gas Company within the three year period ascribed to construction, certain elements of the physical property would pass from construction into limited operation during the construction period, and at the end of the construction period the entire plant would become operative. It is also evident that the sum of the three fixed charges would begin to accrue upon the cost of the proportionate part of the plant passing into operation during the construction period, and upon the cost of the entire plant at the end of the construction period.

If the business of Lone Star Gas Company was nonexistent at the date of the initiation of the project, it would [fol. 8542] have been impossible for the property in reproduction to have developed and acquired the business of

Lone Star Gas Company as of January 1, 1933, except through a period of intensive business development that would necessarily have extended several years beyond the date of completion. During this period of business development the fixed charges, return, depreciation, and taxes would have accrued upon the total cost of the completed plant irrespective of the volume of business done. It is also true that during this time a substantial proportion of the completed plant would have been idle compared to the amount of business done by the identical plant, the property of Lone Star Gas Company as of January 1, 1933. This percentage of the plant idle would have been at its maximum at the time the completed plant passed from construction to operation, and would have diminished to zero at the end of the development period. The aggregate cost developed by the application of the fixed charges to the percentage of the completed plant idle, from the time that its constituent elements passed from construction to operation to the date at which the business of the plant in reproduction would have equalled the business of Lone Star Gas Company as of January 1, 1933, is a fair measure of the cost of reproducing the business of Lone Star Gas Company at the date of this appraisal. This method has been applied in the subsequent calculation.

In fixing the ratio of idle plant during the development period to the plant in use as of January 1, 1933, the rate of acquisition of the existing domestic sales only has been used in the subsequent calculations. The estimated net revenue that would be derived from the concurrent sales of industrial gas has been used in the subsequent calculations. [fol. 8543] The estimated net revenues that would be derived from the concurrent sales of industrial gas has been applied as a credit to the cost thus developed.

Method of Calculation:

The following estimate of the cost of reproducing the business of Lone Star Gas Company as of January 1, 1933, has been based upon the application of the fixed charges previously defined, to the sum of money represented by the cumulative percentage of the total cost of the property that would be idle in comparison with the domestic meter saturation and per meter domestic sales of the company as of

January 1, 1932*, during the period of time in which it would be necessary to secure this domestic business. From the total thus obtained there has been deducted the estimated net revenues from the sale of industrial gas that would have accrued during this development period.

Certain assumptions have been made that serve as the basis for the subsequent calculations. These assumptions conform to conditions that would normally be met in reproducing the business of Lone Star Gas Company and have been based upon a careful analysis of historic data.

A detailed study has been made of the existing system and of the component parts of the system that would be constructed in each of the three years of the construction period. The hypothetical construction program that resulted from [fol. 8544] this detailed study, and which has been used as the basis for the calculation of Interest During Construction and other general costs that would be affected by the character and quantity of expenditures in each construction year was developed primarily upon the assumption that the larger and more important markets of the company would be attached at the end of the first construction year and that the smaller outlying markets would be reached at the end of the last construction year.

This assumption conforms to the historical development of the property and results in minimum charges for the cost of business development.

For practicability of calculation, it has been estimated that at the end of the first construction year a certain percentage of the completed plant would pass from construction to operation. The proportionate part of the completed plant affected by this transition has been fixed by the ratio of the cost of the physical property installed during the first construction year to the total cost of the physical property. The same method has been applied to the plant completed in each of the two succeeding construction years.

---

*NOTE.—All calculations of the rate of domestic business saturation are based upon the domestic meter and use saturation of Lone Star Gas Company as of January 1, 1932. The meter and use saturation as of that date were practically unchanged as of January 1, 1933. The same period was also used for the determination of the credit to be applied for net revenue from industrial sales.

A determination has been made of the cities and towns now served by Lone Star Gas Company that would be attached to the system by reason of each successive year's construction.

It has been assumed that the group of cities and towns served by the section of the system completed during the first construction year would begin domestic service at the beginning of the second construction year, that the cities and towns served by the section of the system completed [fol. 8545] during the second construction year would begin domestic service at the beginning of the third construction year, and that the cities and towns served by the section of the system completed during the third construction year would begin domestic service at the beginning of the first year following the completion of construction.

The result of the application of this method is shown as follows:

First Construction Year:

No domestic business development.

Second Construction Year:

First domestic development year for first group of cities and towns attached.

Third Construction Year:

Second domestic development year for first group of cities and towns attached.

First domestic development year for second group of cities and towns attached.

First Year Following Completion:

Third domestic development year for first group of cities and towns attached.

Second domestic development year for second group of cities and towns attached,

First domestic development year for third group of cities and towns attached.

This method has been applied to each succeeding year until the development of the domestic business of Lone Star Gas Company as of January 1, 1932 would be complete.

In order that the calculations might be made, it was necessary to make the following determinations:

1. The rate at which the individual cities and towns served by Lone Star Gas Company would acquire the domestic

meter saturation and domestic customer use as of January 1, 1932.

[fol. 8546] 2. The percentage of the total domestic business of Lone Star Gas Company represented by the domestic business of each group of cities and towns initiating domestic sales at the beginning of the second construction year, the third construction year, and the first year following completion.

3. The proper annual rates to be applied for interest, depreciation and taxes upon the cumulative percentage of the reproduction cost of the property of Lone Star Gas Company as of January 1, 1932, found to be idle during the period of business development.

4. The percentage of the total reproduction cost of Lone Star Gas Company completed during each of the construction years.

5. The rate at which the net revenue from the sale of industrial gas, earned by Lone Star Gas Company, year ended January 1, 1932, would be acquired during the development period.

Analysis of the Rate at Which the Individual Cities and Towns Would Acquire the Domestic Meter Saturation and Domestic Customer Use as of January 1, 1932:

(Explanatory Note.) Lone Star Gas Company sells no gas direct to domestic consumers except in the case of the domestic sales of the Fort Worth Division. If the Fort Worth Division is grouped with the other cities and towns served, the rate at which Lone Star Gas Company would acquire its saturation of domestic business would be directly proportional to the rate at which saturation of domestic business would be acquired by the cities and towns receiving their supply of domestic gas from its system.

The cities and towns served by the pipe line system of Lone Star Gas Company logically fall into three groups when classified with reference to domestic natural gas service. Each of these groups have distinct characteristics and would acquire domestic meter and customer use satura-

(Here follows 1 photolithograph, side folio 8547)

BLANK

PAGE

8547

Per Cent of Consumers and Consumption

100 90 80 70 60 50 40 30 20

CURVES
SHOWING HISTORIC DEVELOPMENT
DOMESTIC BUSINESS
DALLAS GAS COMPANY
1908 - 1930

——— Per Cent of Domestic Meters

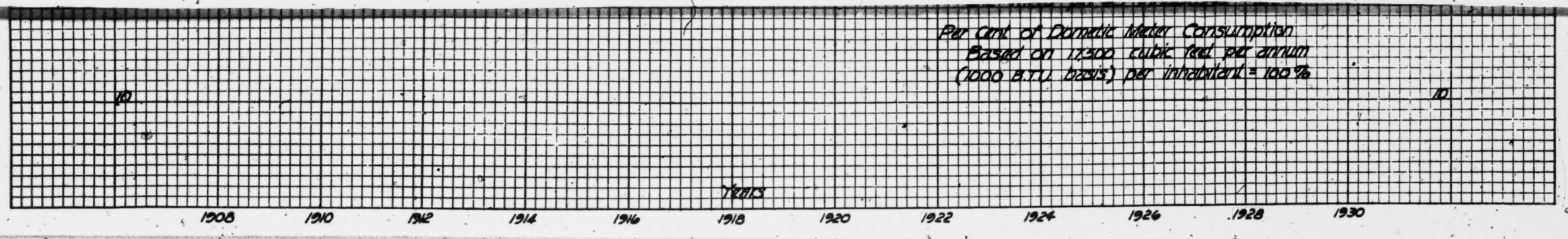
– – – – Per Cent of Domestic Meter Consumption (1000 B.T.U. Basis)

——— Normal Projected Development Per Cent of Domestic Meters

– – – Normal Projected Development Per Cent of Domestic Consumption

Per Cent of Domestic Meters. Based on one meter per 4.5 inhabitants = 100%

Per Cent of Domestic Meter Consumption. Based on 11300 cubic feet per annum (1000 B.T.U. basis) per inhabitant = 100%


Per cent of Domestic Meter Consumption
Based on 12,500 cubic feet per annum
(1000 B.T.U. basis) per inhabitant = 100%
110
10
Years
1908
1910
1912
1914
1916
1918
1920
1922
1924
1926
1928
1930

BLANK

PAGE

tion over different intervals of time. These groups are as follows:

Group A—Metropolitan Districts:

The Dallas and County Gas Companies that serve the Dallas Metropolitan area and the Fort Worth Division of Lone Star Gas Company are the only distribution agencies served [fol. 8548] by the system that fall into this classification. These metropolitan districts would be served by artificial gas prior to the introduction of natural gas. Despite this fact, however, domestic saturation would require a longer development period than would be required in the case of the second and third groups.

Group B—Intermediate cities that would be served by artificial gas prior to the introduction of natural gas.

Waco, Wichita Falls and Abilene are cities served by Lone Star Gas Company that are typical of the cities that have been classified in this group. These cities would acquire their domestic saturation at a more rapid rate than the Metropolitan Districts, but at a slower rate than the towns classified under Group C.

Group C—Small cities and towns that would not be served by artificial gas prior to the introduction of natural gas.

The majority of the towns served by the distribution plants of the Community National Gas Company are typical of this group. Despite the fact that no artificial gas service would exist prior to the introduction of natural gas, domestic saturation would be acquired more rapidly than in the case of Group A and B.

Analysis—Group A:

The historical development of domestic meter saturation and domestic customer use of the combined business of the Dallas Gas Company and County Gas Company from the date of the introduction of natural gas to the date of meter and use saturation has been used as the basis for the calculation for Group A.

Defendant's Exhibit No. 28—Continued

Dallas Gas Company and County Gas Company

History of Meter Saturation

Year	Population Served	Meters in Place	Ratio of Meters to Population	Percent Saturation
1908	85,000	5,663	15.0	30.0
1909	.....	.....	....	....
1910	92,100	8,743	10.5	42.9
1911	107,000	10,902	9.8	45.9
1912	.....	14,039	....	....
1913	.....	17,093	....	....
1914	.....	20,938	....	....
1915	134,000	21,069	6.4	70.3
1916	.....	20,398	....	....
[fol. 8549] 1917	.....	22,069	....	....
1918	.....	23,716	....	....
1919	.....	25,745	....	....
1920	204,000	31,341	6.5	69.2
1921	206,000	36,142	5.7	79.0
1922	222,000	39,826	5.6	80.4
1923	239,000	44,992	5.3	83.4
1924	256,000	51,166	5.0	90.0
1925	272,000	57,107	4.8	93.7
1926	288,000	62,328	4.6	98.0
1927	299,000	64,664	4.6	98.0
1928	310,000	66,859	4.6	98.0
1929	315,000	69,546	4.5	100.0
1930	.....	.....	4.5	100.0

Natural gas introduced in 1910.
Population figures Worley's Directory and Federal Census.

History of Use Saturation

Year	Annual Dom. Sales M. Cu. Ft.	Equivalent Vol. 1000 B.t.u.	Sales Per Capita Cubic Feet	Percent Saturation
1910	234,715	178,536	.....	....
1911*	831,110	623,332	5,770	33.0
1912	.....	.....	.....	....
1913	.....	.....	.....	....
1914	.....	.....	.....	....
1915	2,213,415	1,660,061	12,400	70.9
1916	.....	.....	.....	....
1917	.....	.....	.....	....
1918	.....	.....	.....	....
1919	.....	.....	.....	....
1920	2,576,280	2,576,280	12,600	72.0
1921	.....	.....	.....	....
1922	3,102,733	3,102,733	13,900	79.4
1923	.....	.....	.....	....
1924	3,736,633	3,736,633	14,600	83.4
1925	.....	.....	.....	....
1926	4,441,353	4,441,353	15,300	87.4
1927	.....	.....	.....	....
1928	.....	.....	.....	....
1929	.....	.....	.....	....
1930	5,534,290	5,534,290	17,500	100.0

* First full year natural gas service

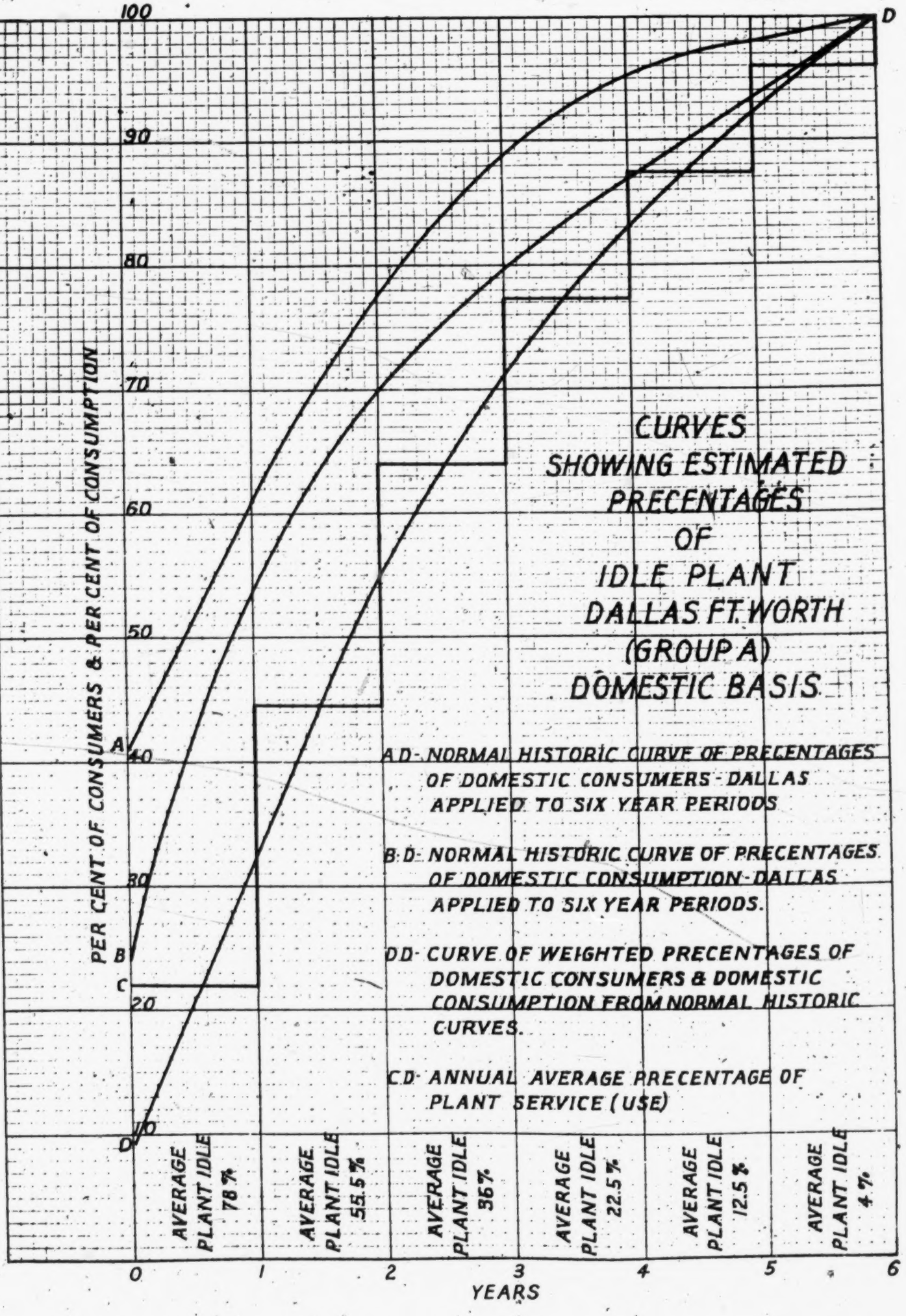
Natural gas on April 29, 1910	750 B.t.u.
December 1918 to January 1920	950 B.t.u.
January 1, 1920	1000 B.t.u.

(Here Follows 1 Photolithograph, Side Folio 8550.)

BLANK

PAGE

8550


100
90
80
70
60
50
40
30
20
10
0
D
A
B
C
PER CENT OF CONSUMERS & PER CENT OF CONSUMPTION
CURVES
SHOWING ESTIMATED
PRECENTAGES
OF
IDLE PLANT
DALLAS FT. WORTH
(GROUP A)
DOMESTIC BASIS
AD- NORMAL HISTORIC CURVE OF PRECENTAGES OF DOMESTIC CONSUMERS - DALLAS APPLIED TO SIX YEAR PERIODS
BD- NORMAL HISTORIC CURVE OF PRECENTAGES OF DOMESTIC CONSUMPTION - DALLAS APPLIED TO SIX YEAR PERIODS.
DD- CURVE OF WEIGHTED PRECENTAGES OF DOMESTIC CONSUMERS & DOMESTIC CONSUMPTION FROM NORMAL HISTORIC CURVES.
CD- ANNUAL AVERAGE PRECENTAGE OF PLANT SERVICE (USE)
AVERAGE PLANT IDLE 78%
AVERAGE PLANT IDLE 55.5%
AVERAGE PLANT IDLE 36%
AVERAGE PLANT IDLE 22.5%
AVERAGE PLANT IDLE 12.5%
AVERAGE PLANT IDLE 4%
0
1
2
3
4
5
6
YEARS

V8962

BLANK

PAGE

[fol. 8551] This statistical data is shown in graphic form in Curves Showing Historic Development Domestic Business—Dallas Gas Company 1908-1930.

An inspection of this graph discloses the fact that the development of domestic meter and use saturation was rapid and uniform from 1910 to 1915, and that saturation was static from 1915 to 1920, and that from 1920 to the date of 100% saturation there was a resumption of the rate of increase of meter and use saturation. The static condition following 1915 was due to several abnormal circumstances. In the case of domestic meters, there was a rapid increase in population and a restriction in utility extensions and home construction due to war time restrictions. This combination of circumstances resulted in an actual decline in the percentage of meter saturation. In the case of domestic use the similarity in the behavior of the curves was due to acute gas shortage during the period culminating in 1919 and 1920.

For these reasons the curves for meter and use saturation have been projected, as shown, for the purpose of eliminating the effect of the abnormalities noted.

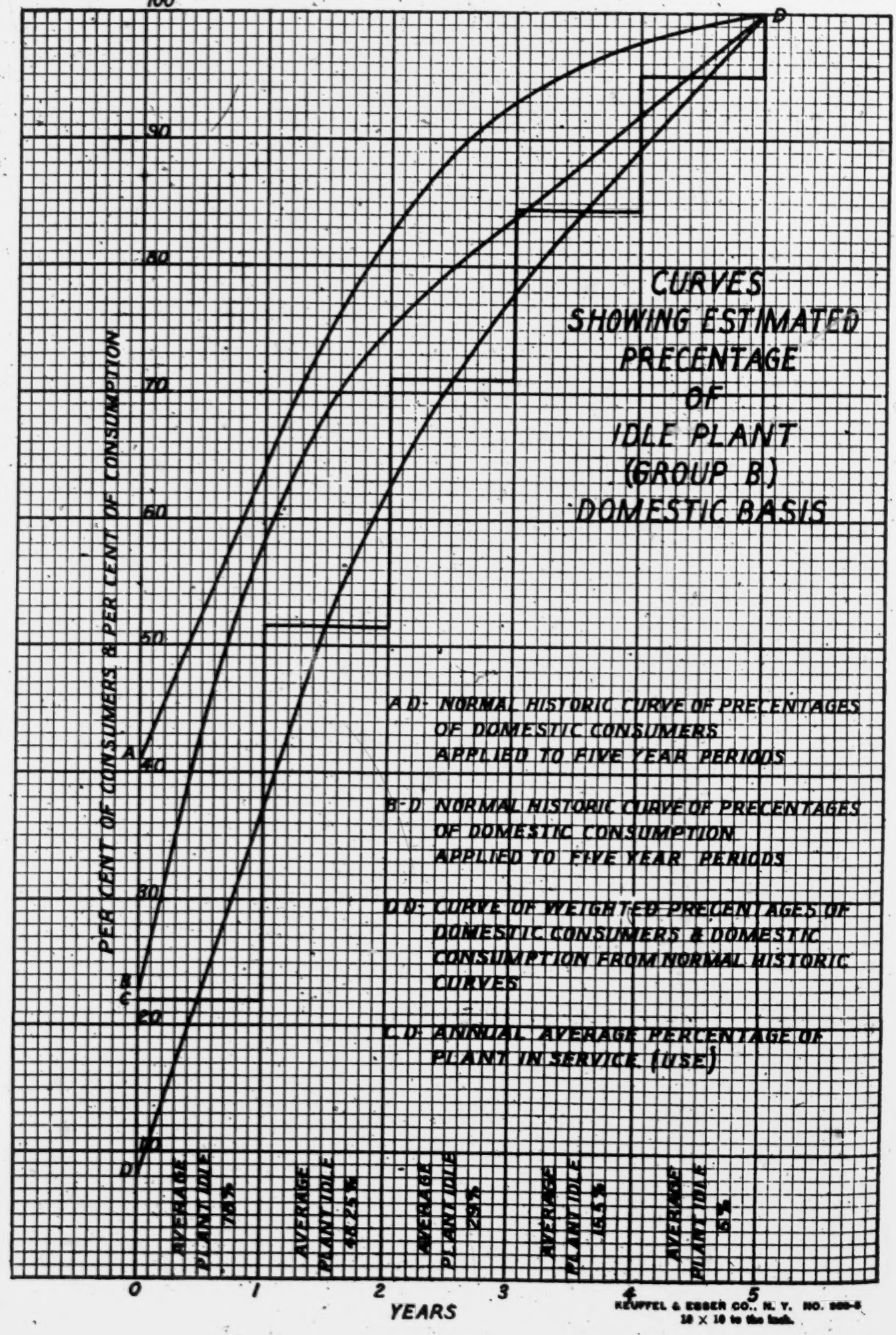
With these normal curves of historical development as a basis, a graph was prepared translating these normal historic developments that had extended over a period of twenty years into a hypothetical development period of six years. This graph is shown as Curves Showing Estimated Percentage of Idle Plant—Dallas and Fort Worth (Group A) Domestic Basis.

From this graph there has been developed the estimated percentages of idle plant, domestic basis, by development years for Group A.

(Here follows 1 photolithograph, side folio 8552)

BLANK

PAGE


100
90
80
70
60
50
40
30
20
10
0
PER CENT OF CONSUMERS & PER CENT OF CONSUMPTION
A
B
C
D
CURVES SHOWING ESTIMATED PRECENTAGE OF IDLE PLANT (GROUP B.) DOMESTIC BASIS
A D: NORMAL HISTORIC CURVE OF PRECENTAGES OF DOMESTIC CONSUMERS APPLIED TO FIVE YEAR PERIODS
B-D NORMAL HISTORIC CURVE OF PRECENTAGES OF DOMESTIC CONSUMPTION APPLIED TO FIVE YEAR PERIODS
D D: CURVE OF WEIGHTED PRECENTAGES OF DOMESTIC CONSUMERS & DOMESTIC CONSUMPTION FROM NORMAL HISTORIC CURVES
C D: ANNUAL AVERAGE PERCENTAGE OF PLANT IN SERVICE (USE)
AVERAGE PLANT IDLE 18%
AVERAGE PLANT IDLE 24.25%
AVERAGE PLANT IDLE 29%
AVERAGE PLANT IDLE 15.5%
AVERAGE PLANT IDLE 15%
0
1
2
3
4
5
YEARS
KEUFFEL & ESSER CO., N. Y. NO. 359-5
10 X 10 to the Inch.

V0292

BLANK

PAGE

Defendant's Exhibit No. 28—Continued

[fol. 8553]

Development Year	Average Percent of Plant Idle	Average Percent of Plant Active
1	78.0	22.0
2	55.5	44.5
3	36.0	64.0
4	22.5	77.5
1	12.5	87.5
6	4.0	96.0

Analysis—Group B:

The estimated development for cities in Group B was also taken from Curves Showing Historic Development—Dallas Gas Company, 1908-1930.

In the case of Group B the development period was reduced to five years. This development period conforms to the history of domestic meter and use saturation in cities of this class. From this graph there has been developed the percentages of idle plant, domestic basis, by development years for Group B:

Development Year	Average Percent of Plant Idle	Average Percent of Plant Active
1	78.00	22.00
2	48.25	51.75
3	29.00	71.00
4	15.50	84.50
5	5.00	95.00

Analysis of Group C:

The actual history of business development was available for typical towns classified under Group C. Seven towns in the State of Oklahoma having gas service for more than four years were analyzed. These towns range from the smaller towns (Achille) to the larger towns (Durant) in Group C and form a representative basis for the normal behavior of Group C in the matter of the development of domestic business.

The following tabulations set out the results of this analysis:

Defendant's Exhibit No. 28—Continued

[fol. 8554]

Town	First Year Av. No. of Consumers	Second Year Av. No. of Consumers	Third Year Av. No. of Consumers	Fourth Year Av. No. of Consumers
Achille	20	25	27	36
Davidson	48	91	102	112
Durant	894	1,155	1,220	1,343
Frederick	374	653	779	821
Hollis	166	423	552	563
Tipton	126	295	375	397
Waurika	189	258	297	297
Totals	1,817	2,900	3,352	3,569
Weighted percent meter saturation	50.9	81.3	93.9	100

First Year

Town	Av. No. of Consumers	Average Consumption M. Cu. Ft.	Total M. Cu. Ft. Consumption
Achille	20	36.3	726.0
Davidson	48	55.6	2,668.8
Durant	894	71.2	63,652.8
Frederick	374	72.3	27,040.2
Hollis	166	60.6	10,059.6
Tipton	189	24.7	4,668.3
Waurika	126	32.8	4,132.8
Totals	1,817	62.16	112,948.5

Weighted percent of consumption 68.08

Second Year

Town	Av. No. of Consumers	Average Consumption M. Cu. Ft.	Total M. Cu. Ft. Consumption
Achille	25	59.8	1,495.0
Davidson	91	86.2	7,844.2
Durant	1,155	71.0	79,875.0
Frederick	653	91.2	59,553.6
Hollis	423	116.2	49,110.3
Tipton	258	83.7	21,594.6
Waurika	295	85.7	25,281.5
Totals	2,900	84.4	244,754.2

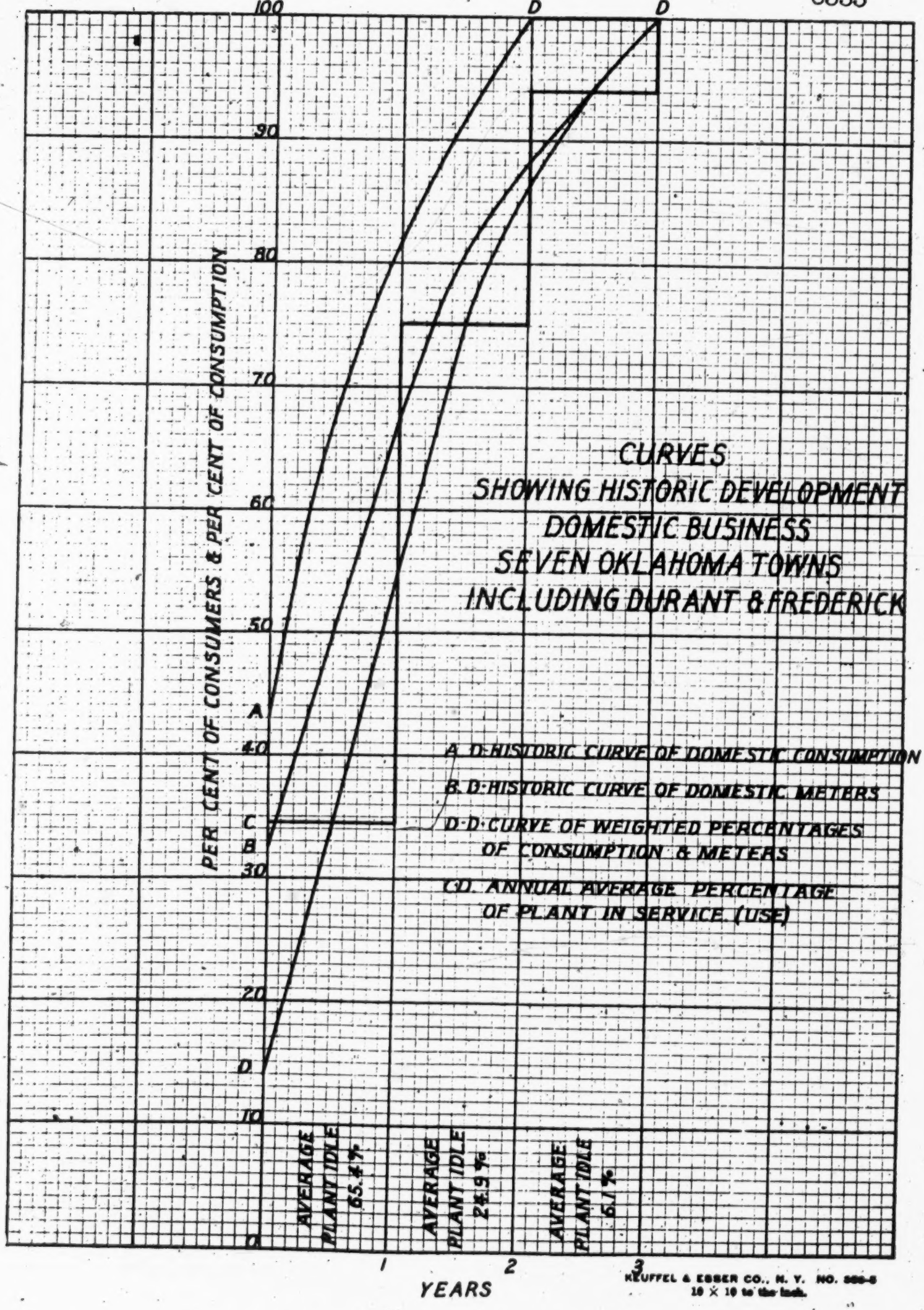
Weighted percent of consumption 92.4.

(Here Follows 1 Photolithograph, Side Folio 8555.)

BLANK

PAGE

8555



KEUFFEL & ESSER CO., N. Y. NO. 359-S
10 X 10 to the inch.

2972A

BLANK

PAGE

Defendant's Exhibit No. 28—Continued

[fol. 8556)

Third Year

Town	Av. No. of Consumers	Average Consumption M. Cu. Ft.	Total M. Cu. Ft. Consumption
Achille	27	63.5	1,714.5
Davidson	102	91.7	9,353.4
Durant	1,220	80.6	98,332.0
Frederick	779	98.0	76,342.0
Hollis	552	109.1	60,223.2
Tipton	297	90.9	26,997.3
Waurika	375	88.1	33,037.5
Totals	3,352	91.3	305,999.9

Weighted per cent of consumption 100.

This statistical data is shown in graphic form in Curves Showing Historic Development Seven Oklahoma Towns. From this graph there has been developed the percentages of idle plant, domestic basis, by development years for Group C.

Development Year	Average Percent of Plant Idle	Average Percent of Plant Active
1	65.4	34.6
2	24.9	75.1
3	6.1	93.9
4	0.0	100.0

In connection with the foregoing estimates of the percentages of idle plant during the domestic business development period for the three groups of cities and towns served by Lone Star Gas Company, the following general comment is offered.

The historical development of the domestic business of Dallas and County Gas Companies that was used as the basis for the calculations for both Group A and Group B was initiated with rates for domestic service substantially below rates now in effect and substantially lower than any rates that could be made at the initiation of service in the reproduction of Lone Star Gas Company. For this reason [fols. 8557-8563] the historical acquisition of domestic business in the Dallas Metropolitan area up to 1920 proceeded more rapidly than could be the case under rate schedules that would necessarily apply in reproduction as of January 1, 1933.

In the historical development of the domestic business of Group C, the time taken for the analysis was during a period of prosperity and easy credit. This also applies to the last ten years of the analysis for Group A and Group B.

Under present economic conditions, the estimated rate of saturation could not be attained in practice, and for this reason the development period would be extended and percentages of idle plant at successive stages of this period substantially increased.

In this estimate of the cost of business development, none of the effects of these factors has been applied to the results of the calculations.

The Percentage of the Total Domestic Business of Lone Star Gas Company Represented by the Group of Cities and Towns Receiving Service at the End of the First Construction Year:

(NOTE.) The following tabulations are from the records of the company, year ended September 30, 1931. The percentages used would not be modified by the use of the records of a later date.

Towns	Amount	Percent of Lone Star Total Domestic Sales.
Group A:		
Dallas		
Dallas Gas Company	$1,585,176.68	
County Gas Company	815,015.41	
Fort Worth Division	1,303,408.72	
Total	$3,703,600.81	51.15

• • • • • • •

Defendant's Exhibit No. 28—Continued

[fol. 8564]

Third Year (Cont'd)

Towns	Amount	Percent of Lone Star Total Domestic Sales
Group C (Cont'd)		
Pauls Valley	$22,826.00	
Paoli	1,026.40	
Purcell	11,921.20	
Ryan	5,011.20	
Snyder Oklahoma	6,510.40	
Sulphur	18,808.00	
Tipton	8,224.40	
Walters	18,075.60	
Waurika	12,922.00	
Wayne	1,908.00	
Wynnewood	10,152.80	
Byers	3,987.60	
Petrolia	5,015.20	
Bellevue	3,512.00	
Sunset	1,536.40	
Alvord	4,805.60	
Iowa Park	11,530.80	
Temple Oklahoma	9,244.80	
Community Natural Gas Company	65,479.60	
Right-of-Way Sales	3,947.80	
Miscellaneous		
Total	$1,110,287.40	15.32
Lone Star Gas Company Total Domestic Sales 12 months ended September 1931	$7,240,419.68	

Recapitulation

First Year				
Group A	$3,703,600.81		51.15	
Group B	1,126,296.64		15.56	
Group C	212,026.70		2.94	
		$5,041,924.15		69.65
Second Year				
Group B	$336,509.60		4.65	
Group C	751,698.53		10.38	
		1,088,208.13		15.03
Third Year				
Group C	$1,110,287.40	1,110,287.40	15.32	15.32
Total		$7,240,419.68	.....	100.00

[fol. 8565] From the data derived from the analyses of the rate at which the three groups of cities and towns would acquire their saturation of domestic meters and customer use, and from the determination of the percentage of the total domestic business of Lone Star Gas Company represented by the three groups that would be attached to the system, it is possible to calculate by years the percentage of the total plant that would be idle during the development period.

The following tabulations set out the percentage of the total plant idle, domestic bases, during each of the six development years. It will be noted that for the first development year only the plant constructed in the First Construction Year would be in service, and that for the Second Development Year only the plant constructed in the First and Second Construction Years would be in service. For this reason, the indicated percentages of the total plant idle for each of these development years will be reduced in the final calculations by the application of the percentage of the total plant in service in each of these years to the indicated percentage idle.

First Development Year

Group	Percent of Total Dom. Sales	Percent of Saturation	Percent of Total Plant Active	Percent of Total Plant Idle
Group A (1)...	51.15	22.00	11.25	.....
Group B (1)....	15.56	22.00	3.42	.....
Group C (1)....	2,94	34.60	1.02	.....
			15.69	84.31

(Note) First Year's Construction in service.

[fol. 8566]

Second Development Year

Group	Percent of Total Dom. Sales	Percent of Saturation	Percent of Total Plant Active	Percent of Total Plant Idle
Group A (1)....	51.15	44.50	22.76	.....
Group B (1)....	15.56	51.75	8.05	.....
Group B (2)....	4.65	22.00	1.02	.....
Group C (1)....	2.94	75.10	2.21	.....
Group C (2)....	10.38	34.60	3.59	.....
			37.63	62.37

(Note) First and Second Year's construction in service.

Third Development Year

Group	Percent of Total Dom. Sales	Percent of Saturation	Percent of Total Plant Active	Percent of Total Plant Idle
Group A (1)....	51.15	64.00	32.74	.....
Group B (1)....	15.56	71.00	11.05	.....
Group B (2)....	4.65	51.75	2.41	.....
Group C (1)....	2.94	93.90	2.76	.....
Group C (2)....	10.38	75.10	7.80	.....
Group C (3)....	15.32	34.60	5.30	.....
			62.06	37.94

(Note) Total plant in service.

Defendant's Exhibit No. 28—Continued

Fourth Development Year

Group	Percent of Total Dom. Sales	Percent of Saturation	Percent of Total Plant Active	Percent of Total Plant Idle
Group A (1)....	51.15	77.50	39.64	.....
Group B (1)....	15.56	84.50	13.15	.....
Group B (2)....	4.65	71.00	3.30	.....
Group C (1)....	2.94	100.00	2.94	.....
Group C (2)....	10.38	93.90	9.75	.....
Group C (3)....	15.32	75.10	11.51	.....
			80.29	19.71

(Note) Total plant in service.

[fol. 8567]

Fifth Development Year

Group	Percent of Total Dom. Sales	Percent of Saturation	Percent of Total Plant Active	Percent of Total Plant Idle
Group A (1)....	51.15	87.50	44.76	.....
Group B (1)....	15.56	95.00	14.78	.....
Group B (2)....	4.65	84.50	3.93	.....
Group C (1)....	2.94	100.00	2.94	.....
Group C (2)....	10.38	100.00	10.38	.....
Group C (3)....	15.32	93.90	14.39	.....
			91.18	8.82

(Note) Total plant in service.

Sixth Development Year

Group	Percent of Total Dom. Sales	Percent of Saturation	Percent of Total Plant Active	Percent of Total Plant Idle
Group A (1)....	51.15	96.00	49.10	.....
Group B (1)....	15.56	100.00	15.56	.....
Group B (2)....	4.65	95.00	4.42	.....
Group C (1)....	2.94	100.00	2.94	.....
Group C (2)....	10.38	100.00	10.38	.....
Group C (3)....	15.32	100.00	15.32	.....
			97.72	2.28

(Note) Total plant in service.

Annual Rates for Interest, Depreciation and Taxes to be Applied to the Cumulative Percentage of Reproduction Cost Found To Be Idle During Development Period.

Interest:

While that portion of the property of Lone Star Gas Company that would be in operation during the develop-

ment period would legally be entitled to the application of an annual rate based upon what constituted a fair return for the use of the property, in this estimate an annual rate of 8%, identical with the annual rate used in the calculation of Interest During Construction, has been used.

[fol. 8568] The relation between the loss of interest during construction on that portion of the total cost represented by the plant that would be wholly idle, and the loss of return on that portion of the total cost represented by the plant that is operative but unsaturated during the development period is a very close one. In this estimate a distinction has been made between them insofar as the annual rate, expressed as a percentage and applied to cost of idle plant, is concerned. Eight percent has been applied to the percent of total plant idle during the first and second development years. For the four succeeding development years ten percent has been applied.

Depreciation:

The weighted annual rate of reserve for depreciation and amortization for the property of Lone Star Gas Company subject to depreciation and amortization, expressed as a percent per annum, has been determined to be approximately 6.00 percent.

The following tabulation sets out the items of property and the individual annual rates from which this weighted rate was obtained:

Item	Annual Rate of Reserve
Gas well construction and equipment	13.60%
Drilling and cleaning equipment	
Well lines	14.34%
Main transmission lines	5.66%
Field compressor stations and structures	6.23%
Main line compressor stations and structures	5.20%
General office structure	3.00%
General office equipment	10.50%
General shop equipment	10.00%
General garage equipment	
Telephone system	5.65%
Construction tools and equipment	25.00%

These rates, which are exclusive of the charges for cancelled and surrendered leases, dry hole expense, and deple-

tion, were determined for Lone Star Gas Company as a going concern with saturation complete.

[fol. 8569] In the reproduction of the property, these annual rates would be subject to certain modifications, Depreciation on the General Office Structure has been included as a part of Other General Costs during the Pre-Construction and Construction Periods. Depreciation on Office Furniture and Fixtures has been charged to the costs of the various departmental sections.

The annual rates set out for well lines, main gathering lines, gas well construction and equipment, and field compressor stations are in part a function of the rate of use of gas, and for this reason would be less during a period of business acquisition than during the periods when saturation was complete.

In view of these facts, together with the fact that the property would be new, the annual rate has been modified to conform to the conditions that would be met in reproduction and the following schedule has been adopted:

Period	Annual Rate of Reserve
First Development Year	3.0%
Second Development Year	3.5%
Complete Plant—Third Development Year	4.0%
Complete Plant—Fourth Development Year	4.5%
Complete Plant—Fifth Development Year	5.0%
Complete Plant—Sixth Development Year	5.5%

Taxes:

As developed under Taxes During Construction, the annual tax factor applicable to the public service property of Lone Star Gas Company for the year ended December 31, 1931, was $301,820 after giving effect to the fact that taxes on General Office Land, General Office Structure, Other General Land (Parking Lot) and Furniture and Fixtures had been included as a part of Other General Costs.

[fol. 8570] The Percentage of the Reproduction Cost of Lone Star Gas Company as of January 1, 1933, Completed During Each Construction Year:

From the calculations in Expenditures by Periods, it was determined that the percentage of total expenditures, $64,-

488,917, passing into service during each construction year, would be as follows:

Construction Period—First Year	43.30%
Construction Period—Second Year	36.66%
Construction Period—Third Year	20.04%

Calculations of Fixed Charges on Idle Plant

(1.) Interest and Return

First Development Year		
Total Plant in Service	43.30%	
Total Plant Active	15.68%	
Per Cent of Total Plant Idle	27.62%	
27.62% of $64,488,917 = $17,811,839		
$17,811,839 at 8% for one Year		$1,424,947
Second Development Year		
Total Plant in Service	79.96%	
Total Plant Active	37.63%	
Per Cent of Total Plant Idle	42.33%	
42.33% of $64,488,917 = $27,298,159		
$27,298,159 at 8% for one Year		$2,183,853
Third Development Year		
Total Plant in Service	100.00%	
Total Plant Active	62.06%	
Per Cent of Total Plant Idle	37.94%	
37.94% of $64,488,917 = $24,467,095		
$24,467,095 at 10% for one Year		$2,446,710

[fol. 8571]

Fourth Development Year		
Total Plant in Service	100.00%	
Total Plant Active	80.29%	
Per Cent of Total Plant Idle	19.71%	
19.71% of $64,488,917 = $12,710,766		
$12,710,766 at 10% for one Year		$1,271,077
Fifth Development Year		
Total Plant in Service	100.00%	
Total Plant Active	91.18%	
Per Cent of Total Plant Idle	8.82%	
8.82% of $64,488,917 = $5,687,922		
$5,687,922 at 10% for one Year		$568,792

Defendant's Exhibit No. 28—Continued

Sixth Development Year		
Total Plant in Service	100.00%	
Total Plant Active	97.72%	
Per Cent of Total Plant Idle	2.28%	
2.28% of $64,488,917 = $1,470,347		
$1,470,347 at 10% for one Year		$147,035
Recapitulation of Loss of Return on Idle Plant		
First Development Year		$1,424,947
Second Development Year		2,183,853
Third Development Year		2,446,710
Fourth Development Year		1,271,077
Fifth Development Year		568,792
Sixth Development Year		147,035
Total		$8,042,414

(2.) Depreciation:

Of the total reproduction cost $64,488,917, $4,474,272 representing Preliminary Development and Organization Costs was determined to be non-depreciable, therefore, the total reproduction cost upon which depreciation on idle plant has [fol. 8572] been calculated is fixed at $60,014,645.

From the preceding analysis, certain percentages of the plant were found to be idle during each of these development years. In the following tabulation, these percentages are applied to the total reproduction cost subject to depreciation.

First Development Year	$60,014,645 x 26.10%	$15,663,822
Second Development Year	$60,014,645 x 40.88%	24,533,987
Third Development Year	$60,014,645 x 37.94%	22,769,556
Fourth Development Year	$60,014,645 x 19.71%	11,828,887
Fifth Development Year	$60,014,645 x 8.82%	5,293,292
Sixth Development Year	$60,014,645 x 2.28%	1,368,334

The above figures are the estimated reproduction cost of the property as a whole (without consideration for certain minor items of property not subject to depreciation) subject to depreciation that would be idle during each of the development years.

Defendant's Exhibit No. 28—Continued

First Development Year	
Reproduction Cost Plant Idle	$15,663,822
Times Depreciation Rate	3.0%
Depreciation on Idle Plant	$469,915
Second Development Year	
Reproduction Cost Plant Idle	$24,533.987
Times Depreciation Rate	3.5%
Depreciation on Idle Plant	$858,690
Third Development Year	
Reproduction Cost Plant Idle	$22,769,556
Times Depreciation Rate	4.0%
Depreciation on Idle Plant	$910,782
Fourth Development Year	
Reproduction Cost Plant Idle	$11,828,887
Times Depreciation Rate	4.5%
Depreciation on Idle Plant	$532,300

[fol. 8573]

Fifth Development Year	
Reproduction Cost Plant Idle	$5,293,292
Times Depreciation Rate	5.0%
Depreciation on Idle Plant	$264,665
Sixth Development Year	
Reproduction Cost Plant Idle	$1,368,334
Times Depreciation Rate	5.5%
Depreciation on Idle Plant	$75,258
Recapitulation of Depreciation on Idle Plant	
First Development Year	$469,915
Second Development Year	858,690
Third Development Year	910,782
Fourth Development Year	532,300
Fifth Development Year	264,665
Sixth Development Year	75,258
Total	$3,111,610

Defendant's Exhibit No. 28—Continued

(3.) Taxes

First Development Year		
Percent of Taxable Property in Service	46.91%	
Percent of Plant Active	15.68%	
Percent Idle	31.23%	
Total Taxes $301,820		
Taxes on Idle Plant $301,820 x 31.23%		$94,258
Second Development Year		
Percent of Taxable Property in Service	81.79%	
Percent of Plant Active	37.63%	
Percent Idle	44.16%	
Total Taxes $301,820		
Taxes on Idle Plant $301,820 x 44.16%		$133,284
Third Development Year		
Percent of Taxable Property in Service	100.00%	
Percent of Plant Active	62.06%	
Percent Idle	37.94%	

[fol. 8574]

Total Taxes $301,820		
Taxes on Idle Plant $301,820 x 37.94%		$114,511
Fourth Development Year		
Percent of Taxable Property in Service	100.00%	
Percent of Plant Active	80.29%	
Percent Idle	19.71%	
Total Taxes $301,820		
Taxes on Idle Plant $301,820 x 19.71%		$59,489
Fifth Development Year		
Percent of Taxable Property in Service	100.00%	
Percent of Plant Active	91.18%	
Percent Idle	8.82%	
Total Taxes $301,820		
Taxes on Idle Plant $301,820 x 8.82%		$26,621

Defendant's Exhibit No. 28—Continued

Sixth Development Year		
Percent of Taxable Property in Service	100.00%	
Percent of Plant active	97.72%	
Percent Idle	2.28%	
Total Taxes $301,820		
Taxes on Idle Plant $301,820 x 2.28%		$6,881
Recapitulation of Taxes on Idle Plant		
First Construction Year		$94,258
Second Construction Year		133,284
Third Construction Year		114,511
Fourth Construction Year		59,489
Fifth Construction Year		26,621
Sixth Construction Year		6,881
Total		$435,044

[fol. 8575] Credits to Fixed Charges on Idle Plant by Reason of Net Revenues From the Sale of Industrial Gas:

As set out in the preliminary discussion of Going Value and the Cost of Business Development as a measure of Going Value, all calculations with reference to the percentage of plant that would be idle after having passed into service were based upon the estimated rate of acquisition of the domestic business of Lone Star Gas Company as of January 1, 1933. In view of this basic assumption it is obvious that such net revenues as would be derived from the sale of industrial gas during the periods in which the cost of business development was established by the application of return, taxes and depreciation to the reproduction cost of the plant idle, would be a credit to the overall costs thus developed. It is necessary, therefore, to make a determination of the rate of acquisition of industrial gas sales, and to estimate the net revenue from such sales concurrent with the acquisition of domestic business in order to arrive at a proper estimate of the true cost of business development.

Following the methods of estimate adopted with reference to the acquisition of domestic business, a careful analysis was made of the probable development of the industrial business of Lone Star Gas Company as of January 1, 1932, and the probable net revenues that would be secured from

this class of sales. No material change has taken place in the industrial sales of Lone Star Gas Company since the date of this analysis, and the estimated credits based on net revenue from industrial sales would not be affected by the results of a similar study made as of January 1, 1933.

Organization Plan of Industrial Sales Section:

[fol. 8576] In the general organization plan as indicated by the organization chart, the Industrial Sales Section was made a part of the group whose expenses would be attributable to the cost of reproduction. No estimate of cost, however, was included in Undistributed General Costs for the reason that the expenses of the Section during the period of business development would more logically become a deduction from the gross revenues from industrial sales, and these expenses have been so treated in the estimate.

The Industrial Gas Section would be organized immediately upon the completion of corporate organization by the employment of the industrial engineer who would in turn engage the personnel of the Section, and proceed with the detail work hereinafter outlined.

This step would be necessary by reason of the fact that the surveys, reports, and other market data secured by the originating group would not contain the detailed technical information that would be required for negotiations with owners of industrial plants using other forms of fuel. A complete detailed study of the characteristics and requirements of each industrial plant proposed to be served, would be made before negotiations for conversion could be definitely begun.

In order to properly contact the prospective industrial consumers (the industrial consumers of Lone Star Gas Company as of January 1, 1932, the industrial customers temporarily inactive at this date, and the prospective customers who would be unsuccessfully solicited) the following organization would be required:

Pre-Construction Period and First Construction Year:

Chief Industrial Engineer.
Assistant Industrial Engineer.
Ten Industrial Sales Engineers.
Draftsman.
Stenographer.

[fol. 8577] Second Construction Year:

Chief Industrial Engineer.
Chief Industrial Engineer.
Assistant Industrial Engineer.
Office Engineer.
Twenty Industrial Sales Engineers.
Draftsman.
Stenographer.

Third Construction Year:

Chief Industrial Engineer.
Assistant Industrial Engineer.
Office Engineer.
Thirty Industrial Sales Engineers.
Two Draftsmen.
Two Stenographers.

First Year Plant Wholly Operative:

Chief Industrial Engineer.
Assistant Industrial Engineer.
Office Engineer.
Twenty Five Industrial Sales Engineers.
Draftsman.
Two Stenographers.

Second Year Plant Wholly Operative:

Chief Industrial Engineer.
Assistant Industrial Engineer.
Office Engineer.
Fifteen Industrial Sales Engineers.
Draftsman.
Two Stenographers.

The chief industrial engineer would be responsible for the work of the Section, and the direction of its personnel. He would necessarily be a man thoroughly trained in combustion engineering, familiar with the design and installation of gas burning equipment, and in addition to his technical qualifications, he would possess qualities of salesmanship. The sales engineers would be required to make detailed surveys of industrial plants, select or design the proper gas burning equipment for individual plants, install the equipment, and supervise the initial tests until proper utilization would be secured.

[fol. 8578] Each of the men engaged in the work would be required to have practical experience as well as technical training, and for this reason they could only be secured from the personnel of operating natural gas companies, or from the manufacturers of gas burning equipment. The following schedule of salaries give effect to this fact as well as to the fact that as the company passed into operation and gave permanent employment to the individual employees of the Section there would be a normal reduction in salaries.

	Rate Per Month	Rate Per Annum
Schedule of Salaries—Development Period		
Chief Industrial Engineer	$500	$6,000
Assistant Industrial Engineer	300	3,600
Office Engineer	250	3,000
Senior Sales Engineers	250	3,000
Junior Sales Engineers	200	2,400
Draftsmen	150	1,800
Stenographers	110	1,320
Schedule of Salaries—Operating Period		
Chief Industrial Engineer	450	5,400
Assistant Industrial Engineer	250	3,000
Office Engineer	175	2,100
Senior Sales Engineers	225	2,700
Junior Sales Engineers	200	2,400
Draftsman	150	1,800
Stenographer	110	1,320

Distribution of Salaries by Periods

Pre-Construction Period

Chief Industrial Engineer	Six Months	$3,000
Assistant Industrial Engineer	Six Months	1,800
Ten Industrial Sales Engineers	Six Months	15,000
Draftsman	Six Months	900
Stenographer	Six Months	660
Total		$21,360

Construction Period—First Year

Chief Industrial Engineer	$6,000
Assistant Industrial Engineer	3,600
Ten Industrial Sales Engineers	30,000
Draftsman	1,800

[fol. 8579]

Stenographer	1,320
Total	$42,720

2987

Defendant's Exhibit No. 28—Continued

Construction Period—Second Year	
Chief Industrial Engineer	$6,000
Assistant Industrial Engineer	3,600
Office Engineer	3,000
Fifteen Industrial Sales Engineers	45,000
Five Industrial Sales Engineers	12,000
Draftsman	1,800
Stenographer	1,320
Total	$72,720
Construction Period—Third Year	
Chief Industrial Engineer	$6,000
Assistant Industrial Engineer	3,600
Office Engineer	3,000
Fifteen Sales Engineers	45,000
Fifteen Sales Engineers	36,000
Two Draftsmen	3,600
Two Stenographers	2,640
Total	$99,840
Post-Construction Period—First Year	
Chief Industrial Engineer	$5,400
Assistant Industrial Engineer	3,000
Office Engineer	2,100
Fifteen Sales Engineers	40,500
Ten Sales Engineers	12,000
Draftsman	1,800
Two Stenographers	2,640
Total	$67,440
Post-Construction Period—Second Year	
Chief Industrial Engineer	$5,400
Assistant Industrial Engineer	3,000
Fifteen Sales Engineers	40,500
Draftsman	1,800
Stenographer	1,320
Total	$52,020

Defendant's Exhibit No. 28—Continued

[fol. 8580]

Stationery, Office Supplies, and Special Supplies by Periods

Pre-Construction Period	
Stationery and Office Supplies	$756
Chemicals and Repairs to Instruments	.....
Total	$756
Construction Period—First Year	
Stationery and Office Supplies	$1,512
Chemicals and Repairs to Instruments	200
Total	$1,712
Construction Period—Second Year	
Stationery and Office Supplies	$2,520
Chemicals and Repairs to Instruments	1,000
Total	$3,520
Construction Period—Third Year	
Stationery and Office Supplies	$3,696
Chemical- and Repairs to Instruments	2,000
Total	$5,696
Post-Construction Period—First Year	
Stationery and Office Supplies	$3,108
Chemicals and Repairs to Instruments	1,500
Total	$4,608
Post-Construction Period—Second Year	
Stationery and Office Supplies	$1,932
Chemicals and Repairs to Instruments	1,500
Total	$3,432

Transportation Expense by Periods

Pre-Construction Period		
Equipment:	One Standard Buick	$1,226
	Eleven Chevrolets	6,380
	One Ford Pick-up	555
	Total	$8,161

Defendant's Exhibit No. 28—Continued

[fol. 8581] Pre-Construction Period

Depreciation: $192 per month for six months		$1,152
Operation: Buick 4.5 cents per mile Chevrolets and Ford 4 cents per mile		
Buick 9,000 miles at 4.5 cents per mile		405
Chevrolets 132,000 miles at 4 cents per mile		5,280
Ford 6,000 miles at 4 cents per mile		240
Interest 8 per cent of $8,161 for six months		326
Total		$7,403

Construction Period—First Year

Equipment: One Standard Buick	$1,226	
Eleven Chevrolets	6,380	
One Ford Pick-up	555	
Total	$8,161	
Depreciation: $192 per month for twelve months		$2,304
Operation:		
Buick 18,000 miles at 4.5 cents per mile		810
Chevrolets 264,000 miles at 4 cents per mile		10,560
Ford 12,000 miles at 4 cents per mile		480
Interest 8 per cent of $8,161 for one year		653
Total		$14,807

Construction Period—Second Year

Equipment: One Standard Buick	$1,226	
Twenty One Chevrolets	12,180	
One Ford Pick-up	555	
Total	$13,961	
Depreciation: $332 per month for twelve months		$3,984
Buick 21,600 miles at 4.5 cents per mile		972
Chevrolets 630,000 miles at 4 cents per mile		25,200
Ford 12,000 miles at 4 cents per mile		480
Interest 8 per cent on $13,961 for twelve months		1,117
Total		$31,753

Construction Period—Third Year

Equipment: One Standard Buick	$1,226	
Thirty One Chevrolets	17,980	
One Ford Pick-up	555	
Total	$19,761	
Depreciation: $470 per month for twelve months		$5,640

Defendant's Exhibit No. 28—Continued

[fol. 8582] Operation:

Construction Period—Third Year		
Buick 24,000 miles at 4.5 cents per mile		1,080
Chevrolets 744,000 miles at 4 cents per mile		29,760
Ford 12,000 miles at 4 cents per mile		480
Interest 8 per cent on $19,761 for twelve months		1,581
Total		$38,541
First Year—Plant Wholly Operative		
Equipment: One Standard Buick	$1,226	
Twenty Six Chevrolets	15,080	
One Ford Pick-up	555	
Total	$16,861	
Depreciation: $400 per month for twelve months		$4,800
Operation:		
Buick 24,000 miles at 4.5 cents per mile		1,080
Chevrolets 780,000 miles at 4 cents per mile		31,200
Ford 12,000 miles at 4 cents per mile		480
Interest 8 per cent on $16,861 for twelve months		1,349
Total		$38,909
Second Year—Plant Wholly Operative		
Equipment: One Standard Buick	$1,226	
Sixteen Chevrolets	9,280	
One Ford Pick-up	555	
Total	$11,061	
Depreciation: $264 per month for twelve months		$3,168
Operation:		
Buick 24,000 miles at 4.5 cents per mile		1,080
Chevrolets 480,000 miles at 4 cents per mile		19,200
Ford 12,000 miles at 4 cents per mile		480
Interest 8 per cent on $11,061 for twelve months		885
Total		$24,813

Traveling Expenses by Periods

Pre-Construction Period	
Chief Engineer	
60 days at $5.00 per day	$300
Sales Engineers	
1320 days at $4.00 per day	5,280
Total	$5,580

Defendant's Exhibit No. 28—Continued

[fol. 8583] Construction Period—First Year

Chief Engineer	
120 days at $5.00 per day	$600
Sales Engineers	
2640 days at $4.00 per day	10,560
Total	$11,160

Construction Period—Second Year

Chief Engineer	
120 days at $5.00 per day	$600
Sales Engineers	
5040 days at $4.00 per day	20,160
Total	$20,760

Construction Period—Third Year

Chief Engineer	
120 days at $5.00 per day	$600
Sales Engineers	
7440 days at $4.00 per day	29,760
Total	$30,360

First Year—Plant Wholly Operative

Chief Engineer	
120 days at $5.00 per day	$600
Sales Engineers	
6240 days at $4.00 per day	24,960
Total	$25,560

Second Year—Plant Wholly Operative

Chief Engineer	
120 days at $5.00 per day	$600
Sales Engineers	
3840 days at $4.00 per day	15,360
Total	$15,960

Communication Expense by Periods

Pre-Construction Period

Two Telephones at $6.60 per month for six months	$79
Telegrams and Tolls $15 per day for 150 days	2,250
Total	$2,329

BLANK

PAGE

BLANK

PAGE

CLERK'S COPY.

Vol. V

TRANSCRIPT OF RECORD

Pat 166 8.5.796
U.S.S.C.

Supreme Court of the United States

OCTOBER TERM, 1937

No. 313

LONE STAR GAS COMPANY, APPELLANT,

vs.

STATE OF TEXAS, THE RAILROAD COMMISSION OF TEXAS, ET AL.

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF THE STATE OF TEXAS

FILED AUGUST 13, 1937.

BLANK

PAGE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1937

No. 313

LONE STAR GAS COMPANY, APPELLANT,

vs.

STATE OF TEXAS, THE RAILROAD COMMISSION OF TEXAS; ET AL.

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF THE STATE OF TEXAS

VOL. V

INDEX.

	Original	Print
Record from District Court of Travis County—Continued.		
Statement of facts of trial on the merits—Continued.		
Defendant's Exhibits—Continued.		
No. 29—Map of Lone Star Gas Company's Pipe Line System	8609	3006
No. 30—Report and Findings of Gas Reserves for Lone Star Gas Company, dated January 1, 1933, by J. H. Dunn, and F. E. Kendrick	8611	3007
No. 31—Appraisal of Gas Reserves for Lone Star Gas Company, dated January 1st, 1933	8858	3031
No. 32—Determination of Present Value of Undeveloped Leaseholds as of January 1, 1933, for Lone Star Gas Company by E. A. Steinberger	8866	3034
No. 33—Lone Star Gas Company's Pipe Prices—Large Lots for June 11, 1934; May 1, 1934; and January 2, 1934	8897	3035

JUDD & DETWEILER (INC.), PRINTERS, WASHINGTON, D. C., DECEMBER 28, 1937.

—8104

Record from District Court of Travis County—Continued.
Statement of facts of trial on the merits—Continued.
Defendant's Exhibits—Continued.

	Original	Print
No. 34—Comparison of Pipe Prices for Lone Star Gas Company from January 1, 1933 to June 11, 1934, inclusive	8939	3035
No. 35—Lone Star Gas Company's Price Trend on Typical Valves and Fittings (omitted in printing)	8950	
No. 36—Appraisal—Lone Star Gas Company—Chart Showing Growth of Properties and Business under Basis of Reproduction. Development of Ratios of Plant in Service and Domestic Business used in Determination of Cost of Business Development (omitted in printing)	8972	
No. 37—Report on Condition of Property of Lone Star Gas Company, as of January 1, 1933, by P. McDonald Biddison	8975	3037
No. 38—Comparison of Public Liability and Workmen's Compensation Insurance Rate of Lone Star Gas Company, by E. A. Steinberger (omitted in printing)	9228	
No. 39—Comparison of Steel Pipe Prices and Dresser Couplings of Lone Star Gas Company, by E. A. Steinberger	9232	3042
No. 40—Appraisal, Cost of Reproduction New of Public Service Plant, Property and Business of Lone Star Gas Company as of May 1, 1934, Exclusive of Fort Worth Division, by E. A. Steinberger, P. McDonald Biddison and Ed. C. Connor	9240	3047
No. 41—Application of Annual Reserve Rates to Reproduction Cost New of the Public Service Property of Lone Star Gas Company, Exclusive of Fort Worth Division, as of January 1, 1933, by Ed. C. Connor	9252	3055
No. 42—Report Annual Reserve Accruals Required for Lone Star Gas Company, dated January 1, 1933, by Ed. C. Connor	9259	3057
No. 43—Current Quotations on Bonds and Other Senior Securities, Natural Gas, Manufactured Gas and Electric Utilities for Lone Star Gas Company, by Ed. C. Connor	9585	3196
No. 44—Gas Transportation by Lone Star Gas Company for the Years 1929, 1930, 1931, 1932, and 1933—also map of Lone Star Gas Company Pipe Line System	9591	3201
No. 45—Analysis of Transportation and Sale of Gas Produced in Central West Texas and Gas Produced in Shamrock Area and Southern Oklahoma, for Lone Star Gas Company—		

	Original	Print
Record from District Court of Travis County—Continued.		
Statement of facts of trial on the merits—Continued.		
Defendant's Exhibits—Continued.		
Year 1933, by E. F. Schmidt and Ed. C. Connor	9600	3207
No. 46—Report on Property, Revenues and Expenses with Specified Areas—Year 1933	9723	3279
No. 47—Comparison of Estimated Costs in Plaintiffs' Exhibit 6 with Historical or Actual Costs	9773	3317
No. 48—Historical Rate of Business Development Major Transportation Lines—Lone Star Gas Company	9777	3318
No. 49—Comparison of Lone Star Gas Company's Historical Replacements, Removals and Abandonments, Main, Tap and Field Lines with Calculated Replacements, Removals and Abandonments—Plaintiffs' Exhibit 7	9785	3322
No. 50—Lone Star Gas Company's Receipt and Disposition of Gas—Transmission System "A" and "H" for the Year 1933	9793	3328
No. 51—Statement of Pipe Purchases Through Pittsburgh Office for Lone Star Group Companies—1931-1932	9796	3328
Reporter's certificate (omitted in printing)	9799	
Proceedings in Court of Civil Appeals for Third Supreme Judicial District of Texas	1	3329
Caption (omitted in printing)		
Defendants' cross-assignments of error—Extracts of brief	9	3329
Opinion of court, Blair, J.	16	3333
Judgment	69	3370
Appellee's motion for rehearing	70	3371
Opinion on appellee's motion for rehearing, Blair, J.	139	3405
Order overruling motion for rehearing	141	3406
Entry on application docket of Supreme Court	142	3406
Application for writ of error to Supreme Court	143	3407
Order of Supreme Court refusing writ of error	221	3435
Entry on motion docket of Supreme Court showing filing of motion for rehearing of application for writ of error	222	3435
Motion for rehearing of application for writ of error to Supreme Court	223	3436
Order of Supreme Court overruling motion for rehearing	273	3456
Clerk's certificate, Supreme Court	274	3456
Order of Chief Justice of Court of Civil Appeals denying petition for appeal	275	3457
Petition for appeal, assignment of errors, and prayer for reversal with endorsement of Justice Cardozo thereon	277	3458
Order allowing appeal and fixing security for costs	295	3468
Citation and acknowledgment of service thereof (omitted in printing)	297	
Bond for costs (omitted in printing)	301	

	Original	Print
Appellant's præcipe for transcript and acknowledgment of service thereof	309	3469
Order enlarging time for appellees' filing of counter præcipe.	325	3478
Appellees' counter præcipe for transcript and acknowledgment of service	326	3478
Stipulation as to the record on appeal	335	3485
Order allowing original record to be certified to the clerk of the Supreme Court of the United States (omitted in printing)	340	
Clerk's certificate	343	3487
Excerpts from appellants' brief in Court of Civil Appeals—Assignments of error	347	3489
Excerpts from appellee's brief in Court of Civil Appeals	361	3500
Excerpts from application for writ of error in Supreme Court	364	3501
Orders extending time for docketing of case, etc.	374	3502
Statement of points to be relied upon and designation as to printing record	376	3503
Appellees' designation of additional parts of record to be printed	415	3529

Defendant's Exhibit No. 28—Continued

[fol. 8584] Construction Period—First Year

Two Telephones at $6.60 per month for twelve months		$158
Telegrams and Tolls $51 per day for 300 days		4,500
Total		$4,658
Construction Period—Second Year		$4,658
Construction Period—Third Year		$4,658
First Year—Plant Wholly Operative		$4,658
Second Year—Plant Wholly Operative		$4,658

Office Furniture and Fixtures and Special Equipment

Special Equipment

10—Hayes Flue Gas Analyzer sets at	$110	$1,100
2—400 H.P. Boiler Feed Water Meters	175	350
5—300 H.P. Boiler Feed Water Meters	100	500
5—Steam Flow Meters	200	1,000
Miscellaneous Guages and Thermometers		1,500
Total		$4,450

Office Furniture and Fixtures

Office of Chief Industrial Engineer	$250
Office of Assistant Industrial Engineer	211
Office of Office Engineer	211
Office of Stenographers and Draftsmen	720
Total	$1,392

Cost of Industrial Sales Section

Recapitulation

Pre-Construction Period

Salaries	$21,360
Stationery, Office and Special Supplies	756
Transportation Expense	7,403
Traveling Expenses	5,580
Communication Expenses	2,329
Office Furniture and Fixtures and Special Equipment (Depreciation Only)	292
Total	$37,720

Defendant's Exhibit No. 28—Continued

[fol. 8585] Construction Period—First Year

Salaries	$42,720
Stationery, Office and Special Supplies	1,712
Transportation Expenses	14,807
Traveling Expenses	11,160
Communication Expenses	4,658
Office Furniture, Fixtures and Special Equipment (Depreciation Only)	584
Total	$75,641

Construction Period—Second Year

Salaries	$72,720
Stationery, Office and Special Supplies	3,520
Transportation Expenses	31,753
Traveling Expenses	20,760
Communication Expenses	4,658
Office Furniture, Fixtures and Special Equipment (Depreciation Only)	584
Total	$133,995

Construction Period—Third Year

Salaries	$99,840
Stationery, Office and Special Supplies	5,696
Transportation Expenses	38,541
Traveling Expenses	30,360
Communication Expenses	4,658
Office Furniture, Fixtures and Special Equipment (Depreciation Only)	584
Total	$179,679

First Year—Plant Wholly Operative

Salaries	$67,440
Stationery, Office and Special Supplies	4,608
Transportation Expenses	38,909
Traveling Expenses	25,560
Communication Expenses	4,658
Office Furniture, Fixtures and Special Equipment (Depreciation Only)	584
Total	$141,759

Defendant's Exhibit No. 28—Continued

Second Year—Plant Wholly Operative	
Salaries	$52,020
Stationery, Office and Special Supplies	3,432
Transportation Expenses	24,813
Traveling Expenses	15,960
Communication Expenses	4,658
Office Furniture and Fixtures and Special Equipment (Depreciation Only)	584
[fol. 8586-8591] Total	$101,467
Grand Total	$670,261

Estimate of the Rate of Acquisition of Industrial Sales

In order to estimate the rate of acquisition of the industrial sales of Lone Star Gas Company as of January 1, 1933, it is first necessary to determine the percentage of the sales for the year ended December 31, 1931, that would be made available to the company's system (in reproduction) by the progress of the construction program that has been adopted.

The following tabulations taken from the records of Lone Star Gas Company and the records of the distributing companies served by it, set out the volume of industrial sales, the money received from these sales in each of the cities and towns in which industrial sales were made, and the construction year in which these cities and towns would be attached to the system.

First Construction Year:

Towns	M. Cubic Ft.	Amount
Dallas		
Dallas Gas Company	2,808,295	$447,544.72
County Gas Company	76,879	12,360.64
Fort Worth Division	3,136,173	515,848.67
Abilene (North Park)	18,673	2,707.64
Abilene	549,974	89,559.69
Cleburne	116,472	19,574.65
Denison	72,241	14,306.59
Sherman	215,545	36,794.62
Waco	483,224	83,736.32
Wichita Falls	88,579	19,640.26
Albany	6,659	1,214.08
Baird	21,316	3,481.81
Clyde	.....	.....
Eastland	9,643	2,104.12
Moran	217	31.47
Putnam	3,128	453.57

* * * * * * *

Defendant's Exhibit No. 28—Continued

[fol. 8592] Third Construction Year (Cont'd)

Towns	M. Cubic Ft.	Amount
Ryan	10,660	$2,018.13
Snyder	.....	.....
Sulphur	51,059	9,329.49
Tipton	11,288	2,612.54
Walters	6,819	1,874.47
Waurika	8,134	1,837.14
Wayne	856	235.16
Wynnewood	21,771	3,111.64
Byers	2,643	450.43
Petrolia	119	37.17
Bellevue	.....	.....
Sunset	.....	.....
Alvord	977	175.96
Iowa Park	3,867	909.76
Temple Power and Light Company	6,947	1,493.62
Burkburnett	306,352	33,698.72
Texas Right-of-way Sales	3,043,725	355,369.78
Oklahoma Right-of-way Sales	14,866	2,070.54
Total	4,855,275	$641,255.88
Grand Total	14,116,540	$2,184,540.22

Per cent of Total Industrial Sales First Construction Year	54.69
Per cent of Total Industrial Revenue First Construction Year	58.18
Per cent of Total Industrial Sales Second Construction Year	10.91
Per cent of Total Industrial Revenue Second Construction Year	12.47
Per cent of Total Industrial Sales Third Construction Year	34.40
Per cent of Total Industrial Revenue Third Construction Year	29.35

In connection with the foregoing tabulations from which the percentages of industrial sales of Lone Star Gas Company for the year ended December 31, 1931, have been determined with reference to the construction years in which the individual cities and towns would be attached to the system, it has been estimated that industrial gas service would be initiated at the end of the first six month's construction. This assumption would result in an average of three months service during the first construction year to the cities and [fol. 8593] towns attached during the First Construction Year, an average of six months service during the Second Construction Year to the cities and towns attached during the Second Construction Year, and an average of six months

service during the Third Construction Year for cities and towns attached during the Third Construction Year. For each year following the initiation of service, it is assumed that the business acquired by each group during each year would be attached uniformly throughout the year.

The following tabulation sets out the relation of the total industrial revenue of Lone Star Gas Company as of December 31, 1931, as developed for the cities and towns attached during the construction period, to the time that service would be available to each group during the construction and post-construction periods. For convenience, the cities and towns reached during the first, second, and third construction years will be called Group I, Group II, and Group III, respectively.

Cities and Towns	Group I	Group II	Group III
Percent of Total Industrial Revenue	58.18	12.47	29.35
First Construction Year	3 Months Av.		
Second Construction Year	One Year	6 months Av.	
Third Construction Year	One Year	One Year	6 Months Av.
First Operative Year	One Year	One Year	One Year
Second Operative Year	One Year	One Year	One Year
Third Operative Year	One Year	One Year	One Year
Fourth Operative Year	One Year	One Year	One Year

Rate of Acquisition of Industrial Sales by Groups:

The estimate of the rate of acquisition of industrial sales by groups of cities and towns attached during each of the construction years is based upon the actual experience of Lone Star Gas Company during the period between 1920 and 1927. During the year 1921, the industrial sales of the company were 2,600,000 M. cubic feet. In 1927 the sales had [fol. 8594] reached 24,200,000 M. cubic feet. The historical rate of acquisition during this period has been modified by increasing the rate of acquisition during the first, second and third development years, and the results applied to Groups I and II for the reason that practically all cities and towns in Groups I and II were a part of the system from 1921 to 1927. The industrial sales in Group III would be acquired at a more rapid rate, and the estimated rate of acquisition has been adjusted to conform to this condition.

The following tabulation sets out the estimated annual rates of indusrial sales acquisition for cities and towns in Groups I, II, and III.

Defendant's Exhibit No. 28—Continued

Year	Group I. % of Total	Group II. % of Total	Group III. % of Total
First Construction Year	20.6	....	....
Second Construction Year	23.4	20.6	....
Third Construction Year	23.4	23.4	40.0
First Year Wholly Operative	21.0	23.4	25.0
Second Year Wholly Operative	7.9	21.0	20.0
Third Year Wholly Operative	3.7	7.9	10.0
Fourth Year Wholly Operative	....	3.7	5.0

The foregoing percentages of annual acquisition represent the estimated percentage of the industrial sales acquired at the end of each period. The average percentages acquired for each period are shown in the following tabulation:

Year	Group I. % of Total	Group II. % of Total	Group III. % of Total
First Construction Year	5.2	....	....
Second Construction Year	32.3	10.3	....
Third Construction Year	55.7	32.3	20.0
First Year Wholly Operative	77.9	55.7	52.5
Second Year Wholly Operative	92.3	77.9	75.0
Third Year Wholly Operative	98.2	92.3	90.0
Fourth Year Wholly Operative	100.0	98.2	97.5

These percentages were obtained by adding one-half of the percentages acquired in each year to the cumulative percent-[fol. 8595] ages of the preceding years. This method conforms to the assumption that the business acquired in any given year would be secured uniformly during the year.

Cost of Gas:

In order to determine the net revenue from the sale of industrial gas, it is necessary to fix the cost of gas. The cost of gas together with the cost of securing the business are proper deductions from the gross revenues received by Lone Star Gas Company from the sale of industrial gas in order to fix the net revenues from such sales.

For the year ended December 31, 1931, Lone Star Gas Company paid $1,456,830.39 for 23,017,174 M. cubic feet (as measured), or an average price of 6.33 cents per M. cubic feet. It is impossible to determine with any degree of accuracy the cost of gas produced by the company. Furthermore, the amount of gas purchased by the company during the year 1931 represented 72.25 per cent of the total gas purchased and produced. For these reasons, together with the fact that there would be no material difference between the actual cost of gas produced and the cost of gas purchased,

the average cost of gas purchased is used as the basis or the estimate.

Cost of Compression:

During the year 1931, Lone Star Gas Company compressed 73.8 per cent of the total gas delivered at an average cost of 1.74 cents per M. cubic feet compressed (operation only).

It is probable that the percentage of compression for gas sold for industrial use would be some what less than the percentage of compression for all gas delivered. For this reason, it is estimated that 50 per cent of the gas sold for [fol. 8596] industrial use would be compressed. This assumption results in a cost of .87 cents per M. cubic feet for the cost of compression for gas sold for industrial use.

Estimate of Net Revenue from Industrial Sales by Years

Group I		
Gross Industrial Revenues Group I.—1931		$1,270,963
Less: 7,720,923 M. cubic feet at 7.2 cents per M		555,906
Gross Revenue less cost of gas and Compression		$715,057
First Construction Year		
$715,057×20.6% for three Months		$36,825
Less: Sales Expense		
Pre-Construction Period	$37,720	
Sales expense First Construction Year	75,641	
		113,361
Total		†$76,536
Second Construction Year		
$715,057×32.3% for one year		$230,963
Less: Sales Expense Second Construction Year		133,995
Total		$96,968
Third Construction Year		
$715,057×55.7% for one Year		$398,287
Less: Sales expense Third Construction Year		179,679
Total		$218,608

† Red in copy.

Defendant's Exhibit No. 28—Continued

First Year Plant Wholly Operative	
$715,057×77.9% for one Year	$557,029
Less: Sales Expense First Year Plant Wholly Operative	141,759
Total	$415,270
Second Year Plant Wholly Operative	
$715,057×92.3% for one Year	$659,998
Less: Sales Expense Second Year Plant Wholly Operative	101,467
Total	$558,531

[fol. 8597]

Third Year Plant Wholly Operative	
$715,057 x 98.2% for one Year	$702,186
Less: Sales expense Normal Year	101,467
Total	$600,719
Fourth Year Plant Wholly Operative	
$715,057 x 100% for one Year	$715,057
Less: Sales expense Normal Year	101,467
Total	$613,590

(Note) All sales expenses have been charged against Group I. No additional accuracy of estimate could be secured by an allocation of these expenses to the other groups.

The sales expenses for the Second Year Plant Wholly Operative are estimated to be the normal expenses of the Industrial Section.

Group II	
Gross Industrial Revenue Group II.—1931	$272,322
Less: 1,540,342 M. cubic feet at 7.2 cents per M	110,905
Gross revenue less cost of Gas and Compression	$161,417
Second Construction Year	
$161,417 x 20.6% for six Months	$16.626
Third Construction Year	
$161,417 x 32.4% for one Year	$52,138
First Year Plant Wholly Operative	
$161,417 x 55.7% for one Year	$89,909

Defendant's Exhibit No. 28—Continued

Second Year Plant Wholly Operative $161,417 x 77.9% for one Year	$125,744
Third Year Plant Wholly Operative $161,417 x 92.3% for one Year	$148,988
Fourth Year Plant Wholly Operative $161,417 x 98.2% for one Year	$158,511

[fol. 8598]

Group III	
Gross Industrial Revenue Group III.—1931	$641,256
Less: 4,855,275 M. cubic feet at 7.2 cents per M	349,580
Gross Revenue less cost of Gas and Compression	$291,676
Third Construction Year $291,676 x 40% for six Months	$58,335
First Year Plant Wholly Operative $291,676 x 52.5% for one Year	$153,130
Second Year Plant Wholly Operative $291,676 x 75% for one Year	$218,757
Third Year Plant Wholly Operative $291,676 x 90% for one Year	$262,508
Fourth Year Plant Wholly Operative $291,676 x 97.5% for one Year	$284,384

Recapitulation of Credits to Fixed Charges on Idle Plant

First Construction Year		
Group I		$76,536†
Second Construction Year		
Group I	$96,968	
Group II	16,626	
		113,594
Third Construction Year		
Group I	218,608	
Group II	52,138	
Group III	58,335	
		329,081

† Red in copy.

Defendant's Exhibit No. 28—Continued

First Year Wholly Operative		
Group I	$415,270	
Group II	89,909	
Group III	153,130	
		$658,309
Second Year Wholly Operative		
Group I	558,531	
Group II	125,744	
Group III	218,757	
		903,032
[fol. 8599]		
Third Year Wholly Operative		
Group I	600,719	
Group II	148,988	
Group III	262,508	
		1,012,215
Fourth Year Wholly Operative		
Group I	613,590	
Group II	158,511	
Group III	284,384	
		1,056,485
Total		$3,996,180

[fol. 8600] Personnel Costs

In the estimate of Undistributed General Costs no specific allowance has been included for the costs that would be incurred in the reproduction of the property and business of Lone Star Gas Company in connection with collecting, employing and coordinating into working unit the personnel that would be required for the various departmental organizations.

In summarizing the factors that contribute to the Going Value of Lone Star Gas Company as of January 1, 1933, the sixth factor enumerated set out the fact that the company, over a period of more than twenty years operating experience, had developed a highly trained and efficient operating personnel consisting of executives, counsel, technicians, department heads and other employees, each of whom was familiar with all phases of the natural gas business in general, and with all phases of the business and property of Lone Star Gas Company in particular.

It was further noted that this trained organization had peculiar value due to the fact that the natural gas business

is not a universal public service enterprise but is confined by natural reasons, to limited geographic areas and that trained and experienced natural gas executives, operators and technicians are correspondingly difficult to secure and to weld into a functioning organization.

This general statement could be made specific by an analysis of the experience and qualifications of the various members of the Lone Star Gas Company organization. A number of the departmental heads are outstanding in their respective lines of work. In practically every case respon- [fol. 8601] sible department heads, together with their immediate subordinates, have been associated with the organization of the company for a number of years. To the value of their inherent technical qualifications, there has been added the value that has been brought about by an intimate familiarity with the operating and physical details of the property itself.

The existence of this coordinated personnel and its definite association with this particular property constitutes an element of value that would be recognized and paid for by any willing buyer of the property as of January 1, 1933. The existence of this element of value is not difficult to determine, but the worth of it measured in terms of dollars cannot be fixed by any mathematical formula. The reasonableness of the current operating charges of the company and the reasonableness of the unit costs of reproduction which have been used as the basis of the determination of the reproduction cost of the physical elements of the property are examples of the effect of the value of the operating personnel upon any current investigation regarding the rates and charges of the company.

Aside from the consideration that should be given to the element of value that inheres in the property of Lone Star Gas Company by reason of its trained personnel and its established operating routines, in the reproduction of this property certain out-of-pocket expenditures would be incurred in the physical assembly and selection of the various individuals set out as part of the various department groups detailed in the preceding volume of this report. This element of "Cost" would necessarily be incurred in reproduction without reference to the "Value" of the organization to the company after its construction program had been completed. [fol. 8602] In addition to the costs of assembly and selection

there would also be additional and inescapable costs in connection with personnel turn-over during the normal construction period and the early development years. This cost would be incurred in connection with:

1. The expense of interviews with prospective executives and department heads.

2. The excess salaries required to secure trained men from the personnel of other natural gas companies.

3. The expense of moving household furniture of executives and department heads.

4. The lack of efficiency on the part of subordinate employees during the earlier part of the construction period.

As previously noted in another section of this report, the unit costs of construction used in the estimate of the reproduction cost of the physical property were based upon the assumption that the company would construct the property without the intermediary services of a general engineering contractor. The method of estimate adopted eliminated the item of contractor's profit and correspondingly increased the personnel and the responsibilities of the administrative and supervisory group included in the estimate of Undistributed General Costs.

In the estimate of Undistributed General Costs the salaries adopted conform very closely to the salaries paid in normal times to the various individuals whose functions in the organization are set out in detail in the estimate. In no case do the salaries adopted reflect the salaries that would be required to secure the services of the various individuals from the organizations of going concerns.

[fols. 8603-8604] In the development of the various departmental groups the personnel set out has been based upon the assumption that each individual was qualified for his specific work and was trained in the routines required for the efficient discharge of his duties. In actual practice no such ideal conditions could be realized and this failure to conform to the stipulations of this estimate would result in an increased operating personnel and in increased costs.

It is estimated that the minimum cost of the factors heretofore discussed would be not less than $200,000 in the reproduction of the physical property of Lone Star Gas Company.

Defendant's Exhibit No. 28—Continued

[fol. 8605] Working Capital

General Summary

Materials and Supplies	$555,000
Cash Working Capital	555,000
Advances on Gas Purchase Contracts	436,000
Pre-Paid Insurance and Rentals	40,000
Incomplete Construction	100,000
Gas in System	15,600
Total	$1,701,600

[fol. 8606] Working Capital

Definition:

Cash Working Capital, as used in this reproduction cost of the property and business of Lone Star Gas Company as of December 31, 1932, is intended to include the necessary investment in materials and supplies, advances on gas purchase contracts, pre-paid items of expense, monies invested in materials of construction, and labor for property in construction and not included in the investment accounts in this appraisal; the necessary cash required to operate the company and the normal cash balances required for proper accommodation from commercial banks. Cash Working Capital as distinguished from the structural and general costs, included in this appraisal, is a requirement and a necessary investment of a property in operation. For this reason, the items included in this estimate are based upon the current operating experience of Lone Star Gas Company.

Materials and Supplies $555,000:

Lone Star Gas Company's investment in materials and supplies used in the operation of its public service property, was as of December 31, 1932, approximately $545,000. In addition to this sum, the company had distributed over its system $10,000 worth of pipe for emergency replacements and repairs. This pipe has been inventoried and priced, and the above figure determined.

Cash Working Capital $555,000:

The average operating expenses of Lone Star Gas Company for the year 1932, were $170,000 per month exclusive

of the cost of gas purchased. The least cash upon which the company could operate would be the operating requirements for a forty five day period, or $255,000. No company could [fols. 8607-8608] operate without the maintenance of normal cash balances. Commercial banks extending accommodations require that such balances be maintained no less than sound business management. Lone Star Gas Company maintained such balances, and $300,000 is estimated as the minimum allowance for this purpose.

Advances on Gas Purchase Contracts $436,000:

In the normal conduct of its business, Lone Star Gas Company at all times has substantial amounts tied up in cash and the cost of materials advanced to the producers of gas. The sum represented by these cash advances and the cost of materials as of December 31, 1932, was $436,000.

Pre-Paid Insurance and Rentals $40,000:

The sum of $40,000 represents the actual outlay on the part of Lone Star Gas Company for pre-paid insurance and rentals as of December 31, 1932. This is a normal amount for this type of expense.

Incomplete Construction $100,000:

As of December 31, 1932, the net amount of incomplete construction not included in the investment accounts of this appraisal was approximately $100,000. This figure has been arrived at after giving proper consideration to the amounts involved in non-public service property, expenditures made in behalf of other companies and other proper deductions:

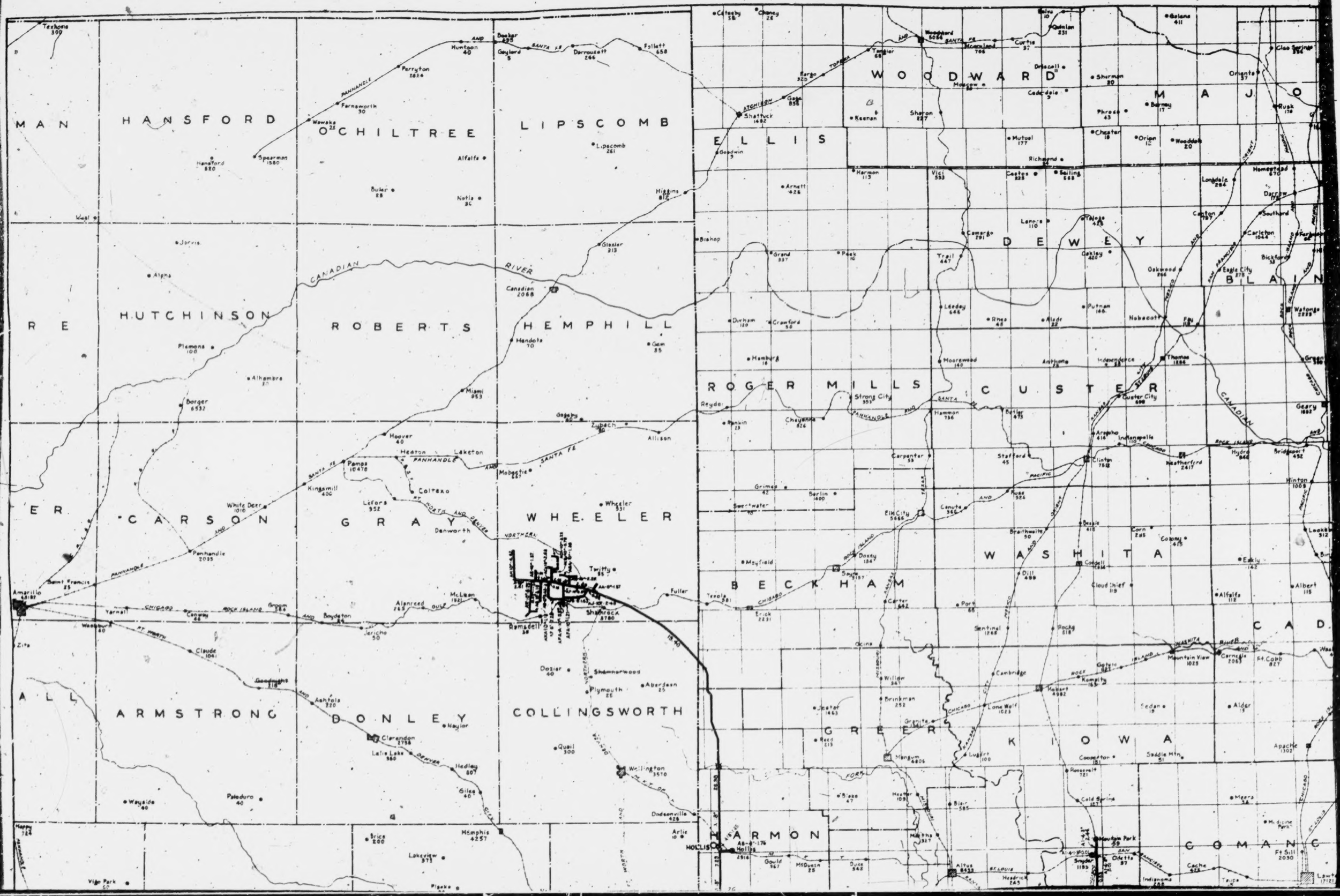
Gas in the System $15,600:

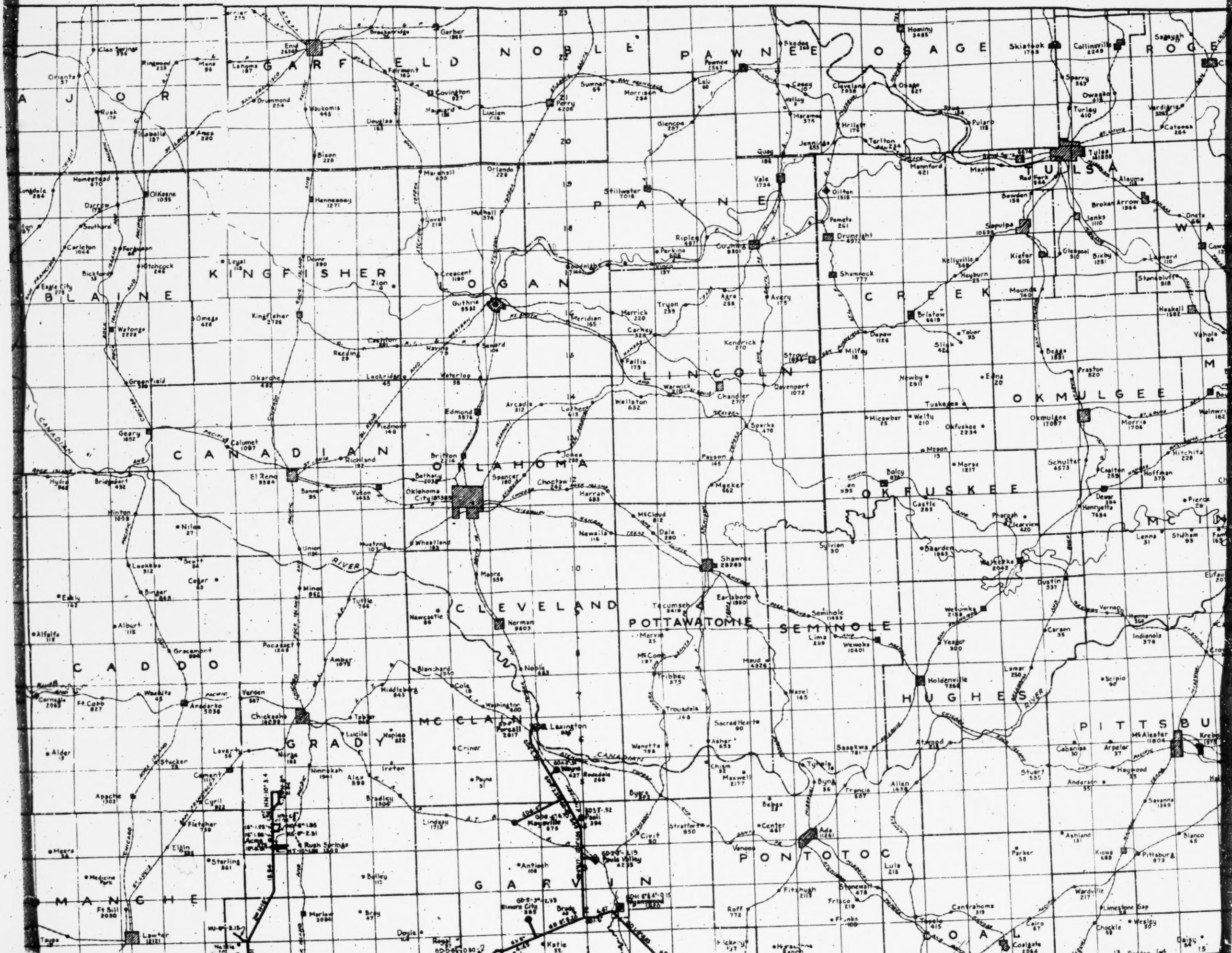
The cubical contents of the pipe line system of Lone Star Gas Company is 156,425 cubic feet, based upon an average working pressure of 200 pounds per square inch. The average cost of this gas after field expenses and compression costs have been added to the base cost of the gas is not less than ten cents per cubic foot.

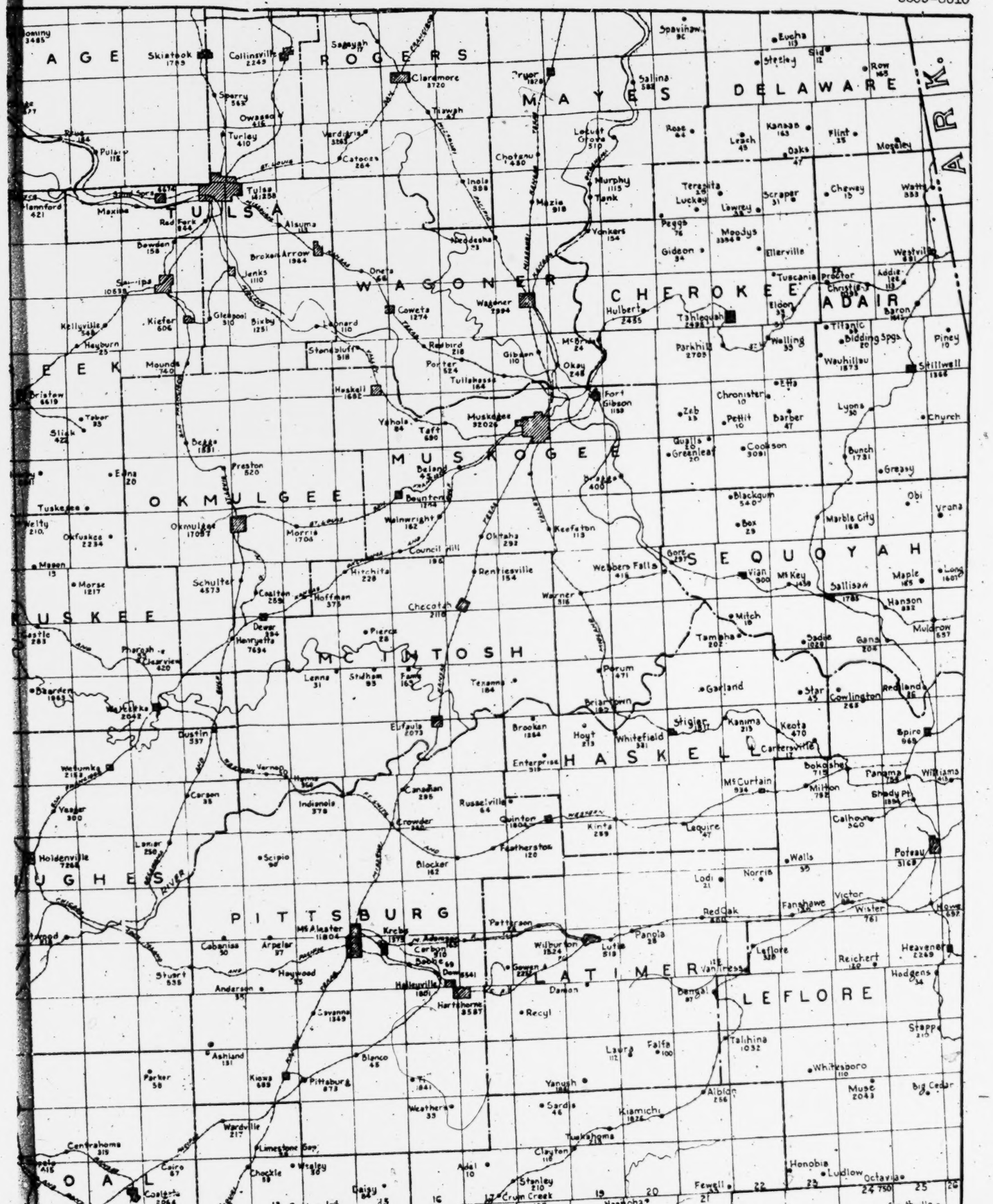
(Here follows 1 photolithograph, side folios 8609-8610)

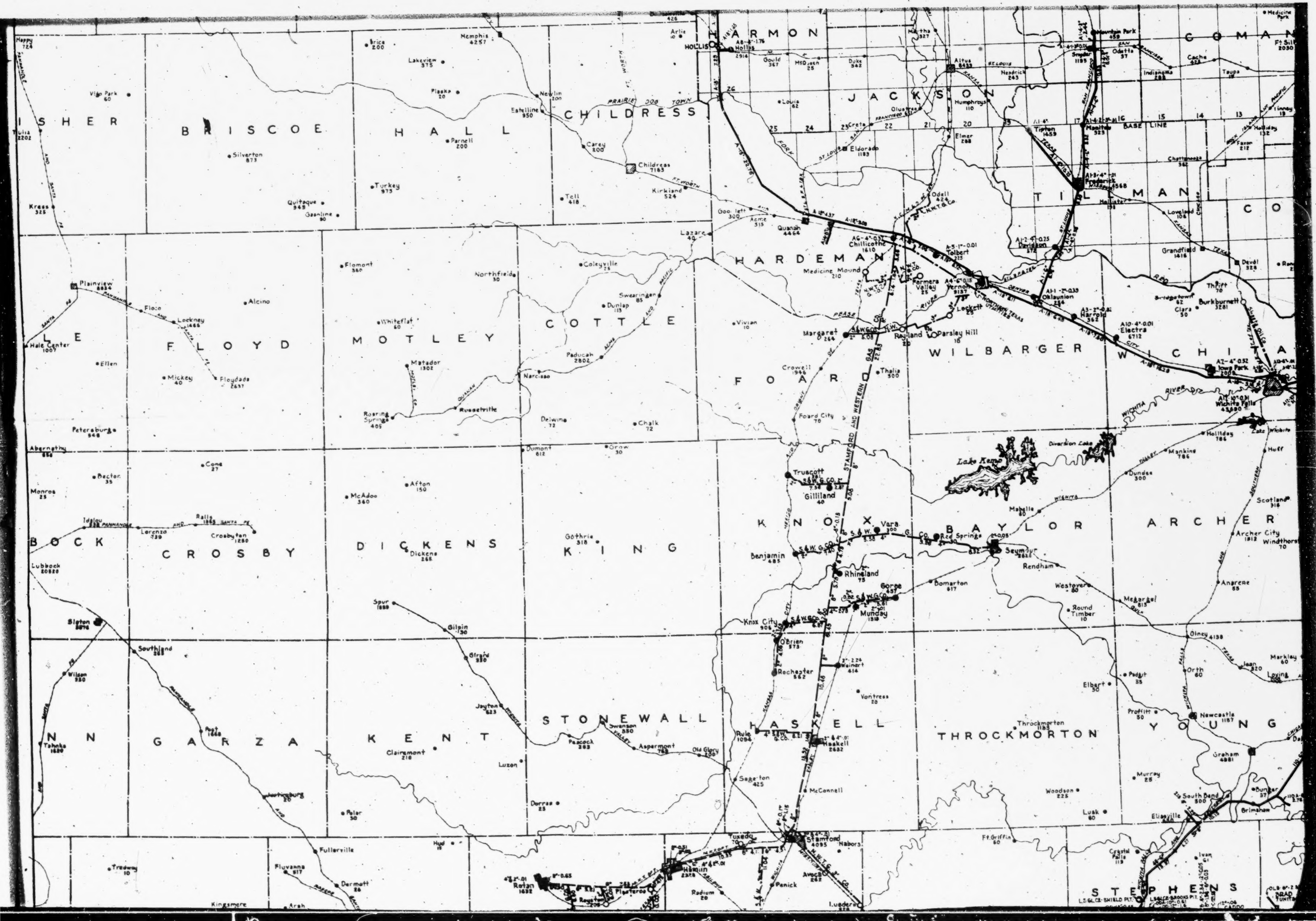
BLANK

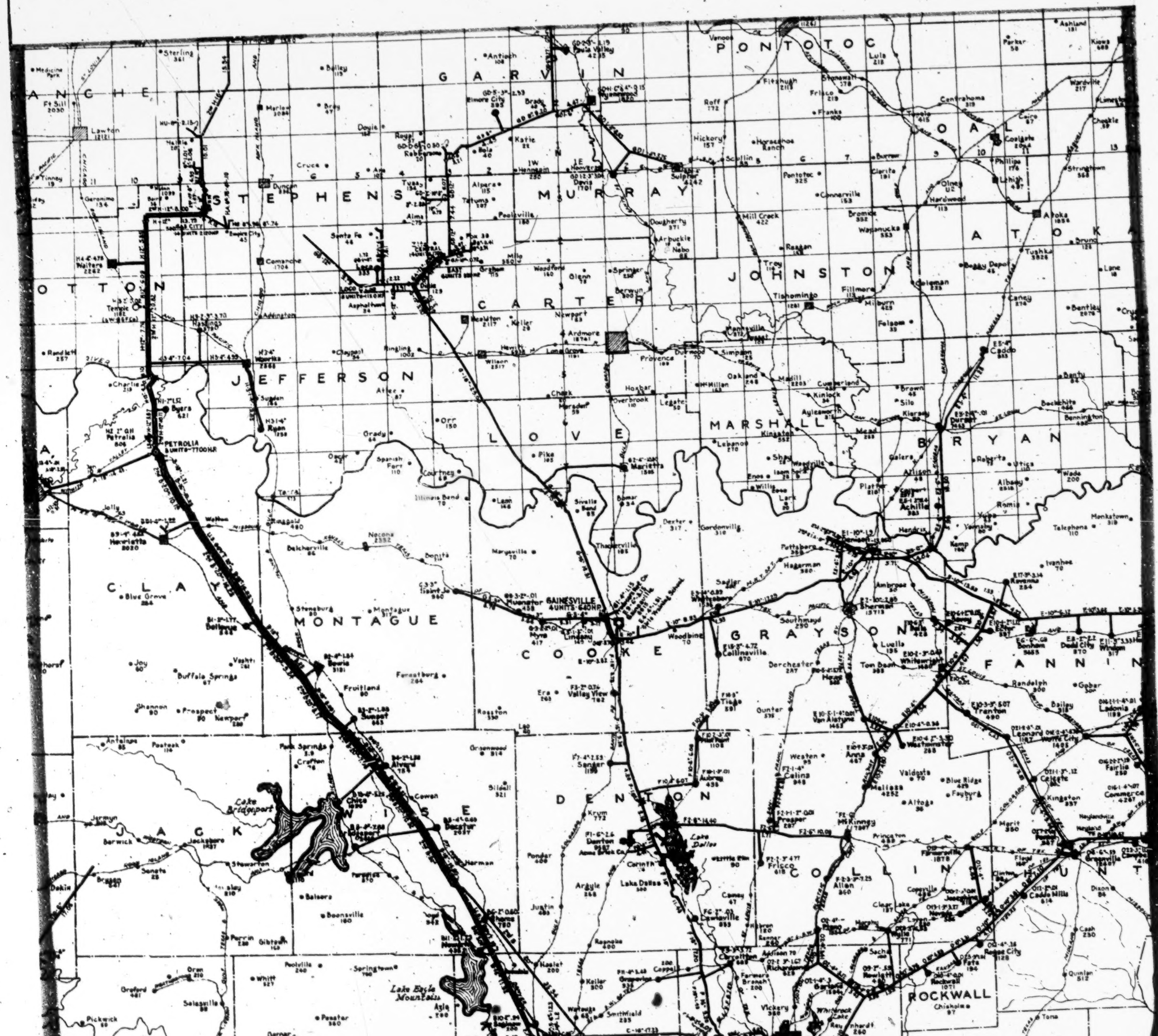
PAGE

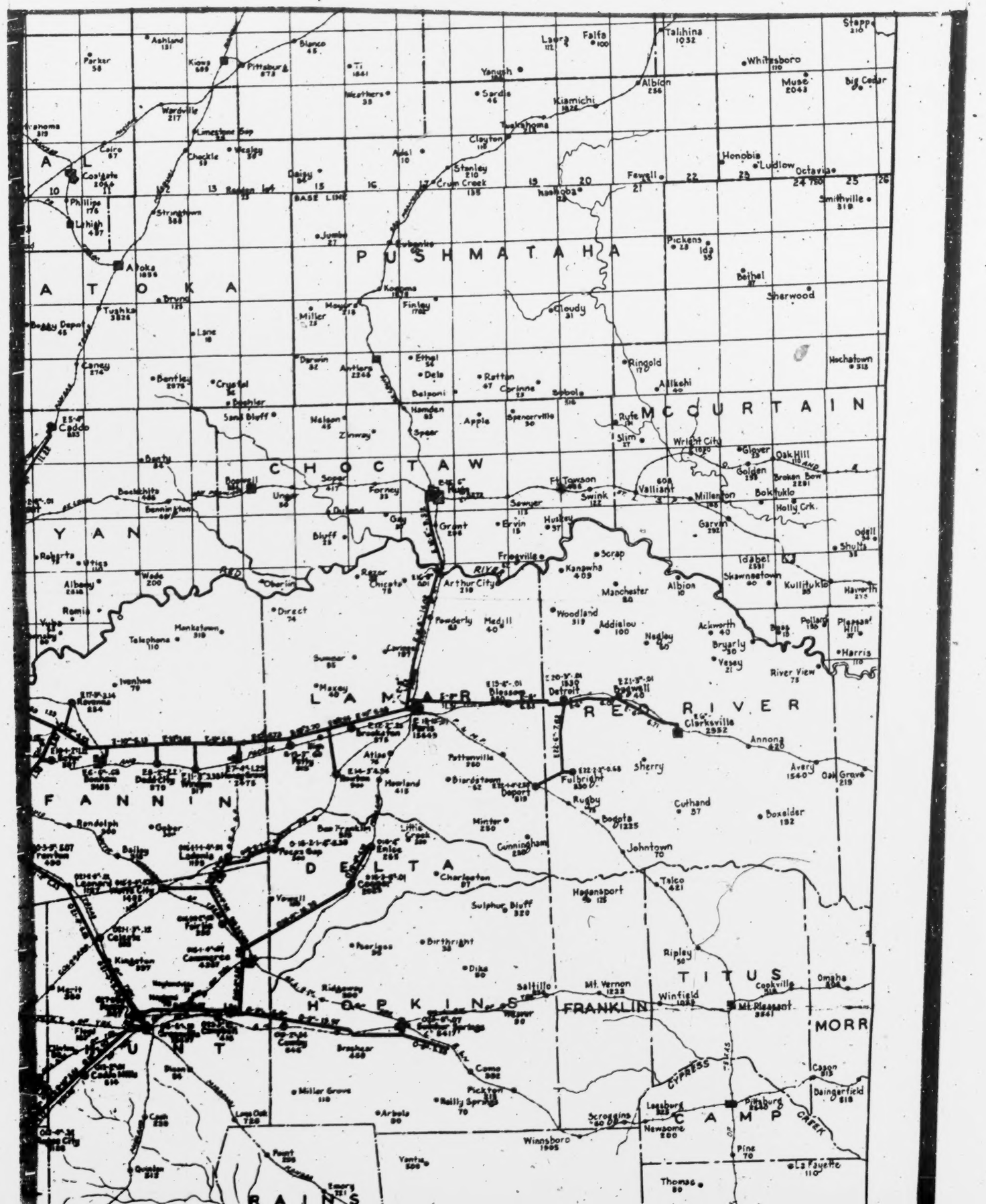

MAN
HANSFORD
OCHILTREE
LIPSCOMB
WOODWARD
ELLIS
MAJO
DEWEY
BLAIN
ROGER MILLS
CUSTER
WASHITA
BECKHAM
CAD
GREER
KIOWA
HUTCHINSON
ROBERTS
HEMPHILL
CANADIAN RIVER
CARSON
GRAY
WHEELER
ALL
ARMSTRONG
DONLEY
COLLINGSWORTH
HARMON
COMANC
Texhoma 399
Hansford 880
Spearman 1580
Perryton 2824
Farnsworth 30
Wewoka 22
Huntoon 40
Booker 825
Gaylord 5
Darrouzett 266
Follett 658
Lipscomb 261
Alfalfa
Buker 28
Notla 30
Higgins 812
West
Jarvis
Alpha
Glazier 313
Canadian 2068
Plemons 100
Alhambra 30
Borger 6532
Miami 953
Hoover 40
Heaton
Laketon
Pampa 10470
Mobeetie 257
Zybach 30
Allison
Gopher 40
Kingsmill 400
White Deer 1010
Lefors 952
Coltexo
Wheeler 531
Denworth
Penhandle 2035
Saint Francis 25
Amarillo 45187
Yarnell
Conway 28
Groom 384
Boydston 34
Jericho 50
Alanreed 265
McLean 1921
Twitty 85
Fuller
Shamrock 8780
Ramadell 58
Wellington 3570
Dodsonville 425
Memphis 4257
Lakeview 373
Arlie 10
Quail 300
Dozier 40
Shamrock
Plymouth 25
Aberdeen 25
Naylor
Clarendon 2758
Lelia Lake 360
Hedley 807
Giles 40
Paloduro 40
Wayside 40
Brice 200
Vigo Park 50
Pisgah
Goodnight 118
Ashtola 220
Claude 1041
Zita
Happy 724
Cheyenne 826
Reydon
Rankin 23
Strong City 351
Hammon 736
Butler 475
Arapaho 414
Thomas 1886
Custer City 690
Geary 1602
Indianola 110
Canadian
Hydro 946
Bridgeport 452
Carpenter 55
Stafford 45
Clinton 7812
Weatherford 2417
Hinton 1005
Grimes 42
Berlin 1400
Sweetwater 90
Elm City 5666
Canute 566
Rose 324
Braithwaite 50
Bessie 418
Corn 285
Cooper 475
Looks 312
Mayfield
Doxey 134
Sayre 3157
Texola 581
Erick 2231
Carter 562
Cordell 1934
Cloud Chief 119
Albert 115
Alfalfa 112
Okins
Willow 341
Cambridge
Gotebo 121
Kemp City 165
Mountain View 1025
Carnegie 2063
Ft Cobb 827
Brinkman 252
Granite
Lone Wolf 1023
Cedar 19
Alder 15
Reed 215
Mangum 4806
Lugert 100
Saddle Mtn 51
Apache 1303
Roosevelt 721
Cold Springs 127
Meers 34
Blair 585
Martha 327
Gould 967
McQueen 25
Duke 362
Altus 8633
Hollis 5916
Hollis
Headrick 245
Snyder 1195
Odetta 87
Mountain Park 59
Cache 473
Indianola 268
Ft Sill 2030
Lawton 17121

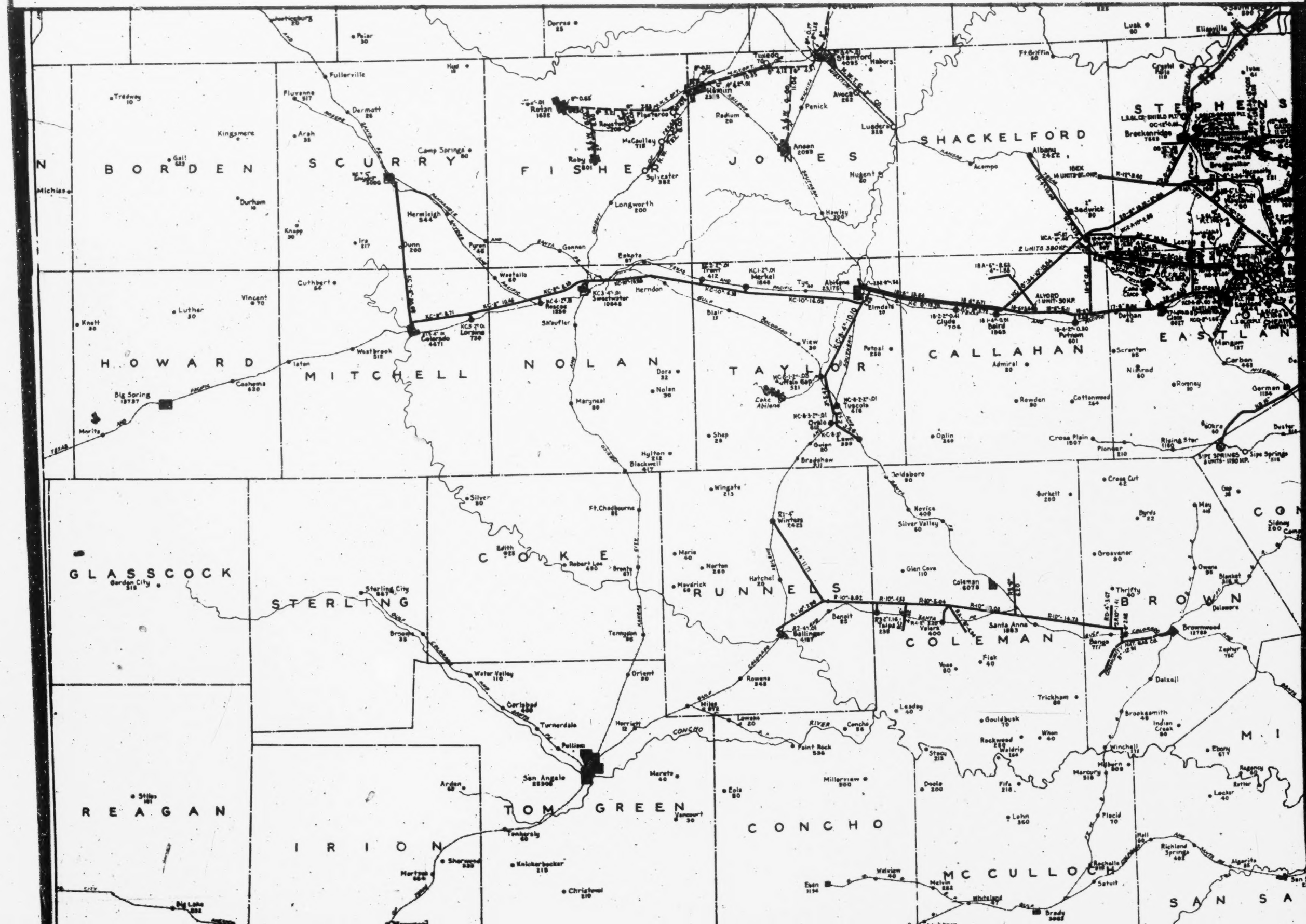

NOBLE
PAWNEE
OSAGE
GARFIELD
MAJOR
BLAINE
KINGFISHER
LOGAN
PAYNE
CREEK
TULSA
ROGE
WA
LINCOLN
OKMULGEE
OKFUSKEE
MC
CANADIAN
OKLAHOMA
CLEVELAND
POTTAWATOMIE
SEMINOLE
HUGHES
PITTSBU
CADDO
GRADY
MC CLAIN
GARVIN
PONTOTOC
COAL
MANCHE
Enid
Perry
Stillwater
Cushing
Yale
Drumright
Sapulpa
Tulsa
Broken Arrow
Guthrie
Edmond
Oklahoma City
El Reno
Chickasha
Lexington
Norman
Shawnee
Ada
Holdenville
Okmulgee
Chandler
Duncan
Pauls Valley
Ardmore
Lawton
Marlow
Hennessey
Kingfisher
Watonga
Geary
Calumet
Hinton
Weatherford
Clinton
Sayre
Elk City
Cordell
Anadarko
Apache
Cyril
Rush Springs
Tuttle
Blanchard
Purcell
Wayne
Maysville
Byars
Konawa
Wewoka
Seminole
Sasakwa
Asher
Wanette
Tecumseh
Earlsboro
Konawa
Francis
Allen
Byng
Fitzhugh
Stonewall
Roff
Tupelo
Coalgate
Atoka
Caney
Cleveland
Osage
Skiatook
Collinsville
Sperry
Owasso
Turley
Pawhuska
Bartlesville
Dewey
Nowata
Coffeyville
Independence
Parsons
Chanute
Iola
Humboldt
Pittsburg
Girard
Columbus
Joplin
Miami
Vinita
Claremore
Pryor
Muskogee
Wagoner
Haskell
Checotah
Eufaula
McAlester
Hartshorne
Krebs
Wilburton
Stigler
Poteau
Heavener
Spiro
Sallisaw
Fort Smith
Van Buren
Mena
Waldron
Hot Springs
Arkadelphia
Texarkana
Idabel
Broken Bow
Hugo
Durant
Atoka
Tishomingo
Ardmore
Madill
Marietta
Gainesville
Denison
Sherman
Bonham
Paris
Clarksville
Red River
Arkansas River
Canadian River
Washita River
Kiamichi River
Poteau River
Verdigris River
Grand River
Neosho River
Illinois River
Deep Fork
Cimarron River
Salt Fork
Chikaskia River
Kansas
Missouri
Arkansas
Texas
Frisco
Rock Island
Santa Fe
Katy
Missouri Pacific
Choctaw
Midland Valley
Oklahoma Central
Canadian
Pacific
Meridian 165

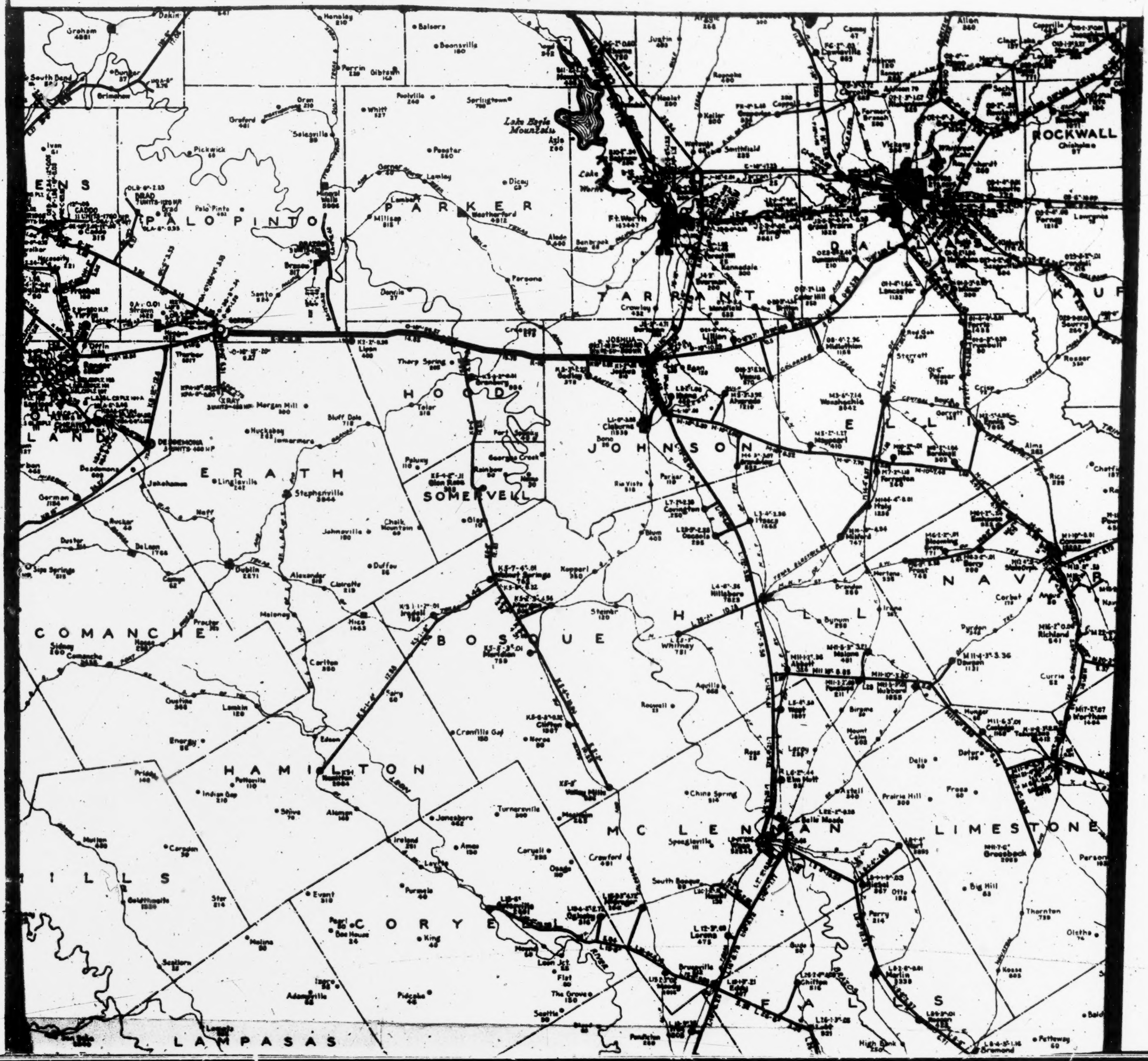

AGE
ROGERS
MAYES
DELAWARE
CRAIG
TULSA
WAGONER
CHEROKEE
ADAIR
CREEK
MUSKOGEE
OKMULGEE
SEQUOYAH
MCINTOSH
HASKELL
LATIMER
LEFLORE
HUGHES
PITTSBURG
COAL
Claremore
Skiatook
Collinsville
Sperry
Owasso
Turley
Pulaski
Tulsa
Broken Arrow
Jenks
Bixby
Glenpool
Kiefer
Sapulpa
Kellyville
Bristow
Mounds
Depew
Preston
Okmulgee
Morris
Henryetta
Schulter
Coalton
Hoffman
Hitchita
Beland
Bearden
Wetumka
Holdenville
Dustin
Elfaula
Brooken
Hoyt
Whitefield
Enterprise
Canadian
Indianola
Crowder
Quinton
Featherston
Blocker
Scipio
Carson
Lenar
Yeager
Stidham
Lenna
Texanna
Perrum
Garland
Briartown
Stigler
Kanima
Keota
Cartersville
Spiro
Panama
Bokoshe
McCurtain
Milton
Shady Pt.
Calhoun
Poteau
Wister
Howe
Heavener
Leflore
Reichert
Hodgens
Stapp
Talihina
Whitesboro
Albion
Kiamichi
Tuskahoma
Clayton
Honobia
Ludlow
Octavia
Wilburton
Panola
Red Oak
Victor
Fanshawe
Lodi
Norris
Walls
Quinton
Latexo
Pittsburg
McAlester
Krebs
Haileyville
Hartshorne
Savanna
Arpelar
Cabaniss
Stuart
Haywood
Anderson
Ashland
Kiowa
Pittsburg
Blanco
Parker
Wardville
Centrahoma
Limestone Gap
Coalgate
Caney
Cairo
Wapanucka
Atoka
Daisy
Stanley
Crum Creek
Fewell
Muse
Big Cedar
Whitesboro
Talihina
Albion
Kiamichi
Tuskahoma
Clayton
Honobia
Ludlow
Octavia
Wister
Howe
Heavener
Leflore
Reichert
Hodgens
Stapp
Talihina
Whitesboro

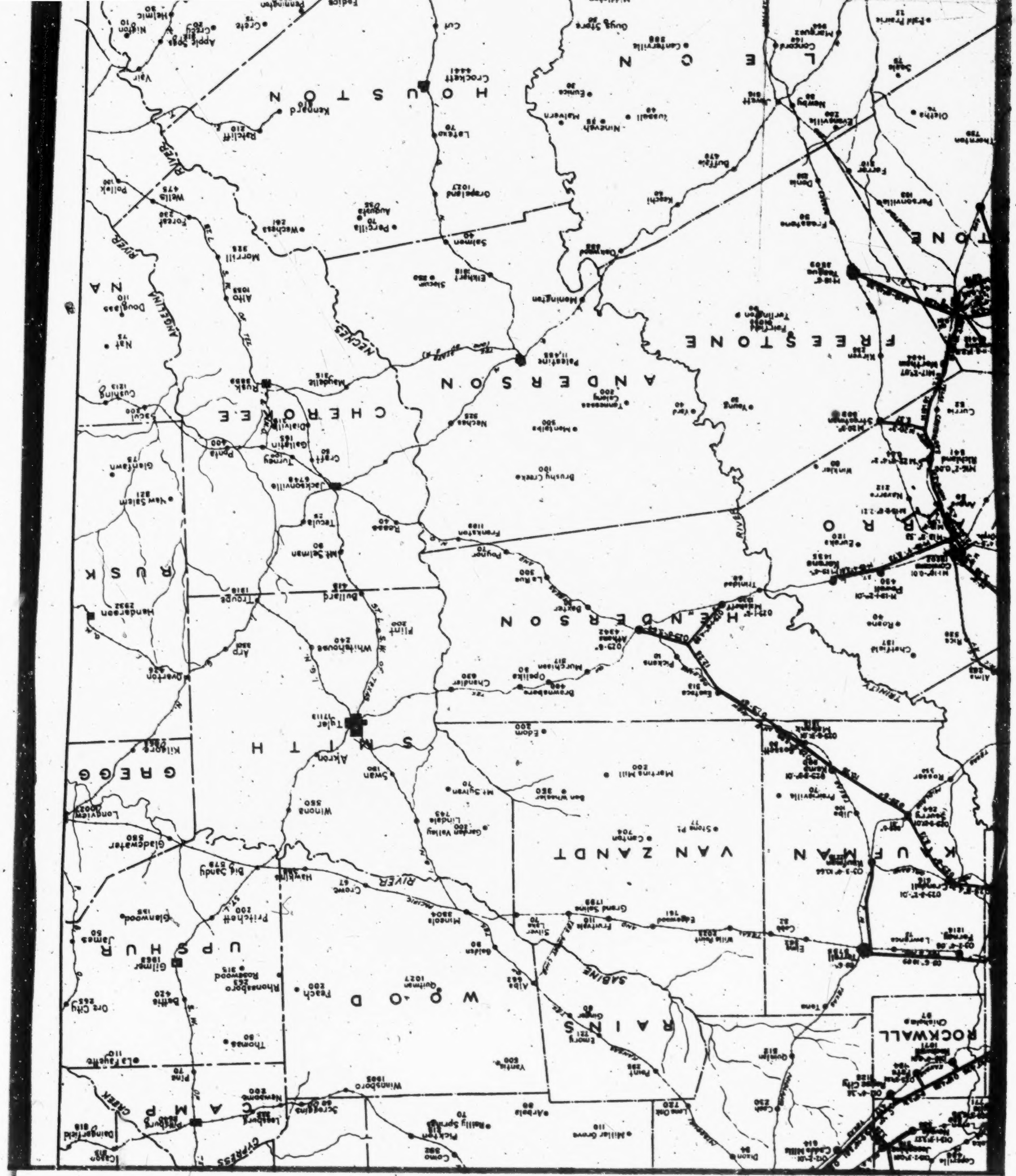

ARMON
JACKSON
COMAN
ISHER
BRISCOE
HALL
CHILDRESS
TILLMAN
HARDEMAN
LE
FLOYD
MOTLEY
COTTLE
FOARD
WILBARGER
WICHITA
BOCK
CROSBY
DICKENS
KING
KNOX
BAYLOR
ARCHER
NGARZA
KENT
STONEWALL
HASKELL
THROCKMORTON
YOUNG
STEPHENS
Lake Kemp
Diversion Lake
Wichita Falls
Vernon
Quanah
Chillicothe
Childress
Paducah
Matador
Crowell
Margaret
Electra
Harrold
Oklaunion
Tolbert
Seymour
Throckmorton
Graham
Stamford
Haskell
Rochester
Knox City
Benjamin
Rhineland
Munday
Gorman
Olney
Newcastle
Jacksboro
Archer City
Plainview
Floydada
Lockney
Turkey
Memphis
Estelline
Carey
Kirkland
Crowell
Foard City
Thalia
Truscott
Gilliland
Vera
Red Springs
Iowa Park
Burkburnett
Grandfield
Devol
Altus
Frederick
Tipton
Elmer
Eldorado
Duke
Gould
Hollis
Harmon
Medicine Park
Fort Sill
Lawton
Cache
Indianola
Taupe
Tinnay
Holliday
Farm
Lowland
Snyder
Odetta
Headrick
Humphreys
Olustee
Creta
Louis
Martha
Arlie
Brice
Lakeview
Plaska
Newlin
Silverton
Parnell
Quitaque
Gasoline
Flomot
Northfield
Coleyville
Swearingen
Dunlap
Whiteflat
Alcino
Vivian
Margaret
Rayland
Parsley Hill
Thalia
Narciso
Roaring Springs
Russellville
Delwine
Chalk
Dumont
Grow
Afton
McAdoo
Gothrie
Dickens
Spur
Gilpin
Girard
Jayton
Peacock
Aspermont
Old Glory
Clairemont
Luzon
Sagerton
McConnell
Derrus
Polar
Vontress
Elbert
Throckmorton
Woodson
Lusk
Ft Griffin
Crystal Falls
Ivan
Elysville
South Bend
Dunger
Grimshaw
Brimhaw
Mankins
Huff
Dundee
Scotland
Mobelle
Rendham
Bomarton
Westover
Megargel
Round Timber
Anarene
Loving
Jean
Markley
Orth
Proffitt
Padgit
Clara
Thrift
Sheppard AFB
Plainview
Hale Center
Floydada
Lockney
Floio
Ellen
Mickey
Petersburg
Abernathy
Cone
Hector
Monroe
Idalou
Lorenzo
Ralls
Crosbyton
Lubbock
Slaton
Wilson
Tahoka
Southland
Post
Jayton
Fluvanna
Dermott
Fullerville
Kingsmore
Arah
Tradewy
Hurl
Roby
Rotan
Hamlin
Sweetwater
Avoca
Penick
Luederes
Tuxedo
Habors
Radium
Gilliland
Truscott
Benjamin
Knox City
O'Brien
Rochester
Haskell
Rule
Weinert
Sagerton
Munday
Rhineland
Gorman
Bomarton
Seymour
Red Springs
Vera
Iowa Park
Wichita Falls
Electra
Harrold
Oklaunion
Tolbert
Vernon
Quanah
Chillicothe
Childress
Paducah
Matador
Crowell
Margaret
Rayland
Parsley Hill
Thalia
Foard City
Graham
Newcastle
Jacksboro
Archer City
Olney
Throckmorton
Woodson
Lusk
Ft Griffin
Crystal Falls
Elysville
South Bend
Dunger
Grimshaw
Brimhaw
Mankins
Huff
Dundee
Scotland
Mobelle
Rendham
Bomarton
Westover
Megargel
Round Timber
Anarene
Loving
Jean
Markley
Orth
Proffitt
Padgit
Clara
Thrift
Sheppard AFB
Plainview
Hale Center
Floydada
Lockney
Floio
Ellen
Mickey
Petersburg
Abernathy
Cone
Hector
Monroe
Idalou
Lorenzo
Ralls
Crosbyton
Lubbock
Slaton
Wilson
Tahoka
Southland
Post
Jayton
Fluvanna
Dermott
Fullerville
Kingsmore
Arah
Tradewy
Hurl
Roby
Rotan
Hamlin
Sweetwater
Avoca
Penick
Luederes
Tuxedo
Habors
Radium
Gilliland
Truscott
Benjamin
Knox City
O'Brien
Rochester
Haskell
Rule
Weinert
Sagerton
Munday
Rhineland
Gorman
Bomarton
Seymour
Red Springs
Vera
Iowa Park
Wichita Falls
Electra
Harrold
Oklaunion
Tolbert
Vernon
Quanah
Chillicothe
Childress
Paducah
Matador
Crowell
Margaret
Rayland
Parsley Hill
Thalia
Foard City
Graham
Newcastle
Jacksboro
Archer City
Olney
Throckmorton
Woodson
Lusk
Ft Griffin
Crystal Falls
Elysville
South Bend
Dunger
Grimshaw
Brimhaw
Mankins
Huff
Dundee
Scotland
Mobelle
Rendham
Bomarton
Westover
Megargel
Round Timber
Anarene
Loving
Jean
Markley
Orth
Proffitt
Padgit
Clara
Thrift
Sheppard AFB


GARVIN
PONTOTOC
ANCHE
STEPHENS
MURRAY
JOHNSTON
OTTON
CARTER
JEFFERSON
LOVE
MARSHALL
BRYAN
CLAY
MONTAGUE
COOKE
GRAYSON
FANNIN
DENTON
COLLIN
ROCKWALL
Lawton
Ft Sill
Sterling
Medicine Park
Tinnev
Geronimo
Marlow
Duncan
Comanche
Addington
Randlett
Charlie
Byers
Petrolia
Jolly
Henrietta
Blue Grove
Joy
Buffalo Springs
Shannon
Prospect
Newport
Bellevue
Antelope
Jacksboro
Perrin
Gibtown
Orand
Salesville
Pickwick
Bowie
Decatur
Boonsville
Paradise
Chico
Alvord
Slidell
Cowan
Jermyn
Dekalb
Sanger
Krum
Denton
Aubrey
Pilot Point
Ponder
Argyle
Justin
Roanoke
Haslet
Keller
Smithfield
Lake Bridgeport
Lake Eagle Mountain
Lake Dallas
Lewisville
Carrollton
Addison
Farmers Branch
Garland
Richardson
Rowlett
Sachse
Wylie
Nevada
Josephine
Caddo Mills
Celeste
Commerce
Fairlie
Ladonia
Leonard
Trenton
Bonham
Dodd City
Windom
Ravenna
Sherman
Whitesboro
Whitewright
Van Alstyne
Howe
Tom Bean
Dorchester
Collinsville
Tioga
Valley View
Era
Gunter
Pottsboro
Hagerman
Southmayd
Woodbine
Gainesville
Muenster
Lindsay
Myra
Callisburg
Ambrose
Tishomingo
Mill Creek
Connerville
Pontotoc
Clarita
Stonewall
Fitzhugh
Roff
Hickory
Scullin
Horseshoe Ranch
Wapanucka
Bromide
Reagan
Dougherty
Arbuckle
Nebo
Berwyn
Springer
Graham
Woodford
Olney
Alma
Peaslville
Tatums
Alpers
Davis
Sulphur
Mill
Milo
Ardmore
Newport
Overbrook
Provence
Simpson
Oakland
Madill
Kinlock
Aylesworth
Kingston
Lebanon
Enos
Willis
Lark
Platter
Achille
Hendrix
Kemp
Yuba
Ivanhoe
Ambrose
Southmayd
Luella
Ton Bean
Randolph
Gober
Bailey
Ladonia
Leonard
North City
Fairlie
Celeste
Kingston
Merit
Caddo Mills
Josephine
Farmersville
Princeton
Frisco
Allen
Lake
Copeville
Nevada
Rowlett
Sachse
Wylie
Garland
Richardson
Carrollton
Addison
Farmers Branch
Vickery
Whitrock Lake
Rockwall
Chisholm
Rose City
Fate
Quinlan
Cash
Tona
Talpha
Monkstown
Ivanhoe
Kemp
Yuba
Ramie
Albany
Wade
Bennington
Bokchito
Durant
Caddo
Durwood
Milburn
Tishomingo
Caney
Bentley
Lane
Bruno
Tushka
Atoka
Apoka
Lehigh
Coalgate
Phillips
Strongtown
Centrahoma
Wardville
Caney
Chickle
Lamar
Cairo
Folsom
Fillmore
Valeman
Wapanucka
Hardwood
Olney
Burrer
Franks
Friscoe
Lula
Parker
Ashland
Kiowa
Venora
Milo
Graham
Woodford
Glenn
Loco
Asphaltum
Wilson
Healdton
Keller
Newport
Ardmore
Lone Grove
Hewitt
Ringling
Claypool
Addington
Orr
Grady
Spanish Fort
Courtney
Illinois Bend
Lamar
Pike
Sivells Bend
Thackerville
Marietta
Overbrook
Hoxbar
Leon
Chick
Mead
Silo
Brown
Kiersey
Azlison
Galers
Platter
Hendrix
Yeager
Romie
Albany
Wade
Bennington
Bokchito
Durant
Caddo
Durwood
Milburn
Tishomingo
Caney
Bentley
Lane
Bruno
Tushka
Atoka
Apoka
Lehigh
Coalgate
Phillips
Strongtown
Centrahoma
Wardville
Caney
Chickle
Lamar
Cairo
Folsom
Fillmore
Valeman
Wapanucka
Hardwood
Olney
Burrer
Franks
Friscoe
Lula
Parker
Ashland
Kiowa
Venora
Milo
Graham
Woodford
Glenn
Loco
Asphaltum
Wilson
Healdton
Keller
Newport
Ardmore
Lone Grove
Hewitt
Ringling
Claypool
Addington
Orr
Grady
Spanish Fort
Courtney
Illinois Bend
Lamar
Pike
Sivells Bend
Thackerville
Marietta
Overbrook
Hoxbar
Leon
Chick
Mead
Silo
Brown
Kiersey
Azlison
Galers
Platter
Hendrix
Yeager
Romie
Albany
Wade
Bennington
Bokchito
Durant
Caddo
Durwood
Milburn
Tishomingo
Caney
Bentley
Lane
Bruno
Tushka
Atoka
Apoka
Lehigh
Coalgate
Phillips
Strongtown
Centrahoma
Wardville
Caney
Chickle
Lamar
Cairo
Folsom
Fillmore
Valeman
Wapanucka
Hardwood
Olney
Burrer
Franks
Friscoe
Lula
Parker
Ashland
Kiowa
Venora

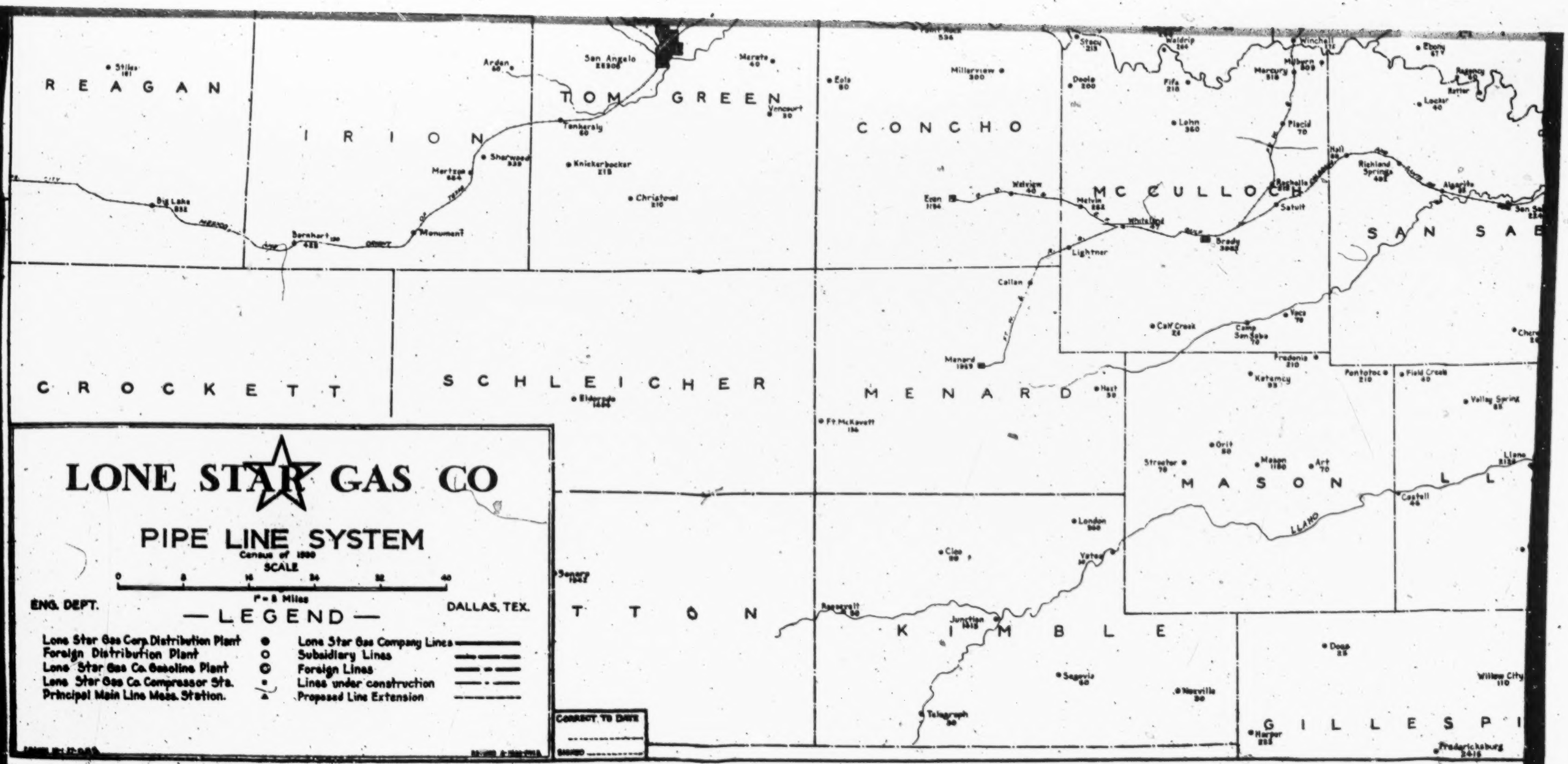

PUSHMATAHA
ATOKA
CHOCTAW
MCCURTAIN
LEFLORE
LATIMER
PITTSBURG
HASKELL
FANNIN
DELTA
HOPKINS
FRANKLIN
TITUS
MORR
CAMP
RED RIVER
Ashland
Parker
Kiowa
Pittsburg
Blanco
Yanush
Laura
Falfa
Talihina
Stapp
Whitesboro
Albion
Muse
Big Cedar
Kiamichi
Wardville
Limestone Gap
Tuskahoma
Clayton
Stanley
Crum Creek
Fewell
Honobia
Ludlow
Octavia
Smithville
Cairo
Checkle
Wesley
Daisy
Adsil
Coalgate
Phillips
Lehigh
Strongtown
Jumbo
Coalgate
Atoka
Pickens
Ida
Bethel
Sherwood
Tushka
Bryan
Lane
Miller
Moyers
Finley
Kosoma
Cloudy
Bokhoma
Caney
Bentley
Crystal
Boehler
Darwin
Antlers
Ethel
Dela
Ratton
Corinne
Ringold
Hochatown
Allkehi
Caddo
Sand Bluff
Nelson
Zimray
Hamden
Spear
Apple
Spencerville
Rufe
Slim
Wright City
Glover
Oak Hill
Golden
Broken Bow
Bokhoma
Holly Crk.
Millerton
Valliant
Swink
Ft. Towson
Sawyer
Husbey
Garvin
Odell
Shults
Idabel
Kullituklo
Haworth
Shawnsetown
Manchester
Albion
Scrap
Kansawha
Friogville
Arthur City
Powderly
Medill
Woodland
Addielou
Negley
Ackworth
Bryarly
Vesey
River View
Harris
Pollard
Pleasant Hill
Detroit
Clarksville
Annona
Avery
Oak Grove
Sherry
Fulbright
Rugby
Bogota
Cuthand
Boxelder
Johntown
Talco
Hagansport
Pattonville
Howland
Minter
Cunningham
Charleston
Sulphur Bluff
Ivanhoe
Maxey
Ben Franklin
Paris
Deport
Atlus
Enlow
Little Creek
Ridgeway
Saltillo
Mt. Vernon
Winfield
Mt. Pleasant
Omaha
Cookville
Ripley
Birthright
Dike
Pecan Gap
Brashear
Como
Pickton
Bailey Springs
Arbala
Miller Grove
Lone Oak
Cash
Quinlan
Yantis
Winnsboro
Scroggins
Newsome
Lasalburg
Pittsburg
Daingerfield
Pine
Lafayette
Thomas
Direct
Mankatown
Telephone
Summer
Roberts
Albany
Ramie
Wade
Oberlin
Reser
Chicota
Arthur City
Bluff
Grant
Ervin
Husbey
Sawyer
Swink
Ft. Towson
Valliant
Millerton
Bokhoma
Holly Crk.
Garvin
Odell
Shults
Idabel
Kullituklo
Haworth
Shawnsetown
Manchester
Albion
Scrap
Kansawha
Friogville
Arthur City
Powderly
Medill
Woodland
Addielou
Negley
Ackworth
Bryarly
Vesey
River View
Harris
Pollard
Pleasant Hill
Detroit
Clarksville
Annona
Avery
Oak Grove
Sherry
Fulbright
Rugby
Bogota
Cuthand
Boxelder
Johntown
Talco
Hagansport
Pattonville
Howland
Minter
Cunningham
Charleston
Sulphur Bluff
Ivanhoe
Maxey
Ben Franklin
Paris
Deport
Atlus
Enlow
Little Creek
Ridgeway
Saltillo
Mt. Vernon
Winfield
Mt. Pleasant
Omaha
Cookville
Ripley
Birthright
Dike
Pecan Gap
Brashear
Como
Pickton
Bailey Springs
Arbala
Miller Grove
Lone Oak
Cash
Quinlan
Yantis
Winnsboro
Scroggins
Newsome
Lasalburg
Pittsburg
Daingerfield
Pine
Lafayette
Thomas
Direct
Mankatown
Telephone
Summer
Roberts
Albany
Ramie
Wade
Oberlin
Reser
Chicota
Arthur City
Bluff
Grant
Ervin
Husbey
Sawyer
Swink
Ft. Towson
Valliant
Millerton
Bokhoma
Holly Crk.
Garvin
Odell
Shults
Idabel
Kullituklo
Haworth
Shawnsetown
Manchester
Albion
Scrap
Kansawha
Friogville
Arthur City
Powderly
Medill
Woodland
Addielou
Negley
Ackworth
Bryarly
Vesey
River View
Harris
Pollard
Pleasant Hill
Detroit
Clarksville
Annona
Avery
Oak Grove
Sherry
Fulbright
Rugby
Bogota
Cuthand
Boxelder
Johntown
Talco
Hagansport
Pattonville
Howland
Minter
Cunningham
Charleston
Sulphur Bluff
Ivanhoe
Maxey
Ben Franklin
Paris
Deport
Atlus
Enlow
Little Creek
Ridgeway
Saltillo
Mt. Vernon
Winfield
Mt. Pleasant
Omaha
Cookville
Ripley
Birthright
Dike
Pecan Gap
Brashear
Como
Pickton
Bailey Springs
Arbala
Miller Grove
Lone Oak
Cash
Quinlan
Yantis
Winnsboro
Scroggins
Newsome
Lasalburg
Pittsburg
Daingerfield
Pine
Lafayette
Thomas


BORDEN
SCURRY
FISHER
JONES
SHACKELFORD
STEPHENS
EASTLAND
CALLAHAN
HOWARD
MITCHELL
NOLAN
TAYLOR
GLASSCOCK
STERLING
COKE
RUNNELS
COLEMAN
BROWN
REAGAN
IRION
TOM GREEN
CONCHO
MCCULLOCH
Fluvanna 817
Dermatt 25
Fullerville
Treadway 10
Kingsmere
Arah 35
Gail 629
Michias
Durham 10
Knapp 30
Ira 217
Dunn 200
Camp Springs 80
Hermleigh 544
Sylvester 382
Longworth 200
Roby 801
McCaulley 718
Plantersa
Retan 1632
Hamlin 2319
Stamford 4095
Habors
Tuxedo 75
Avoca 262
Penick
Radium 20
Anson 2099
Nugent 80
Hawley 250
Luder 318
Ft Griffin 60
Albany 2422
Acampo
IBEX
Sedwick 80
Lusk 60
Ellasville
Crystal 110
Ivan 61
Breckenridge 7569
Cisco 6027
Eastland
Scranton 95
Admiral 20
Rowden 80
Cottonwood 264
Nimrod 60
Romney 20
Carbon 448
Germen 1184
Okra 60
Duster
Cross Plain 1507
Pioneer 210
Rising Star 1160
Sipe Springs 518
Cross Cut 42
Burkett 200
Byrds 22
Grosvenor 80
Owens 95
Blanket 516
Delaware
Thrifty 40
Brownwood 12789
Zephyr 750
Delzell
Trickham 80
Brookesmith 48
Indian Creek 80
Ebony 67
Regency 42
Rattor
Lockar 40
Winchell 112
Mullin 309
Mercury 516
Placid 70
Hall 44
Richland Springs 492
Algerita 86
San Sa
Satuit
Brady 3062
Whitsett 89
Melvin 282
Eden 1134
Melview 40
Lohn 360
Fife 216
Doole 200
Millerview 200
Eola 80
Paint Rock 536
Concho 86
Lowake 20
Miles 892
Harriett 12
Pattison
Turnerdale
Carlsbad 250
Water Valley 110
Orient 90
Rowena 348
Tennyson 80
Sterling City 647
Broome 39
Sterling
Garden City 318
Stiles 181
Big Lake 282
Mertzon 664
Sherwood 230
Knickerbocker 215
Christoval 210
Tankersly 85
Arden 60
San Angelo 25300
Vancourt 30
Meroto 40
Water
Big Spring 19727
Morita
Cashems 630
Iatan
Westbrook 512
Vincent 70
Luther 30
Knott 20
Cuthbert 62
Westella 60
Gennon
Pyron 48
Eskota 97
Sweetwater 10848
Rescos 1256
Colorado 4671
Lorsina 730
Shaufler
Herndon
Blair 25
Trent 412
Merkel 1849
Tye 30
Abilene 23,178
Elmdale 20
Clyde 706
Baird 1965
Putnam 601
Dothan 42
Petosa 250
View 30
Dora 32
Nolan 30
Marynsel 80
Hylton 218
Blackwell 417
Shep 28
Ovalo 312
Lawn 339
Bradshaw 331
White Gap 521
Lake Abilene
Tuscola 416
Oplin 249
Wingate 213
Silver 80
Ft. Chadbourne 85
Maria 40
Norton 280
Mayerick 60
Hatchel 20
Edith 928
Robert Lee 690
Bronte 877
Wingate 2423
Ballinger 4187
Benoit 25
Talpa 32
Valera 400
Coleman 6078
Santa Anna 1883
Bangs 717
Glen Cove 110
Novice 400
Silver Valley 60
Goldsboro 80
Vose 80
Flak 40
Leadey 40
Gouldbusk 70
Rockwood 240
Waldrip 164
Whon 40
Stacy 215
Millers 60
Cross Cut 42
Gap 28
Sidney 200
Camp
Mag 448
Owens 95
Blanket 516
Delaware
Thrifty 40
Brownwood 12789
Zephyr 750
Delzell
Trickham 80
Brookesmith 48
Indian Creek 80
Ebony 67
Regency 42
Rattor
Lockar 40
Winchell 112
Mullin 309
Mercury 516
Placid 70
Hall 44
Richland Springs 492
Algerita 86
San Sa
Satuit
Brady 3062
Whitsett 89
Melvin 282
Eden 1134
Melview 40
Lohn 360
Fife 216
Doole 200
Millerview 200
Eola 80
Paint Rock 536
Concho 86
Lowake 20
Miles 892
Harriett 12
Pattison
Turnerdale
Carlsbad 250
Water Valley 110
Orient 90
Rowena 348
Tennyson 80
Sterling City 647
Broome 39
Sterling
Garden City 318
Stiles 181
Big Lake 282
Mertzon 664
Sherwood 230
Knickerbocker 215
Christoval 210
Tankersly 85
Arden 60
San Angelo 25300
Vancourt 30
Meroto 40
Water
Big Spring 19727
Morita
Cashems 630
Iatan
Westbrook 512
Vincent 70
Luther 30
Knott 20
Cuthbert 62
Westella 60
Gennon
Pyron 48
Eskota 97
Sweetwater 10848
Rescos 1256
Colorado 4671
Lorsina 730
Shaufler
Herndon
Blair 25
Trent 412
Merkel 1849
Tye 30
Abilene 23,178
Elmdale 20
Clyde 706
Baird 1965
Putnam 601
Dothan 42
Petosa 250
View 30
Dora 32
Nolan 30
Marynsel 80
Hylton 218
Blackwell 417
Shep 28
Ovalo 312
Lawn 339
Bradshaw 331
White Gap 521
Lake Abilene
Tuscola 416
Oplin 249
Wingate 213
Silver 80
Ft. Chadbourne 85
Maria 40
Norton 280
Mayerick 60
Hatchel 20
Edith 928
Robert Lee 690
Bronte 877
Wingate 2423
Ballinger 4187
Benoit 25
Talpa 32
Valera 400
Coleman 6078
Santa Anna 1883
Bangs 717
Glen Cove 110
Novice 400
Silver Valley 60
Goldsboro 80
Vose 80
Flak 40
Leadey 40
Gouldbusk 70
Rockwood 240
Waldrip 164
Whon 40
Stacy 215
Millers 60
Cross Cut 42
Gap 28
Sidney 200
Camp
Mag 448
Owens 95
Blanket 516
Delaware
Thrifty 40
Brownwood 12789
Zephyr 750
Delzell
Trickham 80
Brookesmith 48
Indian Creek 80
Ebony 67
Regency 42
Rattor
Lockar 40
Winchell 112
Mullin 309
Mercury 516
Placid 70
Hall 44
Richland Springs 492
Algerita 86
San Sa
Satuit
Brady 3062
Whitsett 89
Melvin 282
Eden 1134
Melview 40
Lohn 360
Fife 216
Doole 200
Millerview 200
Eola 80
Paint Rock 536
Concho 86
Lowake 20
Miles 892
Harriett 12
Pattison
Turnerdale
Carlsbad 250
Water Valley 110
Orient 90
Rowena 348
Tennyson 80
Sterling City 647
Broome 39
Sterling
Garden City 318
Stiles 181
Big Lake 282
Mertzon 664
Sherwood 230
Knickerbocker 215
Christoval 210
Tankersly 85
Arden 60
San Angelo 25300
Vancourt 30
Meroto 40
Water
Big Spring 19727
Morita
Cashems 630
Iatan
Westbrook 512
Vincent 70
Luther 30
Knott 20
Cuthbert 62
Westella 60
Gennon
Pyron 48
Eskota 97
Sweetwater 10848
Rescos 1256
Colorado 4671
Lorsina 730
Shaufler
Herndon
Blair 25
Trent 412
Merkel 1849
Tye 30
Abilene 23,178
Elmdale 20
Clyde 706
Baird 1965
Putnam 601
Dothan 42
Petosa 250
View 30
Dora 32
Nolan 30
Marynsel 80
Hylton 218
Blackwell 417
Shep 28
Ovalo 312
Lawn 339
Bradshaw 331
White Gap 521
Lake Abilene
Tuscola 416
Oplin 249
Wingate 213
Silver 80
Ft. Chadbourne 85
Maria 40
Norton 280
Mayerick 60
Hatchel 20
Edith 928
Robert Lee 690
Bronte 877
Wingate 2423
Ballinger 4187
Benoit 25
Talpa 32
Valera 400
Coleman 6078
Santa Anna 1883
Bangs 717
Glen Cove 110
Novice 400
Silver Valley 60
Goldsboro 80
Vose 80
Flak 40
Leadey 40
Gouldbusk 70
Rockwood 240
Waldrip 164
Whon 40
Stacy 215
Millers 60


Graham
Dakin
Honeley
Balsora
Boonsville
Perrin
Gibtown
South Bend
Burleson
Grimshaw
Oran
Graford
Whitt
Poolville
Springtown
Lake Eagle Mountain
Aglo
Solesville
Pickwick
Ivan
Poostar
Garner
Lamley
Dicey
Lake Worth
Ft. Worth
Smithfield
Keller
Roanoke
Justin
Haslet
Argyle
Allen
Celina
Prosper
Frisco
Carrollton
Farmers Branch
Addison
Dallas
Garland
Mesquite
Rockwall
Chisholm
Lewisville
Denton
Lake Dallas
Corinth
Hickory Creek
Lancaster
Cedar Hill
Duncanville
Kennedale
Arlington
Grand Prairie
Irving
Grapevine
Coppell
Southlake
Westlake
Trophy Club
Roanoke
Northlake
Justin
Haslet
Keller
Smithfield
Wylie
Sachse
Murphy
Richardson
Plano
Carrollton
Farmers Branch
Addison
Dallas
Garland
Mesquite
Rockwall
Lavon
Lavon Lake
Wylie
Lucas
Parker
Weatherford
Millsap
Aledo
Benbrook
Lambert
Pala Pinto
Brazos
Santo
Strawn
Gordon
Dublin
Stephenville
Tarleton
Thurber
Morgan Mill
Huckabay
Bluff Dale
Tolar
Thary Spring
Glen Rose
Somervell
Rainbow
Georgia Creek
Paluxy
Chalk Mountain
Johnsonville
Duffau
Kopperl
Hico
Hamilton
Cranfills Gap
Hasse
Aquilla
Roswell
Whitney
Hillsboro
Itasca
Covington
Osceola
Blum
Irene
Dunvm
Purdon
Corbet
Angus
Navarro
Corsicana
Richland
Kerens
Frost
Streetman
Palmer
Ennis
Rice
Alma
Chatfield
Rosser
Crisp
Waxahachie
Midlothian
Red Oak
Ovilla



KODAK SAFETY FILM



LONE STAR GAS CO

PIPE LINE SYSTEM

Census of 1930

SCALE

0 8 16 24 32 40

1" = 8 Miles

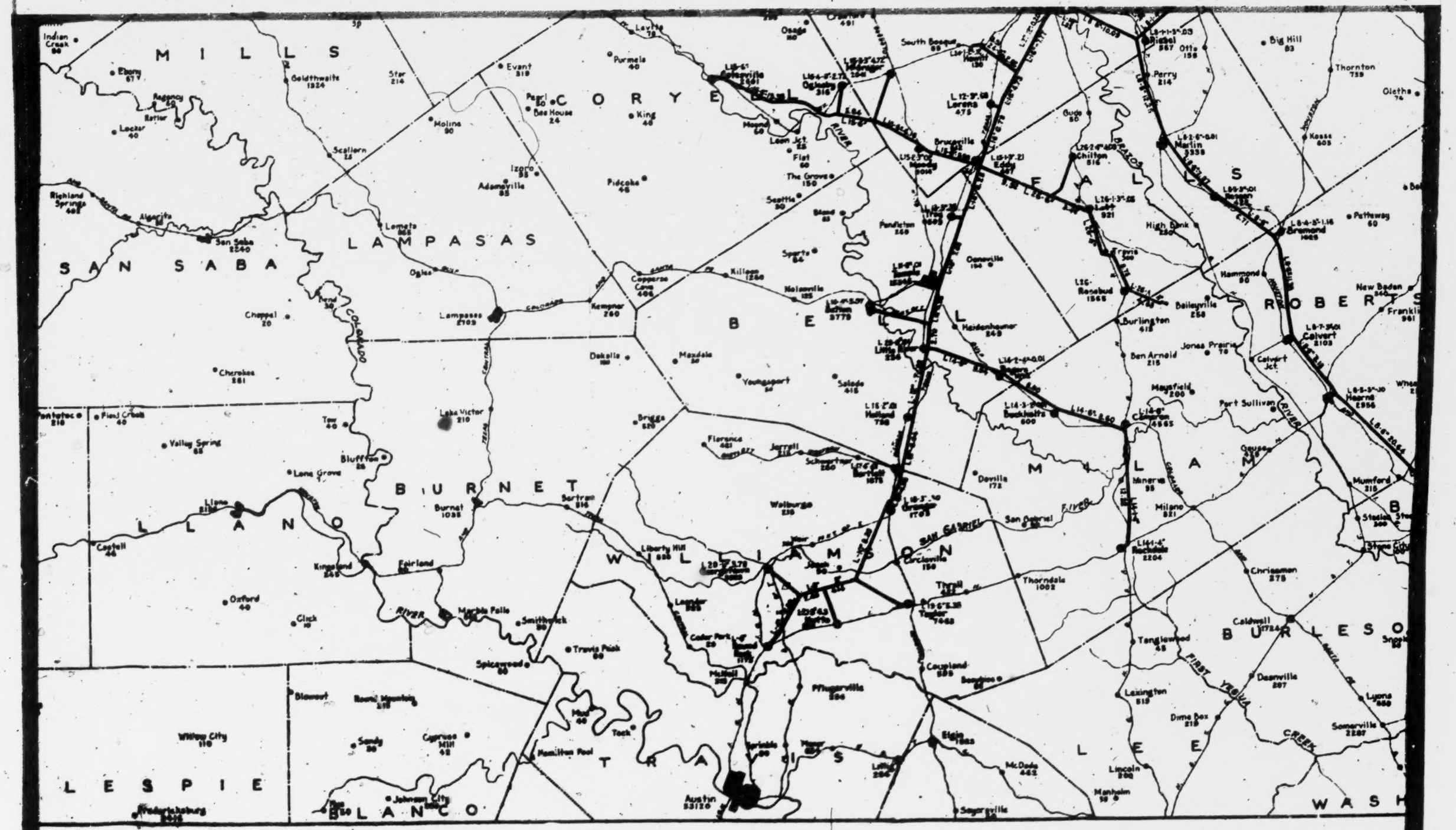
ENG. DEPT. DALLAS, TEX.

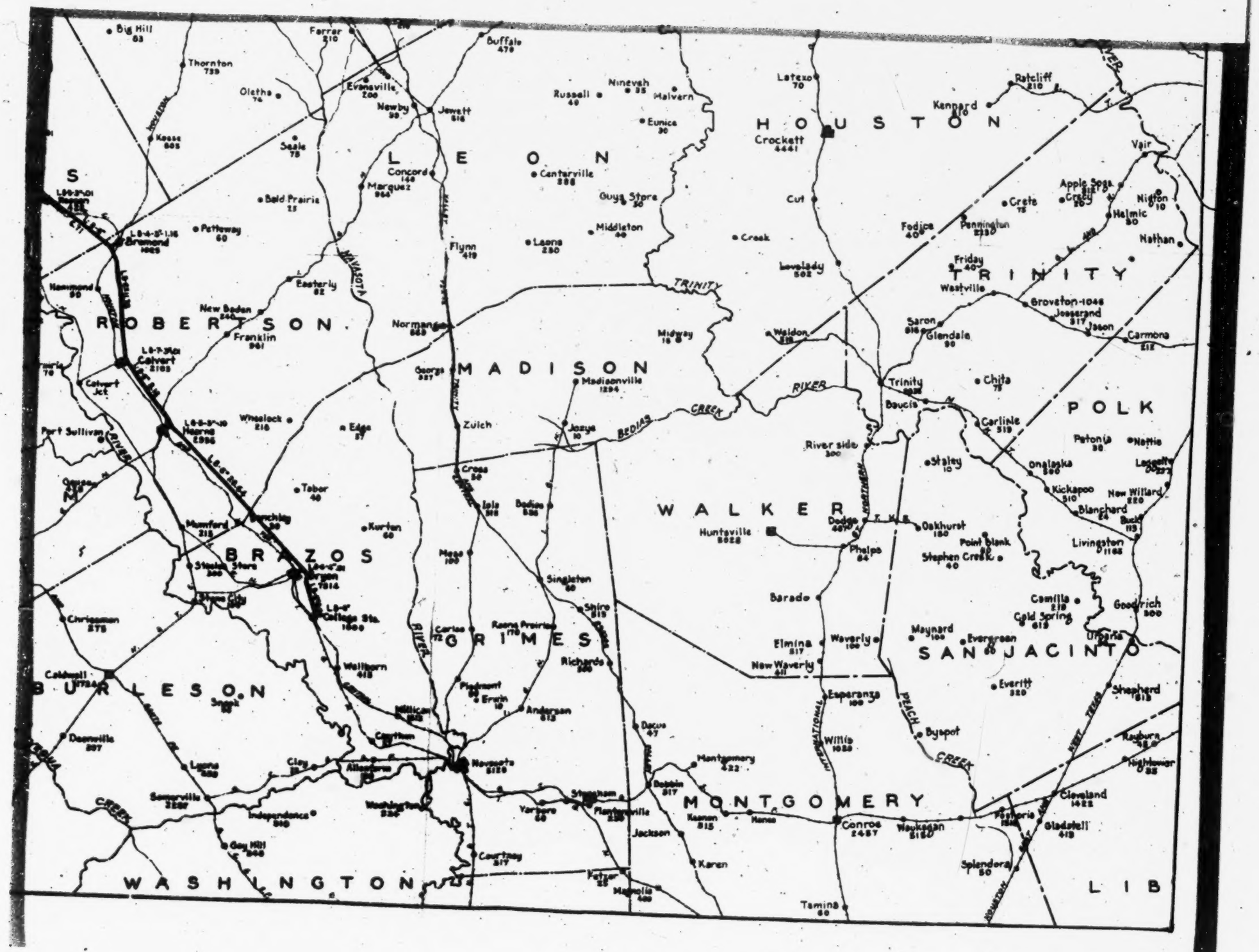
— LEGEND —

Lone Star Gas Corp. Distribution Plant	●	Lone Star Gas Company Lines	———
Foreign Distribution Plant	○	Subsidiary Lines	—— ——
Lone Star Gas Co. Gasoline Plant	◎	Foreign Lines	—— — ——
Lone Star Gas Co. Compressor Sta.	▪	Lines under construction	—— · ——
Principal Main Line Meas. Station.	▲	Proposed Line Extension	———

CORRECT TO DATE

ISSUED


MILLS
CORYELL
LAMPASAS
SAN SABA
BELL
FALLS
ROBERTSON
BURNET
LLANO
WILLIAMSON
MILAM
LEE
BURLESON
LEE
WASH
LEESPIE
BLANCO
TRAVIS
Indian Creek
Ebony
Goldthwaite 1324
Star 214
Evant 319
Purmela 40
Pearl
Bee House 24
King 48
Molina 90
Scallorn
Izoro
Adamsville
Pidcoke 48
Leon Jct.
Flat
The Grove 150
Seattle
Bland
Osage
Oglesby 316
South Bosque
Perry 214
Big Hill 83
Thornton 739
Otto 158
Oletha
Kosse 605
Merlin 3339
Chilton 816
Gude
Bruceville
Larena 475
Lott 921
Petteway
Redmond 1069
High Bank 250
Hammond
New Baden 844
Franklin 961
Bellville 258
Burlington 418
Haidenheimer 249
Ben Arnold 215
Jones Prairie
Calvert 2103
Calvert Jct.
Mayfield 200
Port Sullivan
Hearne 2956
Richland Springs 498
Algerita
San Saba 2240
Lometa 268
Ogles
Copperas Cove 496
Killeen 1250
Nolanville 125
Sparta
Ogansville
Rosebud 1565
Lampasas 2103
Kempner 260
Cherokee 281
Dekalb
Maxdale
Youngsport
Salado 415
Haidenheimer
Cherokee
Pontotoc 210
Flat Creek 60
Valley Spring
Bluffton
Lake Victor 210
Briggs 525
Florence 481
Jarrell
Schwertner 260
Georgetown 1075
Walburga 230
Sartrin 816
Burnet 1035
Lone Grove
Llano 2134
Castell 46
Kingsland 249
Fairland
Oxford 40
Click 10
Liberty Hill 625
Leander 255
Cedar Park 29
Round Mound 1195
McNeil 208
Marble Falls
Smithwick 190
Travis Point 60
Spicewood 50
Hoot 40
Tock
Hamilton Pool
Austin 53120
Pflugerville 206
Taylor 7468
Thrall 417
Circleville 150
Jonah 90
Thorndale 1002
Coupland 559
Bonanza 60
Elgin 1265
McDade 442
Sayersville
Lincoln 298
Manheim 50
Mayer 60
Granger 1705
Davilla 172
Minerva 95
Milano 821
San Gabriel
Rockdale 2204
Mumford 216
Stiles 300
Stone City
Chriesman 275
Caldwell 1724
Tanglewood 45
Lexington 519
Dime Box 219
Deanville 287
Somerville 2287
Lyons 650
Frederickburg 2578
Willow City 110
Blowout
Round Mountain 218
Sandy 30
Cypress Mill 42
Johnson City 1000
Blanco
Oatmeal 40
Cherokee
Pontotoc
Flat Creek
Valley Spring
Bluffton
Lake Victor
Briggs
Florence
Jarrell
Schwertner
Georgetown
Walburga
Sartrin
Burnet
Lone Grove
Llano
Castell
Kingsland
Fairland
Oxford
Click
Liberty Hill
Leander
Cedar Park
Round Mound
McNeil
Marble Falls
Smithwick
Travis Point
Spicewood
Hoot
Tock
Hamilton Pool
Austin
Pflugerville
Taylor
Thrall
Circleville
Jonah
Thorndale
Coupland
Bonanza
Elgin
McDade
Sayersville
Lincoln
Manheim
Mayer
Granger
Davilla
Minerva
Milano
San Gabriel
Rockdale
Mumford
Stiles
Stone City
Chriesman
Caldwell
Tanglewood
Lexington
Dime Box
Deanville
Somerville
Lyons
Willow City
Blowout
Round Mountain
Sandy
Cypress Mill
Johnson City
Blanco
Frederickburg
Oatmeal
Bluebonnet
Ben Arnold
Jones Prairie
Calvert Jct.
Port Sullivan
Hearne
Mayfield
Bellville
Burlington
Haidenheimer
Ogansville
Rosebud
Petteway
Redmond
High Bank
Hammond
New Baden
Franklin
Bellville
Thornton
Otto
Oletha
Kosse
Merlin
Chilton
Gude
Bruceville
Larena
Lott
Perry
Big Hill
Otto
Oletha
Kosse
Merlin
Chilton
Gude
Bruceville
Larena
Lott
Perry
Big Hill
Thornton


Big Hill
Thornton
Oletha
Ferrar
Evansville
Newby
Buffalo
Jewett
Russell
Nineveh
Malvern
Eunice
Latexo
Crockett
Kennard
Ratcliff
HOUSTON
Kosse
Seale
Concord
Marquez
Centerville
Guys Store
Bald Prairie
Pattewaay
Middleton
Leona
Flynn
Creek
Lovelady
Crete
Penninghun
Fodice
Apple Spgs
Vair
Halmic
Nigton
Nathan
Friday
TRINITY
Westville
Broveton
Jossarand
Jason
Carmona
Saron
Glendale
Easterly
New Baden
Franklin
ROBERTSON
Normangee
Midway
Waldon
TRINITY
Calvert
Hearne
Wheelock
Edge
Zulch
Madisonville
Jozye
BEDIAS CREEK
RIVER
Trinity
Chita
Baucis
Carlisle
POLK
Petonia
Nettie
Onalaska
Kickapoo
New Willard
Blanchard
Livingston
Tabor
Mumford
Kurten
Iola
Bedias
Mesa
Singleton
Shiro
Richards
Cross
WALKER
Huntsville
Dodge
Oakhurst
Point blank
Stephen Creek
Phelps
Barado
Camilla
Cold Spring
Goodrich
Elmina
Waverly
Maynard
Evergreen
New Waverly
SAN JACINTO
Everitt
Shepherd
Esperanza
Byepot
Willis
Montgomery
Dobbin
Stanham
Plantersville
Jackson
Karen
Conroe
Woodlands
Splendora
Cleveland
Gladstell
Highlower
Kleburn
MONTGOMERY
BRAZOS
GRIMES
College Sta.
Chriesman
Caldwell
BURLESON
Deanville
Somerville
Independence
Gay Hill
Courtney
Navasota
Millican
Wellborn
Piedmont
Ervin
Anderson
Richards
Cortes
Rosenq Prairie
Tamina
Magnolia
WASHINGTON
LIB

BLANK

PAGE

[fols. 8611-8618] DEFENDANT'S EXHIBIT No. 30

Lone Star Gas Company

Report and Findings of Gas Reserves

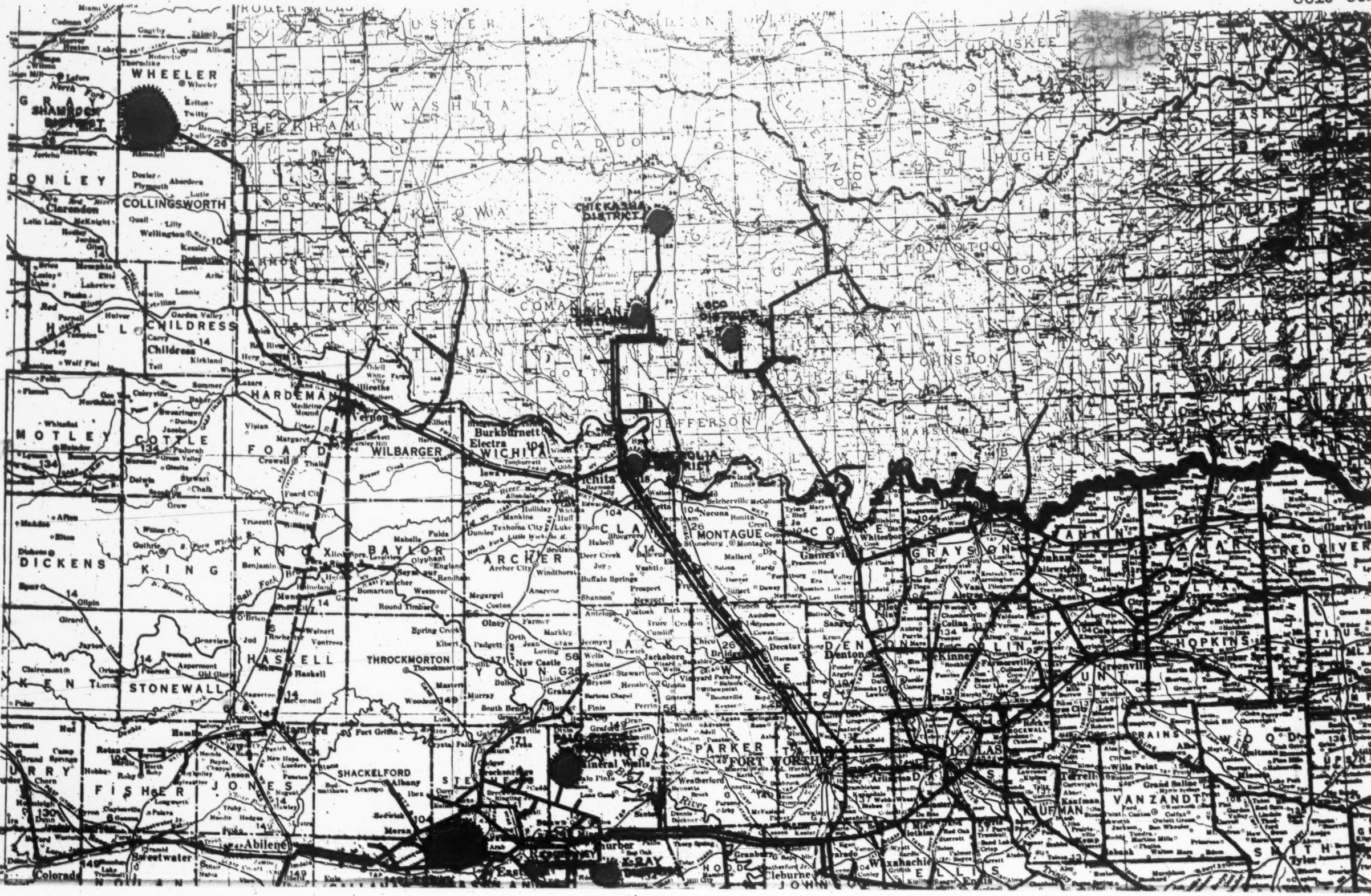
January 1, 1933

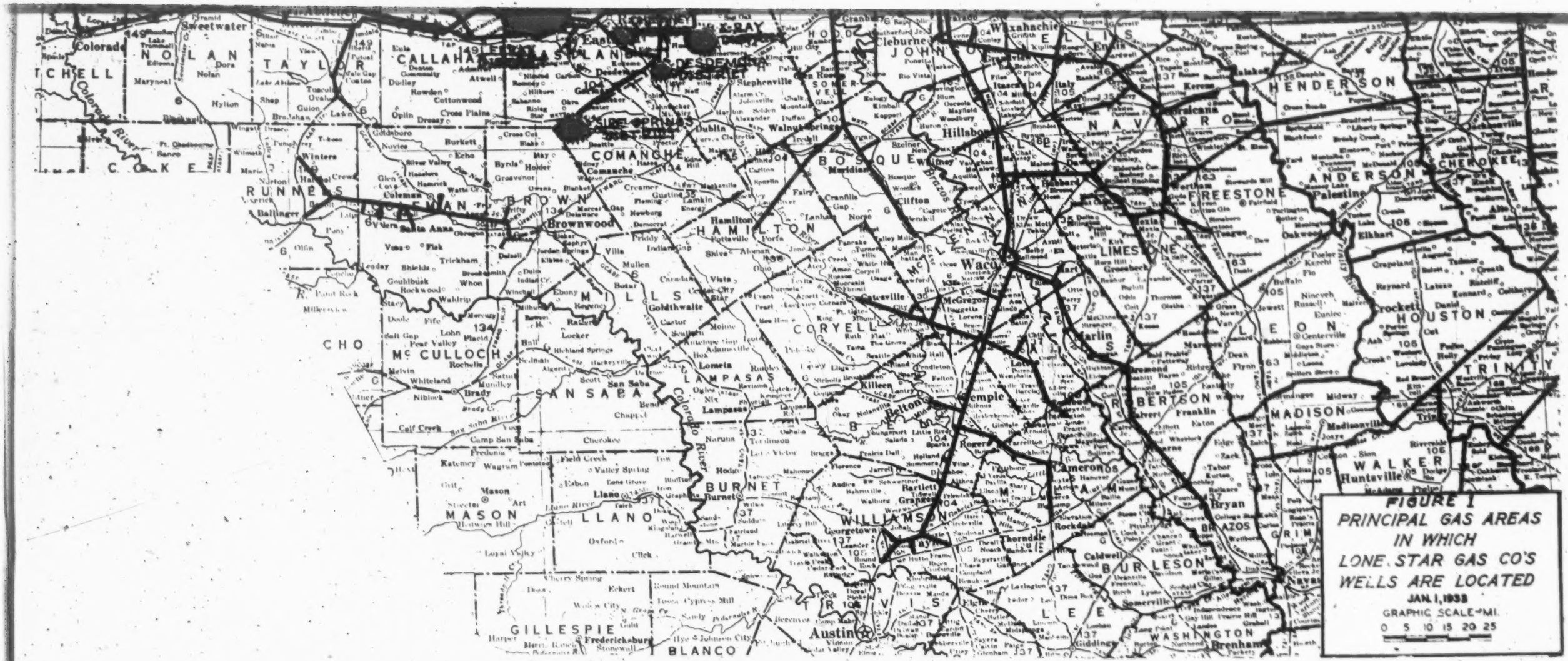
J. H. Dunn, Production Engineer; F. E. Kendrick, Geologist,
Dallas, Texas

3007

BLANK

PAGE


WHEELER
SHAMROCK DISTRICT
DONLEY
COLLINGSWORTH
CHILDRESS
HALL
HARDEMAN
MOTLEY
COTTLE
FOARD
WILBARGER
WICHITA
Burkburnett
Electra
Wichita Falls
DICKENS
KING
BAYLOR
ARCHER
CLAY
MONTAGUE
HASKELL
THROCKMORTON
YOUNG
JACK
STONEWALL
KENT
SHACKELFORD
JONES
FISHER
STEPHENS
PARKER
FORT WORTH
Mineral Wells
Abilene
Sweetwater
Colorado
CHICKASHA DISTRICT
LOCO DISTRICT
WASHITA
BECKHAM
CADDO
GRADY
COMANCHE
JEFFERSON
MARSHALL
GRAYSON
COOKE
DENTON
COLLIN
HUNT
HOPKINS
DELTA
FANNIN
LAMAR
RED RIVER
TITUS
DALLAS
KAUFMAN
VANZANDT
WOOD
UPSHUR
SMITH
Tyler
Greenville
Denison
Sherman
Gainesville
Whitesboro
Bonham
Paris
Clarksville
Cleburne
Waxahachie
Ennis
Terrell
Kaufman
Grand Saline
Canton
Quitman
Mineola
Longview
Jacksboro
Graham
Olney
Seymour
Benjamin
Quanah
Childress
Memphis
Clarendon
Wellington
Vernon
Iowa Park
Electra
Archer City
Megargel
Throckmorton
Albany
Anson
Hamlin
Stamford
Haskell
Rotan
Roby
Snyder
Colorado
Big Spring
Midland
Odessa
Pecos
Fort Stockton
Alpine
Marfa
Presidio
Del Rio
Eagle Pass
Laredo
Corpus Christi
Kingsville
Alice
Beeville
Goliad
Victoria
Port Lavaca
Bay City
Angleton
Galveston
Houston
Pasadena
Baytown
Texas City
La Porte
Pearland
Alvin
Dickinson
Friendswood
Webster
Seabrook
Kemah
Clear Lake
Pasadena
Deer Park
Channelview
Crosby
Huffman
Humble
Kingwood
Atascocita
Aldine
Spring
Tomball
Cypress
Katy
Sugar Land
Stafford
Missouri City
Richmond
Rosenberg
Fulshear
Brookshire
Waller
Hempstead
Prairie View
Brenham
Giddings
La Grange
Bastrop
Elgin
Smithville
Lockhart
Luling
Seguin
New Braunfels
San Marcos
Kyle
Buda
Austin
Round Rock
Georgetown
Taylor
Hutto
Granger
Thorndale
Rockdale
Milano
Cameron
Bryan
College Station
Navasota
Madisonville
Huntsville
Conroe
Willis
Montgomery
Magnolia
Tomball
Waller
Hempstead
Prairie View
Brenham
Giddings
La Grange
Bastrop
Elgin
Smithville
Lockhart
Luling
Seguin
New Braunfels
San Marcos
Kyle
Buda
Austin
Round Rock
Georgetown
Taylor
Hutto
Granger
Thorndale
Rockdale
Milano
Cameron
Bryan
College Station
Navasota
Madisonville
Huntsville
Conroe
Willis
Montgomery
Magnolia


Colorado
Sweetwater
NOLAN
TAYLOR
CALLAHAN
EASTLAND
DESDEMONA
RAY
Stephenville
Hillsboro
Waxahachie
ELLIS
JOHNSON
HENDERSON
ANDERSON
CHEROKEE
FREESTONE
Palestine
Corsicana
NAVARRO
Winters
Ballinger
RUNNELS
COLEMAN
Santa Anna
BROWN
Brownwood
COMANCHE
Comanche
Dublin
Walnut Springs
BOSQUE
Meridian
Clifton
HAMILTON
Hamilton
Waco
McGregor
CORYELL
Gatesville
Marlin
LIMESTONE
Groesbeck
LEON
Centerville
HOUSTON
Crockett
TRINITY
Trinity
MADISON
Madisonville
WALKER
Huntsville
Mexia
Fairfield
Teague
Buffalo
Nineveh
Kerens
Italy
Ennis
Cleburne
Granbury
Hico
Goldthwaite
MILLS
Mullen
Caradan
Vista
Center City
Star
Ebony
Regency
Rochelle
Melvin
Whiteland
Brady
McCULLOCH
Richland Springs
Lohn
Placid
Locker
Lometa
LAMPASAS
Lampasas
Killeen
Belton
Temple
SAN SABA
Cherokee
Calf Creek
Camp San Saba
Fredonia
Katemcy
Wagram
Mason
MASON
Llano
LLANO
Oxford
Loyal Valley
BURNET
Burnet
Marble Falls
Graford
Bluffton
Valley Spring
Field Creek
Hollow
Holder
Naruna
Tolar
Victor
Briggs
Florence
Jarrell
Granger
WILLIAMSON
Georgetown
Round Rock
Leander
Thorndale
Rockdale
Cameron
MILAM
Bryan
BRAZOS
BURLESON
Caldwell
Somerville
LEE
Giddings
WASHINGTON
Brenham
Austin
GILLESPIE
Fredericksburg
Stonewall
BLANCO
Harper
Eckert
Willow City
Cherry Spring
Round Mountain
Sandy
Paint Rock
Millersview
Goodfellow
Eden
Water Valley
Trickham
Shields
Goldsmith
Whon
Rockwood
Waldrip
Stacy
Dusek
Fife
Mercury
Salt Gap
Pear Valley
Melvin
Whiteland
Niblock
Brady
Scott
San Saba
Richland Springs
Locker
Ballard
Indian Cr.
Winchell
Ebony
Regency
Mullen
Caradan
Vista
Center City
Star
Goldthwaite
Castor
Southmayd
Moline
Antelope Gap
Adamsville
Box
Lometa
Rumley
Killeen
Belton
Temple
Lampasas
Nix
Shoriff
Gatesville
Coryell City
Flat
Turnersville
Pearl
Andrews Corners
Ruth
Tarna
Seattle
Hallsburg
Pendleton
Fulton
Valley
Liggett
Bruceville
Eddy
Lorena
Crawford
Speegleville
Waco
Bee House
Ozark
Ohio
Coryell
Russell
Bucksnin
Amos
Aqua
Bosque
Meridian
Clifton
Norse
Cranfills Gap
Iredell
Walnut Springs
Dublin
Proctor
Lake Proctor
Comanche
Hasse
Sidney
Watson
Blanket
Owens
Grosvenor
Byrds
Holder
May
Hasse
Dudley
Rowden
Cottonwood
Opdin
Cross Plains
Pioneer
Dressy
Goldsboro
Burkett
Cross Cut
Blake
Novice
Echo
Silver Valley
Glen
Cora
Hasskew
Hamrick
Watts Cr.
Nortonville
Harmony
Crews
Ballinger
Pony
Valera
Vera
Flak
Olfin
Leaday
Shields
Goulbusk
Rockwood
Whon
Trickham
Dutch
Brookesmith
Dallas

LONE STAR GAS CO.

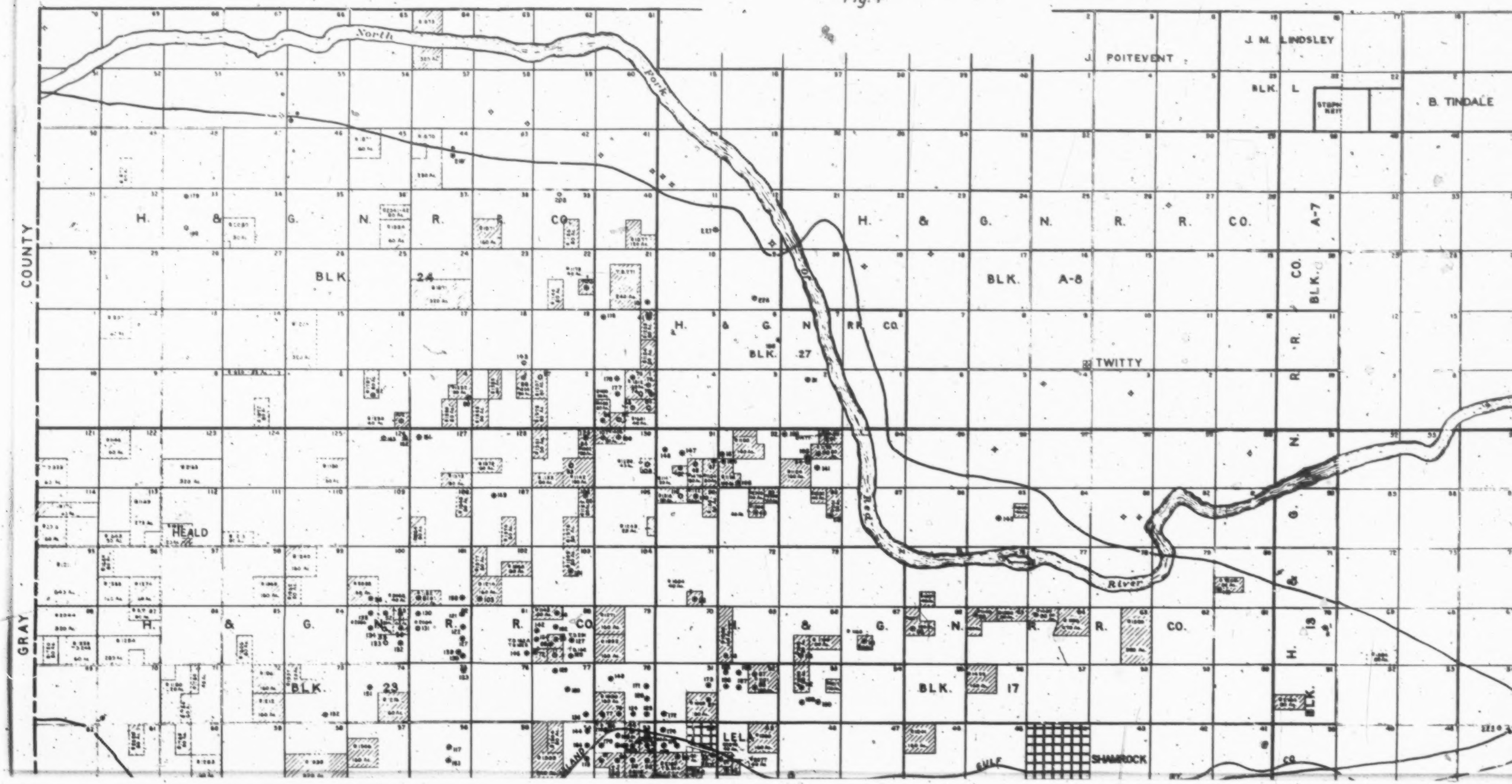
SHAMROCK FIELD

WHEELER CO., TEXAS

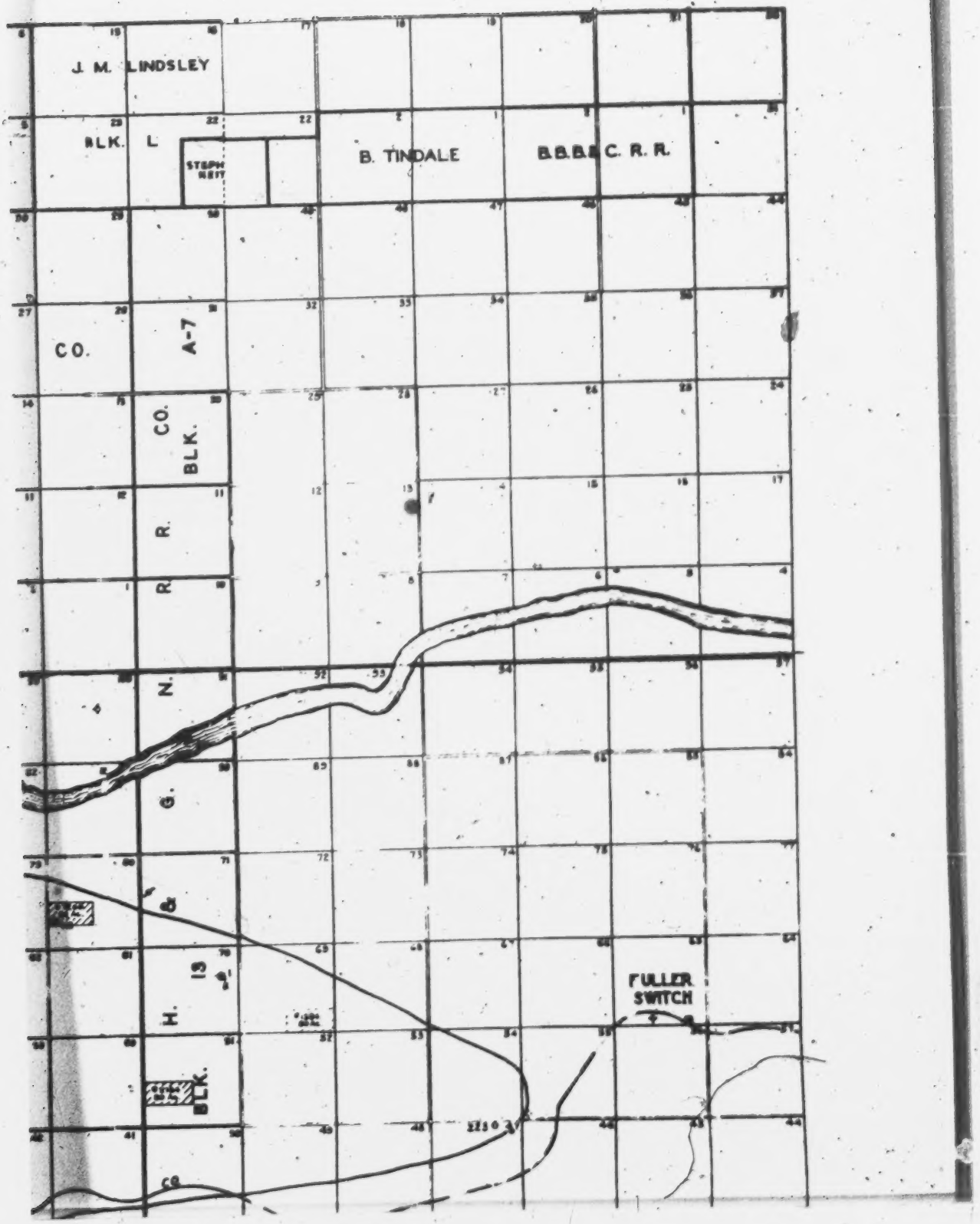
PRODUCING AREA AND

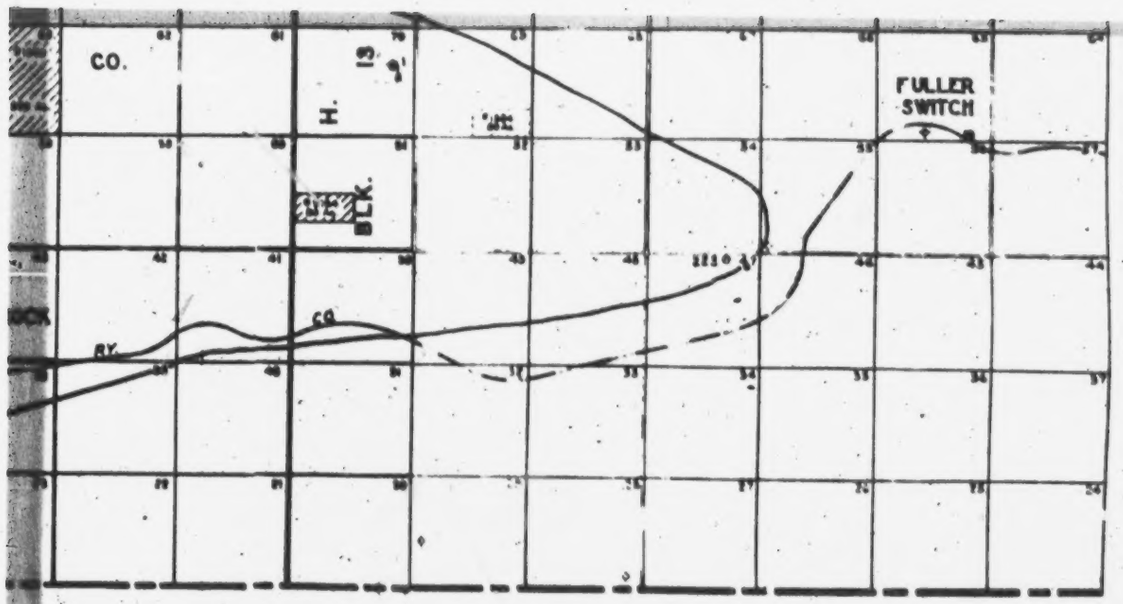
LEASES AS OF JANUARY 1, 1933

Fig. 4



[fols. 8622-8625]

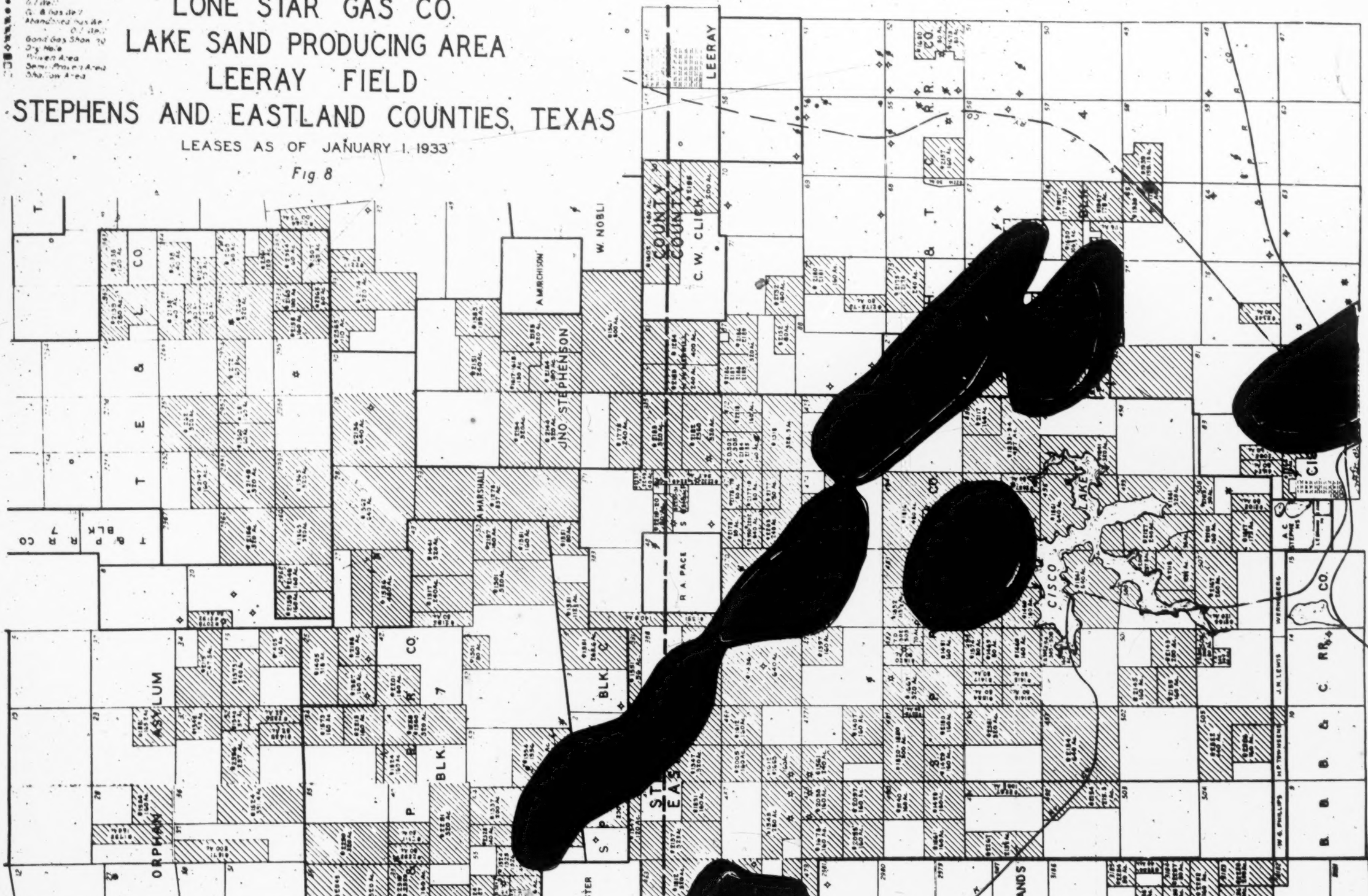


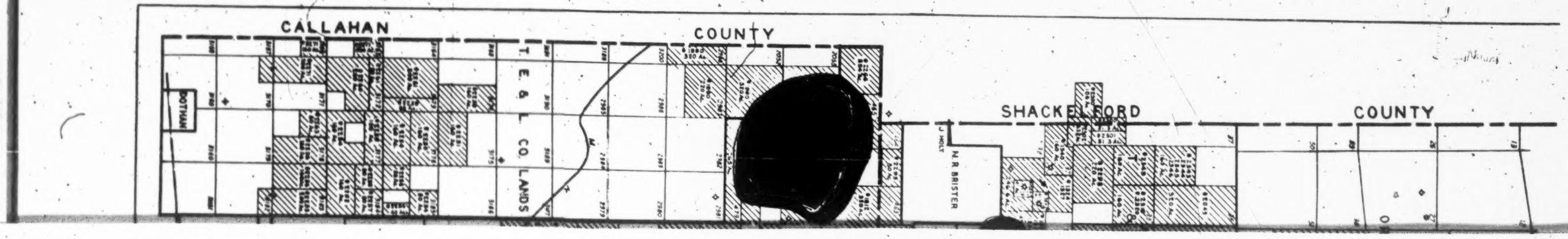

CO.
BLK.
FULLER
SWITCH

LONE STAR GAS CO.
LAKE SAND PRODUCING AREA
LEERAY FIELD
STEPHENS AND EASTLAND COUNTIES, TEXAS

LEASES AS OF JANUARY 1, 1933

Fig 8

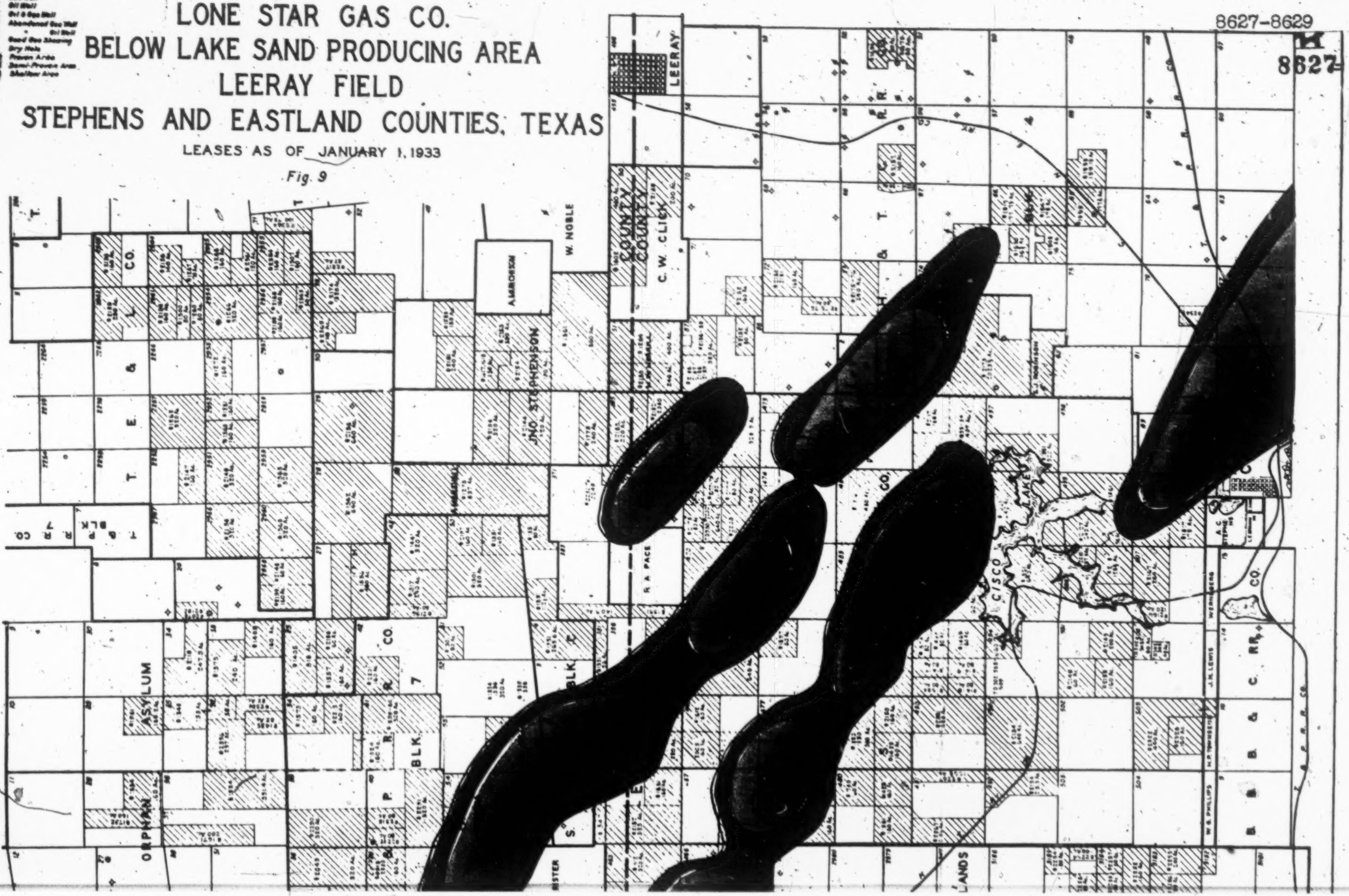


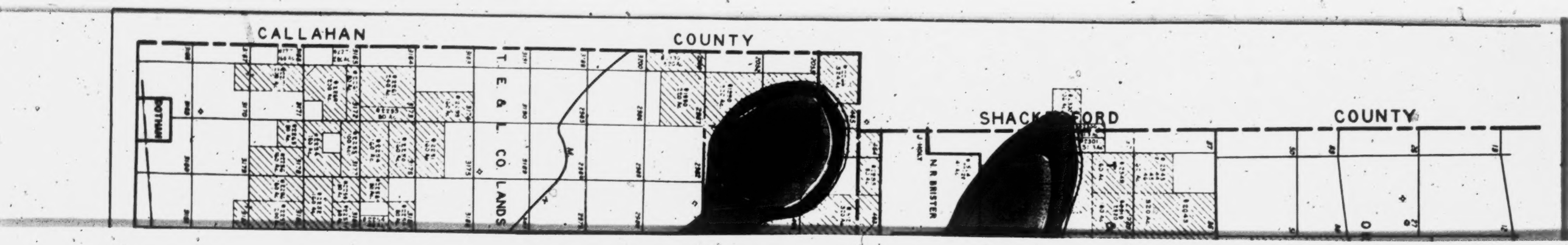

CALLAHAN
COUNTY
SHACKELFORD
COUNTY
T. E. & L. CO. LANDS
N. R. BRISTER

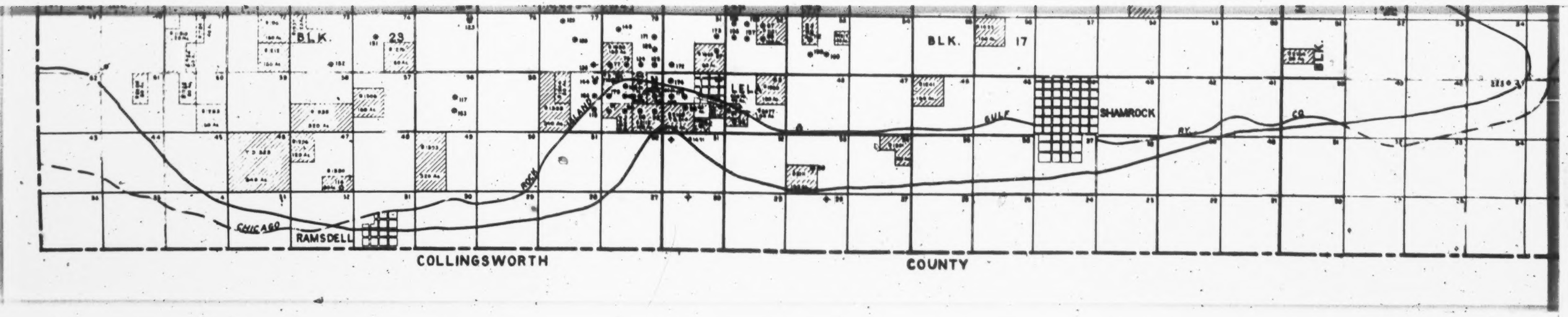
LONE STAR GAS CO.
BELOW LAKE SAND PRODUCING AREA
LEERAY FIELD
STEPHENS AND EASTLAND COUNTIES, TEXAS

LEASES AS OF JANUARY 1, 1933

Fig. 9




CALLAHAN
COUNTY
T. E. & L. CO. LANDS
POTHAM
N. R. BRISTER
COUNTY



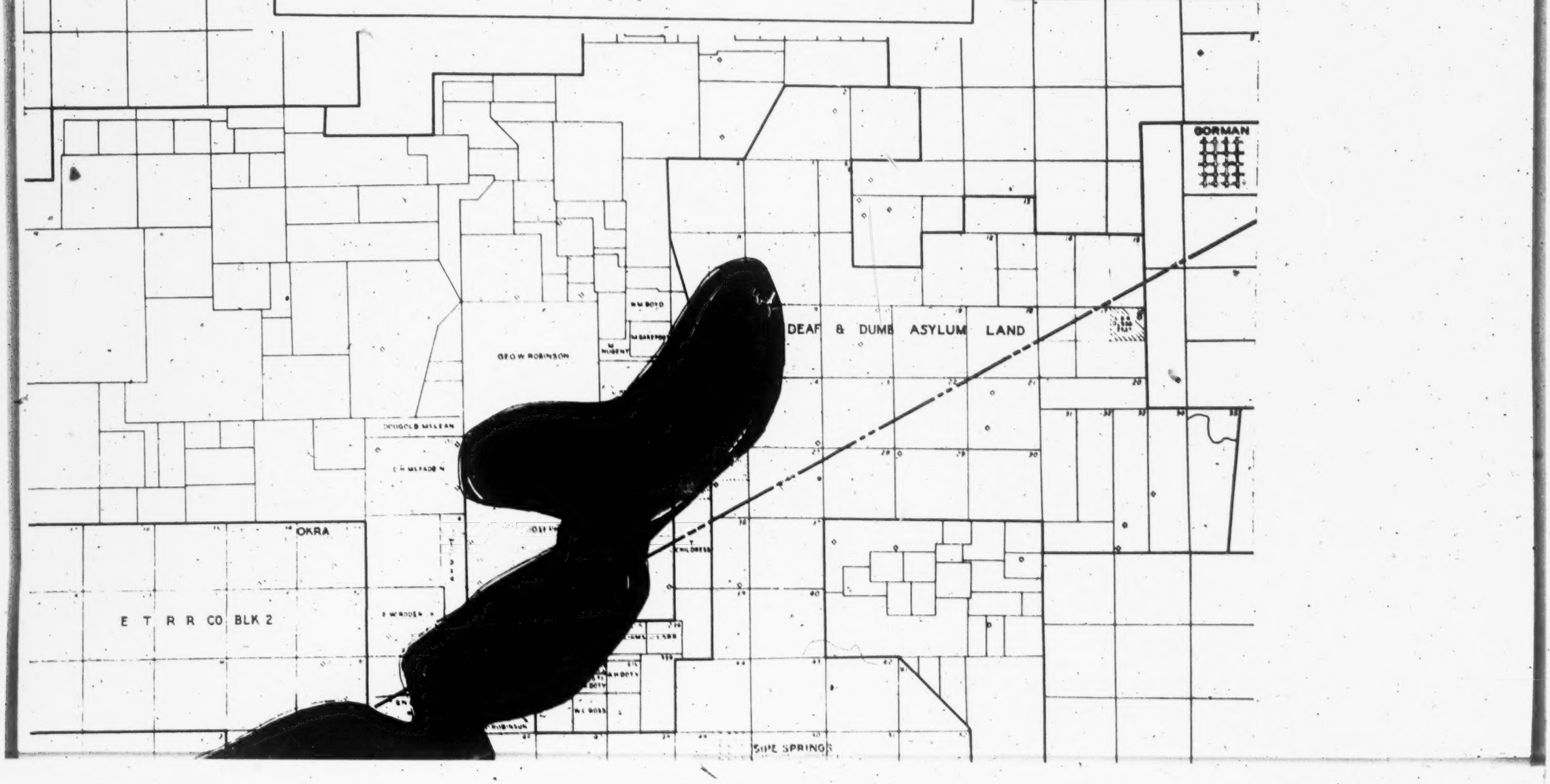
3015

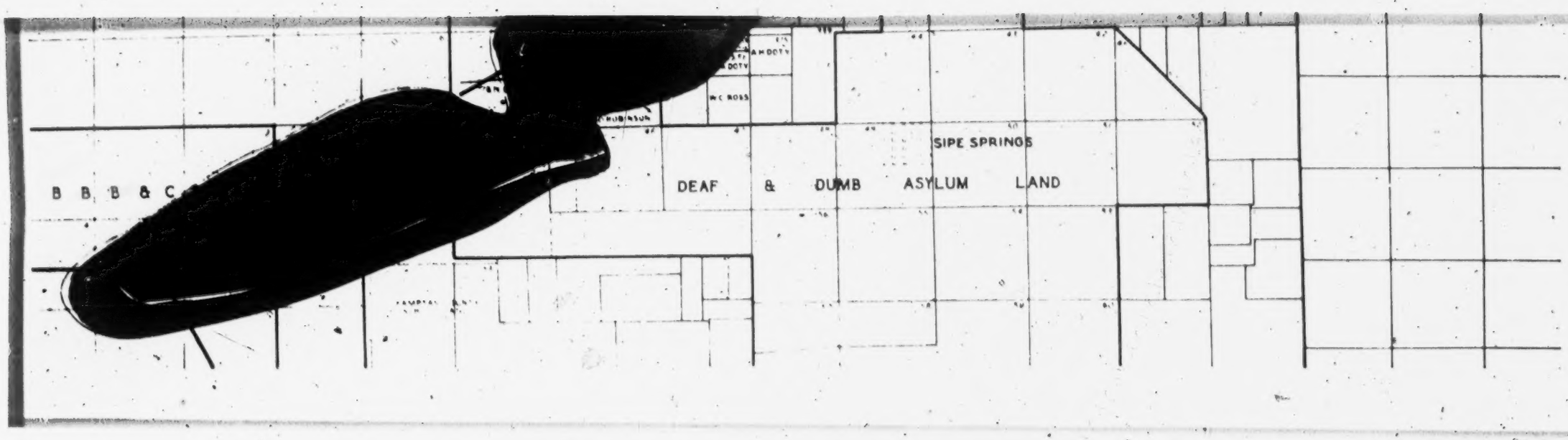
8630-8636

LONE STAR GAS CO
SIPE SPRINGS FIELD
EASTLAND AND COMANCHE COUNTIES TEXAS

PRODUCING AREA AND LEASES AS OF JANUARY 1 1933.

Fig 12




B B B & C
DEAF & DUMB ASYLUM LAND
SIPE SPRINGS

8-W

T-7-W

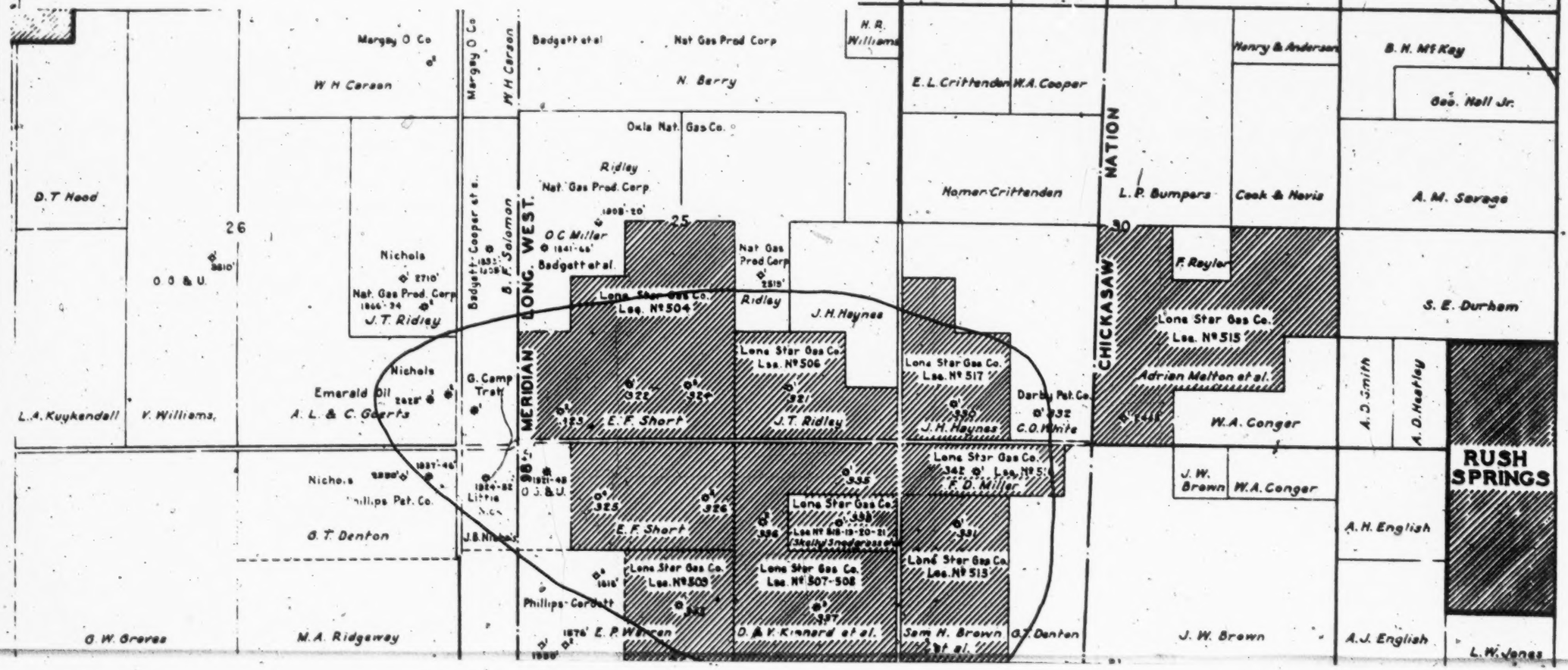
LONE STAR GAS CO.

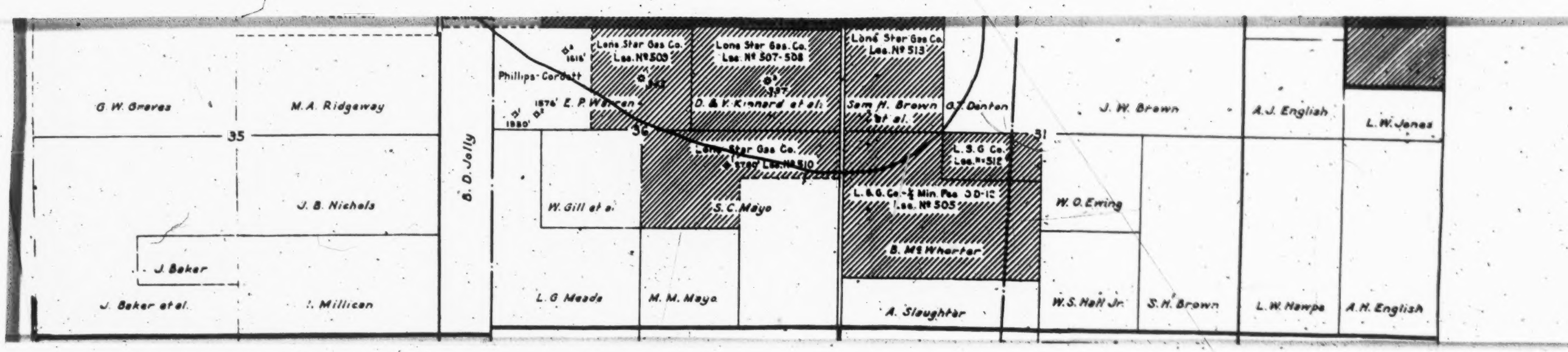
PRODUCING AREA SOUTH CHICKASHA FIELD.

GRADY COUNTY, OKLAHOMA.

LEASES AS OF JANUARY 1, 1933

Fig. 19




G. W. Groves
M. A. Ridgeway
35
J. B. Nichols
J. Baker
J. Baker et al.
Millican
B. D. Jolly
Phillips-Corbett
E. P. Warren
Lone Star Gas Co. Lse. No 509
Lone Star Gas Co. Lse. No 507-508
D. & V. Kinnard et al
36
Lone Star Gas Co. Lse. No 510
S. C. Mayo
W. Gill et al
L. G Meade
M. M. Mayo
Lone Star Gas Co. Lse. No 513
Sam N. Brown et al
G. T. Denton
L. S. G Co. Lse. No 512
L. & G. Co. - ½ Min. Fee J D-12 Lse. No 505
B. Mc Wharter
A. Slaughter
31
J. W. Brown
W. O. Ewing
W. S. Hall Jr.
S. H. Brown
A. J. English
L. W. Hampe
L. W. Jones
A. H. English

LONE STAR GAS CO.

LOCO DISTRICT

STEPHENS AND JEFFERSON COUNTIES, OKLA.

LEASES AS OF JANUARY 1, 1933

Fig. 21

RANGE

SANTA FE FIELD - CENTRAL PROJECT

L. S. G. Co. #8

R. McLendon

L. S. G. Co. #182

L. S. G. Co. #10

Mary Wilson

L. L. Beard

L. S. G. Co. #219

McKinley Billups

L. S. G. Co. #457

Alma Gilbert

GB-1 LINE

8" SUCTION LINE - FX 42

GB LINE 12"

GC 12"

LOCO COMPRESSOR STATION

8 UNITS-1120 H.P.

L. S. G. Co. #437

L. S. G. Co. #438

L. S. G. Co. #439

W. M. Bonner

ASPHALTUM

CO.

T

COUNTIES, OKLA.

1, 1933

8639

T. Lawrence

EST

GA DIXIE GATES

GB LINE 12"

GB DIXIE GATE

GD

GC 12"

DIXIE

DRIP

PX 52-2"

L. S. G. Co. Lse. 8435

L. S. G. Co. Lse. 8438

W. M. Bonner

W. M. Bonner

BLANK

PAGE

Defendant's Exhibit No. 30—Continued

[fols. 8640-8651] Lone Star Gas Company

Natural Gas Reserves as of January 1, 1933

General Summary

	Lone Star Gas Company's Share M Cubic Feet (2# Base)	
Texas:		
1. *Panhandle District*	222,485,303	
2. Petrolia Field	1,975,851	
3. Leeray District	130,073,023	
4. Sipe Springs District	20,241,912	
5. Cheaney District	1,848,329	
6. Miscellaneous Wells	5,566,672	
Texas Total		382,191,090
Oklahoma:		
1. Chickasha District	2,277,356	
2. Duncan District	485,671	
3. Loco District	282,783	
4. Miscellaneous Wells	1,460,032	
Oklahoma Total		4,505,842
Grand Total		386,696,932

* * * * * * *

[fol. 8652]

	Depth Feet	Temperatures (Degrees F.)
Gray County, Texas	2,785	84.05
Young County, Texas	4,000	135.83
Young County, Texas	4,334	143.37

In calculating natural gas reserves it is not necessary to apply a correction for temperature to the reservoir pressure when the "Pressure-Volume Decline Method" is used, but a temperature correction should be applied to the pressure when the "Porosity-Area Method" is used. In the

former case the reserve is calculated on the basis of a known quantity of gas produced per pound pressure drop, and since the reservoir temperature remains constant, the quantity of gas per pound pressure drop remains the same. In the latter case, however, the reserve is calculated on the basis of the cubical content of the reservoir and a pressure base multiplication factor. This factor should take into consideration the effect on the reservoir pressure of the difference in the existing temperature and the base temperature.

Scope of Report

The Lone Star Gas Company's share of the natural gas reserves has been calculated only in those districts where production exists or where the leases are located in admittedly proven territory.

The summary of these reserves serves as a basis for valuation of those leases which are located in either of the [fols. 8653-8661] above classifications. There are, however, some leases of this company which are located in proven but undeveloped territory, and other located in likely, but as yet unproven, territory for which no reserves have been calculated. These leases are included in Table No. 1, which shows with respect to these leases, the "Lone Star Acre Interest for which no Reserve has been Calculated". In order then to evaluate the Lone Star Gas Company's leaseholds as of January 1, 1933, it is necessary to place a value on the acreage for which no reserve has been calculated in addition to the value of the calculated reserves.

* * * * * * * *

[fol. 8662] Petrolia Field

Clay County, Texas

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
Petrolia Field Proper	1,446,930
Miller Farm	528,921
Total Lone Star Gas Company's Marketable Reserves in the Petrolia District	1,975,851

[fol. 8663] Petrolia Gas Field, Clay County, Texas

Introduction

* * * * * * *

Structurally, the Petrolia field is a well defined dome, being one of several domes located on what is called the Red River arch, a major structural feature of the Mid-Continent. This dome is very well defined by a closed surface structure that is highly accentuated in the sub-surface.

The most important gas production in Petrolia field has been found at depths of approximately 1300 to 1750 feet in sands belonging to the Cisco beds of Pennsylvanian age. These sands are more or less lenticular and as a consequence the field has been somewhat spotted. Formations [fol. 8664] below the Pennsylvanian have not been tested, except by one well, and it was too low, structurally, to be expected to produce. So far as the Permian and Pennsylvanian formations are concerned, the field is considered drilled up for gas and all reserve gas in these two formations can probably be obtained from present existing wells. All of this reserve gas is either owned or controlled by Lone Star Gas Company.

[fol. 8665] Petrolia District, Clay County, Texas

In order to calculate the reserve of gas to be produced from the Lone Star Gas Company's wells in this district, two calculations have been made; one for all of the wells except those on the Miller Farm, and one for the Miller wells. The first division is designated "Petrolia Field Proper", and the other, "Miller Wells."

This distinction is made in view of the fact that the Miller Farm was, on July 6, 1929, adapted to use for storing and returning gas from the main line to the natural reservoir, and back at later periods, through the field suction lines. Accurate measurement data for this gas, both in and out of storage, are available.

In the calculation of the gas reserve for this field, no significance is attached to the gas storage operations. The reserve for the Miller Farm Wells is calculated from the rates of delivery from these wells prior to the beginning of storage operations. The reserve under this acreage will still be available to be produced at some later date.

Petrolia Field Proper

There are thirty-eight wells delivering gas from this division of the Petrolia District. These wells have been on continuous operation for years, and consequently there are [fols. 8666-8667] no maximum shut-in pressure data available to be used in the calculation of reserves. The most accurate method to be applied in the calculation of the reserve to be produced after January 1, 1933, is to calculate the reserve from the delivery decline curve. Such a curve (Figure 5) has been plotted and shown herewith. A continuation of this curve is made from January 1, 1933, down to the point where the amount of gas produced will likely not justify the continued operation of the wells.

* * * * * * *

[fols. 8668-8669] Petrolia District

Miller Wells

Reserves

As stated earlier in this report, the Miller Farm was adapted to the underground storage of gas on July 6, 1929. At that time the lease was delivering gas at the rate of 343.1 M cubic feet per day, and had an available reserve, which reserve is here calculated by applying the same decline factor as was used for "Petrolia Field Proper". That reserve is still available to be produced, which fact is thoroughly established by the data from storage operations.

It is then apparent that the reserve under the Miller Farm was at least as great on January 1, 1933, as it was on July 6, 1929.

The available decline in daily delivery rate from this lease is determined by assuming that its operations would cease with the rest of the field.

* * * * * * *

Defendant's Exhibit No. 30—Continued

[fols. 8670-8705] Leeray District

Eastland and Stephens Counties, Texas

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
Shallow Sand:	
Shallow Area No. 1	3,053,026
B. P. Cozart No. 2 Area	837,433
R. Elliott No. 2 Area	515,440
Lake Sand and Below Lake Sand:	
Brooks Pool	19,324,880
Chesley Pool	2,510,815
Dyer Pool	14,344,928
Fee Pool	16,046,369
Grove Pool	30,083,502
Hitson Pool	8,510,529
League Pool	7,058,714
Storm Pool	24,976,149
Ward Pool	2,811,238
Total of Lone Star Gas Company's Marketable Reserves in Leeray District	130,073,023

* * * * * * *

[fols. 8706-8711] Sipe Springs District

Eastland and Comanche Counties, Texas

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
Central Area (Proven and semi-proven)	6,073,681
North Area (Proven and Semi-proven)	9,828,426
South Area (Proven and semi-proven)	4,339,805
Total of Lone Star Gas Company's Marketable Reserves in Sipe Springs District	20,241,912

* * * * * * *

Defendant's Exhibit No. 30—Continued

[fols. 8712-8716] Cheaney District

Eastland County, Texas

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
Cheaney Field Proper	1,758,875
M. E. Lee Area	89,454
Total of Lone Star Gas Company's Marketable Reserves in the Cheaney District	1,848,329

[fols. 8717-8735] Miscellaneous Wells

Texas

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
A. C. Anderson No. 3	37,028
W. H. Belding No. 1	43,241
J. L. Brashears No. 2	22,971
H. Compton No. 1	1,578,726
M. F. Cox No. 1	935,800
A. L. Duffer No. 6	492,666
D. N. Ellis No. 2	271,923
J. D. Fite No. 1 S. A. Dosser No. 1	70,769
J. H. Goswick No. 1	580,358
M. H. Hagaman No. 6	201,236
N. B. Lyle No. 1	28,358
J. A. Thompson No. 1	1,303,596
Total of Lone Star Gas Company's Marketable Reserves from the Texas Miscellaneous Wells	5,566,672

Defendant's Exhibit No. 30—Continued

[fols. 8736-8741] Chickasha District

Grady County, Oklahoma

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
North Chickasha Field	1,087,886
South Chickasha Field	1,189,470
Total of Lone Star Gas Company's Marketable Reserves in the Chickasha District	2,277,356

[fol. 8742] Duncan District

Stephens County, Oklahoma

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
Clarkson Area	411,499
Williams Area	74,172
Total of Lone Star Gas Company's Marketable Reserves in the Duncan District	485,671

[fols. 8743-8746] Duncan Gas Area

Stephens County, Oklahoma

Introduction

Due to the fact that the fields, in which the Lone Star Gas Company leases are located, are considered fully developed, at present producing depths, it is not necessary to discuss structural conditions in this report. The fields have already passed their production peaks and are, of course, on the decline.

Defendant's Exhibit No. 30—Continued

[fol. 8747] Loco District

Stephens County, Oklahoma

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
Loco Field Proper	282,783
Total of Lone Star Gas Company's Marketable Reserves in the Loco District	282,783

[fol. 8748] Loco Gas Field

Introduction

The Loco gas field is situated in the southeastern part of Stephens County, Oklahoma. Most of this field lies in Sections 8, 9, 10, 14, 15, and 16, Township 3 South, Range 5 West.

* * * * * * *

[fols. 8749-8750] It may be said that the Loco field is "drilled up" and the possibility of further prospecting for gas is slight.

* * * * * * *

[fols. 8751-8757] Miscellaneous Wells

Oklahoma

Summary of Reserves

	Reserves M Cubic Feet (2# Base)
Arnold and Mercer No. 1 Ben Richardson No. 1	879,135
W. M. Bonner No. 1	454,991
W. L. Culver No. 1	18,785
A. E. Harp No. 3	107,121
Total of Lone Star Gas Company's Marketable Reserves from the Oklahoma Miscellaneous Wells	1,460,032

* * * * * * *

[fol. 8758] Additional Wells Necessary to be Drilled to Recover Present Reserves

It is estimated that the following number of wells will complete the development for all leases for which the gas reserves have been determined:

1. Shamrock Field (Wheeler County, Texas)	86
2. Petrolia Field (Clay County, Texas)	
3. Leeray Field (Eastland, Stephens Counties, Texas) 38 Wells Gross—Lone Star Gas Company's Interest	31
4. Sipe Springs Field (Comanche, Eastland Counties, Texas)	18
5. Cheaney Field (Eastland County, Texas)	
6. Miscellaneous Wells, Texas	
7. Chickasha Field (Grady County, Oklahoma)	
8. Duncan Field (Stephens County, Oklahoma)	
9. Loco Field (Stephens County, Oklahoma)	
10. Miscellaneous Wells, Oklahoma	
Total Wells	135

[fol. 8759] The total natural gas reserves of the Lone Star Gas Company pertaining to certain developed and proven acreage has been found to be 386,696,932 M cubic feet. This amount of gas represents the total volume which now is contained in the various gas reservoirs between the present reservoir pressure and an assumed abandonment pressure.

We have shown that 135 additional wells will need to be drilled in order to produce this entire reserve. There will be some loss of gas at the completion of these wells. The total amount of gas which will be lost in this manner undoubtedly will be negligible in comparison to the total volume of gas reserves.

The Lone Star Gas Company's method of handling producing gas wells is such that very little gas is wasted in the operation of the wells. Likewise the total amount of gas lost from operation will also be negligible in comparison to the total volume of gas reserves.

An allowance of five per cent of the total volume of gas reserves has been made which, in our opinion, will amply provide for all gas which may be wasted or lost during the

Defendant's Exhibit No. 30—Continued

remaining period of time required for the withdrawal of the total reserves as determined.

[fol. 8760] Lone Star Gas Company

Marketable Gas Reserves (Net)

As of January 1, 1933

	Lone Star Share of Reserves M Cu. Ft. (2# Base)	Lone Star Share of Reserves Less 5% M Cu. Ft. (2# Base)
Texas		
Shamrock Field	222,485,303	211,361,038
Petrolia Field	1,975,851	1,877,058
Leeray Field	130,073,023	123,569,372
Sipe Springs Field	20,241,912	19,229,816
Cheaney Field	1,848,329	1,755,913
Miscellaneous Wells	5,5[illegible],672	5,288,338
Oklahoma		
Chickasha Field	2,277,356	2,163,488
Duncan Field	485,671	461,387
Loco Field	282,783	268,644
Miscellaneous Wells:		
Arnold & Mercer No. 1 Ben Richardson No. 1	879,135	835,178
Bonner No. 1	454,991	432,241
Culver No. 1	18,785	17,846
Harp No. 3	107,121	101,765
Total	386,696,932	367,362,084

Defendant's Exhibit No. 30—Continued

[fols. 8761-8764]

Ownership and Distribution of Present Development

As of January 1, 1933

	Lone Star Wells	Lone Star Working Interest in Wells
Texas		
Shamrock	78	78.0000
Petrolia	46	46.0000
Leeray	50	47.1875
Sipe Springs	8	8.0000
Cheaney	18	18.0000
Miscellaneous Wells	13	12.2500
Texas Total	213	209.4375
Oklahoma		
Chickasha	41	41.0000
Duncan	8	8.0000
Loco	5	5.0000
Miscellaneous Wells	5	4.0000
Oklahoma Total	59	58.0000
Grand Total	272	267.4375

• • • • • • •

Defendant's Exhibit No. 30—Continued

[fols. 8765-8771]

Table No. 1

Leases and Deeds Owned by the Lone Star Gas Company as of January 1, 1933

Texas

Lease Number	County	Total Acres	Lone Star Interest	Lone Star Acre Interest	Acre Interest for Which Reserve Has Been Calculated	Acre Interest for Which No Reserve Has Been Calculated
246	Clay	10.0	.875	8.8	8.8	.....
****	****	****	****	****	****	****

[fols. 8772-8798]

1436	Eastland	640.0	.875	560.0	397.0	163.0
****	****	****	****	****	****	****

[fol. 8799]

Grand Total—Texas		174,398.4	.....	146,404.0	47,256.0	99,148.0

[fols. 8800-8804]

Oklahoma

8	Stephens	60.0	.875	52.5	.....	52.5
****	****	****	****	****	****	****

[fols. 8805-8857]

Grand Total—Oklahoma		9,923.4	....	7,923.1	2,262.4	5,660.7
Grand Total—Oklahoma and Texas		184,321.8	....	154,327.1	49,518.4	104,808.7

* * * * * * *

[fols. 8858-8859] DEFENDANT'S EXHIBIT No. 31

Lone Star Gas Company

Appraisal of Gas Reserves

January 1st, 1933

[fol. 8860] Present Fair Value of Net Gas Reserves

January 1st, 1933

Estimated Gross Withdrawal Value (Schedule #1)		$19,451,614
Cost of Recovery:		
Future Developing Costs (Schedule #2)	$2,658,619	
Recovery Operating Costs (Schedule #3)	1,237,661	
Total	$3,896,280	
Less: Estimated Salvable Value of Gas Well Equipment (Schedule #4)	499,958	
Net Cost of Recovery		3,396,322
Estimated Net Recovery Value of Gas Reserves		$16,055,292
Present Worth Factor		.46319
Present Fair Value of Gas Reserves Including Gas Well Equipment and Construction		$7,436,650
Less:		
Gas Well Equipment and Construction as Shown in Appraisal dated Jan. 1st, 1933	$3,894,317	
Overheads applicable to Gas Well Equipment and Construction and Included in Appraisal dated Jan. 1, 1933	860,644	4,754,961
Present Fair Value of Net Gas Reserves		$2,681,689

Defendant's Exhibit No. 31—Continued

[fol. 8861] Summary of Net Gas Reserves and Gross Value

January 1st, 1933

(Schedule #1)

District	Net Gas Reserves M. Cu. Ft.	Unit Value	Gross Value
Texas			
Panhandle	211,361,038	$.047	$9,933,969
Petrolia	1,877,058	.100	187,706
Leeray	123,569,372	.060	7,414,162
Sipe Springs	19,229,816	.060	1,153,789
Cheaney	1,755,913	.060	105,355
Miscellaneous	5,288,338	.060	317,300
Total	363,081,535	$.053	$19,112,281
Oklahoma			
Chickasha	2,163,488	$.080	$173,079
Duncan	461,387	.100	46,139
Loco	268,644	.060	16,119
Miscellaneous	1,387,030	.075	103,996
Total	4,280,549	$.079	$339,333
Grand Total	367,362,084	$.053	$19,451,614

[fol. 8862] Summary of Future Developing Costs

Necessary to Recover Gas Reserves

January 1st, 1933

(Schedule #2)

	Number Wells to be Drilled	Average Cost per Well	Total Cost
Shamrock	86	$15,063	$1,295,418
Leeray	31	30,991	960,721
Sipe Springs	18	22,360	402,480
Total	135		$2,658,619

[fol. 8863] Estimated Costs That Will be Incurred in Recovering Net Gas Reserves

January 1st, 1933

(Schedule #3)

Direct Recovery Costs and Ad Valorem Taxes

Total Gas Wells Now Owned and Operated	262
Additional Wells Necessary to be Drilled to Recover Gas Reserves (As Shown on Schedule #2)	135
Total	397

Defendant's Exhibit No. 31—Continued

Average Number Wells Operated per Annum —One Half, Say		200
Estimated Annual Recovery Cost per Well		$200
Estimated Annual Recovery Cost		$40,000
Estimated Number Years Wells Will be Operated to Recover Gas Reserves		20
Estimated Recovery Cost for Recovery Period		$800,000

Gross Production Tax

Gross Value of Net Gas Reserves as Set Out in Schedule #1	$19,451,614	
Gross Production Tax @ 2¼%		$437,661

Summary

Estimated Recovery Cost	$800,000
Gross Production Tax	437,661
Total	$1,237,661

[fols. 8864-8865] Statement of Salvable Value of Material Recovered from Wells Upon Abandonment

(Schedule #4)

Value of Material in Wells Now Owned and Operated			$1,285,234
Value of Material in Wells to be Drilled to Fully Recover Gas Reserves:			
Shamrock District	86 @	$3,432	295,152
Leeray District	31 @	9,851	305,381
Sipe Springs Dist.	18 @	6,337	114,066
Total	135		$714,599
Total			$1,999,833
Net Salvable Value of Material Recovered—25% of Original Cost			$499,958

[fol. 8866] DEFENDANT'S EXHIBIT No. 32

Lone Star Gas Company

Leaseholds—Undeveloped

(Miscellaneous Leases For Which No Reserve Has Been Calculated)

Determination of Present Value as of January 1, 1933

E. A. Steinberger, Valuation Engineer, Dallas, Texas

(Here follows one paster, folios 8867 to 8896)

Defendant's Exhibit No. 32—Continued

[fols. 8867–8869]

Lone Star Gas Company

Miscellaneous Leases For Which No Reserve Has Been Calculated

Lease Number	County	State	Total Acres	Lone Star Interest	Lone Star Acre Interest	Original Consideration	Rental To Dec. 31, 1932	Incidentals	Cost of Lease Dec. 31, 1932	Acre Interest For Which No Reserve Has Been Calculated	Per Cent of Lone Star Acre Interest	Cost of Lease For Which No Reserve Has Been Calculated
684	Stephens	Texas	80.0	.875	70.0	$83.32	$333.33	$26.87	$443.52	70.0	100.00	$443.52
****	****	****	****	****	****	****	****	****	****	****	****	****
[fols. 8870–8878]												
1436	Eastland	"	640.0	.875	560.0	3,200.00	320.00	60.56	3,580.56	163.0	29.10	1,041.94
****	****	****	****	****	****	****	****	****	****	****	****	****
[fols. 8879–8890]												
2005	Eastland	"	160.0	.875	140.0	1,600.00	240.00	3.04	1,843.04	140.0	100.00	1,843.04
****	****	****	****	****	****	****	****	****	****	****	****	****
[fols. 8891–8894]												
TD318 TD318A	Gray	"	1,280.0	.875	1,120.0	8,900.00	.....	5.81	8,905.81	1,120.0	100.00	8,905.81
TD319	"	"	160.0	.875	140.0	3,601.00	480.00	7.55	4,088.55	140.0	100.00	4,088.55
TD320	"	"	160.0	.875	140.0	2,800.00	400.00	5.92	3,205.92	140.0	100.00	3,205.92
TD321	"	"	160.0	.875	140.0	2,800.00	400.00	7.29	3,207.29	140.0	100.00	3,207.29
TD322	"	"	1,280.0	.875	1,120.0	6,400.00	.....	9.89	6,409.89	1,120.0	100.00	6,409.89
TD329	Eastland	"	123.5	.0688	8.5	17.00	.....	.....	17.00	8.5	100.00	17.00
Total—Texas						$789,113.21	$186,016.28	$8,028.93	$983,158.42	99,002.3		$842,874.48
****	****	****	****	****	****	****	****	****	****	****	****	****
[fol. 8895-8896]												
Total—Oklahoma						$78,376.59	$14,183.11	$620.01	$93,179.71	5,660.7		$50,416.80
Grand Total						$867,489.80	$200,199.39	$8,648.94	$1,076,338.13	104,663.0		$893,291.28

BLANK

PAGE

[fols. 8897-8900] DEFENDANT'S EXHIBIT No. 33

Lone Star Gas Company

[fols. 8901-8938] Pipe Prices as of June 11, 1934

Large Lots

The net delivered prices shown in this tabulation are prices applying to the Lone Star Gas System in Oklahoma and Texas, with the exception of Galveston and El Paso, Texas. The carload freight rate in arriving at the delivered prices is 84 cents per hundred-weight.

The prices are for "Large" Lots as approved under the Steel Code and are based on the following:

* * * * * * *

[fols. 8939-8940] DEFENDANT'S EXHIBIT No. 34

* * *

Lone Star Gas Company

Comparison of Pipe Prices January 1, 1933, to June 11, 1934, Inclusive

[fol. 8941] Table of Contents

	Side Folios
Comparison of Pipe Prices	8942
Plain End	8943
Threaded and Coupled	8945
Electric Weld	8947
Smithweld	8947
Casing	8948
Tubing	8948

[fol. 8942] Comparison of Pipe Prices

(Here follows one paster, side folios 8943 to 8948-8974)

6303

BLANK

PAGE

Defendant's Exhibit No. 34—Continued

[fol. 8943]

Lone Star Gas System

Comparison of Pipe Prices

Delivered

Size (Inches) Nom.	O. D.	Weight Per Foot	January 1, 1933 Net Cost	January 1, 1933 Per Cent	July 1, 1933 Net Cost	July 1, 1933 Per Cent Plain End	"Large" Lots January 2, 1934 Net Cost	"Large" Lots January 2, 1934 Per Cent	"Large Lots" May 1, 1934 Net Cost	"Large Lots" May 1, 1934 Per Cent	"Large Lots" June 11, 1934 Net Cost	"Large Lots" June 11, 1934 Per Cent
Buttweld, Standard, Black—Single Random Lengths												
1/8		.244	.....	100.00	.....	.....	$.0288	.....	$.0288	.....	$.0284	.....
1/4		.424	$.0277	100.00	$.0265	95.57	.0283	102.17	.0302	109.03	.0299	107.94
3/8		.567	.0277	100.00	.0265	95.57	.0283	102.17	.0302	109.03	.0299	107.94
1/2		.850	.0373	100.00	.0357	95.71	.0362	96.79	.0388	104.02	.0384	102.95
3/4		1.130	.0465	100.00	.0445	95.70	.0449	96.56	.0487	104.73	.0481	103.44
1		1.678	.0656	100.00	.0626	95.43	.0633	96.49	.0689	105.03	.0681	103.81
1-1/4		2.272	.0887	100.00	.0848	95.60	.0856	96.51	.0931	104.96	.0920	103.72
1-1/2		2.717	.1061	100.00	.1014	95.57	.1023	96.42	.1114	105.00	.1101	103.77
Lapweld, Line, Black—Single Random Lengths												
2	2-3/8	3.652	.1657	100.00	.1502	90.65	.1397	84.31	.1506	90.89	.1489	89.85
2-1/2	2-7/8	5.703	.2426	100.00	.2213	91.22	.2058	84.83	.2233	92.04	.2207	90.97
2-3/4	3	3.572	.....	100.00	.....	.....	.1336	.....	.1440	.....	.1423	.....
3	3-1/2	7.575	.3173	100.00	.2895	91.24	.2692	84.84	.2919	91.99	.2885	90.92
	4	5.532	.....	100.00	.....	.....	.1958	.....	.2122	.....	.2098	.....
	4	9.109	.3815	100.00	.3224	84.51	.3003	78.72	.3277	85.90	.3240	84.93
	4-1/2	10.790	.3580	100.00	.3820	106.70	.3558	99.39	.3882	108.44	.3837	107.18
	5-1/2	16.870	.5615	100.00	.5986	106.61	.5555	98.93	.6055	107.84	.5996	106.61
	6	10.222	.....	100.00	.....	.....	.3633	.....	.3937	.....	.3891	.....
	6-5/8	11.652	.4217	100.00	.4458	105.71	.4132	97.98	.4476	106.14	.4424	104.91
	6-5/8	16.694	.5689	100.00	.6072	106.73	.5631	98.98	.6124	107.65	.6053	106.40
	6-5/8	17.021	.5678	100.00	.6053	106.60	.5622	99.01	.6127	107.91	.6057	106.67
	6-5/8	18.974	.6316	100.00	.6726	106.49	.6268	99.24	.6839	108.28	.6761	107.05
	6-5/8	23.643	.....	100.00	.....	.....	.7805	.....	.8507	.....	.8409	.....
	6-5/8	28.573	.9521	100.00	1.0711	112.50	.9944	104.44	1.0796	113.39	1.0670	112.07
	7	20.181	.....	100.00	.....	.....	.6818	.....	.7416	.....	.7330	.....
	7-5/8	22.059	.....	100.00	.....	.....	.7463	.....	.8117	.....	.8023	.....
	7-5/8	23.544	.8047	100.00	.8560	106.38	.7971	99.06	.8671	107.75	.8570	106.50
	8-5/8	22.361	.....	100.00	.8359	.....	.7753	.....	.8418	.....	.8319	.....
	8-5/8	23.574	.8246	100.00	.8809	106.83	.8171	99.09	.8871	107.58	.8787	106.32
	8-5/8	24.696	.8427	100.00	.8990	106.68	.8373	99.36	.9117	108.19	.9012	107.94
	8-5/8	25.062	.8562	100.00	.9138	106.73	.8480	99.04	.9224	107.73	.9117	106.48
	8-5/8	28.554	.9759	100.00	1.0365	106.21	.9647	98.85	1.0503	107.62	1.0382	106.38
	10-3/4	26.720	1.0150	100.00	1.0625	104.68	.9852	97.06	1.0646	104.89	1.0520	103.65
	10-3/4	28.035	1.0645	100.00	1.1144	104.69	1.0331	97.05	1.1164	104.88	1.1032	103.64
[fol. 8944]	10-3/4	31.201	$1.1334	100.00	$1.1621	102.53	$1.0855	95.77	$1.1807	104.17	$1.1670	102.96
	10-3/4	31.445	1.1411	100.00	1.1620	101.83	1.0784	94.51	1.1718	102.69	1.1581	101.49
	10-3/4	34.240	1.1996	100.00	1.2720	106.04	1.1872	98.97	1.2914	107.65	1.2765	106.41
	10-3/4	38.875	.....	100.00	.....	.....	1.3326	.....	1.4481	.....	1.4312	.....
	12-3/4	33.375	1.2662	100.00	1.3566	107.14	1.2570	99.27	1.3561	107.10	1.3400	105.83
	12-3/4	34.552	1.2537	100.00	1.3409	106.96	1.2436	99.19	1.3463	107.39	1.3305	106.13
	12-3/4	37.453	1.3590	100.00	1.4537	106.97	1.3481	99.20	1.4594	107.39	1.4422	106.12
	13	43.335	.....	100.00	.....	.....	1.6354	.....	1.7633	.....	1.7423	.....
	13	48.467	.....	100.00	.....	.....	1.8271	.....	1.9711	.....	1.9476	.....
	14	54.568	2.0720	100.00	2.2198	107.13	2.0733	100.06	2.2196	107.12	2.1931	105.84
	16	42.053	1.6850	100.00	1.8084	107.32	1.6748	99.39	1.7998	106.81	1.7780	105.52
	16	47.215	1.8932	100.00	2.0319	107.33	1.8821	99.41	2.0227	106.84	1.9982	105.55
	18	47.393	.....	100.00	.....	.....	1.9263	.....	2.0672	.....	2.0429	.....
	18	49.074	1.9659	100.00	2.1556	109.65	1.9956	101.51	2.1415	108.93	2.1154	107.60
	18	53.223	2.1339	100.00	2.3398	109.65	2.1667	101.54	2.3250	108.96	2.2967	107.63
	18	59.032	2.3666	100.00	2.5126	106.17	2.3276	98.35	2.5033	105.78	2.4730	104.50
	20	59.231	2.3746	100.00	2.6038	109.65	2.4110	101.53	2.5872	108.95	2.5558	107.63
	20	85.577	3.3581	100.00	3.6414	108.44	3.3730	100.44	3.6276	108.03	3.5838	106.72
	22	86.609	.....	100.00	.....	.....	3.4901	.....	3.7479	.....	3.7024	.....
	24	102.368	4.1037	100.00	4.4519	108.49	4.1228	100.47	4.4274	107.89	4.3737	106.58
	24	110.097	4.4160	100.00	4.7907	108.49	4.4332	100.39	4.7607	107.81	4.7029	106.50
Lapweld, Line, Black—Double Random Lengths												
	4-1/2	10.790	.3670	100.00	.3921	106.84	.3650	99.46	.3975	108.31	.3930	107.08
	6-5/8	18.974	.6475	100.00	.6904	106.63	.6431	99.32	.7002	108.14	.6922	106.90
	8-5/8	25.062	.8771	100.00	.9370	106.83	.8693	99.11	.9437	107.59	.9327	106.34
	10-3/4	31.445	1.1674	100.00	1.1912	102.04	1.1052	94.67	1.1987	102.68	1.1846	101.47
	12-3/4	33.375	.....	.....	.....	.....	1.2853	.....	1.3844	.....	1.3678	.....
	12-3/4	37.453	1.3905	100.00	1.4885	107.05	1.3799	99.24	1.4913	107.25	1.4736	105.98
Seamless, Line, Black—Single Random Lengths												
	6-5/8	23.582	.....	100.00	.....	.....	.8122	.....	.8821	.....	.8718	.....
	16	47.215	.....	100.00	2.1013	.....	1.9526	.....	2.0931	.....	2.0676	.....
	18	53.223	.....	.....	.....	.....	2.2461	.....	2.4044	.....	2.3750	.....

[fol. 8945]

Threaded and Coupled

Lapweld, Line, Black—Single Random Lengths												
2		3.750	$.1755	100.00	$.1631	92.93	$.1511	86.10	$.1622	92.42	$.1603	91.34
2-1/2		5.900	.2564	100.00	.2402	93.68	.2226	86.82	.2402	93.68	.2374	92.59
3		7.700	.3347	100.00	.3135	93.67	.2907	86.85	.3134	93.64	.3097	92.53
4		11.000	.4782	100.00	.4274	89.38	.3965	82.92	.4292	89.75	.4241	88.69
4-1/2		12.800	.....	100.00	.....	.....	.4613	.....	.4994	.....	.4935	.....
6		19.450	.8438	100.00	.7542	89.38	.6993	82.88	.7571	89.73	.7482	88.67
7		24.050	1.1012	100.00	.9554	86.76	.8856	80.42	.9570	86.91	.9456	85.87
8		25.550	1.1662	100.00	1.0119	86.77	.9372	80.36	1.0128	86.85	1.0008	85.82
8		29.350	1.3405	100.00	1.1630	86.76	1.0774	80.37	1.1643	86.86	1.1505	85.83
10		32.750	1.5548	100.00	1.3094	84.22	1.2130	78.02	1.3097	84.04	1.2942	84.23
10		35.750	1.6982	100.00	1.4311	84.27	1.3249	78.02	1.4307	84.25	1.4136	83.24
12		45.450	2.2168	100.00	1.8734	84.51	1.7369	78.35	1.8722	84.48	[illegible]	[illegible]

10	32.750	1.5548	100.00	1.3094	84.22	1.2130	78.02	1.3097	84.04	1.2942	84.23
10	35.750	1.6982	100.00	1.4311	84.27	1.3249	78.02	1.4307	84.25	1.4136	83.24
12	45.450	2.2168	100.00	1.8734	84.51	1.7369	78.35	1.8722	84.46	1.8499	83.45
12	51.150	2.4946	100.00	2.1082	84.51	1.9545	78.35	2.1069	84.46	2.0817	83.45
Buttweld, Standard, Black—Single Random Lengths											
1/8	.245	.....	100.00	.....	.....	.0298	.....	.0300	.....	.0297	.....
1/4	.425	.....	100.00	.....	.....	.0294	.....	.0313	.....	.0310	.....
3/8	.568	.....	100.00	.....	.....	.0294	.....	.0313	.....	.0310	.....
1/2	.852	.....	100.00	.....	.....	.0376	.....	.0405	.....	.0400	.....
3/4	1.134	.....	100.00	.....	.....	.0471	.....	.0509	.....	.0504	.....
1	1.684	.....	100.00	.....	.....	.0664	.....	.0721	.....	.0712	.....
1-1/4	2.281	.....	100.00	.....	.....	.0899	.....	.0975	.....	.0963	.....
1-1/2	2.731	.....	100.00	.....	.....	.1076	.....	.1166	.....	.1152	.....
Buttweld, Line, Black—Single Random Lengths											
1-1/4	2.300	.0949	100.00	.0930	98.00	.0941	99.16	.1019	107.38	.1007	.....
1-1/2	2.750	.....	100.00	.....	.....	.1122	.....	.1214	.....	.1199	.....
[fol. 8946]											
Buttweld, Standard, Galvanized—Single Random Lengths											
1/8	.245	.....	.....	.....	.....	$.0412	.....	$.0412	.....	$.0407	.....
1/4	.425	.....	.....	.....	.....	.0398	.....	.0418	.....	.0413	.....
3/8	568	.....	.....	.....	.....	.0398	.....	.0418	.....	.0413	.....
1/2	.852	.....	.....	.....	.....	.0469	.....	.0496	.....	.0490	.....
3/4	1.134	.....	.....	.....	.....	.0580	.....	.0618	.....	.0611	.....
1	1.684	.....	.....	.....	.....	.0810	.....	.0865	.....	.0854	.....
1-1/4	2.281	.....	.....	.....	.....	.1094	.....	.1171	.....	.1156	.....
1-1/2	2.731	.....	.....	.....	.....	.1310	.....	.1400	.....	.1383	.....
Buttweld, Line, Galvanized—Single Random Lengths											
1-1/4	2.300	$.1186	100.00	$.1127	95.03	.1141	96.21	.1218	102.70	.1203	101.43
1-1/2	2.750	.....	100.00	.....	.....	.1359	.....	.1451	.....	.1434	.....
Lapweld, Line, Galvanized—Single Random Lengths											
2	3.750	$.2132	100.00	.1945	91.23	.1798	84.33	.1909	89.54	.1886	88.46
2-1/2	5.900	.....	100.00	.....	.....	.2678	.....	.2903	.....	.2868	.....
3	7.700	.4120	100.00	.3781	91.77	.3496	84.85	.3790	91.99	.3743	90.85
4	11.000	.5885	100.00	.5195	88.28	.4807	81.68	.5134	87.24	.5071	86.17
Buttweld, Extra Strong, Black, Single Random Lengths											
1	2.223	.1016	100.00	.0970	95.47	.0985	96.95	.1057	104.04	.1044	102.76
Lapweld, Extra Strong, Copperoid—Single Random Lengths											
2	5.130	.....	100.00	.....	.....	.2368	.....	.2561	.....	.2529	.....
Buttweld, Extra Strong, Copperoid—Single Random Lengths											
2	5.130	.....	100.00	.2312	.....	.2337	.....	.2503	.....	.2472	.....
[fol. 8947]											
Republic Electric Weld—Plain End—Double Random Lengths											
4-1/2	10.790	$.3775	100.00	.....	.....	$.3446	91.28	$.4083	108.16	$.4035	106.89
6-5/8	18.974	.6660	100.00	.....	.....	.6601	99.11	.7193	108.00	.7110	106.76
Smithweld—Plain End											
16	47.215	2.0213	100.00	$2.1760	107.65	1.9787	97.89	2.1193	104.85	2.0839	103.10
18	53.223	2.2784	100.00	2.5032	109.87	2.2755	99.87	2.4340	106.83	2.3934	105.05
20	59.231	2.5353	100.00	2.7855	109.87	2.5320	99.87	2.7085	106.83	2.6663	105.17
Smithweld—Bell & Spigot											
16	42.053	1.8305	100.00	1.9681	107.52	1.7472	95.45	1.8858	103.02	1.8821	102.82
[fols. 8948-8974]											
Casing—Lapweld—Threaded & Coupled—Black											
4-1/4	9.500	$.4525	100.00	$.4357	96.29	$.4406	97.37	$.4775	105.52	$.4715	104.20
4-1/2	9.500	.....	100.00	.....	.....	.4427	.....	.4795	.....	.4736	.....
5-3/16	13.000	.6159	100.00	.6159	100.00	.6236	101.25	.6748	109.56	.6663	108.18
5-3/16	17.000	.7625	100.00	.7394	96.97	.7492	98.26	.8127	106.58	.8026	105.26
5-3/16	20.000	.9133	100.00	.8798	96.33	.8940	97.89	.9697	106.18	.9577	104.86
6-1/4	20.000	.9217	100.00	.8966	97.28	.9110	98.84	.9867	107.05	.9744	105.72
6-1/4	24.000	1.0893	100.00	1.0641	97.69	1.0813	99.27	1.1714	107.54	1.1568	106.20
6-5/8	17.000	.7939	100.00	.7751	97.63	.7854	98.93	.8488	106.92	.8382	105.58
6-5/8	20.000	.9301	100.00	.9049	97.29	.9195	98.86	.9952	107.00	.9828	105.67
6-5/8	24.000	1.0976	100.00	1.0725	97.71	1.0898	99.29	1.1798	107.49	1.1651	106.15
8-1/4	28.000	1.3490	100.00	1.3406	99.38	1.3537	100.35	1.4602	108.24	1.4418	106.88
8-1/4	32.000	1.5585	100.00	1.4998	96.23	1.5154	97.23	1.6469	105.67	1.6262	104.34
8-1/4	36.000	1.7428	100.00	1.6590	95.19	1.6857	96.72	1.8251	104.72	1.8022	103.41
10	35.750	1.6926	100.00	1.6842	99.50	1.7113	101.10	1.8481	109.19	1.8248	107.81
10	40.000	1.9691	100.00	1.9104	97.02	1.9411	98.58	2.0884	106.06	2.0621	104.72
10	45.000	2.2204	100.00	2.1366	96.23	2.1625	97.39	2.3346	105.14	2.3052	103.82
12-1/2	45.000	2.2623	100.00	2.1953	97.04	2.2220	98.22	2.4027	106.21	2.3722	104.86
12-1/2	50.000	2.5221	100.00	2.3964	95.02	2.4264	96.21	2.6148	103.68	2.5818	102.37
13-3/8	54.500	.....	.....	.....	.....	2.9624	.....	3.1715	.....	3.1307	.....
13-1/2	50.000	2.9913	100.00	2.8153	94.12	2.8518	95.34	3.0402	101.63	3.0007	100.31
16	55.000	3.5024	100.00	3.5443	101.20	3.5920	102.56	3.8052	108.65	3.7549	107.21
15-1/2	70.000	4.4576	100.00	4.3990	98.69	4.4518	99.87	4.7225	105.94	4.6602	104.55
20	90.000	6.3848	100.00	6.1921	96.98	6.2731	98.25	6.6174	103.64	6.5291	102.26
Casing—Seamless—Threaded & Coupled—Black											
5-3/16	17.000	.8379	100.00	.8253	98.50	.8364	99.82	.8998	107.39	.8885	106.04
6-5/8	24.000	1.1898	100.00	1.1647	97.89	1.1834	99.46	1.2735	107.03	1.2574	105.68
8-1/4	28.000	1.4496	100.00	1.4412	99.42	1.4558	100.43	1.5623	107.77	1.5423	106.39
10	40.000	2.1199	100.00	2.0612	97.23	2.0942	98.79	2.2416	105.74	2.2129	104.39
10	45.000	2.3880	100.00	2.3042	96.49	2.3326	97.68	2.5048	104.89	2.4728	103.55
Tubing—Lapweld—Threaded & Coupled—Black											
2	4.600	.2158	100.00	.2158	100.00	.2193	101.62	.2384	110.47	.2355	109.13
2	5.000	.....	100.00	.2409	.....	.2426	.....	.2631	.....	.2599	.....
2-1/2	6.400	.2828	100.00	.2828	100.00	.2852	100.85	.3110	109.97	.3071	108.59
3	7.700	.3456	100.00	.3456	100.00	.3491	101.01	.3793	109.75	.3746	108.39
3	8.500	.3833	100.00	.3833	100.00	.3874	101.07	.4217	110.02	.4165	108.66
4	11.800	.5300	100.00	.5174	97.62	.5236	98.79	.5690	107.36	.5620	106.04

BLANK

PAGE

[fol. 8975] DEFENDANT'S EXHIBIT No. 37

P. McDonald Biddison
Consulting Engineer
Tower Petroleum Building
Dallas, Texas

Lone Star Gas Company

Condition of Property 1-1-1933

Public Service Plant, Property and Business

Summary

Item	Reproduction Cost—New	Per Cent Condition	Present Value
Physical Property Including Undistributed General Costs			
Production System Property	$9,141,858.05	99.66	$9,108,352.94
Gathering System Property	1,785,390.34	89.50	1,597,979.87
Transmission System Property	40,297,559.90	92.61	37,320,692.83
Compressing System Property	5,899,838.50	87.89	5,185,631.16
General System Property	2,929,942.78	88.62	2,596,548.36
Total	$60,054,589.57	92.93	$55,809,205.16
Non Physical Values			
Preliminary and Organization	$4,434,328.00	100.00	$4,434,328.00
Working Capital	1,701,600.00	100.00	1,701,600.00
Going Concern Value	7,792,888.00	100.00	7,792,888.00
Total	$13,928,816.00	100.00	$13,928,816.00
Grand Total	$73,983,405.57	94.26	$69,738,021.16

The above determination of Present Value of Public Service Plant, Property and Business of Lone Star Gas Company as of January 1, 1933, as detailed in subsequent pages is based upon Reproduction Cost-New as determined by an appraisal by E. A. Steinberger, Ed. C. Connor and P. McDonald Biddison as of January 1, 1933 and represents my judgment based upon an examination of the property of the relative Present Value to Cost of Reproduction-New.

Dallas, Texas
Aug. 30, 1933

P. McDonald Biddison,
Consulting Engineer

3037

Defendant's Exhibit No. 37—Continued

[fol. 8976]

Lone Star Gas Company

Condition of Property 1-1-1933

Account	Reproduction Cost—New	Per Cent Condition	Present Value
Production System Property			
Leaseholds—Developed	$2,681,689.00	100.00	$2,681,689.00
Leaseholds—Undeveloped	893,291.28	100.00	893,291.28
Gas Wells	3,908,424.15	99.94	3,906,308.10
Other Production System Structures	9,450.29	82.00	7,749.24
Other Production System Equipment	95,764.08	75.00	71,823.06
Sub-Total	$7,588,618.80	99.63	$7,560,860.68
General Supervision—Allocated	$148,596.00	99.63	148,046.19
Undistributed General Costs	1,404,643.25	99.63	1,399,446.07
Total	$9,141,858.05	99.63	$9,108,352.94
Gathering System Property			
Rights of Way	$11,184.07	100.00	$11,184.07
Field Measuring Station Structures	37,304.09	86.78	32,373.84
Field Measuring Station Equipment	130,222.96	96.71	125,945.65
Field Line Equipment	1,324,139.00	88.78	1,175,620.71
Sub-Total	$1,502,870.12	89.50	$1,345,124.27
General Supervision—Allocated	5,288.00	89.50	4,732.76
Undistributed General Costs	277,232.22	89.50	248,122.84
Total	$1,785,390.34	89.50	$1,597,979.87
Transmission System Property			
Transmission System Measuring Station Land, including Improvements	$90,898.48	98.04	$89,119.86
Transmission System Measuring Station Leaseholds, including Improvements	9,270.32	96.51	8,947.38
Other Transmission System Land including Improvements	26,485.54	92.73	24,562.16
[fol. 8977]			
Other Transmission System Leaseholds, including Improvements	$2,267.21	91.97	$2,085.18
Rights of Way	1,242,000.69	100.00	1,242,000.69
Transmission System Measuring Station Structures	148,572.34	94.71	140,717.41
Other Transmission System Structures	145,016.29	83.76	121,469.47
Transmission System Measuring Station Equipment	410,606.98	97.16	398,965.40
Transmission Line Equipment	31,894,439.40	92.28	29,432,462.73
Sub-Total	$33,969,557.25	92.61	$31,460,330.28
General Supervision—Allocated	127,242.00	92.61	117,838.16
Undistributed General Costs	6,200,760.65	92.61	5,742,524.39
Total	$40,297,559.90	92.61	$37,320,692.83

Defendant's Exhibit No. 37—Continued

Account	Reproduction Cost—New	Per Cent Condition	Present Value
Compressing System Property			
Land, including Improvements.	$96,549.09	88.73	$85,675.82
Leaseholds, including Improvements	29,985.13	89.57	26,859.26
Structures	718,056.31	87.17	625,962.72
Equipment	4,065,351.72	87.99	3,577,113.55
Sub-Total	$4,909,942.25	87.89	$4,315,611.35
General Supervision—Allocated.	84,271.00	87.89	74,065.78
Undistributed General Costs	905,625.25	87.89	795,954.03
Total	$5,899,838.50	87.89	$5,185,631.16
[fols. 8978-8980]			
General System Property			
General Office Land	$44,545.00	100.00	$44,545.00
Other General Land	49,273.87	99.48	49,018.03
General Office Structure	321,437.63	93.00	298,936.99
Other General Structures	46,789.56	96.88	45,328.83
General Office Furniture and Fixtures	207,601.84	85.00	176,463.26
Other General Furniture and Fixtures	12,059.97	65.00	7,838.98
General Shop Equipment	104,000.27	93.68	97,429.70
General Tools	131,549.72	78.18	102,847.47
Automotive and Construction Equipment	423,717.82	65.00	275,416.58
General Telephone System	370,464.12	89.55	331,750.62
Final Engineering Records	765,690.35	100.00	765,690.35
Sub-Total	$2,477,180.15	88.62	$2,195,265.81
Undistributed General Costs	452,812.63	88.62	401,282.55
Total	$2,929,942.78	88.62	$2,596,548.36
Grand Total	$60,054,589.57	92.93	$55,809,205.16

[fols. 8981-8987] Gas Well Equipment

Item	Reproduction Cost—New	Per Cent Condition	Present Value
Fee Wells	$3,894,317.16	100.00	$3,894,317.16
Other Owned Wells	14,106.99E	85.00	11,990.94
Total	$3,908,424.15	99.94	$3,906,308.10

* * * * * * *

[fol. 8988-9002] Gathering System Rights of Way

Field	Reproduction Cost—New	Per Cent Condition	Present Value
Duncan	$365.94	.....	.....
Fox	259.50	.....	.....
Pottsboro	132.60	.....	.....
Petrolia	677.02	.....	.....
Panhandle	2,778.00	.....	.....
West Texas	6,269.01	.....	.....
Chickasha	702.00	.....	.....
Total	$11,184.07	100.00	$11,184.07

* * * * * * *

Defendant's Exhibit No. 37—Continued

[fol. 9003–9034]

Field Line Equipment

Location	Reproduction Cost—New	Per Cent Condition	Present Value
Chickasha Field	$63,691.04	90.00	$57,321.94
Duncan Field	100,072.50	85.00	85,061.63
Fox Field	187,115.67	87.00	162,790.63
Panhandle Field	205,731.85	96.00	197,502.58
Petrolia Field	183,951.69	74.00	136,124.25
Pottsboro Field	444.36	72.00	319.94
West Texas Field	583,151.89	92.00	536,499.74
Total—Field Line Equipment	$1,324,159.00	88.78	$1,175.620.71

• • • • • • •

[fol. 9035–9053]

Transmission System Measuring Station Leaseholds

Summary

System	Land	Improvements			Total Present Value
		New	Per Cent Condition	Depreciated	
Line A	$1,202.51	$332.49	95.00	$315.87	$1,518.38
B	31.52	380.62	90.00	342.56	374.08
E	442.70	1,158.65	94.71	1,097.36	1,540.06
F	129.07	54.94	90.00	49.45	178.52
G	59.25	69.80	95.00	66.31	125.56
J	64.47	105.70	90.00	95.13	159.60
K	173.34	275.59	98.00	270.08	443.42
L	343.75	995.38	95.00	945.61	1,289.36
M	436.55	513.51	90.00	462.16	898.71
O	728.80	1,328.04	95.00	1,261.64	1,990.44
R	39.34	194.34	98.00	190.45	229.79
Numbered	.....	209.96	95.00	199.46	199.46
Total	$3,651.30	$5,619.02	94.25	$5,296.08	$8,947.38

• • • • • • •

Defendant's Exhibit No. 37—Continued

[fol. 9054–9120]

Transmission System Rights of Way

System	Reproduction Cost—New	Per Cent Condition	Present Value
A	$125,808.51	.....	.....
B	43,567.00	.....	.....
2nd B	34,800.63	.....	.....
C	14,288.34	.....	.....
E	104,717.33	.....	.....
F	47,242.59	.....	.....
G	78,729.94	.....	.....
H	58,879.58	.....	.....
J	16,093.88	.....	.....
K	177,724.83	.....	.....
L	143,548.32	.....	.....
M	84,653.33	.....	.....
O	188,191.96	.....	.....
R	30,197.76	.....	.....
Numbered	72,853.16	.....	.....
T.P.U.	20,703,53	.....	.....
Grand Total Rights of Way	$1,242,000.69	100.00	$1,242,000.69

• • • • • • •

[fol. 9121–9218]

Transmission Line Equipment

Summary

System	Reproduction Cost—New	Per Cent Condition	Present Value
A	$3,806,446.39	94.68	$3,604,048.28
B	3,250,794.92	94.81	3,082,152.49
C	585,900.29	86.00	503,874.25
E	1,781,320.58	88.59	1,578,145.74
F	1,068,427.82	87.00	929,582.19
G	1,848,791.83	89.00	1,645,424.70
H	1,685,720.90	91.86	1,548,466.43
J	523,829.27	87.00	455,731.46
K	5,153,684.18	96.12	4,953,871.18
L	2,962,144.38	91.53	2,711,384.26
M	1,449,864.48	87.45	1,267,881.27
O	5,089,344.08	91.99	4,681,928.54
R	640,531.76	98.00	627,721.12
Numbered	1,355,528.42	92.00	1,247,086.13
T.P.U.	692,110.10	86.00	595,214.69
Total	$31,894,439.40	92.28	$29,432,462.73

• • • • • • •

Defendant's Exhibit No. 37—Continued

[fol. 9219-9231]

Automotive and Construction Equipment

Item	Reproduction Cost—New	Per Cent Condition	Present Value
Automobiles	$170,797.67	.....	.....
Trucks	106,021.97	.....	.....
Trailers	16,519.21	.....	.....
Tractors	59,935.00	.....	.....
Air Compressors	23,090.41	.....	.....
Ditching Machines	40,739.16	.....	.....
Backfillers	6,614.40	.....	.....
Total	$423,717.82E	65.00	$275,416.58

* * * * * * *

[fols. 9232-9233] Defendant's Exhibit No. 39

[fol. 9234] Lone Star Gas Company

Comparison of Steel Pipe Prices as Adopted in R. R. Commission of Texas, Gas Utilities Docket No. 75, Opinion and Order of September 13, 1933, and as Quoted by Pipe Mills, June 11, 1934, Covered by N. R. A. Code 1116-02

and

Comparison of Dresser Coupling Prices as Adopted in R. R. Commission of Texas, Gas Utilities Docket No. 75, Opinion and Order of September 13, 1933, and as Quoted June 11, 1934

E. A. Steinberger, Valuation Engineer, Dallas, Texas

Defendant's Exhibit No. 39—Continued

[fol. 9235]

Lone Star Gas Company

Comparison of Steel Pipe Prices as Adopted in R. R. Commission of Texas, Gas Utilities Docket No. 75, Opinion and Order of September 13, 1933 and as Quoted by Pipe Mills June 11, 1934, Covered by N.R.A. Code 1116-02

Plain End Single Random Lengths (Except Smithweld and Where Otherwise Noted)

Size (Inches) (1)		Weight Per Foot (2)	Linear Feet (3)	R.R. Commission of Texas Gas Utilities Docket #75 Per Foot (4)	R.R. Commission of Texas Gas Utilities Docket #75 Amount (5)	Quotations June 11, 1934 Based on N.R.A. Code #1116-02 F.O.B. Mill Per Foot (6)	Quotations June 11, 1934 Based on N.R.A. Code #1116-02 Amount (7)	Difference (8)
20	A.O.S.	59.230	536,523	$1.8646	$1,000,400.78	$2.1660	$1,162,108.82	$161,708.04
		59.231	1,395	1.5601	2,176.34	2.0585	2,871.61	695.27
18		59.032	283,804	1.5615	443,159.95	1.9774	561,194.03	118,034.08
		53.223	1,389,006	1.4078	1,955,442.65	1.8498	2,569,383.30	613,940.65
	A.O.S.	52.233	14,000	1.6756	23,458.40	1.9465	27,251.00	3,792.60
		49.074	291,822	1.2967	378,405.59	1.7038	497,206.32	118,800.73
16		47.215	725,622	1.2491	906,374.44	1.6017	1,162,228.76	255,854.32
	A.O.S.	47.215	91	1.4866	135.28	1.6874	153.55	18.27
		42.053	1,257,991	1.1114	1,398,131.20	1.4252	1,792,888.77	394,757.57
	A.O.S.	42.053	4,800	1.3505	6,482.40	1.8821	9,034.08	2,551.68
12-3/4		37.453	658,867	.9800	645,689.66	1.1281	743,267.86	97,578.20
	D.L.	37.453	141,006	1.0097	142,373.76	1.1594	163,482.36	21,108.60
		34.552	1,742	.9041	1,574.94	1.0407	1,812.90	237.96
		33.375	1,005,232	.9254	930,241.69	1.0603	1,065,847.49	135,605.80
10-3/4		34.240	8,684	.8509	7,389.22	.9825	8,532.03	1,142.81
		32.750	10,005	.8166	8,170.08	1.0212	10,217.11	2,047.03
		31.445	1,917,929	.7693	1,475,462.78	.8944	1,715,395.70	239,932.92
	D.L.	31.445	76,151	.7926	60,357.28	.9208	70,119.84	9,762.56
		31.450	43	.7662	32.95	.8944	38.46	5.51
		29.016	200,163	.7547	151,063.02	.8982	179,786.41	28,723.39
		28.035	30,386	.7276	22,108.85	.8680	26,375.05	4,266.20
		26.720	223,148	.6938	154,820.08	.8277	184,699.60	29,879.52
8-5/8		24.696	2,182	.7997	1,744.95	.6912	1,508.20	236.75†

† Red in copy.

Defendant's Exhibit No. 39—Continued

Size (Inches) (1)		Weight Per Foot (2)	Linear Feet (3)	R.R. Commission of Texas Gas Utilities Docket #75 Per Foot (4)	R.R. Commission of Texas Gas Utilities Docket #75 Amount (5)	Quotations June 11, 1934 Based on N.R.A. Code #1116-02 F.O.B. Mill Per Foot (6)	Quotations June 11, 1934 Based on N.R.A. Code #1116-02 Amount (7)	Difference (8)
[fol. 9236]								
8-5/8		25.062	968,113	.5684	550,275.43	.7017	679,324.89	129,049.46
	D.L.	25.062	226,288	.5870	132,831.06	.7227	163,538.34	30,707.28
		24.960	73,518	.5592	41,111.27	.6912	50,815.64	9,704.37
		23.574	242,069	.5518	133,573.67	.6793	164,437.47	30,863.80
7-5/8		23.544	8,591	.5539	4,758.55	.6596	5,666.62	908.07
6-5/8		24.000	569	.4298	244.56	.9635	548.23	303.67
6		23.500	71,913	.3355	24,126.81	.6744	48,498.13	24,371.32
		18.974	2,525,456	.4082	1,030,891.14	.5148	1,300,104.75	269,213.61
	D.L.	18.974	590,548	.4221	249,270.31	.5309	313,521.93	64,251.62
		16.694	130,383	.3706	48,319.94	.4659	60,745.44	12,425.50
4		10.790	1,908,143	.2313	441,353.48	.2922	557,559.38	116,205.90
4	D.L.	10.790	259,901	.2392	62,168.32	.3014	78,334.16	16,165.84
3-1/2		9.109	851	.2670	227.22	.2467	209.94	17.28†
3		7.575	1,039,586	.1627	169,140.64	.2243	233,179.14	64,038.50
2		3.652	125,042	.1227	15,342.65	.1178	14,729.95	612.70†
Total—Plain End			16,951,563		$12,618,831.34		$15,626,617.26	$3,007,785.92

[fol. 9237]

Threaded and Coupled—Single Random Lengths

12	51.150	3,105	$1.5395	$4,780.15	$1.6517	$5,128.53	$348.38
	45.450	1,720	1.3682	2,353.30	1.4677	2,524.44	171.14
10	37.240	17,949	1.0871	19,512.36	1.1154	20,020.31	507.95
	40.000	6,664	.7292	4,859.39	1.7261	11,502.73	6,643.34
	35.750	12,078	1.0437	12,605.81	1.1154	13,471.80	865.99
	32.750	8,449	.9553	8,071.33	1.0212	8,628.12	556.79
8	29.350	41,254	.8197	33,815.90	.9052	37,343.12	3,527.22
	25.550	33,469	.7130	23,863.40	.7874	26,353.49	2,490.09
6	24.000	30,097	.4298	12,935.69	.9635	28,998.46	16,062.77
	20.000	13,720	.4707	6,458.00	.8148	1,179.06	4,721.06
	19.450	1,125,113	.5052	568,407.09	.5852	658,416.13	90,009.04
	19.367	6,557	.5052	3,312.60	.5852	3,837.16	524.56
	17.000	2,662	.4887	1,300.92	.6954	1,851.15	550.23
5-3/16	17.000	21,094	.5243	11,059.58	.6598	13,917.82	2,858.24
	13.000	7,125	.4086	2,911.28	.5571	3,969.34	1,058.06
4	11.000	620,909	.2788	173,109.43	.3317	205,955.52	32,846.09
3	7.700	130,928	.1952	25,557.15	.2451	32,090.45	6,533.30
2	3.750	358,544	.1183	42,415.76	.1288	46,180.47	3,764.71
Total—Threaded and Coupled		2,441,437		$957,329.14		$1,131,368.10	$174,038.96
Grand Total—All Pipe		19,393,000		$13,576,160.48		$16,757,985.36	$3,181,824.88

† Red in copy.

Defendant's Exhibit No. 39—Continued

[fols. 9238-9239]

Lone Star Gas Company

Comparison of Dresser Coupling Prices as Adopted in R. R. Commission of Texas, Gas Utilities Docket No. 75, Opinion and Order of September 13, 1933, and as Quoted June 11, 1934

		R.R. Commission of Texas Gas Utilities Docket #75		June 11, 1934		
Size (Inches) (1)	Quantity (2)	Unit Cost (3)	Amount (4)	Unit Cost (5)	Amount (6)	Difference (7)
3/4	1	$.4067	$.41	$.4447	$.44	$.03
1	5	.4256	2.13	.4646	2.32	.19
1-1/4	3	.4556	1.37	.4976	1.49	.12
2	46	.8979	41.30	.9779	44.98	3.68
3	2	1.1935	2.39	1.2995	2.60	.21
3-1/2	324	1.2613	408.66	1.3723	444.63	35.97
4	8,584	1.4091	12,095.71	1.5331	13,160.13	1,064.42
6	49,336	1.9125	94,355.10	2.0815	102,692.88	8,337.78
8	20,424	2.2759	46,482.98	2.9164	59,564.55	13,081.57
10	55,586	2.8149	156,469.03	3.5622	198,008.45	41,539.42
12	45,550	3.2994	150,287.67	4.1724	190,052.82	39,765.15
16	87,616	4.7030	412,058.05	5.6950	498,973.12	86,915.07
18	73,383	5.8599	430,017.04	6.3649	467,075.46	37,058.42
Total—Dresser Couplings			$1,302,221.84		$1,530,023.87	$227,802.03

[fol. 9240] DEFENDANT'S EXHIBIT No. 40

[fol. 9241] Lone Star Gas Company

Appraisal

Cost of Reproduction New

May 1, 1934

Public Service Plant, Property and Business, Exclusive of Fort Worth Division

E. A. Steinberger, P. McDonald Biddison, Ed. C. Connor, Engineers, Dallas, Texas

[fol. 9242] Summary

Physical Property Including Undistributed General Costs:	
Production System Property	$9,101,844.20
Gathering System Property	1,774,208.64
Transmission System Property	41,968,705.49
Compressing System Property	5,875,164.83
General System Property	2,914,048.13
Total	$61,633,971.29
Non Physical Values:	
Preliminary and Organization	$4,434,328.00
Working Capital	1,701,600.00
Going Concern Value	7,792,888.00
Total	$13,928,816.00
Grand Total	$75,562,787.29

This appraisal is based upon an inventory of all property as of January 1, 1933, to which have been applied market prices of materials of construction and prevailing labor rates as of the same date; with the exception of "Transmission Line Equipment", to which item of property have been applied market prices of materials of construction and labor rates prevailing as of May 1, 1934.

P. McDonald Biddison, Consulting Engineer. Ed. C. Connor, Consulting Engineer. E. A. Steinberger, Valuation Engineer.

Defendant's Exhibit No. 40—Continued

[fol. 9243] Lone Star Gas Company

Cost of Reproduction New

May 1, 1934

Public Service Plant and Property

Recapitulation

Account	Amount
Production System Property:	
Leaseholds—Developed	$2,681,689.00
Leaseholds—Undeveloped	893,291.28
Gas Wells	3,908,424.15
Other Production System Structures	9,450.29
Other Production System Equipment	95,764.08
General Supervision—Allocated	148,596.00
Undistributed General Costs	1,364,629.40
Total	$9,101,844.20
Gathering System Property:	
Rights of Way	$11,184.07
Field Measuring Station Structures	37,304.09
Field Measuring Station Equipment	130,222.96
Field Line Equipment	1,324,159.00
General Supervision—Allocated	5,288.00
Undistributed General Costs	266,050.52
Total	$1,774,208.64
[fol. 9244] Transmission System Property:	
Transmission System Measuring Station Land including Improvements	$90,898.48
Transmission System Measuring Station Leaseholds including Improvements	9,270.32
Other Transmission System Land including Improvements	26,485.54
Other Transmission System Leaseholds including Improvements	2,267.21
Rights of Way	1,242,000.69

Defendant's Exhibit No. 40—Continued

Account	Amount
Transmission System Measuring Station Structures	148,572.34
Other Transmission System Structures	145,016.29
Transmission System Measuring Station Equipment	410,606.98
Transmission Line Equipment	33,473,821.12
General Supervision—Allocated	127,242.00
Undistributed General Costs	6,292,524.52
Total	$41,968,705.49
Compressing System Property:	
Land including Improvements	$96,549.09
Leaseholds including Improvements	29,985.13
Structures	718,056.31
Equipment	4,065,351.72
General Supervision—Allocated	84,271.00
Undistributed General Costs	880,951.58
Total	$5,875,164.83
[fol. 9245] General System Property:	
General Office Land	$44,545.00
Other General Land	49,273.87
General Office Structure	321,437.63
Other General Structures	46,789.56
General Office Furniture and Fixtures	207,601.84
Other General Furniture and Fixtures	12,059.97
General Shop Equipment	104,000.27
General Tools	131,549.72
Automotive and Construction Equipment	423,717.82
General Telephone System	370,464.12
Final Engineering Records	765,690.35
Undistributed General Costs	436,917.98
Total	$2,914,048.13
Grand Total	$61,633,971.29

Defendant's Exhibit No. 40—Continued

[fol. 9246]

Lone Star Gas Company

Allocation of Undistributed General Costs to System Property

Account	Direct Cost	Per Cent of Total	Undistributed General Costs	Total
Production System Property	$7,737,214.80	14.8	$1,364,629.40	$9,101,844.20
Gathering System Property	1,508,158.12	2.9	266,050.52	1,774,208.64
Transmission System Property	35,676,180.97	68.1	6,292,524.52	41,968,705.49
Compressing System Property	4,994,213.25	9.5	880,951.58	5,875,164.83
General System Property	2,477,130.15	4.7	436,917.98	2,914,048.13
Total	$52,392,897.29	100.0	$9,241,074.00	$61,633,971.29

Defendant's Exhibit No. 40—Continued

[fol. 9247]

Lone Star Gas Company

Transmission Line Equipment

Comparative Summary

System	Reproduction Cost New January 1, 1933	Reproduction Cost New May 1, 1934
A	$3,806,446.39	$4,060,945.08
B	3,250,794.92	3,449,129.53
C	585,900.29	618,747.12
E	1,781,320.58	1,856,006.46
F	1,068,427.82	1,129,403.11
G	1,848,791.83	1,948,231.75
H	1,685,720.90	1,774,782.28
J	523,829.27	548,451.70
K	5,153,684.18	5,404,327.31
L	2,962,144.38	3,142,451.63
M	1,449,864.48	1,494,013.56
O	5,089,344.08	5,380,465.09
R	640,531.76	665,906.52
Numbered	1,355,528.42	1,307,339.91
T. P. U.	692,110.10	693,620.07
Grand Total	$31,894,439.40	$33,473,821.12

Defendant's Exhibit No. 40—Continued

[fol. 9248]

Lone Star Gas Company

Comparative Statement of Reproduction Cost New As Of January 1, 1933 and May 1, 1934

Transmission Line Equipment

	January 1, 1933	May 1, 1934	Difference
Pipe, F.O.B. R.R. Siding	$20,954,471.01	$22,060,123.55	$1,105,652.54
Construction Cost	6,986,674.34	7,339,248.79	352,574.45
	$27,941,145.35	$29,399,372.34	$1,458,226.99
Welding	1,282,324.76	1,273,603.44	8,721.32*
Dresser Couplings	1,570,440.29	1,700,316.34	129,876.05
Miscellaneous	1,100,529.00	1,100,529.00	.....
Total	$31,894,439.40	$33,473,821.12	$1,579,381.72

* Red in copy.

Defendant's Exhibit No. 40—Continued

[fol. 9249]

Lone Star Gas Company

Reproduction Cost New January 1, 1933

Transmission Line Equipment

System	Pipe Cost in Place	Welds	Dresser Couplings	Miscellaneous	Total
A	$3,331,851.63	$138,938.97	$211,600.58	$124,055.21	$3,806,446.39
B	2,925,255.51	124,042.08	143,172.90	58,324.43	3,250,794.92
C	487,286.27	7,809.46	47,776.51	43,028.05	585,900.29
E	1,559,630.93	130,897.74	52,264.56	38,527.35	1,781,320.58
F	922,583.97	13,363.59	98,024.56	34,455.70	1,068,427.82
G	1,561,288.25	44,946.61	133,922.25	108,634.72	1,848,791.83
H	1,376,521.64	52,377.75	114,675.77	142,145.74	1,685,720.90
J	452,873.95	5,296.76	41,832.39	23,826.17	523,829.27
K	4,512,888.31	216,862.88	269,408.91	154,524.08	5,153,684.18
L	2,588,263.19	258,750.93	41,297.34	73,832.92	2,962,144.38
M	1,274,361.73	70,493.35	74,204.53	30,804.87	1,449,864.48
O	4,443,666.48	199,471.58	273,184.53	173,021.49	5,089,344.08
R	566,600.02	14,079.14	48,237.07	11,615.53	640,531.76
Numbered	1,287,415.36	4,762.44	18,685.54	44,665.08	1,355,528.42
T. P. U.	650,658.11	231.48	2,152.85	39,067.66	692,110.10
Total	$27,941,145.35	$1,282,324.76	$1,570,440.29	$1,100,529.00	$31,894,439.40

Defendant's Exhibit No. 40—Continued

[fols. 9250-9251]

Lone Star Gas Company

Reproduction Cost New May 1, 1934

Transmission Line Equipment

System	Pipe Cost in Place	Welds	Dresser Couplings	Miscellaneous	Total
A	$3,569,415.65	$138,304.39	$229,169.83	$124,055.21	$4,060,945.08
B	3,112,840.77	122,892.61	155,071.72	58,324.43	3,449,129.53
C	516,231.86	7,736.53	51,750.68	43,028.05	618,747.12
E	1,631,807.51	130,097.49	55,574.11	38,527.35	1,856,006.46
F	975,485.95	13,259.11	106,202.35	34,455.70	1,129,403.11
G	1,649,298.68	45,197.09	145,101.26	108,634.72	1,948,231.75
H	1,456,340.69	52,030.03	124,265.82	142,145.74	1,774,782.28
J	474,029.91	5,265.79	45,329.83	23,826.17	548,451.70
K	4,742,868.23	215,079.47	291,855.53	154,524.08	5,404,327.31
L	2,767,367.16	256,489.25	44,762.30	73,832.92	3,142,451.63
M	1,312,838.25	69,911.67	80,458.77	30,804.87	1,494,013.56
O	4,712,958.49	198,621.67	295,863.44	173,021.49	5,380,465.09
R	588,223.85	13,773.34	52,293.80	11,615.53	665,906.52
Numbered	1,237,675.67	4,715.50	20,283.66	44,665.08	1,307,339.91
T. P. U	651,989.67	229.50	2,333.24	39,067.66	693,620.07
Total	$29,399,372.34	$1,273,603.44	$1,700,316.34	$1,100,529.00	$33,473,821.12

[fol. 9252-9253]

DEFENDANT'S EXHIBIT No. 41

Application of Annual Reserve Rates

To the Reproduction Cost New of the Public Service Property of Lone Star Gas Company

Exclusive of the Fort Worth Division as Determined by: P. McDonald Biddison, E. A. Steinberger and Ed. C. Connor

January 1, 1933

Property Item	Reproduction Cost—New	Annual Rate of Reserve Accrual	Annual Amount
Production System Property:			
Leaseholds—Developed	$2,681,689.00	.....	$146,000.00
Leaseholds—Undeveloped	893,291.28	.....	.....
Gas Wells	4,057,020.15	.....	421,316.00
Other Production System Structures	9,450.29	9.300 Per Cent	878.88
Other Production System Equipment	95,764.08	1.000 Per Cent	957.64
Gathering System Property:			
Well Lines			
Rights of Way	11,184.07	8.600 Per Cent	961.83
Measuring Station Structures	37,304.09	10.500 Per Cent	3,916.93
Measuring Station Equipment	130,222.96	10.500 Per Cent	13,673.41
Line Equipment	1,329,447.00	8.600 Per Cent	114,332.44
Field Lines			
Land	509.00	.....	.....
Rights of Way	117,020.00	8.600 Per Cent	10,063.72
Measuring Station Structures	3,474.00	10.500 Per Cent	364.77
Measuring Station Equipment	8,539.00	10.500 Per Cent	896.60
Line Equipment	3,496,999.00	8.600 Per Cent	300,741.91
Transmission System Property:			
Transmission Lines			
Measuring Station Land and Improvements	90,389.48	.....	.....
Measuring Station Leaseholds and Improvements	9,270.32	.....	.....
Other Land and Improvements	26,485.54	.....	.....
Other Leaseholds and Improvements	2,267.21	.....	.....
Rights of Way	1,124,980.69	5.400 Per Cent	60,748.96
Measuring Station Structures	145,098.34	5.100 Per Cent	7,400.02

Defendant's Exhibit No. 41—Continued

Property Item	Reproduction Cost—New	Annual Rate of Reserve Accrual	Annual Amount
Transmission System Property:—Continued			
Transmission Lines—Continued			
Other Structures	$145,016.29	5.100 Per Cent	$7,395.83
Measuring Station Equipment	402,067.98	5.100 Per Cent	20,505.47
Line Equipment	28,524,682.40	5.400 Per Cent	1,540,332.82
Compressor Station Property:			
Main Line and Field Line Stations			
Land and Leaseholds, Including Improvements	126,534.22	.....	.....
Structures and Equipment	4,867,679.03	6.216 Per Cent	302,574.93
General System Property:			
General Office Land	44,545.00	.....	.....
Other General Land	49,273.87	.....	.....
General Office Structure	321,437.63	3.300 Per Cent	10,607.44
Other General Structures	46,789.56	3.500 Per Cent	1,637.63
[fol. 9254] Other General Furniture and Fixtures	12,059.97	9.700 Per Cent	1,169.82
General Office Furniture and Fixtures	207,601.84	9.700 Per Cent	20,137.38
General Shop Equipment	104,000.27	10.000 Per Cent	10,400.03
General Tools	131,549.72	1.000 Per Cent	1,315.50
Automotive and Construction Equipment	423,717.82	1.000 Per Cent	4,237.18
General Telephone Equipment	370,464.12	3.340 Per Cent	12,373.50
Final Engineering Records	765,690.35	1.000 Per Cent	7,656.90
Total Direct Structural Costs	$50,813,515.57	5.948 Per Cent	$3,022,597.54
Other Undistributed General Costs	9,201,130.00	1.000 Per Cent	92,001.30
Value of Property Subject to Amortization	42,332,671.62	.828 Per Cent	350,514.52
Total Annual Accruals			$3,465,123.36

(Here follows one paster, side folios 9255 to 9256-9258)

BLANK

PAGE

Defendant's Exhibit No. 41—Continued

[fol. 9255]

Value of Property Items to Be Amortized

Lone Star Gas Company

January 1, 1933

Property Items	A	B	C	D	E	F
Production System Property						
Leaseholds—Developed	$2,681,689.00	$2,681,689.00			$2,681,689.00	
Leaseholds—Undeveloped	893,291.28	893,291.28			893,291.28	
Gas Wells	4,057,020.15	3,894,317.16			3,894,317.16	$162,702.99
Other Production System Structures	9,450.29	9,450.29			9,450.29	
Other Production System Equipment	95,764.08	95,764.08			95,764.08	
Gathering System Property						
Well Lines						
Rights of Way	11,184.07					11,184.07
Measuring Station Structures	37,304.09	37,304.09			37,304.09	
Measuring Station Equipment	130,222.96	130,222.96			130,222.96	
Line Eqtuipment	1,329,447.00			$491,895.39	491,895.39	837,551.61
Field Lines						
Land	509.00					509.00
Rights of Way	117,020.00					117,020.00
Measuring Station Structures	3,474.00	3,474.00			3,474.00	
Measuring Station Equipment	8,539.00	8,539.00			8,539.00	
Line Equipment	3,496,999.00			1,293,889.63	1,293,889.63	2,203,109.37
Transmission System Property						
Transmission Lines						
Measuring Station Land and Improvements	90,389.48		$45,194.74		45,194.74	45,194.74
Measuring Station Leaseholds and Improvements	9,270.32					9,270.32
Other Land and Improvements	26,485.54		13,242.77		13,242.77	13,242.77
Other Leaseholds and Improvements	2,267.21					2,267.21
Rights of Way	1,124,980.69					1,124,980.69
Measuring Station Structures	145,098.34	145,098.34			145,098.34	
Other Structures	145,016.29	145,016.29			145,016.29	
Measuring Station Equipment	402,067.98	402,067.98			402,067.98	
Line Equipment	28,524,682.40			10,554,132.49	10,554,132.49	17,970,549.91
Compressor Station Property						
Main Line and Field Line Stations						
Land and Leaseholds, Including Improvements	126,534.22		63,267.11		63,267.11	63,267.11
Structures and Equipment	4,867,679.03	4,867,679.03			4,867,679.03	
General System Property						
General Office Land	44,545.00		44,545.00		44,545.00	
Other General Land	49,273.87		49,273.87		49,273.87	
General Office Structure	321,437.63	321,437.63			321,437.63	

[fols. 9256-9258]

Other General Structures	46,789.56	46,789.56			46,789.56	
Other General Furniture and Fixtures	12,059.97	12,059.97			12,059.97	
General Office Furniture and Fixtures	207,601.84	207,601.84			207,601.84	
General Shop Equipment	104,000.27	104,000.27			104,000.27	
General Tools	131,549.72	131,549.72			131,549.72	
Automotive and Construction Equipment	423,717.82	423,717.82			423,717.82	
General Telephone Equipment	370,464.12			137,071.72	137,071.72	233,392.40
Final Engineering Records	705,690.35					765,690.35
Total Direct Structural Costs	$50,813,515.57	$14,561,070.31	$215,523.49	$12,476,989.23	$27,253,583.03	$23,559,932.54
Other Undistributed General Costs	9,201,130.00	860,644.00		1,834,906.92*	2,695,550.92	6,505,579.08
Preliminary Development and Organization Costs	4,474,272.00					4,474,272.00
Going Value (Cost of Business Development)	7,792,888.00					7,792,888.00
Working Capital	1,701,600.00		1,701,600.00		1,701,600.00	
Total	$73,983,405.57	$15,421,714.31	$1,917,123.49	$14,311,896.15	$31,650,733.95	$42,332,671.62

Column A—Reproduction Cost New.
Column B—Property Items for which complete retirance has been provided in Annual Accrual Rates.
Column C—Property Items on which no loss will be incurred on liquidation. (Note—A loss of fifty per cent is estimated for certain parcels of land.)
Column D—Decline in per cent of new condition provided for (22 per cent) plus salvable value on abandonment (15 per cent).
Column E—Sum of Columns B, C and D.
Column F—Estimated net amount subject to amortization.

* Twenty-two per cent applies to $9,201,130 less $860,644.

BLANK

PAGE

[fols. 9259-9267] DEFENDANT'S EXHIBIT No. 42

Report Annual Reserve Accruals Required for Lone Star Gas Company

January 1, 1933

[fol. 9268] General Statement

The property of Lone Star Gas Company as of January 1, 1933, subject to depreciation and/or amortization, consisted of the following major items:

1. Gas well construction, equipment and structures.
2. Well line equipment and structures.
3. Field line equipment and structures.
4. Tap line equipment and structures.
5. Transmission line equipment and structures.
6. Measuring station equipment and structures.
7. Telephone line equipment and structures.
8. Compressor station equipment and structures.
9. Automotive equipment.
10. Drill tools.
11. General structures and equipment.
12. Furniture and Fixtures.
13. General tools and implements.

It will be understood in the subsequent discussion that the designation of the above items is intended to include all costs of installation, rights-of-way costs where property is subject to ultimate abandonment, undistributed general costs, engineering and supervision costs, and all other expenditures that would be lost by abandonment or that would be reincurred in replacement.

Scope of the Investigation

In order that a rational application of the basic principles of depreciation accruals might be made to the depreciable property of Lone Star Gas Company as of January

1, 1933, a comprehensive analysis has been made of the history of Lone Star Gas Company with reference to the [fol. 9269] mortalities of its major property units.

This investigation consisted of a complete analysis of all vouchers of the company covering the replacements, removals and abandonments of pipe from all causes from the beginning of operations to July 1, 1933. The information secured from this exhaustive investigation has been summarized and made a part of this report in the form of schedules covering the replacement, removals and abandonment of pipe by years, lines and sizes of pipe.

A separate analysis has been made of all expenditures for repairs, replacements of fittings, reconditioning of lines and the installation of supplementary equipment of which collar leak clamps are a typical example. The information secured from this analysis has not been transferred from the work sheets.

A history has been compiled of each well (except wells in Petrolia Field) that has been connected to the Lone Star System since the beginning of operation. This history of wells has been divided into two parts, the first consisting of the history of each well that has been permanently disconnected from the system, and the second consisting of the history to date of each well that is now delivering gas to Lone Star Gas Company. The information secured from this investigation has been compiled in the form of schedules setting out the average life of disconnected wells by fields and the average life to date of the wells now in service.

The wells located in the Petrolia Field were not considered in the investigation due to certain unusual and purely local conditions which govern their present operation. The purpose of the study was to develop normal and average conditions and the inclusion of the Petrolia wells would have the effect of introducing an abnormality into the col- [fol. 9270] lection of basic data.

The operating history of each compressor station has been analyzed from the date of its installation to January 1, 1933, and from the information secured appropriate schedules have been prepared and made a part of the report.

The statistical records of the company with reference to the depreciation of automotive equipment is unusually complete and the information secured from this source has

been used with reference to the annual depreciation rate for automotive equipment.

Independent data secured from the results of investigations covering fifty two years and observations of more than 4,900,000 poles have been used in connection with the study of the depreciation rate of telephone line equipment. The data secured from this source were more complete than any information that the company records afforded and may be accepted as authoritative for this class of property.

The minor items of depreciable property have been analyzed for the purpose of determining the proportionate amount of the various types of depreciable property included in each group and the standard annual depreciation rates applicable to each types have been applied.

Where ever it has been apparent from historical consideration, or from the development of the probable life of gas reserves that certain items or groups of physical property would have a life expectancy as physical property which would exceed their service life in situ, the probable loss that would be incurred by abandonment or renewal has been applied as amortization calculated upon a sinking fund basis. In each case the probable salvage value of each prop- [fol. 9271] erty group has been ascertained from an analysis of the structural costs of typical examples of the property group and the estimated net salvage has been treated as a credit to the calculated reserve accrual.

Having in mind the extreme importance of the effect of the rate of growth of the physical property of Lone Star Gas Company upon the history of replacements and abandonments of property units and of the application of these replacements and abandonments expressed as a percentage of the property units to the property units of Lone Star Gas Company in service as of January 1, 1933, a complete analysis has been made of the rate of growth of Lone Star Gas Company expressed in terms of its major physical units subject to depreciation.

It will be understood that Lone Star Gas Company is a comparatively young property, that its oldest major property unit has been in service only twenty one years, that the property as a whole is composed of comparatively large individual units, and that a natural gas transportation company is normally subject to heavy abandonment charges at irregular intervals, and for these reasons it has been

impossible to develop comparatively smooth curves from mortality data.

Purpose of the Investigation

The primary object of the investigation has been the determination of a composite rate expressed as a percentage of the reproduction cost of the depreciable property of Lone Star Gas Company as of January 1, 1933, that should be accrued in order to protect the value of this property from all losses arising from physical deterioration, the cost of replacements, removals, abandonments, major [fol. 9272] rehabilitations and all other losses and costs of like character that will grow out of the future use in the public service of the specific property in service as of January 1, 1933.

As previously noted, the property of Lone Star Gas Company as of January 1, 1933, consisted of various types of physical property with highly variable individual mortality characteristics. As a further complication the particular service rendered by property items of the same type has had in the past and will continue to have in the future a material effect upon the depreciation requirements of these items. This fact is illustrated by the difference in the over-all reserve requirements for steel pipe laid as well lines compared with the reserve requirements for steel pipe laid as main lines.

The depreciable property of Lone Star Gas Company as of January 1,1933, consisted of a composite of property units that had reached various service lives as of this date with the consequent result that property units of the same type had reached various points in their individual mortality curves.

In the calculation of proper reserve requirements, all of these variable factors must be considered and each factor must be given its proper weight in the final determination. The property as a whole must be classified, not only as to the type of property in use, but also as to the service that the property units will be called upon to render. Where the basic mortality rate is a function of the passage of time this mortality rate must be determined, if possible, by the application of the mathematics of probabilities to the available historical data. Where replacements and removal losses grow out of changed operating conditions, future

[fol. 9273] occurrences of this nature must be measured in the light of past experience together with a proper consideration of conditions existing at the date of inquiry. Finally the service life, or life in service at the date of the investigation, of the major property items in service as of January 1, 1933, must be determined in order that a rational projection may be made of the reserve requirements for the future.

The foregoing statement summarizes in a general way some of the factors that must be considered in the fixing of an annual rate designed to provide for the cost of replacements, removals, abandonments and major rehabilitations in the depreciable property of Lone Star Gas Company as of January 1, 1933.

It must be clear in this connection that this study and the rate that may be developed from it is concerned solely with the future of the specific property units of the Lone Star Gas Company in use in the public service as of January 1, 1933, and not with any capital additions that may be made in subsequent years. Furthermore, it must be clear that any annual rate designed solely to cover the cost of replacements, removals, abandonments and major rehabilitations that will be required in the future in order to maintain this property in status quo, in reference to number of units and in one hundred per cent operating condition, will fail to provide for the inevitable decline in per cent condition of new that will take place in the property, and such an annual rate will fail to provide for the amortization of the ultimate loss that will inevitably take place at such time as the gas reserves commercially available to the markets now served by Lone Star Gas Company will have become depleted.

[fol. 9274] As of January 1, 1933, the per cent condition of the physical property of Lone Star Gas Company was relatively high and after an intensive examination by competent engineers, was fixed at approximately 93 per cent of new. This high per cent of new condition was due in a great measure to a large amount of capital additions made to the property within the past few years which have had the practical effect of reducing the weighted age of the property substantially below its total age, and also to the large amount of replacements made since 1910.

As before stated, the basic limitations of this study require that no consideration be given to the effect of future

capital additions to the present property. In other words, this study is of necessity confined to a projection of the present property into the future, maintained at one hundred per cent operating condition (as is of this date) but not augmented. Under these conditions there will be an inevitable decline in the per cent of new condition of the property of Lone Star Gas Company represented by the units in service as of January 1, 1933. Future capital additions will no doubt modify the rate of decline in per cent of new condition, or even eliminate it when the property as a whole is considered, but this factor can have no bearing upon the results of a study confined to the specific property items (or replacements of them) in service at the date of inquiry.

This gradual decline in per cent condition will be brought about by accrued physical deterioration which cannot be wholly offset by replacements and rehabilitations and will continue until a static condition is reached at which time the weighted per cent condition of the property units in service [fol. 9275] as of January 1, 1933, or their replacements, will be substantially less than the 93 per cent found by the engineers at the date of this inquiry.

Inasmuch as this inevitable loss in future value cannot be offset by renewals and periodic rehabilitations until it has reached a level substantially below 93 per cent, specific provision must be made by means of reserve accruals to cover this loss in value in addition to the reserve accruals designed to provide for the cost of replacements, removals, abandonments and major rehabilitations.

If the reserve accrued for this specific purpose is treated as an independent account, it will differ from the reserves accrued for the cost of replacements, renewals, abandonments and major rehabilitations in that no current withdrawals would be made from it. It would function theoretically at least as a fund created for the necessary purpose of providing the owners of the property with free capital in an amount equal to the sum that would be deducted from that portion of the rate base represented by the property units in service as of January 1, 1933, by reason of accrued depreciation found in the property at some future date.

As the fund represented by this reserve accrual must be free capital in order to offset loss, it follows that the ac-

cruals to it should be made upon a straight-line basis. The rate of the accrual should be measured by the approximate annual rate of decline in per cent condition of the property in service as of January 1, 1933, and the duration of the accrual as applied to the specific property units, or their replacements, in service as of January 1, 1933, should be measured by the time required for the property units to [fol. 9276] reach a static condition relative to per cent of new condition.

In the case of a natural gas production and transportation company whose service life in the final analysis is dependent upon the life of a mineral resource subject to ultimate depletion, a reserve accrual should be made to cover the property loss that will be brought about by the final abandonment of the enterprise. This loss will be represented by the loss of the value of the business as a going concern, together with the loss of that portion of the value of the physical property, less salvage, represented by the per cent condition of the physical units after they have reached a static per cent of new condition.

In the determination of present value for rate making purposes, no deduction from a rate-base should be made on account of so-called accrued amortization in a property subject to ultimate abandonment. For this reason any reserve made for the purpose of creating a fund designed to provide for loss due to ultimate abandonment should be accrued upon a sinking fund basis.

From the foregoing analysis it will be understood that the total annual reserve accruals necessary to protect the property of Lone Star Gas Company in service as of January 1, 1933, should provide for the losses growing out of the cost of replacements, removals, abandonments and major rehabilitations, the loss in property value growing out of a future decline from present per cent condition, and the loss that will be realized at the date of the depletion of available gas reserves.

It is not the purpose of this investigation to provide a basis for an accounting procedure in the matter of setting [fol. 9277] aside annual reserve accruals. It is strictly an engineering investigation of the history of the property to date, and an analysis of the mortality record of the various property units made for the purpose of estimating the future costs of depreciation and amortization as applied to

the property of Lone Star Gas Company as of January 1, 1933. As will be developed, these costs will fluctuate widely from year to year due to the characteristics of the physical units themselves and to the uncertainty surrounding various phases of the business. The purpose of reserve accruals is the anticipation of these fluctuations and the elimination of their effect upon current operating charges. The average rates suggested, will, therefore be based upon uniform annual accruals.

[fol. 9278] Lone Star Gas Company

Basic Rate—Steel Pipe

[fol. 9279] Steel pipe laid underground, together with the cost of collateral equipment constituted by far the major item of depreciable property in the property account of Lone Star Gas Company as of January 1, 1933.

In the appraisal of the property as of this date prepared by P. McDonald Biddison, E. A. Steinberger and Ed. C. Connor, the reproduction cost of lines, rights-of-way and equipment, exclusive of undistributed costs, was $34,604,312. The total reproduction cost of all physical property, exclusive of the value of developed and undeveloped leaseholds, was $47,733,536.

In view of this fact, it is evident that the determination of a basic annual rate to cover the probable mortalities in steel pipe that will be brought about by the production, gathering and transportation of natural gas by Lone Star Gas Company is the most important single factor in any study concerned with the fixing of annual reserve accruals for this particular property. In this connection, the basic annual rate may be defined as the annual accrual expressed as a percentage of the reproduction cost of the lines which will be required to provide for the cost of normal replacements, the loss by abandonments brought about by the use of the property and the passage of time, and the ultimate net loss in the specific units in service (or their replacements) at the date of this inquiry that will be brought about by the ultimate abandonment or fundamental modification of the enterprise.

Without investigation, it could be assumed that the characteristics of the physical mortalities of steel pipe in service in the system of Lone Star Gas Company would conform in

eneral way to the behavior of physical property units
l. 9280] whose rate of replacement due to inherent phys-
characteristics, is comparatively low during early serv-
years and comparatively rapid as the service years
roach the average life period of the units. It could also
assumed that the characteristics of the mortalities of
el pipe in service in the system of Lone Star Gas Com-
y would rather definitely follow the general trend of the
tality curve previously developed for steel pipe in serv-
in the system of Fort Worth Division—Lone Star Gas
npany.*

hese general assumptions provide the basis for the in-
l steps of the investigation. They were, however, sub-
to modification in several important particulars.

n the calculation of annual renewal rates for the replace-
nt of steel pipe from the basic data secured from a study
the operating history of Fort Worth Division—Lone
Gas Company, all replacements, removals and aban-
ments were included in the mortality analysis without
inction as to the causes of the replacements, removals
abandonments. It is certain that a substantial propor-
of the items from which the mortality curve and the
ribution curve of annual renewals were developed grew
of inadequacy, public requirements, changed operating
ditions, and other factors distinct from the physical
ure of the pipe itself. In general, these same factors
e a similar application to the pipe in the transportation
l. 9281] and gathering system of Lone Star Gas Com-
y.

a local distribution system wherein the individual
perty items replaced, removed or abandoned are rela-
ly small compared to the aggregate amount of these

---

* An exhaustive investigation has been made covering the
tality of steel pipe in the distribution system of the Fort
rth Division—Lone Star Gas Company. Very complete
a were available for this study from which mortality
ves covering a service experience of more than twenty-
ee service years were prepared. This study also in-
led the development of mortality curves of gas meters
service line pipe covering a service experience of more
n forty years. These studies were the first ever devel-
d for these specific property units.

items in the system taken as a whole, and where the rate of their occurrence as indicated by a study of their occurrence is a function of the passage of time, no material error will arise from a determination of the annual rate for depreciation by the method that was used in this particular analysis.

In this study, all of the pipe in the distribution system except pipe used for service connections was included and the mortality rate determined was assumed to apply to the system as a whole. The pipe in a local distribution system has but one general function—that of delivering gas from fixed points of receipt to individual consumers variously located on the distribution mains. It may be assumed as a normal operating condition that the points of receipt will remain fixed, or may be altered without material effect upon the local lines, and that gas will be delivered at proper pressure for local distribution throughout the life of the property as a natural gas distribution agency. Under these circumstances, the conditions affecting the mortality of pipe may properly be assumed to apply alike to all of the pipe in any given distribution system.

In the case of a pipe line system of a large natural gas producing, gathering and transporting system such as Lone Star Gas Company as of January 1, 1933, an estimate of the proper annual depreciation accruals for steel pipe must take into consideration several important factors that have no application in the determination of depreciation accruals [fol. 9282] for similar property items in local distribution systems.

The steel pipe in the Lone Star System may be divided into two general groups as follows:

1. Main Lines and Tap Lines

2. Field Lines and Well Lines

Unlike the pipe in a distribution system which may be treated as a unit, the necessary depreciation accruals for each of the above noted groups of pipe line classification will be directly affected by the type of service the pipe is called upon to render. For this reason, it will be necessary to treat each group as an independent property unit, and to give proper weight in each case to the controlling factors characteristic of the particular type of service rendered by the property group.

In the pipe line system of Lone Star Gas Company as of January 1, 1933, certain designated lines were relatively large compared to the system as a whole. This condition has existed in the past and will continue to exist in the future. The history of the company has demonstrated that in the case of designated main lines, changed operating conditions have brought about heavy reserve charges at irregular intervals due to the fact that large sections of lines, and in some cases lines — a whole, have been removed from their original locations and relaid in other locations more advantageously situated from an operating standpoint. These removals of main lines, and the assurance of similar removals at indeterminate future dates create a problem that has no particular relation to the basic mortality rate which is largely a function of use and the passage of time. For this reason, they must be treated as independent prob- [fol. 9283] lems together with the collateral question for the salvage value of the materials of construction transferred and relaid.

In the case of Field Lines whose service life in a given location will be in a measure dependent upon the production of gas from a limited area, the factor of loss caused by removals will be a most important element in the fixing of reserve accrual rates for this group of lines. In the case of well lines whose service life in a given location will be largely dependent upon the life of one or more gas wells, the factor of loss caused by removals will be a predominant element in the fixing of reserve accrual rates for this group of lines.

Fortunately for the purposes of this study, the history of the company in past years affords a fairly definite basis for an estimate of future probabilities with reference to the annual rate of removals for both Field Lines and Well Lines.

The history of Lone Star Gas Company also discloses the fact that heavy charges to the depreciation reserve account and other large expenditures not so charged have been incurred by reason of the wholesale overhauling and rehabilitation of large sections of lines. This work, in most cases, has been directed to the correction of joint failures and the renewal of pipe protection, and in every case the cost of labor has been the predominant element of expense.

Any study of mortality data that is confined to the replacement, removal and abandonment of pipe will fail to give proper consideration to the necessity for reserve accruals to cover recurring expenses of this nature.

From the foregoing facts, it will be clear that the neces- [fol. 9284] sary reserve accrual for steel pipe laid underground in the system of Lone Star Gas Company will be a composite figure determined by the cumulative effect of the basic mortality rate for steel pipe, the net cost of removals and abandonments brought about by changed operating conditions, the cost of major rehabilitations together with the loss in value due to the normal decline in per cent condition, and the ultimate loss brought about by the abandonment or basic modification of the enterprise.

[fol. 9285] Basic Mortality Data

Steel Pipe

[fol. 9286] For the purpose of developing basic mortality data for steel pipe in the system of Lone Star Gas Company, a complete analysis has been made of all available records having any bearing upon the historic replacement, removal or abandonment of pipe or lines from the beginning of operations in 1910 through the month of June, 1933. The results of this analysis have been made a part of this report in the following enumerated schedules and recapitulations:

1. Recapitulation of Pipe Replacements, Removals and Abandonments by Years, Sizes, and Feet of Pipe.

2. Main Line Replacements, Removals and Abandonments by Lines, Years, Sizes and Feet of Pipe.

3. Tap Line Replacements, removals and Abandonments by Lines, Years, Sizes, and Feet of Pipe.

4. Field Line (Gathering Line) Replacements, Removals and Abandonments by Lines, Years, Sizes, and Feet of Pipe.

5. Well Line Replacements, Removals and Abandonments by Lines, Years, Sizes, and Feet of Pipe.

6. Consolidated Summary of Main Line and Tap Line Replacements, Removals and Abandonments by Years, Sizes and Feet of Pipe.

7. Consolidated Summary of Well Line and Field Line (Gathering Line) Replacements, Removals and Abandonments by Years, Sizes, and Feet of Pipe.

In each schedule and recapitulation, the feet of pipe of the various sizes replaced, removed or abandoned have been reduced to a length of pipe expressed in terms of equivalent three inch diameter pipe.

In prior years, it had been the practice of the accounting section of Lone Star Gas Company to make no recorded distinction between the replacements, removals and abandonments of Tap Lines and the replacements, removals and abandonments of the particular designated Main Line of which the Tap Lines have been an integral part. For this [fol. 9287] reason, it was possible to identify and segregate only a portion of the mortalities specifically attributable to Tap Lines, the other portion of the mortalities having been included as a part of the replacements, removals and abandonments of Main Lines.

In order that the effect of this former practice of the accounting section might be eliminated, the mortalities of Main Lines and Tap Lines have been consolidated as has the footage of pipe in use for various service years in both property groups. This consolidation is a logical one inasmuch as the Main Lines and Tap Lines constitute an integral transportation unit having uniform service characteristics as distinguished from the service characteristics of that portion of the pipe line system used in the production and gathering phases of the business.

What has been said relative to the former practice of the accounting section with reference to the recorded mortalities of designated Main Lines and the mortalities of Tap Lines having the same basic designation is also true of the recorded mortalities of certain Gathering Lines and Well Lines connected to these Gathering Lines. For this reason, the mortalities of Field Lines (Gathering Lines) and Well Lines have been consolidated as has been the footage of pipe in use for various service years in both property groups. This consolidation is also a logical one inasmuch as Field Lines and Well Lines have similar service characteristics and constitute an integral production and gathering unit.

An inspection of these schedules discloses the fact that the replacements, removals and abandonments of pipe in

lines designated as Main Lines and Tap Lines constituted [fol. 9288] the major portion of the replacements, removals and abandonments of all pipe in service since 1910. Furthermore, as has been previously noted and as will be subsequently developed in detail, the designated Main Lines and Tap Lines have not been so materially affected by abandonments as has been the case with reference to Field Lines and Well Lines whose service life in situ has been more or less determined by the life of limited gas producing areas and frequent changes in operating conditions brought about by the lack of uniformity in the decline of well pressures and volumes.

While large sections of the major lines as well as the Tap Lines have been removed and relaid as other designated lines, these removals can be identified and thus segregated from the other data. In view of the fact that more definite consideration can be given to the data that are applicable to the development of true mortality curves, the history of Main Line and Tap Lines only has been used in the calculations upon which the mortality curve has been based.

The tabulation—Main Line Replacements, Removals and Abandonments, shows that 5,362,659 feet of three inch equivalent diameter pipe have been replaced, removed or abandoned in the designated Main Lines of Lone Star Gas Company from 1910 to July 1, 1933. This tabulation, as previously noted, includes some mortalities that are in fact attributable to certain Tap Lines. This inaccuracy is corrected by the tabulation which consolidates the mortalities of Main Lines and Tap Lines.

This tabulation does not include all of the historic mortalities in the designated Main Lines for the reason that the very early records of the company do not furnish voucher authority for the inclusion of certain outright abandonments of pipe in Line A, and for the further reason that no [fols. 9289-9293] replacements, removals or abandonments in pipe line properties acquired by purchase by Lone Star Gas Company, and which replacements, removals and abandonments were made by other owners prior to the date of purchase, have been included in this study.

The tabulation—Tap Line Replacements, Removals and Abandonments, shows that 703,966 feet of pipe of three inch equivalent diameter have been replaced, removed or abandoned in the designated Tap Lines of Lone Star Gas Com-

pany from 1910 to July 1, 1933. This tabulation as previously noted does not include certain mortalities that are in fact attributable to the pipe in Tap Lines, but which have been included as a part of the mortalities of Main Lines. This inaccuracy is corrected by the tabulation which consolidates the mortalities of Main Lines and Tap Lines.

* * * * * * *

[fol. 9294]

Defendant's Exhibit No. 42—Continued

Recapitulation of Pipe Replacements, Removals, and Abandonments

By Years, Sizes, and Feet of Pipe—July 1, 1933

Year	2 Inch	3 Inch	4 Inch	6 Inch	8 Inch	10 Inch	12 Inch	16 Inch	18 Inch	20 Inch	Totals	3 Inch Equivalent
1911	.....	.....	.....	.....	.....	.....	.....	92	.....	....	92	491
1912	79	.....	167,213	.....	.....	.....	.....	.....	.....	....	167,292	222,997
1913	118	.....	.....	20	6	.....	8	.....	.....	....	152	167
1914	6,217	.....	7,364	.....	.....	.....	.....	.....	.....	....	13,581	13,963
1915	129	.....	.....	513	.....	71	.....	7,435	.....	....	8,148	41,002
1916	455	.....	.....	131,538	296	.....	.....	5,308	.....	....	137,597	292,477
1917	220	.....	19,633	64,855	.....	.....	243,325	274,426	.....	....	602,459	2,592,931
1918	.....	.....	156	76	.....	.....	.....	65	.....	....	297	707
1919	614	.....	.....	4	.....	820	140	.....	.....	....	1,578	3,710
1920	5,048	.....	14,692	45,786	3,723	1,144	379	110	.....	....	70,882	130,371
1921	1,297	.....	5,889	16,088	8,774	10,974	154	282	7	....	43,465	103,033
1922	3,725	.....	78,930	19,880	2,099	13,536	209	701	16	....	119,096	202,868
1923	3,642	.....	24,067	130,063	84,574	14,562	1,191	4,063	45	....	262,207	595,417
1924	10,179	38	32,274	35,665	1,402	6,551	589	2,785	33	....	89,516	164,168
1925	4,983	.....	31,936	59,147	8,062	3,453	11,111	1,649	343	....	120,684	252,503
1926	731	356	22,318	105,004	24,514	19,937	3,484	4,418	60	....	180,822	410,297
1927	1,611	.....	23,679	61,463	11,373	19,717	10,647	2,573	1,426	....	132,489	316,489
1928	33,786	2,620	57,584	31,554	15,416	78,895	3,638	2,691	684	....	226,868	502,130
1929	18,271	129	100,302	61,656	19,656	1,420	11,843	5,127	639	30	219,073	405,269
1930	31,290	44	103,518	69,930	14,373	3,731	6,479	9,810	3,275	30	242,480	447,639
1931	53,155	483	74,116	111,093	7,099	17,432	18,314	66,184	2,319	....	350,195	874,112
1932	25,079	980	26,474	14,666	887	1,849	296	2,657	741	120	73,749	111,460
1933 (6 Mo.)	319	282	3,415	1,229	6,442	145	.....	27,436	7,819	....	47,087	218,446
Totals	200,948	4,932	793,560	960,230	208,696	194,237	311,807	417,812	17,407	180	3,109,809	7,902,647

Defendant's Exhibit No. 42—Continued

[fol. 9295]

Recapitulation of Main and Tap Line Replacements, Removals, and Abandonments

By Years, Sizes, and Feet of Pipe—July 1, 1933

Year	2 Inch	3 Inch	4 Inch	6 Inch	8 Inch	10 Inch	12 Inch	16 Inch	18 Inch	20 Inch	Totals	3-Inch Equivalent
1911	.....	.....	.....	.....	.....	.....	.....	92	.....	....	92	491
1912	79	.....	167,213	.....	.....	.....	.....	.....	.....	....	167,292	222,997
1913	118	.....	.....	.....	6	.....	8	.....	.....	....	132	127
1914	6,217	.....	7,364	.....	.....	.....	.....	.....	.....	....	13,581	13,963
1915	129	.....	.....	472	.....	.....	.....	7,435	.....	....	8,036	40,683
1916	90	.....	.....	131,538	296	.....	.....	5,308	.....	....	137,232	292,234
1917	220	.....	19,296	64,855	.....	.....	243,325	274,426	.....	....	602,122	2,592,482
1918	.....	.....	.....	76	.....	.....	.....	65	.....	....	141	499
1919	614	.....	.....	4	.....	820	140	.....	.....	....	1,578	3,710
1920	4,789	.....	.....	8,036	154	381	39	20	.....	....	13,419	21,208
1921	29	.....	411	191	3,114	656	154	282	7	....	4,844	13,602
1922	68	.....	52,635	1,825	20	1,413	149	701	16	....	56,827	83,067
1923	1,673	.....	9,351	108,847	83,955	13,867	1,191	4,063	45	....	222,992	528,084
1924	9,785	.....	10,696	5,454	1,259	2,457	560	2,785	33	....	33,029	60,531
1925	517	.....	3,516	15,772	1,349	3,429	11,101	1,649	343	....	37,676	106,861
1926	596	.....	3,229	24,274	4,054	780	3,233	4,418	60	....	40,644	103,517
1927	139	.....	10,188	27,958	1,148	8,652	10,431	2,573	1,426	....	62,515	165,496
1928	8,574	72	6,719	8,188	15,416	78,761	3,093	2,691	684	....	124,198	365,595
1929	7,293	85	94,508	30,142	3,988	1,331	11,693	5,053	639	30	154,762	284,068
1930	8,622	44	48,324	28,437	12,966	3,362	5,495	9,723	3,213	30	120,216	266,193
1931	1,813	345	47,034	58,995	4,341	8,966	17,845	66,184	2,319	....	207,842	661,992
1932	89	.....	166	594	880	887	296	2,657	741	120	6,430	27,374
1933 (6 Mo.)	73	.....	253	581	6,400	.....	.....	27,436	7,819	....	42,562	211,853
Totals	51,527	546	480,903	516,239	139,846	125,762	308,753	417,561	17,345	180	2,058,162	6,066,627

Defendant's Exhibit No. 42—Continued

[fol. 9296]

Recapitulation of Main Line Replacements, Removals, and Abandonments

By Years, Sizes, and Feet of Pipe—July 1, 1933

Year	2 Inch	3 Inch	4 Inch	6 Inch	8 Inch	10 Inch	12 Inch	16 Inch	18 Inch	20 Inch	Totals	3-Inch Equivalent
1911	.....	.....	.....	.....	.....	.....	.....	92	.....	....	92	491
1912	.....	.....	167,213	.....	.....	.....	.....	.....	.....	....	167,213	222,945
1913	.....	.....	.....	.....	.....	.....	8	.....	.....	....	8	32
1914	.....	.....	7,364	.....	.....	.....	.....	.....	.....	....	7,364	9,818
1915	.....	.....	.....	.....	.....	.....	.....	7,435	.....	....	7,435	39,653
1916	.....	.....	.....	.....	.....	.....	.....	5,308	.....	....	5,308	28,309
1917	.....	.....	.....	64,855	.....	.....	243,325	274,426	.....	....	582,606	2,566,608
1918	.....	.....	.....	76	.....	.....	.....	65	.....	....	141	499
1919	.....	.....	.....	4	.....	820	140	.....	.....	....	964	3,301
1920	.....	.....	.....	8,036	.....	318	39	20	.....	....	8,413	17,395
1921	29	.....	.....	.....	2,679	623	154	282	7	....	3,774	11,402
1922	68	.....	2,613	1,825	20	1,377	149	201	16	....	6,269	13,586
1923	156	.....	7,726	108,632	83,374	10,994	1,191	3,253	45	....	215,371	509,031
1924	21	.....	10,474	5,370	438	2,231	549	2,259	33	....	21,375	47,766
1925	.....	.....	3,494	14,811	1,296	3,216	11,101	1,649	343	....	35,910	103,714
1926	413	.....	3,117	6,430	3,858	582	3,221	4,418	60	....	22,099	66,326
1927	116	.....	10,125	15,458	4	8,652	10,431	2,458	1,426	....	48,670	136,733
1928	1,279	36	6,574	7,822	15,292	78,761	3,093	668	684	....	114,209	348,650
1929	1,182	....	93,488	29,429	3,859	1,311	11,693	4,859	639	30	146,490	275,676
1930	5,200	25	24,825	16,466	5,124	3,164	5,454	9,626	3,213	30	73,127	186,366
1931	733	32	25,857	36,893	3,387	8,838	14,198	62,910	2,319	....	155,167	553,498
1932	.....	.....	47	222	819	887	275	2,657	741	120	5,768	26,165
1933 (6 Mo.)	67	.....	189	581	.....	.....	.....	27,436	7,819	....	36,092	194,697
Totals	9,264	93	363,106	316,910	120,150	121,774	305,021	410,022	17,345	180	1,663,865	5,362,659

Defendant's Exhibit No. 42—Continued

[fol. 9297]

Recapitulation of Tap Line Replacements, Removals, and Abandonments

By Years, Sizes, and Feet of Pipe—July 1, 1933

Year	2 Inch	3 Inch	4 Inch	6 Inch	8 Inch	10 Inch	12 Inch	16 Inch	Totals	3 Inch Equivalent
1912	79	....	.....	.....	.....	.....	.....	.....	79	52
1913	118	....	.....	.....	6	.....	.....	.....	124	95
1914	6,217	....	.....	.....	.....	.....	.....	.....	6,217	4,145
1915	129	....	.....	472	.....	.....	.....	.....	601	1,030
1916	90	....	.....	131,538	296	.....	.....	.....	131,924	263,925
1917	220	....	19,296	.....	.....	.....	.....	.....	19,516	25,874
1919	614	....	.....	.....	.....	.....	.....	.....	614	409
1920	4,789	....	.....	.....	154	63	.....	.....	5,006	3,813
1921	.....	....	411	191	435	33	.....	.....	1,070	2,200
1922	.....	....	50,022	.....	.....	36	.....	500	50,558	69,481
1923	1,517	....	1,625	215	581	2,873	.....	810	7,621	19,053
1924	9,764	....	222	84	821	226	11	526	11,654	12,765
1925	517	....	22	961	53	213	.....	.....	1,766	3,147
1926	183	....	112	17,844	196	198	12	.....	18,545	37,191
1927	23	....	63	12,500	1,144	.....	.....	115	13,845	28,763
1928	7,295	36	145	366	124	.....	.....	2,023	9,989	16,945
1929	6,111	85	1,020	713	129	20	.....	194	8,272	8,392
1930	3,422	19	23,499	11,971	7,842	198	41	97	47,089	79,827
1931	1,080	313	21,177	22,102	954	128	3,647	3,274	52,675	108,494
1932	89	....	119	372	61	.....	21	.....	662	1,209
1933 (Six Months)	6	....	64	.....	6,400	.....	.....	.....	6,470	17,156
Totals	42,263	453	117,797	199,329	19,196	3,988	3,732	7,539	394,297	703,966

Defendant's Exhibit No. 42—Continued

[fol. 9298]

Recapitulation of Field and Well Line Replacements, Removals, and Abandonments

By Years, Sizes, and Feet of Pipe—July 1, 1933

Year	2 Inch	3 Inch	4 Inch	6 Inch	8 Inch	10 Inch	12 Inch	16 Inch	18 Inch	Totals	3 Inch Equivalent
1913	.....	.....	.....	20	.....	.....	.....	.....	.....	20	40
1915	.....	.....	.....	41	.....	71	.....	.....	.....	112	319
1916	365	.....	.....	.....	.....	.....	.....	.....	.....	365	243
1917	.....	.....	337	.....	.....	.....	.....	.....	.....	337	449
1918	.....	.....	156	.....	.....	.....	.....	.....	.....	156	208
1920	259	.....	14,692	37,750	3,569	763	340	90	.....	57,463	109,163
1921	1,268	.....	5,478	15,897	5,660	10,318	.....	.....	.....	38,621	89,431
1922	3,657	.....	26,295	18,055	2,079	12,123	60	.....	.....	62,269	119,801
1923	1,969	.....	14,716	21,216	619	695	.....	.....	.....	39,215	67,333
1924	394	38	21,578	30,211	143	4,094	29	.....	.....	56,487	103,637
1925	4,466	.....	28,420	43,375	6,713	24	10	.....	.....	83,008	145,642
1926	135	356	19,089	80,730	20,460	19,157	251	.....	.....	140,178	306,780
1927	1,472	.....	13,491	33,505	10,225	11,065	216	.....	.....	69,974	150,993
1928	25,212	2,548	50,865	23,366	.....	134	545	.....	.....	102,670	136,535
1929	10,978	44	5,794	31,514	15,668	89	150	74	.....	64,311	121,201
1930	22,668	.....	55,194	41,493	1,407	369	984	87	62	122,264	181,446
1931	51,342	138	27,082	52,098	2,758	8,466	469	.....	.....	142,353	212,120
1932	24,990	980	26,308	14,072	7	962	.....	.....	.....	67,319	84,086
1933 (6 Months)	246	282	3,162	648	42	145	.....	.....	.....	4,525	6,593
Totals	149,421	4,386	312,657	443,991	69,350	68,475	3,054	251	62	1,051,647	1,836,020

Defendant's Exhibit No. 42—Continued

[fol. 9299]

Recapitulation of Field Line Replacements, Removals, and Abandonments

By Years, Sizes, and Feet of Pipe—July 1, 1933

Year	2 Inch	3 Inch	4 Inch	6 Inch	8 Inch	10 Inch	12 Inch	16 Inch	18 Inch	Totals	3 Inch Equivalent
1920	240	.....	190	4,222	.....	391	.....	....	....	5,043	10,161
1921	1,246	.....	1,665	14,177	4,796	10,119	.....	....	....	32,003	77,924
1922	2,986	.....	16,993	9,118	2,079	11,904	60	....	....	43,140	88,348
1923	1,458	.....	6,950	11,145	566	303	.....	....	....	20,422	35,048
1924	353	.....	10,549	16,719	143	104	29	....	....	27,897	48,582
1925	1,522	.....	15,186	31,153	6,468	.....	10	....	....	54,339	100,856
1926	113	.....	16,171	69,209	7,013	.....	251	....	....	92,757	179,760
1927	541	.....	10,231	33,407	7,434	10,972	216	....	....	62,801	138,078
1928	560	.....	2,410	22,922	.....	41	545	....	....	26,478	51,748
1929	94	44	5,705	27,146	15,668	28	150	74	....	48,909	104,874
1930	454	.....	27,749	28,897	157	211	984	87	62	58,601	100,990
1931	34,079	45	15,952	25,000	.....	86	469	....	....	75,631	96,196
1932	.....	.....	204	.....	.....	.....	.....	....	....	204	272
1933 (Six Months)	85	.....	.....	39	42	.....	.....	....	....	166	287
Totals:	43,731	89	129,955	293,154	44,366	34,159	2,714	161	62	548,391	1,033,124

Defendant's Exhibit No. 42—Continued

[fols. 9300-9302]

Recapitulation of Well Line Replacements, Removals and Abandonments

By Years, Sizes, and Feet of Pipe—July 1, 1933

Year	2 Inch	3 Inch	4 Inch	6 Inch	8 Inch	10 Inch	12 Inch	16 Inch	Totals	3 Inch Equivalent
1913	.....	.....	.....	20	.....	.....	....	....	20	40
1915	.....	.....	.....	41	.....	71	....	....	112	319
1916	365	.....	.....	.....	.....	.....	....	....	365	243
1917	.....	.....	337	.....	.....	.....	....	....	337	449
1918	.....	.....	156	.....	.....	.....	....	....	156	208
1920	19	.....	14,502	33,528	3,569	372	340	90	52,420	99,002
1921	22	.....	3,813	1,720	864	199	....	....	6,618	11,507
1922	671	.....	9,302	8,937	.....	219	....	....	19,129	31,453
1923	511	.....	7,766	10,071	53	392	....	....	18,793	32,285
1924	41	38	11,029	13,492	.....	3,990	....	....	28,590	55,055
1925	2,944	.....	13,234	12,222	245	24	....	....	28,669	44,786
1926	22	356	2,918	11,521	13,447	19,157	....	....	47,421	127,020
1927	931	.....	3,260	98	2,791	93	....	....	7,173	12,915
1928	24,652	2,548	48,455	444	.....	93	....	....	76,192	84,787
1929	10,884	.....	89	4,368	.....	61	....	....	15,402	16,327
1930	22,214	.....	27,445	12,596	1,250	158	....	....	63,663	80,456
1931	17,263	93	11,130	27,098	2,758	8,380	....	....	80,170	115,924
1932	24,990	980	26,104	14,072	7	962	....	....	67,115	83,814
1933 (Six Months)	161	282	3,162	609	.....	145	....	....	4,359	6,306
Totals	105,690	4,297	182,702	150,837	24,984	34,316	340	90	503,256	802,896

Defendant's Exhibit No. 42—Continued

[fol. 9303] Analysis of Rate of Growth of Pipe Line System as of January 1, 1933

Combined Summary of Main, Tap, Field, and Well Lines

Year	Main Lines 3-Inch Equivalent—Miles	Tap Lines 3-Inch Equivalent—Miles	Field Lines 3-Inch Equivalent—Miles	Well Lines 3-Inch Equivalent—Miles	Total	Percent	Cumulative Percent
1909...	.....	.....	.....	2.61	2.61	.02	.02
1910...	646.54	8.11	.....	10.04	664.69	5.60	5.62
1911...	.....	50.16	.....	.....	50.16	.42	6.04
1912...	.....	16.65	.....	2.08	18.73	.16	6.20
1913...	357.85	22.89	21.72	.60	403.06	3.40	9.60
1914...	279.41	.....	.....	.16	279.57	2.36	11.96
1915...	.....	5.30	.....	3.10	8.40	.07	12.03
1916...	301.79	70.83	.....	4.85	377.47	3.18	15.21
1917...	.....	.....	.....	.15	.15	.....	15.21
1918...	57.69	.....	2.41	6.09	66.19	.56	15.77
1919...	498.88	.56	58.30	12.25	569.99	4.80	20.57
1920...	599.05	42.99	97.37	2.68	742.09	6.25	26.82
1921...	63.17	1.04	35.86	1.39	101.46	.86	27.68
1922...	92.08	54.26	1.61	8.99	156.94	1.32	29.00
1923...	231.93	27.57	8.98	15.48	283.96	2.39	31.39
1924...	194.68	8.29	96.46	31.06	330.49	2.79	34.18
1925...	82.23	49.51	36.61	9.21	177.56	1.50	35.68
1926...	1,709.32	190.75	81.73	14.60	1,996.40	16.82	52.50
1927...	1,326.79	517.11	34.12	10.68	1,888.70	15.92	68.42
1928...	334.57	517.41	149.11	32.87	1,033.96	8.71	77.13
1929...	839.90	572.51	297.53	57.03	1,766.97	14.89	92.02
1930...	40.62	111.64	199.40	67.41	419.07	3.53	95.55
1931...	44.11	.80	25.36	31.92	102.19	.86	96.41
1932...	326.84	1.02	60.31	38.21	426.38	3.59	100.00
Total	8,027.45	2,269.40	1,206.88	363.46	11,867.19	100.00	

(Here follows 1 photolithograph, side folio 9304)

BLANK

PAGE

3080A

LONE STAR GAS CO

AS OF
JANUARY 1, 1933

ANNUAL RATE OF GROWTH
CUMULATIVE PERCENTAGE

MAIN, TAP, FIELD AND WELL LINES

NOTE: All pipe sizes reduced to inches or equivalent 3"

YEAR

1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932

10 20 30 40 50 60 70 80 90 100

BLANK

PAGE

Defendant's Exhibit No. 42—Continued

[fols. 9305-9306] Lone Star Gas Company

Analysis of Rate of Growth of Pipe Line System
as of January 1, 1933

Summary of Main Lines

Year	Miles 3-Inch Equivalent	Percent	Cumulative Percent
1909	.....	.....	.....
1910	646.54	8.05	8.05
1911	.....	.....	8.05
1912	.....	.....	8.05
1913	357.85	4.46	12.51
1914	279.41	3.48	15.99
1915	.....	.....	15.99
1916	301.79	3.76	19.75
1917	.....	.....	19.75
1918	57.69	.72	20.47
1919	498.88	6.21	26.68
1920	599.05	7.46	34.14
1921	63.17	.79	34.93
1922	92.08	1.15	36.08
1923	231.93	2.89	38.97
1924	194.68	2.43	41.40
1925	82.23	1.02	42.42
1926	1,709.32	21.29	63.71
1927	1,326.79	16.53	80.24
1928	334.57	4.17	84.41
1929	839.90	10.46	94.87
1930	40.62	.51	95.38
1931	44.11	.55	95.93
1932	326.84	4.07	100.00
Totals	8,027.45	100.00	

[fols. 9307-9308] Summary of Tap Lines

1909	.....	.....	.....
1910	8.11	.36	.36
1911	50.16	2.21	2.57
1912	16.65	.73	3.30
1913	22.89	1.01	4.31
1914	.....	.....	4.31
1915	5.30	.23	4.54
1916	70.83	3.12	7.66
1917	.....	.....	7.66
1918	.....	.....	7.66
1919	.56	.03	7.69
1920	42.99	1.89	9.58
1921	1.04	.05	9.63
1922	54.26	2.39	12.02
1923	27.57	1.21	13.23
1924	8.29	.37	13.60
1925	49.51	2.18	15.78
1926	190.75	8.41	24.19
1927	517.11	22.79	56.98
1928	517.41	22.80	69.78
1929	572.51	25.23	95.01
1930	111.64	4.92	99.93
1931	.80	.03	99.96
1932	1.02	.04	100.00
Totals	2,269.40	100.00	

Defendant's Exhibit No. 42—Continued

[fols. 9309-9310] Summary of Well Lines

Year	Miles 3-Inch Equivalent	Percent	Cumulative Percent
1909	.....	.....	.....
1910	.....	.....	.....
1911	.....	.....	.....
1912	.....	.....	.....
1913	21.72	1.80	1.80
1914	.....	.....	1.80
1915	.....	.....	1.80
1916	.....	.....	1.80
1917	.....	.....	1.80
1918	2.41	.20	2.00
1919	58.30	4.83	6.83
1920	97.37	8.07	14.90
1921	35.86	2.97	17.87
1922	1.61	.13	18.00
1923	8.98	.75	18.75
1924	96.46	7.99	26.74
1925	36.61	3.03	29.77
1926	81.73	6.77	36.54
1927	34.12	2.83	39.37
1928	149.11	12.36	51.73
1929	297.53	24.65	76.38
1930	199.40	16.52	92.90
1931	25.36	2.10	95.00
1932	60.31	5.00	100.00
Total	1,206.88	100.00	

[fols. 9311-9313] Summary of Field Lines

1909	2.61	.72	.72
1910	10.04	2.76	3.48
1911	.....	.....	3.48
1912	2.08	.57	4.05
1913	.60	.17	4.22
1914	.16	.05	4.27
1915	3.10	.85	5.12
1916	4.85	1.33	6.45
1917	.15	.04	6.49
1918	6.09	1.68	8.17
1919	12.25	3.37	11.54
1920	2.68	.74	12.28
1921	1.39	.38	12.66
1922	8.99	2.47	15.13
1923	15.48	4.26	19.39
1924	31.06	8.55	27.94
1925	9.21	2.53	30.47
1926	14.60	4.02	34.49
1927	10.68	2.94	37.43
1928	32.87	9.04	46.47
1929	57.03	15.69	62.16
1930	67.41	18.55	80.71
1931	31.92	8.78	89.49
1932	38.21	10.51	100.00
Total	363.46	100.00	

[fols. 9314-9321] Definitions

The primary objects of this phase of the investigation are the determination of the probable future rate of failure of steel pipe in service in the pipe line system of Lone Star Gas Company, caused primarily by the physical condition of the pipe, and the probable future rate of replacements, removals and abandonments of pipe, or lines caused primarily by changed operating conditions, or by public requirements.

The probable future rate of failure, and the probable future rate of replacements, removals and abandonments have been estimated from the distribution curves of annual replacements, removals and abandonments developed from primary mortality curves independently determined for mortalities caused primarily by the physical condition of the pipe, and for mortalities caused primarily by changed operating conditions, or public requirements.

As previously noted, the rate of failure of pipe caused primarily by the physical condition of the pipe, when expressed as a percentage of the amount of pipe in service, will be a function of the passage of time. This rate will be a variable percentage that will increase as the indicated average life period of the pipe is reached, and will become the predominant factor in the total annual rate required as the age of the property increases.

* * * * * * *

[fol. 9322] Development of Mortality Curves and Distribution Curves

Mortality Curve I, and Distribution Curve I

During the year 1931, a mortality curve was developed for steel pipe in service in the system of Lone Star Gas Company. The purpose of the development of this curve was to fix the basis for an estimate of the probable future rate of failure of steel pipe in service due primarily to physical causes. From this primary mortality curve, there was also developed a distribution curve of annual failures of original units. The ordinates of this curve for each service year corresponded to the increase in mortality percentage of original units for corresponding service years as determined by the slope of the mortality curve. Calcula-

tions were also made reflecting the effect of replacements of replacements upon the distribution curve of the replacement of original units. These calculations covered a period of fifty-two service years.

In this report, these curves are shown in the graph—Lone Star Gas Company Depreciation Analysis—Mortality Curve I.

The calculations covering the effect of replacement of original units, and replacements of replacements is shown in the calculation—Calculation of Total Annual Renewal Rates. These renewal rates are based solely upon the Mortality Curve I.

The ordinates taken from the distribution curve of the annual replacements of original units, and the distribution curve of the annual replacements of original units and replacements of replacements are also shown in tabular form in the tabulation—Annual Renewal Rates Steel Pipe—Lone Star Gas Company, from Mortality Curve I.

(Here follow 2 photolithographs, side folios 9323-9333 and 9334-9338)

4803

BLANK

PAGE

9323-9333

LONE STAR GAS CO.

DEPRECIATION ANALYSIS

MORTALITY CURVE I

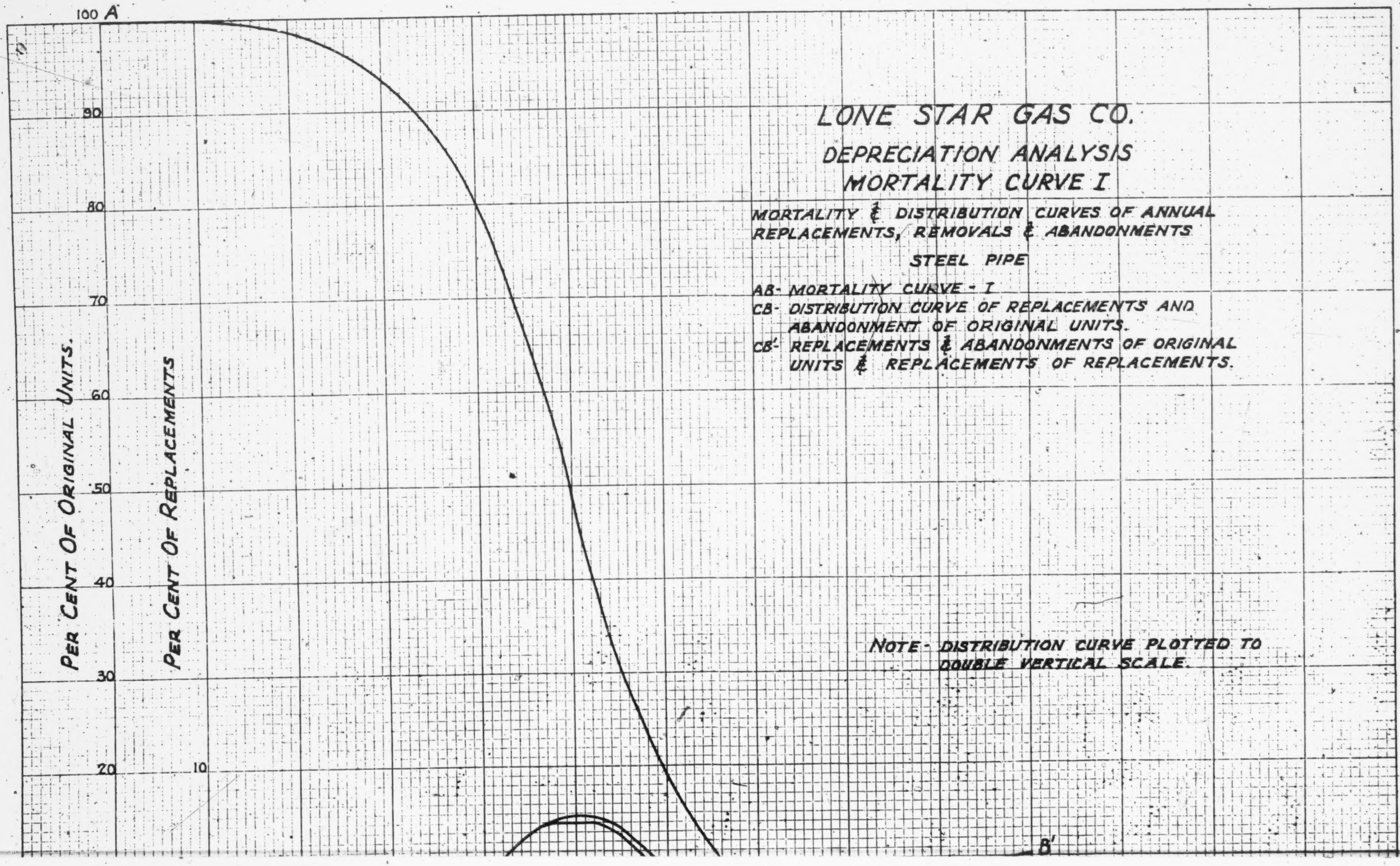
MORTALITY & DISTRIBUTION CURVES OF ANNUAL REPLACEMENTS, REMOVALS & ABANDONMENTS

STEEL PIPE

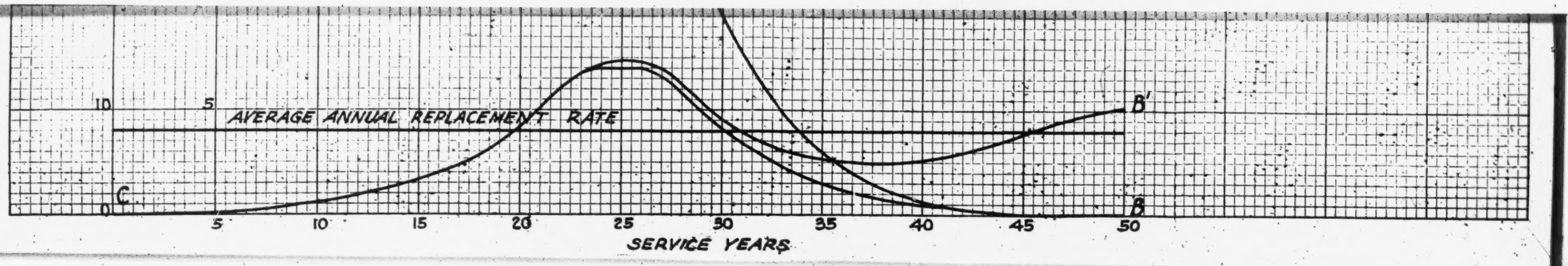
AB- MORTALITY CURVE - I

CB- DISTRIBUTION CURVE OF REPLACEMENTS AND ABANDONMENT OF ORIGINAL UNITS.

CB'- REPLACEMENTS & ABANDONMENTS OF ORIGINAL UNITS & REPLACEMENTS OF REPLACEMENTS.



NOTE - DISTRIBUTION CURVE PLOTTED TO DOUBLE VERTICAL SCALE.


10
5
0
AVERAGE ANNUAL REPLACEMENT RATE
C
B'
B
5
10
15
20
25
30
35
40
45
50
SERVICE YEARS

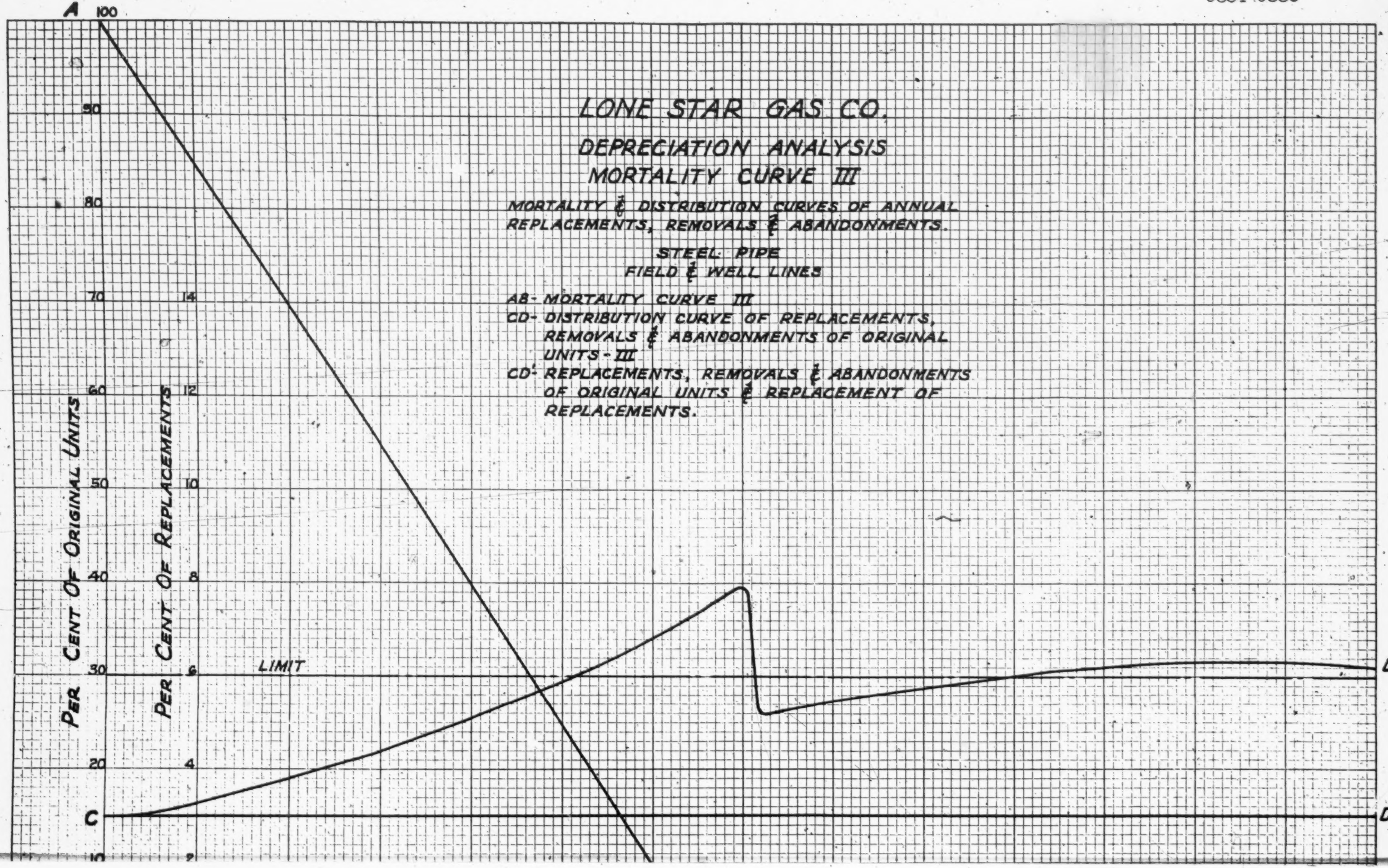
LONE STAR GAS CO.

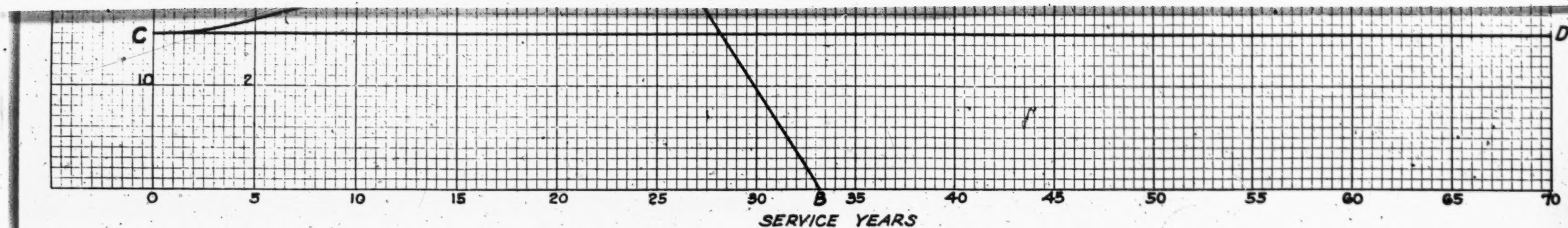
DEPRECIATION ANALYSIS
MORTALITY CURVE III

MORTALITY & DISTRIBUTION CURVES OF ANNUAL REPLACEMENTS, REMOVALS & ABANDONMENTS.

STEEL PIPE
FIELD & WELL LINES

AB- MORTALITY CURVE III
CD- DISTRIBUTION CURVE OF REPLACEMENTS, REMOVALS & ABANDONMENTS OF ORIGINAL UNITS - III
CD'- REPLACEMENTS, REMOVALS & ABANDONMENTS OF ORIGINAL UNITS & REPLACEMENT OF REPLACEMENTS.




C
D
10
2
0
5
10
15
20
25
30
B
35
40
45
50
55
60
65
70
SERVICE YEARS

BLANK

PAGE

[fol. 9339] Allocation of Historic Mortalities and Determination of Effective Service Years

In order that the Primary Test could be applied to any mortality curve under investigation, it was necessary:

First. To make an allocation of the historic mortalities of steel pipe in the Main Lines and Tap Lines of Lone Star Gas Company from 1910 to July 1, 1933, this allocation to consist of a distribution of the total mortalities to Major Removals to Major Replacements due primarily to changed operating conditions, or public requirements, and to mortalities due primarily to the physical condition of the pipe.

Second. To determine the effective service life of the Main Lines and Tap Lines in service in the system of Lone Star Gas Company prior to January 1, 1933, together with the effective service life of such lines as had been in service but which had been replaced prior to January 1, 1933, and for which lines replacements, removals and abandonments have been included in the total mortalities for Main Lines and Tap Lines.

The necessity for the determination of these basic factors grows out of the fact that the Primary Test for Mortality Curve I is based upon the application of the cumulative percentage of mortalities for given service years determined by the slope of the curve to the amount of pipe in Main Lines and Tap Lines having the corresponding effective service years, and to the further fact that the amount of pipe determined by this application should be in approximate agreement with the amount of pipe allocated to mortalities due primarily to physical causes.

[fol. 9340] In the case of the Mortality Curves II and III, the Primary Test is based upon a determination of the amount of pipe involved in the mortalities allocated to Major Removals and Major Replacements due primarily to changed operating conditions and other like causes, and a determination of the effective weighted service years of the pipe in Main Lines and Tap Lines affected by these removals and replacements during their service life.

Allocation of Historic Mortalities Steel Pipe—Main Lines and Tap Lines

In the 6,066,627 feet of three inch equivalent diameter pipe replaced, removed or abandoned in the designated Main Lines and Tap Lines of Lone Star Gas Company from

1910 to July 1, 1933, there has been included a substantial amount of pipe involved in major removal and major replacements caused primarily by changed operating conditions.

The major removals consisted of a series of removals that involved the designated Main Lines 2nd B and D, and the designated Tap Line D-2. A careful investigation has been made of each of these removals, and all available information relative to the ultimate disposition and use of the pipe removed has been used in connection with the allocation of mortalities.

As previously noted in the case of the removal of the sixteen inch pipe in Line 2nd B, and the twelve inch pipe in Line D, the pipe removed, less the amount of pipe junked at the removal date, was relaid in the Main Line System as a part of Lines G and H. In the case of the removal of the Tap Line D-2, the pipe removed, less the amount of pipe junked, was relaid as Tap Line F-2.

The major replacements due primarily to changed oper- [fol. 9341] ating conditions, or to public requirements, consisted of a series of replacements of pipe of various sizes and at various dates. The line designation and the amount of pipe expressed in feet of three inch equivalent diameter pipe replaced and allocated to Major Replacements, due primarily to changed operating conditions, or to public requirements, are shown in the following summary:

Year	Line Designation	Feet of 3 inch Equivalent
1912	Line A	222,945
1917	Line A	129,710
1920	Line A	16,000
1922	Line B-9	66,665
1923	Line A	443,649
1926	Line F-2	35,225
1927	Line F-1	25,727
1927	Line F-2	22,510
1928	Line A	256,667
1929	Line GD	104,147
1930	Line 153	14,896
1930	Line 86	14,256
1931	Line 17	50,148
1931	Line 24	57,840
1931	Line C	112,991
1933	Line J-2	17,067

Little, if any, of this pipe replaced can be identified as having been subsequently relaid as a part of the Main Line System. As shown by the records of the company, a substantial part of the pipe removed was junked on removal and as indicated by the experience of the company, additional amounts were classified as junk, or as unfit for main line service subsequent to the transfer of the salvaged material to warehouse stock as second-hand pipe.

As in the case of the pipe involved in Major Removals, an exhaustive examination has been made of all available records for the purpose of determining the ultimate disposition and use of the pipe replaced in the operations designated as Major Replacements caused by changed operation conditions and by public requirements. The results of these investigations have been used in connection with the [fol. 9342] allocation of mortalities.

It is evident that when the removal of a line, or a portion of a line takes place, and a portion of the pipe is junked at the time of removal, the pipe thus junked should be added to the footage of pipe in the classification representing mortalities caused primarily by the physical condition of the pipe in service. This is also true with reference to the footage of pipe junked in connection with major replacements caused primarily by changed operating conditions, or to public requirements.

While as previously stated, it has been the experience of the company that when second-hand pipe is taken from lines and transferred to warehouse stock, that approximately ten per cent of such pipe is finally classified as unfit for service. No consideration has been given to this fact in fixing the amount of pipe having been removed by reason of physical condition. The line designation and the amount of pipe expressed in feet of three inch equivalent diameter pipe classified as junked in connection with Major Removals and Major Replacements caused primarily by changed operating conditions, or by public requirements, is set out with the following summary:

Year	Line Designation	Feet of 3 inch Equivalent
1912	Line A	16,017
1916	Line D-2	232
1917	Line H (Line D)	38,017
1917	Line C	4,528
1917	Line A	880

Defendant's Exhibit No. 42—Continued

Year	Line Designation	Feet of 3 inch Equivalent
1922	Line B-9	2,800
1923	Line A	18,280
1923	Line A	23,238
1926	Line F-2	2,844
1927	Line F-2	338
1928	Line A	71,266
1929	Line GD	5,693
1930	Line 86	1,327
1930	Line 151	6,347
1930	Line J-2	972
1931	Line 17	5,196
1931	Line 24	1,426

[fol. 9343]

1931	Line 24	8,434
1931	Line C	18,443
1933	Line J-2	1,365

The results of these allocations of the total mortalities of steel pipe in the designated Main Lines and Tap Lines in the system of Lone Star Gas Company from 1910 to July 1, 1933, are set out in the tabulation—Allocation of Main Line and Tap Line Replacements, Removals and Abandonments —1910 to July 1, 1933.

With these allocations completed, the sum of the footage in Columns B and D, or 4,290,424 feet of three inch equivalent diameter pipe is the total amount of pipe removed or replaced in the designated Main Lines and Tap Lines of Lone Star Gas Company from 1910 to July 1, 1933, primarily by reason of changed operating conditions, or public requirements. The amount of footage in Column G, or 2,003,846 feet of three inch equivalent diameter pipe is the total amount of pipe removed or replaced in the designated Main Lines and Tap Lines of Lone Star Gas Company from 1910 to July 1, 1933, primarily by reason of the physical condition of the pipe.

The allocation of the mortalities by years as set out in the tabulation are also shown in graphic form—Main Line and Tap Line Replacements, Removals and Abandonments of Pipe by Years. In this graph are shown:

1. The annual replacements and abandonments of Main Line and Tap Line pipe caused primarily by the physical condition of the pipe.

2. The major removals and replacements due primarily to changed operating conditions, or to public requirements equally distributed in annual installments beginning one year subsequent to the individual removal or replacement and extending through the year 1933.

In the graph, these annual allocations have been added to [fol. 9344] the annual replacements and abandonments caused primarily by the physical condition of the pipe.

It will be noted from an inspection of the graph that the results as shown with reference to historic replacements and abandonments due primarily to the physical condition of the pipe, are typical of the normal behavior of steel pipe with the exception of the relatively high mortalities during some of the earlier service years where a substantial amount of pipe was junked incident to Major Removals and Major Replacements caused primarily by changed operating conditions. This condition is noticeable in the years 1912, 1915, 1916, 1917, 1923 and 1925. This pipe would have been removed at some later date had the lines remained in place, but the replacements would no doubt have been more normally distributed over the subsequent years.

Attention should also be directed to the low rate of replacements during th war period and to the obviously abnormally low rate of replacement during the year 1932. This latter condition was the result of the effort of Lone Star Gas Company to conserve its cash resources during this period, and the replacements made during the year 1932 do not reflect a normal situation. Consideration has not been given to this particular fact in the calculations made with reference to a test of the adopted mortality curve.

Defendant's Exhibit No: 42—Continued

[fols. 9345-9397]

Tabulation Showing
Allocation of Historic Mortalities Steel Pipe
Main Lines and Tap Lines—July 1, 1933

Year Installed	A	B	C	D	E	F	G	Size	Line	Re-placed	3 Inch Equiv-alent
1911	491		491		491		491(a)	4 in.	A	1912	
1912	222,997		222,997	222,945(a)	52	16,017	16,069				
1913	127		127		127		127(b)	6 in.	A	1917	
1914	13,963		13,963		13,963		13,963				
1915	40,683		40,683		40,683		40,683(c)	6 in.	A	1920	
1916	292,234	263,076	29,158		29,158	232	29,390				
1917	2,592,482	2,436,896	155,586	129,710(b)	25,876	43,425	69,301(d)	4 in.	B-9	1922	
1918	499		499		499		499				
1919	3,710		3,710		3,710		3,710(e)	6 in.	A	1923	
1920	21,208		21,208	16,000(c)	5,208		5,208				
1921	13,602		13,602		13,602		13,602(f)	6 in.	F-2	1926	
1922	83,067		83,067	66,665(d)	16,402	2,800	19,202				
1923	528,084		528,084	443,649(e)	84,435	41,518	125,953(g)	4 in.	F-1	1927	25,727
1924	60,531		60,531		60,531		60,531	6 in.	F-2	1927	22,510
1925	106,861		106,861		106,861		106,861				
1926	103,517		103,517	35,224(f)	68,293	2,844	71,137(h)	10 in.	A	1928	
1927	165,496		165,496	48,237(g)	117,259	338	117,597				
1928	365,595		365,595	256,677(h)	108,918	71,266	180,184(i)	4 in.	GD	1929	
1929	284,068		284,068	104,147(i)	179,921	5,693	185,614				
1930	266,193		266,193	29,152(j)	237,041	8,646	245,687(j)	4 in.	153	1930	14,896
1931	661,992		661,992	220,979(k)	441,013	33,499	474,512	4 in.	86	1930	14,256
1932	27,374		27,374		27,374		27,374				
1933 (6 Mo.)	211,853		211,853	17,067(l)	194,786	1,365	196,151(k)	6 in.	17	1931	50,148
								6 in.	24	1931	42,404
Total	6,066,627	2,699,972	3,366,655	1,590,452	1,776,203	227,643	2,003,846	4 in.	24	1931	15,436
								16 in.	C	1931	112,991
							(l)	8 in.	J-2	1933	
Miles 3 Inch Equivalent	1,149	511	638	301	336	43	380				

Column A—Feet of Three Inch Equivalent Diameter Pipe Replaced, Removed, or Abandoned.
Column B—Feet of Three Inch Equivalent Diameter Pipe Removed in Major Removals.
Column C—Column A Minus Column B.

Page Tightly Bound

[fols. 9398-9401] The calculated mortalities by years are shown in the tabulation—Calculated Mortalities by Years, from Mortality Curve III—Table XIX. The results of these calculations are shown in the following summary:

Year	Calculated Mortalities—Table XIX
1910	422
1911	2,006
1912	2,059
1913	2,482
1914	6,072
1915	6,283
1916	6,917
1917	8,026
1918	8,184
1919	9,768
1920	21,278
1921	37,699
1922	44,880
1923	47,889
1924	53,275
1925	75,134
1926	84,586
1927	102,274
1928	112,464
1929	144,619
1930	205,075
1931	253,598
1932	270,230
1933	294,043
Total	1,799,263*
Historic Mortalities	1,715,688*

Column E—Column C minus Column D.
Column F—Feet of Three Inch Equivalent Diameter Pipe Junked in Connection with Major Removals and Major Replacements.

Conclusion

The following summary sets out in condensed form a comparison of the various checks of the adopted mortality [fol. 9402] curves, and the total historic mortalities of steel

*Feet of three Inch Equivalent Diameter Pipe.

pipe in the pipe line system of Lone Star Gas Company from 1909 to mid-year, 1933, all in feet of three inch equivalent diameter pipe.

Calculated Mortalities:

1. Main Lines and Tap Lines:	
a. Mortality Curve I	2,044,522
b. Mortality Curve II	4,125,739
2. Field Lines and Well Lines:	
a. Mortality Curve I	120,332
b. Mortality Curve III	1,797,998
Total Calculated Mortalities	8,088,591

Historic Mortalities:

1. Main Lines and Tap Lines:	
a. Mortalities due to failure of pipe	2,003,846
b. Mortalities due to changed operating conditions	4,290,424
2. Field and Well Lines:	
a. Mortalities due to failure of pipe	120,332*
b. Mortalities due to changed operation conditions	1,715,688
Total Historic Mortalities	8,130,290

* Calculated.

If consideration is given to the fact that included in the mortalities of Main Lines and Tap Lines, due to changed operating conditions, there is a certain amount of pipe that was junked incident to the replacement or removal, the historic mortalities become 7,902,647 feet of equivalent diameter pipe, or 97.7 per cent of the mortalities derived from an application of the renewal rates developed from the adopted mortality curves. In this connection, no consideration has been given to conditions that existed in 1932 with reference to the curtailment of practically all replacements and removals. For convenience, the calculated as well as the historic mortalities have been set out by years in graphic form in the graph—Calculated and Historic Mortalities—By Years.

(Here follows 1 photolithograph, side folios 9403 and 9404)

BLANK

PAGE

LONE STAR GAS CO.

DEPRECIATION ANALYSIS

HISTORICAL & CALCULATED ANNUAL MORTALITIES

STEEL PIPE

MAIN, TAP, FIELD & WELL LINES

AB- HISTORICAL FAILURES DUE TO PHYSICAL CONDITIONS MAIN & TAP LINES

AC- HISTORICAL MAJOR REPLACEMENTS, REMOVALS & ABANDONMENTS MAIN & TAP LINES CAUSED BY CHANGED OPERATING CONDITIONS, OR TO PUBLIC REQUIREMENTS, ADDED TO CURVE AB

AD- HISTORICAL FAILURES DUE TO PHYSICAL CONDITIONS AND REMOVAL, REPLACEMENTS, ABANDONMENTS OF FIELD & WELL LINES DUE TO CHANGED OPERATING CONDITIONS ADDED TO CURVE AC

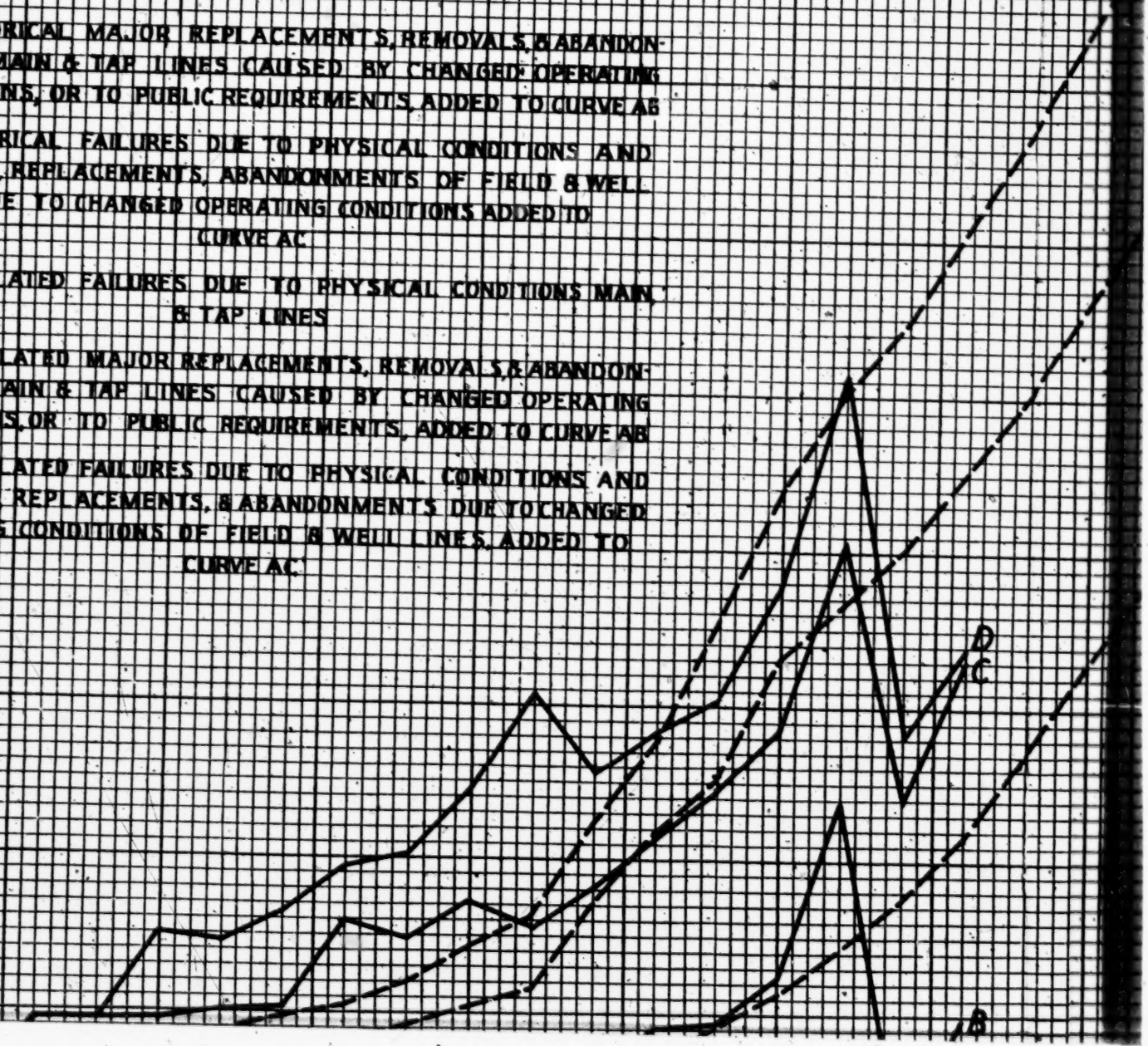
AB- CALCULATED FAILURES DUE TO PHYSICAL CONDITIONS MAIN & TAP LINES

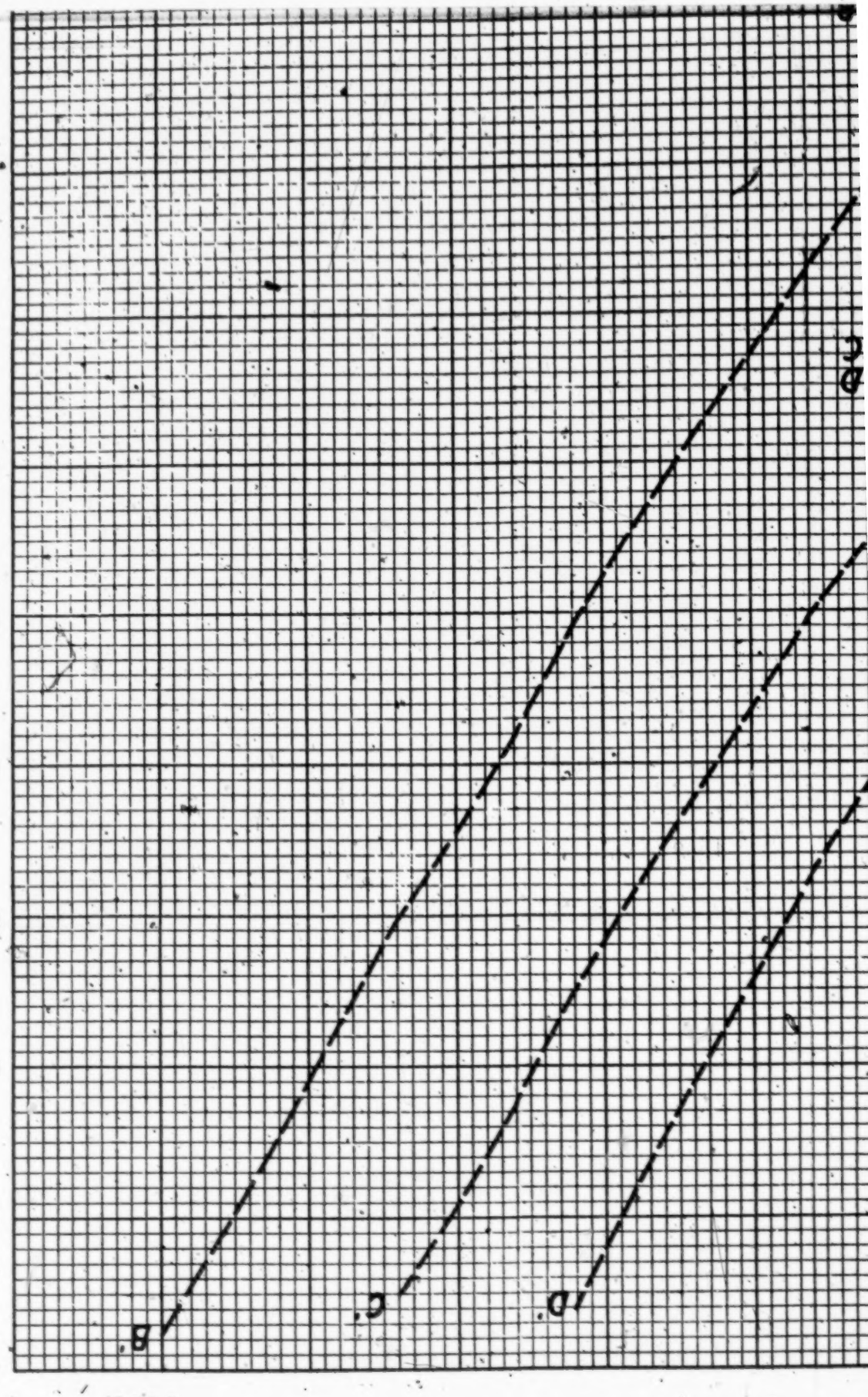
AC- CALCULATED MAJOR REPLACEMENTS, REMOVALS & ABANDONMENTS, MAIN & TAP LINES CAUSED BY CHANGED OPERATING CONDITIONS, OR TO PUBLIC REQUIREMENTS, ADDED TO CURVE AB

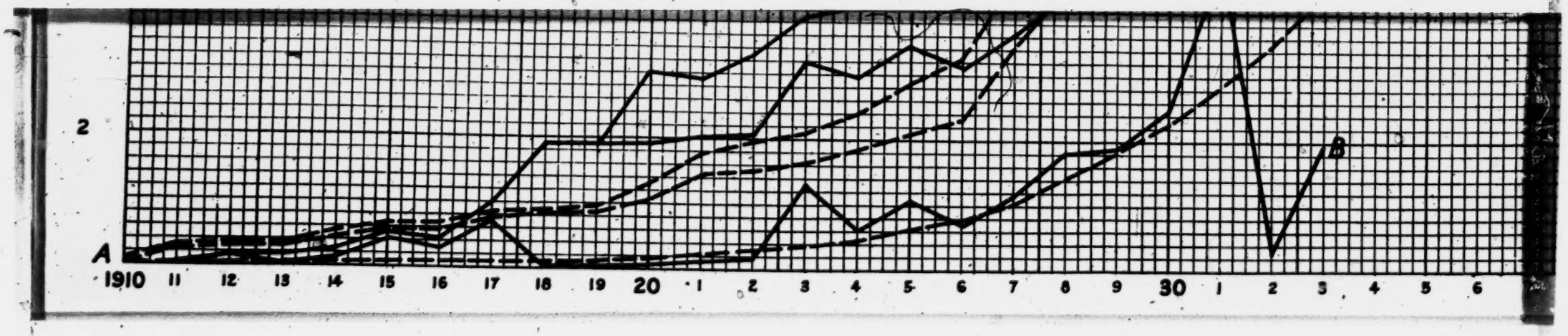
AD- CALCULATED FAILURES DUE TO PHYSICAL CONDITIONS AND REMOVALS, REPLACEMENTS, & ABANDONMENTS DUE TO CHANGED OPERATING CONDITIONS OF FIELD & WELL LINES, ADDED TO CURVE AC

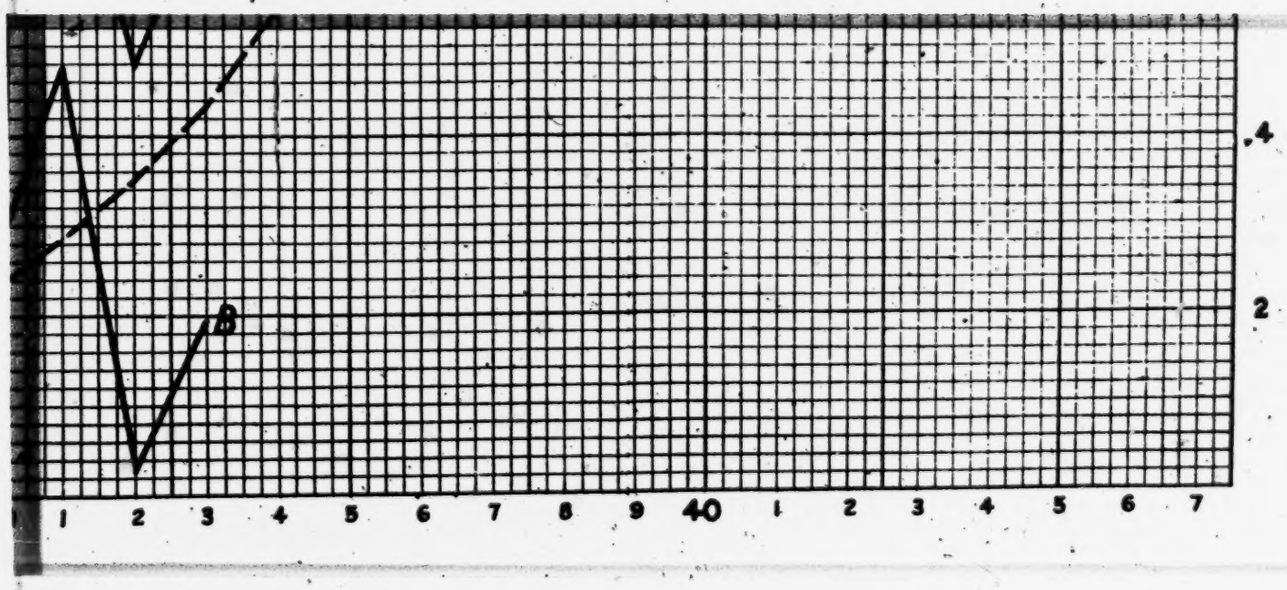
100,000 FEET OF 1" EQUIVALENT DIAMETER PIPE

20
18
16
14
12
10
8
6
4
2




2
4
6
8
10
12
14
16
18
20
B'
C'
D'


2
A
B
1910
11
12
13
14
15
16
17
18
19
20
1
2
3
4
5
6
7
8
9
30
1
2
3
4
5
6


V
B
.4
2
1 2 3 4 5 6 7 8 9 40 1 2 3 4 5 6 7

LONE STAR GAS CO.
DEPRECIATION ANALYSIS
CALCULATED MORTALITY BY YEARS
STEEL PIPE
MAIN, TAP, FIELD & WELL LINES

AB - FAILURES DUE TO PHYSICAL CONDITIONS, MAIN & TAP LINES FROM MORTALITY CURVE I.

AC - FAILURES DUE TO PHYSICAL CONDITIONS, MAIN & TAP LINES FROM MORTALITY CURVE I, PLUS REMOVALS, REPLACEMENTS, & ABANDONMENTS DUE TO CHANGED OPERATING CONDITIONS OR TO PUBLIC REQUIREMENTS.

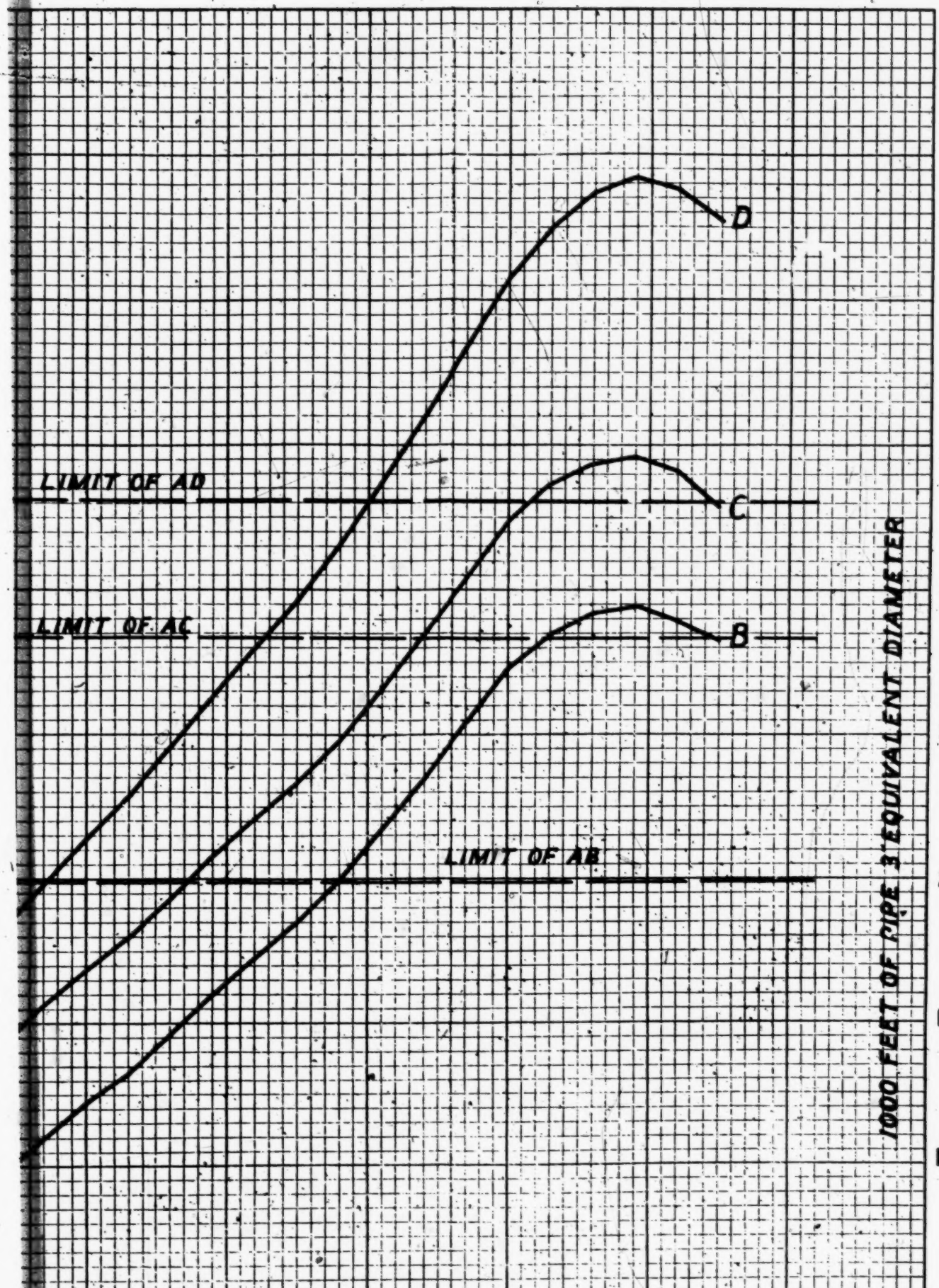
AD - FAILURES DUE TO PHYSICAL CONDITIONS, FIELD & WELL LINES FROM MORTALITY CURVE II PLUS REMOVALS, REPLACEMENTS, & ABANDONMENTS DUE TO CHANGED OPERATING CONDITIONS ADDED TO CURVE AC.

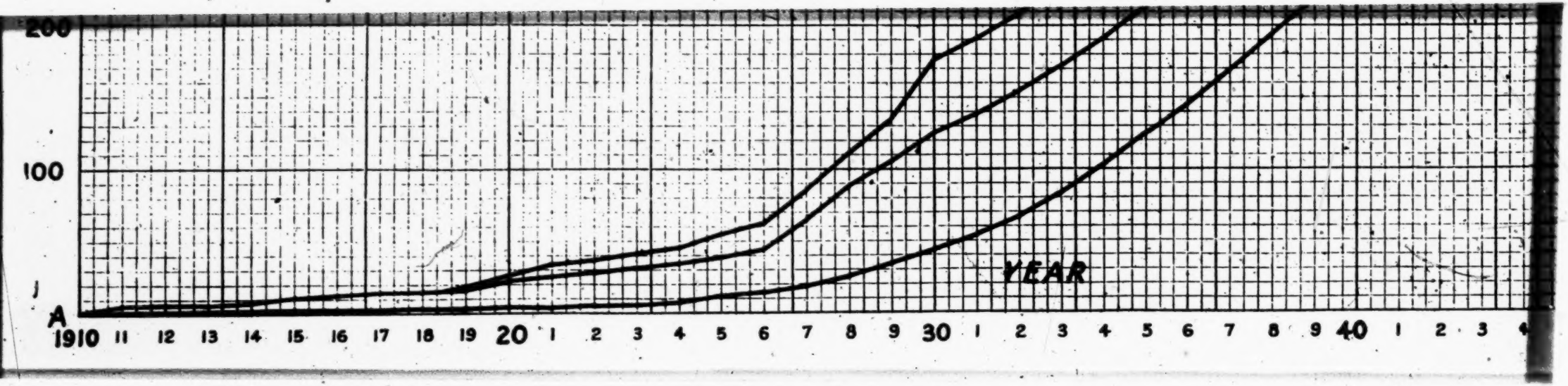
MILES OF PIPE 3" EQUIVALENT DIAMETER

900
800
700
600
500
400
300
200

LIMIT OF AD

LIMIT OF AC


4752
4224
3696
3168
2640
2112
1584
1056
D
C
B
LIMIT OF AD
LIMIT OF AC
LIMIT OF AB
1000 FEET OF PIPE 3' EQUIVALENT DIAMETER


200
100
A
1910 11 12 13 14 15 16 17 18 19 20 1 2 3 4 5 6 7 8 9 30 1 2 3 4 5 6 7 8 9 40 1 2 3 4
YEAR

BLANK

PAGE

[fols. 9405-9407] Part I of this report has been confined to a general discussion of the scope of the investigation, the basic mortality data with reference to steel pipe in the system of Lone Star Gas Company, and to a development of three basic mortality curves for steel pipe in service in the system of Lone Star Gas Company.

Mortality Curve I was the mortality curve developed for steel pipe in Main Lines and Tap Lines and indicated the cumulative percentage of failures for various service years brought about primarily by the physical condition of the pipe. This curve was designed to apply to all steel pipe in the system insofar as failures due to physical condition were concerned.

Mortality Curve II was the mortality curve developed for steel pipe in Main Lines and Tap Lines and indicated the cumulative percentage of replacements, removals and abandonments for various service years brought about primarily by changed operating conditions and other like causes. This curve was designed to apply specifically to steel pipe in Main Lines and Tap Lines.

Mortality Curve III was the mortality curve developed for steel pipe in Field Lines and Well Lines and indicated the cumulative percentage of replacements, removals and abandonments for various service years brought about by changed operating conditions and other like causes. This curve was designed to apply specifically to steel pipe in Field Lines and Well Lines.

From each of these mortality curves, there were developed distribution curves of replacements of original units and replacements of replacements for various service years.

These mortality curves and the annual replacement, or renewal rates derived from them, expressed as a percentage [fol. 9408] of the units in service were tested by a comparison of the calculated mortalities based upon the respective slopes of the curves for various service years with the actual mortalities properly allocated that had taken place in the Main Lines, Tap Lines, Field Lines and Well Lines of Lone Star Gas Company from the beginning of operations through July 1, 1933.

Part II of this report is confined to a development of the future annual reserve accruals, expressed as a percentage of the reproduction cost of the units in service that will be required to provide for the cost of replacements of steel pipe due primarily to physical condition of the pipe, the

cost of replacements, removals and abandonments due primarily to changed operating conditions, or to public requirements, to provide for the decline in per cent of new condition and to provide for the cost of major rehabilitations in the Main Lines, Tap Lines, Field Lines and Well Lines in service in the system of Lone Star Gas Company as of January 1, 1933.

[fol. 9409] Annual Rate of Reserve Accrual

Main Lines and Tap Lines

[fol. 9410] The total annual reserve accrual required for Main Lines and Tap Lines, exclusive of amortization accruals applicable to the property as a whole, is based upon the cumulative effect of four major factors.

1. The annual rate of reserve accrual required for steel pipe for failures caused primarily by the physical condition of the pipe.

2. The annual rate of reserve accrual required for Main Lines and Tap Lines required to cover the cost of replacements, removals and abandonments caused primarily by changed operating conditions, or by public requirements.

3. The annual rate of reserve accrual required to cover the cost of periodic major rehabilitations of Main Line and Tap Line pipe.

4. The annual rate of reserve accrual required to create a credit balance sufficient to offset the difference in present value as determined by visual inspection and future value determined by the same method at such time as the per cent of new condition of the property will have become static.

Item 1:

The limit of the annual rate (when expressed as a percentage of the units in service) required for steel pipe for failures caused primarily by the physical condition of the pipe, was found to be four per cent per annum. This percentage is the limit of the oscillating type of distribution curve of annual replacements of original units and replacements of replacements derived from Mortality Curve I.

It is obvious from an inspection of the tabulation—Annual Renewal Rates for Steel Pipe from Mortality Curve I,

that the percentages for annual renewal rates of original units and replacements of replacements will not be four per cent during the period under review, but will be a series of [fol. 9411] variable percentages increasing from zero per cent at one service year to a maximum of 7.24 per cent at the twenty-seventh service year; then decreasing to another minimum of 2.55 per cent at the thirty-eighth service year; then again increasing to another maximum of 5.08 per cent at the fifty-first service year. This oscillation will continue with decreasing amplitude as the service years increase until at some future date a uniform rate of four per cent per annum will be reached.

In order to estimate the effect of the application of these variable percentages to the pipe in service as Main Lines and Tap Lines as of January 1, 1933, a calculation has been made wherein the applicable annual percentages have been applied to the miles of three inch equivalent diameter pipe in service in Main Lines and Tap Lines which had reached the corresponding service years. This calculation was extended from the year 1933 through the year 1955, and the results are shown in the calculation—Calculated Future Annual Replacements—Main Lines and Tap Lines, from Mortality Curve I—Table I-A.

For convenience, and for reference, the results of this calculation are set out in the following summary:

Year	Calculated Miles 3 Inch Equivalent	Per cent of Miles in Service
1934	102.29	.99
1935	124.94	1.21
1936	146.48	1.42
1937	168.42	1.64
1938	192.82	1.87
1939	220.38	2.14
1940	244.90	2.38
1941	266.64	2.59
1942	292.08	2.84
1943	420.56	3.11
1944	345.82	3.36
1945	370.23	3.60
[fol. 9412]		
1946	398.72	3.87
1947	432.98	4.20

Year	Calculated Miles 3 Inch Equivalent	Per cent of Miles in Service
1948	469.96	4.56
1949	509.30	4.95
1950	547.48	5.32
1951	571.23	5.55
1952	584.37	5.68
1953	588.61	5.72
1954	578.77	5.62
1955	552.80	5.32

The average annual rate for the twenty-two year period for which the calculations have been made, expressed as a percentage of miles of three inch equivalent diameter pipe in service as Main Line and Tap Lines in the system of Lone Star Gas Company as of January 1, 1933, is 3.54 per cent. The average annual rate, if the calculations are projected sufficiently beyond 1955, will approach four per cent as a limit.

Attention should be called to the fact that the miles of three inch equivalent diameter pipe to which the various annual rates have been applied in Table I-A have been assigned the service years indicated by the date of original installation with the exception that the indicated age of Lines B, C, G and H has been adjusted to compensate for the effect of the renewal of protective coating.

Item 2:

The limit of the annual rate (when expressed as a percentage of the units in service) required for steel pipe in Main Lines and Tap Lines for the cost of replacements, removals and abandonments caused primarily by changed operating conditions, or by public requirements, was found to be 1.6 per cent per annum. This percentage is the limit of the oscillating type of distribution curve of annual replacements, removals and abandonments, and replacements of replacements derived from Mortality Curve II. An in- [fol. 9413] spection of the tabulation—Annual Renewal Rates for Steel Pipe from Mortality Curve II discloses the fact that the annual renewal rates of original units and replacements will not be 1.6 per cent during the period under review, but will be a per cent that gradually increases from .80 per cent to 1.136 per cent for the forty-fifth service year. The distribution curve from which these percentages

were derived is of the oscillating type, but in this case, the extent of the first life cycle (125 service years) eliminates the effect of any oscillations during the period under review.

In order to estimate the effect of the application of these variable percentages to the pipe in service as Main Lines and Tap Lines as of January 1, 1933, a calculation has been made wherein the applicable annual percentages have been applied to the miles of three inch equivalent diameter pipe in service as Main Lines and Tap Lines which had reached corresponding service years. As in the case of Item I, this calculation was extended from the year 1933 through the year 1955, and the results are shown in the calculation—Calculated Future Annual Replacements, Removals and Abandonments—Main Lines and Tap Lines, from Mortality Curve II—Table II-A.

For convenience, and for reference, the results of this calculation are set out in the following summary:

Year	Calculated Miles 3 Inch Equivalent	Per cent of Miles in Service
1934	88.78	.86
1935	89.50	.87
1936	90.21	.88
1937	90.93	.88
1938	91.66	.89
1939	92.40	.90
1940	93.11	.90
1941	93.88	.91
[fol. 9414]		
1942	94.62	.92
1943	95.39	.93
1944	96.13	.93
1945	96.91	.94
1946	97.68	.95
1947	98.45	.96
1948	99.24	.96
1949	100.05	.97
1950	100.82	.98
1951	101.48	.99
1952	102.44	.99
1953	103.31	1.00
1954	104.11	1.01
1955	104.93	1.01

The average annual rate for the twenty-two year period for which calculations have been made, expressed as a percentage of miles of three inch equivalent diameter pipe in service as Main Lines and Tap Lines in the system of Lone Star Gas Company is .94 per cent. The average annual rate, if the calculations are sufficiently projected beyond the year 1955, will approach 1.6 per cent as a limit.

Attention should be called to the fact that the miles of three inch equivalent diameter pipe to which the various annual rates have been applied in Table II-A are not adjusted with reference to service years by reason of the renewal of the protective coating on Lines B, C, G and H for the reason that the renewal of the protective coating will not affect the probability of replacement, removal, or abandonments caused by changed operating conditions, or by public requirements.

Attention should also be called to the future relation between the calculated annual percentages for Item 1 and Item 2. It was stated in Part I of this report that as the age of the pipe increased, the annual renewal rate required for the replacement of pipe caused primarily by the phys- [fol. 9415] ical condition of the pipe would become the predominant factor in the total annual rate. This fact is clearly demonstrated by the results of the calculations in Table I-A, and Table II-A.

Item 3:

From 1910 to 1933, Lone Star Gas Company expended approximately $570,000 for major rehabilitation of Main Lines and Tap Lines. Costs of this character will normally tend to increase with the passage of time and the consequent increase of the age of the lines, but the history of the company affords no basis for any rational projection of such increases into the future. The actual expenditures in the past, expressed in dollars per mile of three inch equivalent diameter pipe per service year was $5.99 ($570,000 divided by 95,071 miles service years of three inch equivalent diameter pipe). This expenditure expressed as a percentage of the reproduction cost of Main Lines and Tap Lines, reduced to a cost per mile of three inch equivalent diameter pipe ($2,960) is approximately .202 per cent per annum. This percentage has been adopted as the an-

nual rate of reserve accrual required to provide for the future cost of major rehabilitations.

Item 4:

All depreciable property of Lone Star Gas Company in service as of January 1, 1933, will be subject to a gradual decline in per cent of new condition below the average per cent of new condition found by the engineers as the per cent of new condition of the property as of January 1, 1933.

With specific reference to the property in service as of January 1, 1933, and with no consideration given to the [fol. 9416] effect of future capital additions upon the average per cent of new condition of the property as a whole at any future date, the per cent of new condition will decline to an average per cent of new of approximately eighty per cent.

When proper consideration is given to the weighted service years of the Main Lines and Tap Lines in service as of January 1, 1933, the annual rate of this decline as found by the engineers of the company, when expressed as a per cent, has been slightly in excess of one per cent per weighted service year. This average annual rate of decline in per cent of new condition will not be a continuous one as is indicated by the fact that a static per cent of new condition will ultimately be reached and thereafter maintained. For this reason, an annual rate of one per cent for fifteen years has been included in the calculation of reserve accruals for Main Lines and Tap Lines.

Determination of the Annual Rate

The annual rate of reserve for Main Lines and Tap Lines should provide the basis for the estimate of the average annual future costs of replacements, removals and abandonments from all causes, the cost of major rehabilitations and the loss in value due to the future decline in per cent of new condition.

The word, "Cost" is of particular significance in connection with this study. The calculations and the estimates that have previously been made have had to do solely with the "Rate" of occurrences, and in all of the preceding calculations, this rate has been expressed as a percentage per

annum of the units in service. Inasmuch as it is the function of the annual reserve accruals to provide for certain "Costs", it becomes necessary to translate the annual rates expressed as percentages of units by property into an an-
[fol. 9417] nual sum of money representing the cost of replacements, removals and abandonments and other factors that should be provided for through the medium of reserve accruals.

The commonly accepted method by which this translation is made is by the application of the average rates of occurrence expressed as a percentage of the units in service to the reproduction cost of the property units under consideration. This simple procedure can provide a rational answer to the problem only if the average rate of replacements, removals and abandonments, expressed as a percentage of units when applied to the reproduction cost of the units, results in a sum approximately equal to the unit cost of the replacements, removals and abandonments. The following example is illustrative of this fact.

Let it be assumed that the Main Line pipe in a given system is uniform in diameter and that the reproduction cost is three dollars per lineal foot installed. Let it be further assumed that this pipe has reached a service life that requires that uniform annual replacement of four per cent of the footage of pipe in service in order to maintain the number of units in service. In this case, the annual accrual created by the application of four per cent (the rate of failure) to three dollars (unit reproduction cost) and the number of feet in service will provide the proper replacement accrual in terms of dollars only when the net unit cost of making the necessary replacements is three dollars per lineal foot.

On the other hand, in the case of replacements and removals caused primarily by changed operating conditions, or by public requirements, the element of the net salvage value of the material recovered and removed is a factor that must be weighed and taken into consideration in con-
[fol. 9418] nection with the final expression of the annual reserve accrual.

Inasmuch as the application of a percentage to reproduction cost is the only practical method by which reserve accruals, expressed in terms of dollars per annum, may be estimated, the following factors in addition to the annual

rates expressed as a percentage of the units in service, must be taken into consideration.

1. The proportionate part of the reproduction cost of the property units (Main Lines, Tap Lines and their appurtenant equipment) as a whole not subject to replacements, removals or abandonments, nor subject to a decline in per cent of new condition.

2. The net salvage value of the materials removed and recovered.

3. The relative cost of replacements, unit basis, and the reproduction cost of the units replaced, unit basis.

If a substantial proportion of the reproduction cost of a property unit is not subject to replacement, removal, or abandonment, nor to a decline in per cent of new condition, and the mortality rate for this unit has been determined from a study of the portion of the unit subject to depreciation and replacement, then the application of the rate to the reproduction cost of the unit as a whole would result in the accrual of an annual sum in dollars that would be in excess of the requirements for which the specific reserve has been created.

If it is assumed that the Main Lines and Tap Lines of Lone Star Gas Company in service as of January 1, 1933, will remain in their original locations throughout their service lives, the items included in a reproduction cost estimate of direct structural costs that would be unaffected by the factor of replacements, removals and abandonments that would be unaffected by a decline in per cent of new condi- [fol. 9419] tion and that would not be reincurred in piecemeal replacements are as follows:

1. Value of lands owned in fee.

2. Rights-of-way costs exclusive of construction damages.

3. Reproduction cost of clearing rights-of-way.

If total costs instead of direct structural costs are considered, a large proportion of the undistributed general charges would not be reincurred in piece-meal replacements. This is particularily true of the item—Interest During Construction.

In an appraisal of the Main Lines and Tap Lines of Lone Star Gas Company made as of January 1, 1932, in-

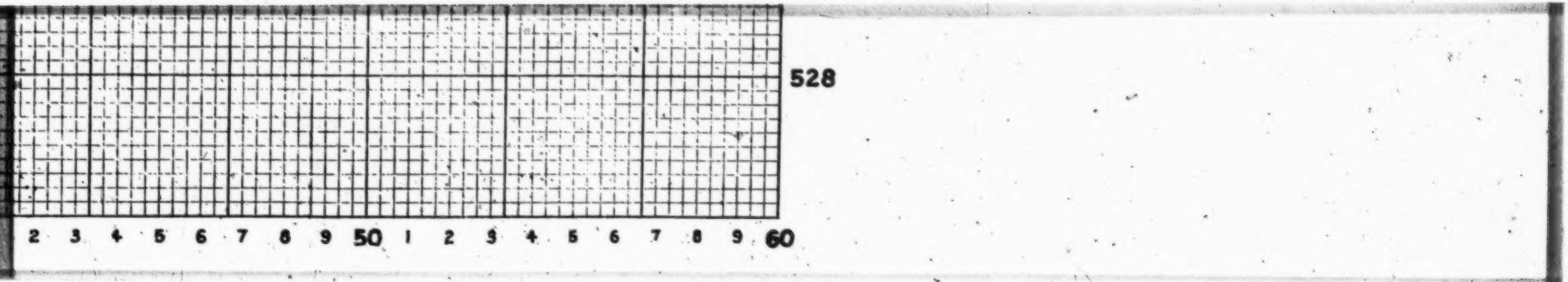
volving direct structural costs of approximately $33,000,000, the following items should be classified as non-depreciable in the sense that in the replacement of units of property, these original costs would not be proportionately reincurred.

Measuring Station Land	$50,000
Rights-of-way	1,180,000
Other transmission land	14,000
Total	$1,244,000

The indicated percentage of the direct structural costs of Main Lines and Tap Lines not subject to the application of the annual reserve rates is 3.78. For the purpose of this determination, 96 per cent of the Main Lines and Tap Lines will be used as the proportionate part of the reproduction cost of these property groups subject to the application of that portion of the reserve accrual designed to provide for the replacement of pipe due primarily to the physical condition of the pipe, and for the decline in per [fol. 9420] cent of new condition. That portion of the total annual reserve accrual designed to provide for replacements, removals and abandonments due primarily to changed operating conditions, or to public requirements, will be applied to 100 per cent of the reproduction cost of the Main Lines and Tap Lines for the reason that new rights-of-way will be required for the changed location of the lines. That portion of the total annual reserve accrual designed to provide for the cost of major rehabilitations will be applied to 100 per cent of the reproduction cost of the Main Lines and Tap Lines for the reason that the annual percentage use for this factor has been based upon the relation of the cost of major rehabilitations to the entire reproduction cost of Main Lines and Tap Lines including rights-of-way and land.

It has been impossible from an analysis of records to determine the net value of salvable material involved in the replacement, removal, or abandonment of the Main Lines and Tap Lines of Lone Star Gas Company.

It is certain that the proportionate part of the total annual reserve accrual, designed to provide for the cost of future replacements due primarily to the condition of the pipe will be largely unaffected by the factor of net salvage value. On the other hand, it is equally certain that pipe


528
2 3 4 5 6 7 8 9 50 1 2 3 4 5 6 7 8 9 60

replaced, or removed by reason of changed operating conditions will have a certain net salvable value that will tend to reduce the indicated reserve accrual determined by the number of feet of replaced, or removed, expressd as a percentage of the feet in service.

In order to make a rational estimate of the effect of net salvage upon the indicated reserve accruals, a study has [fol. 9421] been made of the actual cost of construction items of forty-five lines involving an expenditure of $4,548,487, and for this study, a determination has been made of the net salvage that might be recovered upon the removal of a line in case it is assumed that the pipe and fittings recovered are in 100 per cent of new condition after reconditioning.

The result of this analysis is shown in the tabulation—Determination of Salvage Value—Main Lines, Tap Lines and Field Lines—Table III-A.

In this tabulation, Column A sets out in detail and by items the installation cost of these lines. Column B sets out the percentage of each item of construction cost that would be lost in connection with a replacement, removal or abandonment of the lines as a whole. Column C sets out in detail and by items the dollar loss indicated by the application of the percentages in Column B to the installation cost of the corresponding items in Column A. Column D sets out the percentage of the cost of the original construction items that would be involved in recovering the pipe and fittings on removal and the cost of refilling the ditches and transferring the salvaged material to warehouse stock.

As shown by the tabulation, the estimated net loss is approximately 70 per cent of the original installed cost based upon the assumption that the salvaged material is in 100 per cent of new condition at the date of removal.

It will be noted in Column B that 25 per cent of the original cost of the pipe is the estimated per cent of the cost of the pipe lost on removal. This percentage of loss is intended to cover

1. The loss in footage due to cutting.

2. The cost of preparing ends for relaying.

[fol. 9422] 3. The cost of cleaning and reconditioning after removal.

As a result of the foregoing analysis, a factor of .70 has been adopted as applicable to the indicated annual rate estimated to provide for replacements, removals and abandonments due primarily to changed operating conditions, or to public requirements.

In order to make a rational estimate of the effect of the excess cost of piece-meal replacements in lines over the estimated unit cost of installation, based upon a wholesale reproduction cost estimate, a study has been made of the actual costs involved in making piece-meal replacements.

In all, the costs of two hundred and one individual replacement jobs were analyzed. These jobs covered the replacements of four, six, eight, ten, twelve, sixteen and eighteen inch threaded and coupled, Dresser coupled and welded pipe. The individual replacements ranged from twenty feet to thirty-five thousand feet in length. A total of 665,000 feet of three-inch equivalent diameter pipe was involved in the replacements investigated, and the labor costs exceeded $232,000.

The comparative analysis was limited to the direct structural costs used in the reproduction cost estimate of the pipe lines of Lone Star Gas Company as of January 1, 1932, prepared by E. A. Steinberger and Ed. C. Connor, and it was assumed that there would be no material difference in the cost of materials used in replacements and the unit cost of the same materials used in the reproduction cost estimate. In order that the comparison between the direct structural costs (less material) for similar units used in the reproduction cost estimate might be exact, the unit cost of the identical lines in which the replacements [fol. 9423] were made were taken from the reproduction cost estimate and these unit costs were compared with the cost of piece-meal replacements in the same lines. The ratio of the unit costs developed by the reproduction cost estimate and the corresponding unit costs developed by the analysis of the cost of the piece-meal replacements was 1.00 to 1.61.

This analysis also developed the fact that there is a sharp increase in the unit cost of replacements as the length of the individual replacements is reduced. The effect of this increase in the unit cost of replacements (labor only) with the reduction in the length of the replacements is shown in the graph—Graphic Comparison of Unit Costs of Replace-

ments—Steel Pipe—Labor Only, With Unit Costs—Reproduction Cost Estimate.

Due to the clearly defined characteristics indicated by this graph, it was necessary to select for this study a group of replacement jobs that would be representative with reference to length of the average length that will be met in future replacements.

This analysis also developed the fact that included in the cost of a number of the replacement jobs analyzed, there were certain costs, indeterminate in amount, that were not strictly attributable to the cost of making the replacement itself. In order to safely compensate for the inclusion of these extraneous charges, the indicated ratio of the unit cost developed by the reproduction cost estimate and the unit cost developed by the analysis of the cost of piece-meal replacements (1.00 to 1.61) has been reduced to 1.00 to 1.50.

There remains to be considered the effect of the net salvage value of materials recovered in replacements made [fol. 9424] primarily by reason of the physical condition of the pipe upon the indicated annual rates shown in Table I-A (Annual Rates from Mortality Curve I—1934-1955).

It is certain that pipe removed from Main Lines and Tap Lines by reason of its physical condition will have a per cent of new condition substantially lower than 100 per cent. It is also true that this pipe will have a minimum value measured by its value as junk and a maximum value measured by its adaptability for use in other parts of the system where service conditions are not so exacting as those imposed by Main Line Service.

In the analysis of the cost of piece-meal replacements, all items of expense were included in the unit costs developed. These unit costs, therefore, included the estimated cost of recovery shown in Column E—Table III-A, and such salvage as might be attributable to the material recovered would be a net credit to the cost of piece-meal replacements.

From Column A—Table III-A, the cost of pipe and fittings (new) was 64 per cent of the total installed cost of the forty-five lines analyzed. The cost of pipe and fittings (new) then becomes 42.7 per cent of the cost of the piece-meal replacements (64 per cent divided by 1.50). If it is assumed that the pipe and fittings removed, primarily on account of the physical condition of the pipe, have an average salvable value of 50 per cent of new pipe and fittings, this salvable value becomes 21.35 per cent of the total unit

cost of piece-meal replacements, and when credited to this unit cost, reduces the ratio of 1.50 to 1.00 (the ratio to the unit cost of piece-meal replacements to the unit cost of wholesale reproduction) to 1.18 to 1.00. The factor 1.18 [fol. 9425] will, therefore, be applied to all annual renewal rates developed from Mortality Curve I and shown in Table I-A, together with the factor .96 previously developed to provide for the proportionate part of the reproduction cost of Main Lines and Tap Lines not subject to replacement due to the physical condition of the pipe.

This concludes the discussion of the various factors required to reduce the indicated future rates of replacements, removals and abandonments derived from the mortality curves and distribution curves of annual renewals or replacements to annual rates, which when applied to the reproduction cost of Main Lines and Tap Lines, will properly reflect the effect of the proportionate part of these property groups not subject to replacement, the effect of the salvable value of materials recovered, and the effect of the excess unit costs of piece-meal replacements over the corresponding unit costs in wholesale reproduction.

Table IV-A sets out in detail the results of the application of the factors to the basic annual rates. For convenience and reference, the results of this application are shown in the following summary:

Year	Main Lines and Tap Lines Adjusted Total Annual Rates
1934	2.882 Per cent
1935	3.140
1936	3.389
1937	3.638
1938	3.899
1939	4.215
1940	4.487
1941	4.734
1942	5.018
1943	5.334
1944	5.617
1945	5.899
1946	6.215
1947	6.589

[fol. 9426]

Year	Main Lines and Tap Lines Adjusted Total Annual Rates
1948	6.996
1949	6.488
1950	6.918
1951	7.178
1952	7.325
1953	7.381
1954	7.277
1955	6.938

These future annual rates are expressed as percentages per annum, which when applied to the reproduction cost new of Main Lines and Tap Lines in service in the system of Lone Star Gas Company as of January 1, 1933, are designed to provide for

1. The future net Cost of replacements and abandonments due primarily to the physical condition of the pipe.

2. The future net Cost of replacements, removals and abandonments due primarily to changed operating conditions, or to public requirements.

3. The value lost through future decline in per cent of new condition.

4. The future cost of major rehabilitations.

It will be noted that the calculated annual rates are a series of variables. It was stated in the preceding section of this report that the primary function of the reserve accrual finally determined would be to provide a uniform rate of accrual that would fulfil the indicated requirements.

It is obvious that a uniform annual accrual designed to provide the necessary annual funds indicated by the application of the adjusted total annual rates to the reproduction cost of Main Lines and Tap Lines, will create a credit balance during the earlier years of the accrual. The use of this credit balance, and the interest earned upon it, would tend to reduce the indicated amount of the uniform annual accrual.

[fol. 9427] Consideration has been given to this fact in fixing the uniform annual rate. The average annual rate

from 1934 to 1955 inclusive is 5.53 per cent. The average annual rate adopted is 5.40 per cent.

In Table V-A, there is set out the effect of applying five per cent interest compounded annually to the credit balance derived from deducting the calculated annual rates from the adopted uniform annual accrual, 5.40 per cent. It will be noted from an inspection of the tabulation that the credit balance increases to a maximum of 19.32 per cent in 1946, and thereafter declines to 12.49 per cent in 1955 due to the excess of the estimated charges over the uniform annual accrual. The credit balance would have been entirely dissipated had the calculations been carried forward through the year 1965. The credit balance at no time would be free capital.

Defendant's Exhibit No. 42—Continued

[fol. 9428]

Calculated Future Annual Replacements

Main Lines and Tap Lines—From Mortality Curve I

Table I-A

Year	A	1934 B	1934 C	1935 B	1935 C	1936 B	1936 C	1937 B	1937 C	1938 B	1938 C	1939 B	1939 C	1940 B	1940 C	1941 B	1941 C
1910	9.45	7.13	.67	7.16	.68	7.20	.68	7.24	.68	6.78	.64	5.84	.55	4.96	.47	4.23	.40
1911	50.16	6.61	3.32	7.13	3.58	7.16	3.59	7.20	3.61	7.24	3.63	6.78	3.40	5.84	2.93	4.96	2.49
1912	661.85	5.59	37.00	6.61	43.75	7.13	47.19	7.16	47.39	7.20	47.65	7.24	47.92	6.78	44.87	5.84	38.65
1913	235.54	4.67	10.95	5.59	13.11	6.61	15.50	8.13	16.72	7.16	16.79	7.20	16.89	7.24	16.98	6.78	15.90
1914	.....	3.80	.....	4.67	.....	5.59	.....	6.61	.....	7.13	.....	7.16	.....	7.20	.....	7.24	.....
1915	20.10	3.24	.65	3.80	.76	4.67	.94	5.59	1.12	6.61	1.33	7.13	1.43	7.16	1.44	7.20	1.45
1916	783.40	2.68	21.00	3.24	25.38	3.80	29.77	4.67	36.58	5.59	43.79	6.61	51.78	7.13	55.86	7.16	56.09
1917	.....	2.22	.....	2.68	.....	3.24	.....	3.80	.....	4.67	.....	5.59	.....	6.61	.....	7.13	.....
1918	57.69	1.82	1.05	2.22	1.28	2.68	1.55	3.24	1.87	3.80	2.19	4.67	2.69	5.59	3.22	6.61	3.81
1919	499.44	1.46	7.29	1.82	9.09	2.22	11.09	2.68	13.38	3.24	16.18	3.80	18.98	4.67	23.32	5.59	27.92
1920	642.04	1.16	7.45	1.46	9.37	1.82	11.68	2.22	14.25	2.68	17.21	3.24	20.80	3.80	24.40	4.67	29.98
1921	64.21	.91	.58	1.16	.74	1.46	.94	1.82	1.17	2.22	1.43	2.68	1.72	3.24	2.08	3.80	2.44
1922	146.34	.71	1.04	.91	1.33	1.16	1.70	1.46	2.14	1.82	2.66	2.22	3.25	2.68	3.92	3.24	4.74
1923	259.50	.55	1.43	.71	1.84	.91	2.36	1.16	3.01	1.46	3.79	1.82	4.72	2.22	5.76	2.68	6.95
1924	202.97	.40	.81	.55	1.12	.71	1.44	.91	1.85	1.16	2.35	1.46	2.96	1.82	3.69	2.22	4.51
1925	131.74	.30	.40	.40	.53	.55	.72	.71	.94	.91	1.20	1.16	1.53	1.46	1.92	1.82	2.40
1926	1,900.07	.20	3.80	.30	5.70	.40	7.60	.55	10.45	.71	13.49	.91	17.29	1.16	22.04	1.46	27.74
1927	1,843.90	.15	2.77	.20	3.69	.30	5.53	.40	7.38	.55	10.14	.71	13.09	.91	16.78	1.16	21.39
1928	851.98	.10	.85	.15	1.28	.20	1.70	.30	2.56	.40	3.41	.55	4.69	.71	6.05	.91	7.75
1929	1,412.41	.07	.99	.10	1.41	.15	2.12	.20	2.82	.30	4.24	.40	5.65	.55	7.77	.71	10.03
1930	152.26	.06	.09	.07	.11	.10	.15	.15	.23	.20	.30	.30	.46	.40	.61	.55	.84
1931	44.91	.05	.02	.06	.03	.07	.03	.10	.04	.15	.07	.20	.09	.30	.13	.40	.18
1932	427.86	.04	.13	.05	.16	.06	.20	.07	.23	.10	.33	.15	.49	.20	.66	.30	.98
1933	.....	.00	.....	.04	.....	.05	.....	.06	.....	.07	.....	.10	.....	.15	.....	.20	.....
Miles 3 in. Equivalent			102.29		124.94		146.48		168.42		192.82		220.38		244.90		266.64
Per Cent of Total			.99		1.21		1.42		1.64		1.87		2.14		2.38		2.59

Column A—Miles of Main Line and Tap Line Pipe (10,296.82 Miles Equivalent 3 Inch).
Column B—Annual Renewal Rates from Distribution Curve I, Including Replacements of Replacements.
Column C—Calculated Annual Renewals.

3109

Defendant's Exhibit No. 42—Continued

[fol. 9429]

Calculated Future Annual Replacements—Main Lines and Tap Lines—From Mortality Curve I—Continued

Year	A	1942 B	1942 C	1943 B	1943 C	1944 B	1944 C	1945 B	1945 C	1946 B	1946 C	1947 B	1947 C	1948 B	1948 C	1949 B	1949 C
1910.....	9.45	3.77	.36	3.35	.32	3.04	.29	2.88	.27	2.64	.25	2.56	.24	2.55	.24	2.61	.25
1911.....	50.16	4.23	2.12	3.77	1.89	3.35	1.68	3.04	1.52	2.88	1.44	2.64	1.32	2.56	1.28	2.55	1.28
1912.....	661.85	4.96	32.83	4.23	28.00	3.77	24.95	3.35	22.17	3.04	20.12	2.88	19.06	2.64	17.47	2.56	16.94
1913.....	234.54	5.84	13.70	4.96	11.63	4.23	9.92	3.77	8.84	3.35	7.86	3.04	7.13	2.88	6.75	2.64	6.19
1914.....	.....	6.78	.....	5.84	.....	4.96	.....	4.23	.....	3.77	.....	3.35	.....	3.04	.....	2.88	.....
1915.....	20.10	7.24	1.46	6.78	1.36	5.84	1.17	4.96	1.00	4.23	.85	3.77	.76	3.35	.67	3.04	.61
1916.....	783.40	7.20	56.40	7.24	56.72	6.78	53.11	5.84	45.75	4.96	38.86	4.23	33.14	3.77	29.53	3.35	26.24
1917.....	.....	7.16	.....	7.20	.....	7.24	.....	6.78	.....	5.84	.....	4.96	.....	4.23	.....	3.77	.....
1918.....	57.69	7.13	4.11	7.16	4.13	7.20	4.15	7.24	4.18	6.78	3.91	5.84	3.37	4.96	2.86	4.23	2.44
1919.....	499.44	6.61	33.01	7.13	35.61	8.16	35.76	7.20	35.96	7.24	36.16	6.78	33.86	5.84	29.17	4.96	24.77
1920.....	642.04	5.59	35.89	6.61	42.44	7.13	45.78	7.16	45.97	7.20	46.23	7.24	46.48	6.78	43.53	5.84	37.50
1921.....	64.21	4.67	3.00	5.59	3.59	6.61	4.24	7.13	4.58	7.16	4.60	7.20	4.62	7.24	4.65	6.78	4.35
1922.....	146.34	3.80	5.56	4.67	6.83	5.59	8.18	6.61	9.67	7.13	10.43	7.16	10.48	7.20	10.54	7.24	10.60
1923.....	259.50	3.24	8.41	3.80	9.86	4.67	12.12	5.59	14.51	6.61	17.15	7.13	18.50	7.16	18.38	7.20	17.68
1924.....	202.97	2.69	5.44	3.24	6.58	3.80	7.71	4.67	9.48	5.59	11.35	6.61	13.42	7.13	14.47	7.16	14.53
1925.....	131.74	2.22	2.92	2.68	3.53	3.24	4.27	3.80	5.01	4.67	6.15	5.59	7.36	6.61	8.71	7.13	9.39
1926.....	1,900.07	1.82	34.58	2.22	42.18	2.68	50.92	3.24	61.56	3.80	72.20	4.67	88.73	5.59	106.21	6.61	125.59
1927.....	1,843.90	1.46	26.92	1.82	33.56	2.22	40.93	2.68	49.42	3.24	59.74	3.80	70.07	4.67	86.11	5.59	103.07
1928.....	851.98	1.16	9.88	1.46	12.44	1.82	15.51	2.22	18.91	2.68	22.83	3.24	27.60	3.80	32.38	4.67	39.79
1929.....	1,412.41	.91	12.85	1.16	16.38	1.46	20.62	1.82	25.71	2.22	31.36	2.68	37.85	3.24	45.76	3.80	53.67
1930.....	152.26	.71	1.08	.91	1.39	1.16	1.77	1.46	2.22	1.82	2.77	2.22	3.38	2.68	4.08	3.24	4.93
1931.....	44.91	.55	.25	.71	.32	.91	.41	1.16	.52	1.46	.66	1.82	.82	2.22	1.00	2.68	1.20
1932.....	327.86	.40	1.31	.55	1.80	.71	2.33	.91	2.98	1.16	3.80	1.46	4.79	1.82	5.97	2.22	7.28
1933.....	.....	.30	.....	.40	.....	.55	.....	.71	.....	.91	.....	1.16	.....	1.46	.....	1.82	.....
Miles 3 in. Equivalent.....		292.08		320.56		345.82		370.23		398.72		432.98		469.96		509.30	
Per Cent of Total.....		2.84		3.11		3.36		3.60		3.87		4.20		4.56		4.95	

Column A—Miles of Main Line and Tap Line Pipe (10,296.82 Miles Equivalent 3 Inch).
Column B—Annual Renewal Rates from Distribution Curve I, Including Replacements of Replacements.
Column C—Calculated Annual Renewals.

Defendant's Exhibit No. 42—Continued

Table I-A

Calculated Future Annual Replacements—Main Lines and Tap Lines—From Mortality Curve I—Continued

Year	A	1950 B	1950 C	1951 B	1951 C	1952 B	1952 C	1953 B	1953 C	1954 B	1954 C	1955 B	1955 C
1910	9.45	2.75	.26	2.90	.27	3.12	.29	3.36	.32	3.66	.35	3.95	.37
1911	50.16	2.61	1.31	2.75	1.38	2.90	1.45	3.12	1.56	3.36	1.69	3.66	1.84
1912	661.85	2.55	16.88	2.61	17.27	2.75	18.20	2.90	19.19	3.12	20.65	3.36	22.24
1913	234.54	2.56	6.00	2.55	5.98	2.61	6.12	2.75	6.45	2.90	6.80	3.12	7.32
1914	.....	2.64	.....	2.56	.....	2.55	.....	2.61	.....	2.75	.....	2.90	.....
1915	20.10	2.88	.58	2.64	.53	2.56	.51	2.55	.51	2.61	.52	2.75	.55
1916	783.40	3.04	23.82	2.88	22.56	2.64	20.68	2.56	20.06	2.55	19.98	2.61	20.45
1917	.....	3.35	.....	3.04	.....	2.88	.....	2.64	.....	2.56	.....	2.55	.....
1918	57.69	3.77	2.17	3.35	1.93	3.04	1.75	2.88	1.66	2.64	1.52	2.56	1.48
1919	499.44	4.23	21.13	3.77	18.83	3.35	16.73	3.04	15.18	2.88	14.38	2.64	13.19
1920	642.04	4.96	31.85	4.23	27.16	3.77	24.20	3.35	21.51	3.04	19.52	2.88	18.49
1921	64.21	5.84	3.75	4.96	3.18	4.23	2.72	3.77	2.42	3.35	2.15	3.04	1.95
1922	146.34	6.78	9.92	5.84	8.55	4.96	7.26	4.23	6.19	3.77	5.52	3.35	4.90
1923	259.50	7.24	18.79	6.78	17.59	5.84	15.15	4.96	12.87	4.23	10.98	3.77	9.78
1924	202.97	7.20	14.61	7.24	14.70	6.78	13.76	5.84	11.85	4.96	10.07	4.23	8.49
1925	131.74	7.16	9.43	7.20	9.49	7.24	9.54	6.78	8.93	5.84	7.69	4.96	6.53
1926	1,900.07	7.13	135.47	7.16	136.05	7.20	136.81	7.24	137.57	6.78	128.82	5.84	110.96
1927	1,843.90	6.61	121.88	7.13	131.47	7.16	132.02	7.20	132.76	7.24	133.50	6.78	125.02
1928	851.98	5.59	47.63	6.61	56.32	7.13	60.75	7.16	61.00	7.20	61.34	7.24	61.68
1929	1,412.41	4.67	65.96	5.59	78.95	6.61	93.36	7.13	100.70	7.16	101.13	7.20	101.69
1930	152.26	3.80	5.79	4.67	7.11	5.59	8.51	6.61	10.06	7.13	10.86	7.16	10.90
1931	44.91	3.24	1.46	3.80	1.71	4.67	2.10	5.59	2.51	6.61	2.97	7.13	3.20
1932	327.86	2.68	8.79	3.24	10.62	3.80	12.46	4.67	15.31	5.59	18.33	6.61	21.67
1933	.....	2.22	.....	2.68	.....	3.24	.....	3.80	.....	4.67	.....	5.59	.....
Miles 3 in. Equivalent			547.48		571.23		584.37		588.61		578.77		552.80
Per Cent of Total			5.32		5.55		5.68		5.72		5.62		5.37

Column A—Miles of Main Line and Tap Line Pipe (10,296.82 Miles Equivalent 3 Inch).
Column B—Annual Renewal Rates from Distribution Curve I, Including Replacements of Replacements.
Column C—Calculated Annual Renewals.

Defendant's Exhibit No. 42—Continued

[fol. 9431]

Calculated Future Annual Replacements, Removals and Abandonments
Main Lines and Tap Lines—From Mortality Curve II

Table II-A

Year	A	1934 B	1934 C	1935 B	1935 C	1936 B	1936 C	1937 B	1937 C	1938 B	1938 C	1939 B	1939 C	1940 B	1940 C	1941 B	1941 C
1910	654.65	.96	6.29	.97	6.34	.98	6.39	.98	6.44	.99	6.49	1.00	6.55	1.01	6.60	1.02	6.65
1911	50.16	.95	.48	.96	.48	.97	.49	.98	.49	.98	.49	.99	.50	1.00	.50	1.01	.51
1912	16.65	.95	.16	.95	.16	.96	.16	.97	.16	.98	.16	.98	.16	.99	.17	1.00	.17
1913	380.74	.94	3.57	.95	3.60	.95	3.63	.96	2.66	.97	3.69	.98	3.72	.98	3.75	.99	3.78
1914	279.41	.93	2.60	.94	2.62	.95	2.64	.95	3.66	.96	2.69	.97	2.71	.98	2.73	.98	2.75
1915	5.30	.92	.05	.93	.05	.94	.05	.95	.05	.95	.05	.96	.05	.97	.05	.98	.05
1916	372.59	.91	3.41	.92	3.44	.93	3.47	.94	3.49	.95	3.52	.95	3.55	.96	3.58	.97	3.61
1917	.....	.91	.....	.92	.....	.92	.....	.93	.....	.94	.....	.95	.....	.95	.....	.96	.....
1918	57.69	.90	.52	.91	.52	.92	.53	.92	.53	.93	.54	.94	.54	.95	.55	.95	.55
1919	499.44	.90	4.47	.90	4.50	.91	4.54	.92	5.67	.92	4.61	.93	4.65	.94	4.68	.95	4.72
1920	642.04	.89	5.69	.90	5.75	.90	5.79	.91	5.84	.92	5.88	.92	5.93	.93	5.98	.94	6.02
1921	64.21	.89	.57	.89	.57	.90	.57	.90	.58	.91	.58	.92	.59	.92	.59	.93	.60
1922	146.34	.87	1.28	.88	1.29	.89	1.30	.90	1.31	.90	1.32	.91	1.33	.92	1.34	.92	1.35
1923	259.50	.87	2.25	.87	2.27	.88	2.28	.89	2.30	.90	2.32	.90	2.34	.91	2.36	.92	2.38
1924	202.97	.86	1.75	.87	1.76	.87	1.77	.88	1.79	.89	1.80	.90	1.82	.90	1.83	.91	1.84
1925	131.74	.85	1.12	.86	1.13	.87	1.14	.87	1.15	.88	1.16	.89	1.17	.90	1.18	.90	1.19
1926	1,900.07	.85	16.07	.85	16.21	.86	16.34	.87	16.47	.87	16.59	.88	16.72	.89	16.85	.90	17.01
1927	1,843.90	.84	15.47	.85	15.60	.85	15.73	.86	15.86	.87	15.99	.87	16.10	.88	16.23	.89	16.36
1928	851.98	.83	7.10	.84	7.15	.85	7.21	.85	7.27	.86	7.33	.87	7.39	.87	7.44	.88	7.50
1929	1,412.41	.83	11.67	.83	11.76	.84	11.85	.85	11.95	.85	12.05	.86	12.15	.87	12.24	.87	12.33
1930	152.26	.82	1.25	.83	1.26	.83	1.27	.84	1.28	.85	1.29	.85	1.30	.86	1.31	.87	1.32
1931	44.91	.81	.37	.82	.37	.83	.37	.83	.37	.84	.38	.85	.38	.85	.38	.86	.39
1932	327.86	.81	2.64	.81	2.67	.82	2.69	.83	2.71	.83	2.73	.84	2.75	.85	2.77	.85	2.80
1933	.....	.80	.....	.81	.....	.81	.....	.82	.....	.83	.....	.83	.....	.84	.....	.85	.....
Miles 3 in. Equivalent			88.78		89.50		90.21		90.93		91.66		92.40		93.11		93.88
Per Cent of Total			.86		.87		.88		.88		.89		.90		.90		.91

Column A—Miles of Main and Tap Line pipe (10,296.82 Miles Equivalent 3 Inch).
Column B—Annual Renewal Rate from Distribution Curve II, Including Replacements of Replacements.
Column C—Calculated Annual Renewals.

[fol. 9432]

Table II-A

Year	A	1942 B	1942 C	1943 B	1943 C	1944 B	1944 C	1945 B	1945 C	1946 B	1946 C	1947 B	1947 C	1948 B	1948 C	1949 B	1949 C
1910	654.65	1.02	6.70	1.03	6.76	1.04	6.81	1.05	6.87	1.06	6.92	1.06	6.98	1.07	7.03	1.08	7.09
1911	50.16	1.02	.51	1.02	.51	1.03	.52	1.04	.52	1.05	.53	1.06	.53	1.06	.53	1.07	.54
1912	16.65	1.01	.17	1.02	.17	1.02	.17	1.03	.17	1.04	.17	1.05	.17	1.06	.18	1.07	.18
1913	380.74	1.00	3.81	1.01	3.84	1.02	3.87	1.02	3.90	1.03	3.93	1.04	3.96	1.05	3.99	1.06	4.02
1914	279.41	.99	2.77	1.00	2.79	1.01	2.82	1.02	2.94	1.02	2.86	1.03	2.88	1.04	2.91	1.05	2.93
1915	5.30	.98	.05	.99	.05	1.00	.05	1.01	.05	1.02	.05	1.02	.05	1.03	.05	1.04	.06
1916	372.59	.98	3.64	.98	3.67	.99	3.70	1.00	3.73	1.01	3.76	1.02	3.79	1.02	3.82	1.03	3.85
1917	.....	.97	.....	.98	.....	.98	.....	.99	.....	1.00	.....	1.01	.....	1.02	.....	1.02	.....
1918	57.69	.96	.55	.97	.56	.98	.56	.98	.57	.99	.57	1.00	.58	1.01	.58	1.02	.59
1919	499.44	.95	4.76	.96	4.80	.97	4.84	.98	4.87	.98	4.91	.99	4.95	1.00	4.99	1.01	5.03
1920	642.04	.95	6.07	.95	6.12	.96	6.17	.97	6.22	.98	6.27	.98	6.32	.99	6.37	1.00	6.42
1921	64.21	.94	.60	.95	.61	.95	.61	.96	.62	.97	.62	.98	.63	.98	.63	.99	.64
1922	146.34	.93	1.36	.94	1.37	.95	1.38	.95	1.39	.96	1.41	.97	1.42	.98	1.43	.98	1.44
1923	259.50	.92	2.40	.93	2.42	.94	2.43	.95	2.45	.95	2.47	.96	2.49	.97	2.51	.98	2.53
1924	202.97	.92	1.86	.92	1.88	.93	1.89	.94	1.90	.95	1.92	.95	1.93	.96	1.95	.97	1.97
1925	131.74	.91	1.20	.92	1.21	.92	1.22	.93	1.23	.94	1.24	.94	1.25	.95	1.26	.96	1.27
1926	1,900.07	.90	17.14	.91	17.27	.92	17.40	.93	17.56	.93	17.69	.94	17.82	.95	17.97	.95	18.11
1927	1,843.90	.90	16.50	.90	16.63	.91	16.76	.92	16.89	.92	17.04	.93	17.17	.94	17.30	.95	17.44
1928	851.98	.89	7.56	.88	7.63	.90	7.68	.91	7.74	.92	7.80	.92	7.87	.93	7.93	.94	7.99
1929	1,412.41	.88	12.43	.89	12.53	.90	12.64	.90	12.74	.91	12.84	.92	12.94	.92	13.05	.93	13.15
1930	152.26	.87	1.33	.88	1.34	.89	1.35	.90	1.36	.90	1.37	.91	1.38	.92	1.39	.92	1.41
1931	44.91	.87	.39	.87	.39	.88	.40	.89	.40	.90	.40	.90	.41	.91	.41	.92	.41
1932	327.86	.86	2.82	.87	2.84	.87	2.86	.88	2.89	.89	2.91	.90	2.93	.90	2.96	.91	2.98
1933	.....	.85	.....	.86	.....	.87	.....	.87	.....	.88	.....	.89	.....	.90	.....	.90	.....
Miles 3 in. Equivalent			94.62		95.39		96.13		96.91		97.68		98.45		99.24		100.05
Per Cent of Total			.92		.93		.93		.94		.95		.96		.96		.97

Column A—Miles of Main Line and Tap Line Pipe (10,296.82 Miles Equivalent 3 Inch).
Column B—Annual Renewal Rate from Distribution Curve II, Including Replacements of Replacements.
Column C—Calculated Annual Renewals.

Defendant's Exhibit No. 42—Continued

[fol. 9433]

Table II-A

Year	A	1950 B	1950 C	1951 B	1951 C	1952 B	1952 C	1953 B	1953 C	1954 B	1954 C	1955 B	1955 C
1910	654.65	1.09	7.15	1.10	7.20	1.11	7.26	1.12	7.32	1.13	7.38	1.14	7.44
1911	50.16	1.08	.54	1.09	.55	1.10	.55	1.11	.56	1.12	.56	1.13	.57
1912	16.65	1.07	.18	1.08	.18	1.09	.18	1.10	.18	1.11	.18	1.12	.19
1913	380.74	1.07	4.06	1.07	4.09	1.08	4.12	1.09	4.16	1.10	4.19	1.11	4.22
1914	279.41	1.06	2.95	1.07	2.98	1.07	3.00	1.08	3.03	1.09	3.05	1.10	3.07
1915	5.30	1.05	.06	1.06	.06	1.07	.06	1.07	.06	1.08	.06	1.09	.06
1916	372.59	1.04	3.88	1.05	3.91	1.06	3.94	1.07	3.97	1.07	4.00	1.08	4.04
1917	.....	1.03	.....	1.04	.....	1.05	.....	1.06	.....	1.07	.....	1.07	.....
1918	57.69	1.02	.59	1.03	.60	1.04	.60	1.05	.61	1.06	.61	1.07	.61
1919	499.44	1.02	5.07	1.02	5.11	1.03	5.15	1.04	5.20	1.05	5.24	1.06	5.28
1920	642.04	1.01	6.47	1.02	6.52	1.02	6.57	1.03	6.63	1.04	6.68	1.05	6.73
1921	64.21	1.00	.64	1.01	.65	1.02	.65	1.02	.66	1.03	.66	1.04	.67
1922	146.34	.99	1.45	1.00	1.46	1.01	1.48	1.02	1.49	1.02	1.50	1.03	1.51
1923	259.50	.98	2.55	.99	2.57	1.00	2.60	1.01	2.62	1.02	2.64	1.03	2.66
1924	202.97	.98	1.98	.98	2.00	.99	2.01	1.00	2.03	1.01	2.05	1.02	2.06
1925	131.74	.97	1.28	.98	1.29	.98	1.30	.99	1.31	1.00	1.32	1.01	1.33
1926	1,900.07	.96	18.26	.97	18.41	.98	18.54	.98	18.70	.99	18.85	1.00	19.00
1927	1,843.90	.95	17.57	.96	17.72	.97	17.87	.98	18.00	.98	18.14	.99	18.29
1928	851.98	.95	8.06	.95	8.12	.96	8.19	.97	8.26	.98	8.32	.98	8.38
1929	1,412.41	.94	13.25	.95	13.36	.95	13.46	.96	13.57	.97	13.69	.98	13.79
1930	152.26	.93	1.42	.94	1.43	.95	1.44	.95	1.45	.96	1.46	.96	1.48
1931	44.91	.92	.41	.93	.42	.94	.42	.95	.52	.95	.43	.96	.43
1932	327.86	.92	3.00	.92	3.03	.93	3.05	.94	3.08	.95	3.10	.95	3.12
1933	.....	.91	.....	.92	.....	.92	.....	.93	.....	.94	.....	.95	.....
Miles 3 In. Equivalent			100.82		101.48		102.44		103.31		104.11		104.93
Per Cent of Total			.98		.99		.99		1.00		1.01		1.01

Column A—Miles of Main Line and Tap Line Pipe (10,296.82 Miles Equivalent 3 Inch).
Column B—Annual Renewal Rate from Distribution Curve II, Including Replacements of Replacements.
Column C—Calculated Annual Renewals.

Plaintiff's Exhibit No. 42—Continued

Table III-A

Determination of Salvable Value in Major Removals

Main Lines, Tap Lines and Field Lines

Based on Analysis of Actual Cost of Forty-Five Lines

	A	B	C	D	E	F
Pipe	$2,846,907.36	25	$711,726.84	....	.....	$711,726.84
Fittings	68,961.32	25	17,240.33	....	.....	17,240.33
Installation	3,207.94	100	3,207.94	100	$3,207.94	6,415.88
Lining Up	35,689.43	100	35,689.43	....	.....	35,689.43
Stringing	77,885.45	100	77,885.45	100	77,885.45	155,770.90
Laying	117,645.86	100	117,645.86	50	58,822.93	176,468.79
Welding, Material and Labor	245,360.70	100	245,360.70	84	206,102.99	451,463.69
Testing	12,807.36	100	12,807.36	....	.....	12,807.36
Painting	110,264.48	100	110,264.48	....	.....	110,264.48
Ditching	384,201.62	100	384,201.62	50	192,100.81	576,[illegible].43
Backfill	53,904.63	100	53,904.63	125	67,380.79	121,[illegible].42
Tie In	3,935.56	100	3,935.56	....	.....	3,935.56
Hauling	14,310.21	100	14,310.21	125	17,887.76	32,197.97
Supervision	21,011.77	100	21,011.77	50	10,505.89	31,517.66
Insurance	14,270.77	100	14,270.77	50	7,135.39	21,406.16
Tools and Supplies	41,955.24	100	41,955.24	75	31,466.43	73,421.67
Storehouse	39,292.49	100	39,292.49	100	39,292.49	78,584.98
Traveling	13,039.10	100	13,039.10	....	.....	13,039.10
Automobiles	15,193.55	100	15,193.55	....	.....	15,193.55
Clerical and General Overhead	234,312.73	100	234,312.73	25	58,578.18	292,890.91
Engineering	20,966.14	100	20,966.14	....	.....	20,966.14
Rights-of-Way Expenses and Damages	168,094.42	100	168,094.42	30	50,428.33	218,522.75
Bull Gang	5,269.09	100	5,269.09	100	5,269.09	10,538.18
Total	$4,548,487.22		$2,361,585.71		$826,064.47	$3,187,650.18
Per Cent of Installed Cost Lost on Removal	70.08					

Column A—Cost to Install.
Column B—Per cent of Cost Lost on Removal.
Column C—Amount lost on Removal.
Column D—Per cent of Cost to Recover.
Column E—Cost of Recovery.
Column F—Total Loss on Removal.

185—3104

3115

5353

Defendant's Exhibit No. 42—Continued

[fol. 9435]

Table IV-A

Tabulation Showing Adjusted Annual Reserve Accruals—Main Lines and Tap Lines

Year	A	B	C	D	E	F	G
1934	.99	1.122	.86	.60	.96	.20	2.882
1935	1.21	1.370	.87	.61	.96	.20	3.140
1936	1.42	1.609	.88	.62	.96	.20	3.389
1937	1.64	1.858	.88	.62	.96	.20	3.638
1938	1.87	2.119	.89	.62	.96	.20	3.899
1939	2.14	2.425	.90	.63	.96	.20	4.215
1940	2.38	2.697	.90	.63	.96	.20	4.487
1941	2.59	2.934	.91	.64	.96	.20	4.734
1942	2.84	3.218	.92	.64	.96	.20	5.018
1943	3.11	3.524	.93	.65	.96	.20	5.334
1944	3.36	3.807	.93	.65	.96	.20	5.617
1945	3.60	4.079	.94	.66	.96	.20	5.899
1946	3.87	4.385	.95	.67	.96	.20	6.215
1947	4.20	4.759	.96	.67	.96	.20	6.589
1948	4.56	5.166	.96	.67	.96	.20	6.996
1949	4.95	5.608	.97	.68	...	.20	6.488
1950	5.32	6.028	.98	.69	...	.20	6.918
1951	5.55	6.288	.99	.69	...	.20	7.178
1952	5.68	6.435	.99	.69	...	.20	7.325
1953	5.72	6.481	1.00	.70	...	.20	7.381
1954	5.62	6.367	1.01	.71	...	.20	7.277
1955	5.32	6.028	1.01	.71	...	.20	6.938

Column A—Annual Renewal Rates from Mortality Curve I.
Column B—Column A Times Factor. .96 x 1.18 = 1.133.
Column C—Annual Renewal Rates from Mortality Curve II.
Column D—Column C Times Factor. .70.
Column E—Decline in per cent of new Condition Times Factor .96.
Column F—Annual Rate—Major Rehabilitations.
Column G—Sum of Columns B, D, E and F—Annual Reserve Accruals Adopted for:

1. Salvable Value of Material Recovered.
2. Excess Cost of Piece-Meal Replacements.
3. Proportionate part of cost of units non-depreciable.

Defendant's Exhibit No. 42—Continued

[fols. 9436-9437] Table V-A

Tabulation Showing Cumulative Credit Balance by Years—1934-55
Growing out of Application of Uniform Annual Rate of 5.40 Per Cent

Year	A	B	C	D	E
1934	5.400	2.882	2.518	.....	2.5180
1935	5.400	3.140	2.260	.1259	4.9039
1936	5.400	3.389	2.011	.2452	7.1601
1937	5.400	3.638	1.762	.3580	9.2801
1938	5.400	3.899	1.501	.4640	11.2451
1939	5.400	5.215	1.185	.5623	12.9924
1940	5.400	4.487	.913	.6496	14.5550
1941	5.400	4.734	.666	.7278	15.9488
1942	5.400	5.018	.382	.7974	17.1282
1943	5.400	5.334	.066	.8564	18.0506
1944	5.400	5.617	− .217	.9025	18.7361
1945	5.400	5.899	− .499	.9368	19.1739
1946	5.400	6.215	− .815	.9587	19.3176
1947	5.400	6.589	−1.189	.9659	19.0945
1948	5.400	6.996	−1.596	.9547	18.4532
1949	5.400	6.488	−1.088	.9227	18.2879
1950	5.400	6.918	−1.518	.9144	17.6843
1951	5.400	7.178	−1.778	.8842	16.7905
1952	5.400	7.325	−1.925	.8395	15.7050
1953	5.400	7.381	−1.981	.7853	14.5093
1954	5.400	7.277	−1.877	.7255	13.3578
1955	5.400	6.938	−1.538	.6679	12.4877

Column A—Adopted Uniform Annual Reserve Accrual.
Column B—Calculated Annual Charges—Per Cent of Reproduction Cost New—Main Lines and Tap Lines.
Column C—Balance.
Column D—Interest on Cumulative Balance at 5 Per Cent.
Column E—Cumulative Credit Balance Including Interest.

[fol. 9438] Annual Rate of Reserve Accrual

Field Lines and Well Lines

[fol. 9439] All of the general factors covered in the discussion of the determination of the Annual Rate of Reserve Accrual—Main Lines and Tap Lines, are applicable to the determination of the annual rate of reserve accrual for Field Lines and Well Lines.

The application of the annual rates required for the failures of pipe due primarily to the physical condition of the pipe from Mortality Curve I to each of the Field Lines and Well Lines in service as of January 1, 1933, giving proper effect to the age of each line and the consequent position of its units on Mortality Curve I, resulted in the following calculated annual rates from 1934 to 1955 inclusive.

Defendant's Exhibit No. 42—Continued

Year	Calculated Miles 3 Inch Equivalent	Per cent of Miles in Service
1934	6.77	.43
1935	8.37	.53
1936	10.31	.66
1937	12.56	.80
1938	15.08	.96
1939	18.12	1.15
1940	21.76	1.39
1941	26.10	1.66
1942	31.03	1.98
1943	36.43	2.32
1944	41.62	2.65
1945	47.28	3.01
1946	53.45	3.40
1947	60.11	3.83
1948	66.05	4.21
1949	71.60	4.56
1950	77.82	4.96
1951	84.81	5.40
1952	91.04	5.80
1953	94.61	6.02
1954	94.93	6.05
1955	93.60	5.96

The details of the above calculations are shown in the tabulation—Calculated Future Annual Renewal Rates—Field Lines and Well Lines, from Mortality Curve I—Table VI-A.

The application of the annual rates required for replace-
[fol. 9440] ments, removals and abandonments due primarily to changed operating conditions from Mortality Curve III to each of the Field Lines and Well Lines in service as of January 1, 1933, giving proper effect to the age of each line and the consequent position of its units on Mortality Curve III resulted in the following calculated annual rates from 1934 to 1955 inclusive.

Defendant's Exhibit No. 42—Continued

Year	Calculated Miles 3 Inch Equivalent	Per cent of Miles In Service
1934	57.83	3.65
1935	59.04	3.76
1936	60.81	3.87
1937	62.62	3.99
1938	64.53	4.11
1939	66.42	4.23
1940	68.44	4.36
1941	70.48	4.99
1942	72.61	4.62
1943	74.82	4.76
1944	76.97	4.90
1945	78.95	5.03
1946	81.31	5.18
1947	83.69	5.33
1948	85.51	5.45
1949	88.04	5.61
1950	90.58	5.77
1951	93.07	5.93
1952	95.83	6.10
1953	98.40	6.27
1954	99.21	6.32
1955	103.02	6.56

The details of the above calculations are shown in the tabulation—Calculated Future Annual Replacements, Removals and Abandonments—Field Lines and Well Lines, from Mortality Curve III—Table VII-A.

In the case of Field Lines and Well Lines, no annual allowance has been included to cover the future cost of major rehabilitations.

The decline in per cent of new condition in Field Lines and Well Lines will conform to the decline in per cent of new in the property as a whole and the annual rate of one [fol. 9441] per cent is, therefore, included as a part of the total annual rate of reserve accrual—Field Lines and Well Lines.

As in the case of Main Lines and Tap Lines, certain factors must be applied to the annual rates based upon the estimated future rate of occurrence expressed as a percentage of the units in service in order to compensate for the salvable value of material recovered, the excess cost of piece-meal replacements over unit costs developed from a wholesale reproduction cost estimate, and the percentage of the property units not subject to depreciation or replacement.

The estimate for each of these factors is based primarily upon the analysis made for the corresponding factors for Main Lines and Tap Lines with certain modifications made necessary by the service conditions applicable to Field Lines and Well Lines.

1. Salvable value of materials recovered—replacements, removals and abandonments due to changed operating conditions.

In the case of Main Lines and Tap Lines as developed from the detail analysis in Table III-A, the loss in removals wherein the condition of the material removed was assumed to be 100 per cent of new was found to be 70 per cent of the total installed cost. In the case of Field Lines and Well Lines, the same analysis has been used with the reduction of the per cent of new condition of the material removed to 75 per cent of new, and an estimated cost of 25 per cent of this amount for reconditioning, loss of footage, repair of pipe ends and other like costs. This adjustment results in an estimated loss of 82 per cent of the original installation cost. This factor, .82, will be applied to all calculated future annual rates from Mortality Curve III.

[fol. 9442] 2. Excess cost of piece-meal replacements over unit costs developed by wholesale reproduction cost estimate.

From the analysis of the actual cost of piece-meal replacements, it was determined that the ratio of the unit costs of such replacements to corresponding unit costs, wholesale reproduction basis, was 1.50 to 1.00. It was also determined that the cost of pipe and fittings (new) was 42.7 per cent of the total cost of piece-meal replacements. When replacements are made in Field Lines and Well Lines by reason of the physical condition of the pipe, the pipe removed will not have the same potential salvable value as pipe removed from

Main Lines and Tap Lines for similar reasons. In the estimate made for Main Lines and Tap Lines, an extremely liberal estimate of 50 per cent of new was placed on the pipe replaced by reason of physical condition. In the estimate for Field Lines and Well Lines, this estimated salvable value has been reduced to 30 per cent of new. This allowance, which is liberal for this factor, reduces the net salvable for Field Lines and Well Lines to 12.8 per cent (42.7 per cent times 30 per cent), and fixes the factors necessary to provide for the increased cost of piece-meal replacements at 1.308 (1.50 x .872). This factor will be applied to the future annual renewal rates developed from Mortality Curve I in order to translate the annual rate based upon the future rate of occurrence to the future "cost" of annual replacements expressed as a percentage of reproduction cost new, Field Lines and Well Lines.

3. Percentage of reproduction cost not subject to replacements or depreciation.

In the case of Main Lines and Tap Lines, an analysis of the cost of rights-of-way and lands, which items are not sub-
[fol. 9443] ject to replacement in piece-meal replacements, or replacements due primarily to the physical condition of the pipe or to depreciation, were found to be approximately four per cent of the total installed cost of Main Lines and Tap Lines. For Field Lines and Well Lines, the proportionate part of the total investment represented by non-depreciable items is approximately one per cent of the total installed cost. The factor, .99, will, therefore, be applied to the annual rates from Mortality Curve I, and the annual percentage designed to provide for the future decline in per cent of new condition.

This concludes the discussion of the various factors required to reduce the indicated future rates of replacements, removals and abandonments from the mortality curves and distribution curves of annual renewals or replacements to annual rates, which when applied to the reproduction cost of Field Lines and Well Lines, will properly reflect the effect of the proportionate part of these property groups not subject to replacement, the effect of the salvable value of materials recovered; and the effect of excess unit costs of piece-meal replacements over corresponding unit costs in wholesale reproduction.

Table VIII-A sets out in detail the results of the application of the factors to the basic annual rates. For convenience and reference, the results of this application are shown in the following summary:

Year	Field Lines and Well Lines Adjusted Total Annual Rates
1934	4.540 per cent
1935	4.759
1936	5.018
1937	5.298
[fol. 9444] 1938	5.603
1939	5.948
1940	6.365
1941	6.822
1942	7.342
1943	7.897
1944	8.440
1945	9.013
1946	9.641
1947	10.321
1948	10.911
1949	10.505
1950	11.154
1951	11.856
1952	12.513
1953	12.937
1954	13.017
1955	13.097

These future rates are expressed as percentages per annum, which when applied to the reproduction cost new of Field Lines and Well Lines in service in the system of Lone Star Gas Company as of January 1, 1933, are designed to provide for:

1. The future net Cost of replacements and abandonments due primarily to the physical condition of the pipe.

2. The future net Cost of replacements, removals and abandonments due primarily to changed operating conditions.

3. The value lost through future decline in per cent of new condition.

It will be noted the calculated annual rates are a series of variables. As in the case of the total annual reserve accrual estimated for Main Lines and Tap Lines, the corresponding accrual for Field Lines and Well Lines has been determined as a uniform rate of accrual that will fulfil the indicated requirements.

As in the case of the calculations for Main Lines and Tap Lines, a uniform annual accrual designed to provide the necessary annual funds indicated by the application of the [fol. 9445] adjusted total annual rates to the reproduction cost of Field Lines and Well Lines will create a credit balance during the earlier years of the accrual. The use of this credit balance, and the interest earned upon it, will tend to reduce the indicated amount of the uniform annual accrual.

Consideration has been given to this fact in fixing the uniform annual rate. The average annual rate from 1934 to 1962, inclusive, is 9.38 per cent. The uniform annual rate adopted is 8.60 per cent.

In Table IX-A, there is set out the effect of applying five per cent interest compounded annually to the credit balance derived from deducting the calculated annual rates from the adopted uniform annual accrual, 8.60 per cent. It will be noted from an inspection of the tabulation that the credit balance increases to a maximum of 39.53 per cent in 1947, and thereafter declines to 10.00 per cent in 1968 due to the excess of the estimated charges over the uniform annual accrual in the later years. The credit balance would have been absorbed had these calculations been carried to approximately forty-five years beyond 1934. The credit balance at no time would be free capital.

Defendant's Exhibit No. 42—Continued

[fol. 9446]

Table VI-A

Calculated Future Annual Renewal Rates

Field Lines and Well Lines—From Mortality Curve I

Year	1934			1935		1936		1937		1938		1939		1940		1941	
	A	B	C	B	C	B	C	B	C	B	C	B	C	B	C	B	C
1909	2.61	7.16	.19	7.20	.19	7.24	.19	6.78	.18	5.84	.15	4.96	.13	4.23	.11	3.77	.10
1910	10.04	7.13	.72	7.16	.72	7.20	.72	7.24	.73	6.78	.68	5.84	.59	4.96	.50	4.23	.42
1911	.....	6.61	....	7.13	....	7.16	....	7.20	....	7.24	....	6.78	....	5.84	....	4.96	....
1912	2.08	5.59	.12	6.61	.14	7.13	.15	7.16	.15	7.20	.15	7.24	.15	6.78	.14	5.84	.12
1913	22.32	4.67	1.04	5.59	1.25	6.61	1.48	7.13	1.59	7.16	1.60	7.20	1.61	7.24	1.62	6.78	1.51
1914	.16	3.80	.01	4.67	.01	5.59	.01	6.61	.01	7.13	.01	7.16	.01	7.20	.01	7.24	.01
1915	3.10	3.24	.10	3.80	.12	4.67	.14	5.59	.17	6.61	.20	7.13	.22	7.16	.22	7.20	.22
1916	4.85	2.68	.13	3.24	.16	3.80	.18	4.62	.23	5.59	.27	6.61	.32	7.13	.35	7.16	.35
1917	.15	2.22	....	2.68	....	3.24	....	3.80	.01	4.67	.01	5.59	.01	6.61	.01	7.13	.01
1918	8.50	1.82	.15	2.22	.19	2.68	.23	3.24	.28	3.80	.32	4.67	.40	5.59	.48	6.61	.56
1919	70.55	1.46	1.03	1.82	1.28	2.22	1.57	2.68	1.89	3.24	2.29	3.80	2.68	4.67	3.29	5.59	3.94
1920	100.05	1.16	1.16	1.46	1.46	1.82	1.82	2.22	2.22	2.68	2.68	3.24	3.24	3.80	3.80	4.67	4.67
1921	37.25	.91	.34	1.16	.43	1.46	.54	1.82	.68	2.22	.83	2.68	1.00	3.24	1.21	3.80	1.42
1922	10.60	.71	.08	.91	.10	1.16	.12	1.46	.15	1.82	.19	2.22	.24	2.68	.28	3.24	.34
1923	24.46	.55	.13	.71	.17	.91	.22	1.16	.28	1.46	.36	1.82	.45	2.22	.54	2.68	.66
1924	127.52	.40	.51	.55	.70	.71	.91	.91	1.16	1.16	1.48	1.46	1.86	1.82	2.32	2.22	2.83
1925	45.82	.30	.14	.40	.18	.55	.25	.71	.33	.91	.42	1.16	.53	1.46	.67	1.82	.83
1926	96.33	.20	.19	.30	.29	.40	.39	.55	.53	.71	.68	.91	.88	1.16	1.12	1.46	1.41
1927	44.80	.15	.07	.20	.09	.30	.13	.40	.18	.55	.25	.71	.32	.91	.41	1.16	.52
1928	181.98	.10	.18	.15	.27	.20	.36	.30	.55	.40	.73	.55	1.00	.71	1.29	.91	1.66
1929	354.56	.07	.25	.10	.35	.15	.53	.20	.71	.30	1.06	.40	1.42	.55	1.95	.71	2.52
1930	266.81	.06	.16	.07	.19	.10	.27	.15	.40	.20	.53	.30	.80	.40	1.07	.55	1.47
1931	57.28	.05	.03	.06	.03	.07	.04	.10	.06	.05	.09	.10	.11	.30	.17	.40	.23
1932	98.52	.04	.04	.05	.05	.06	.06	.07	.07	.10	.10	.15	.15	.20	.20	.30	.30
1933	.....	....	....	.04	....	.05	....	.06	....	.07	....	.10	....	.15	....	.20	....
Miles 3 in. equivalent			6.77		8.37		10.31		12.56		15.08		18.12		21.76		26.10
Per cent of total			43		53		66		80		96		1.15		1.39		1.66

[fol. 9447]

Year	1942 A	1942 B	1942 C	1943 B	1943 C	1944 B	1944 C	1945 B	1945 C	1946 B	1946 C	1947 B	1947 C	1948 B	1948 C	1949 B	1949 C
1909	2.61	3.35	.09	3.04	.08	2.88	.08	2.64	.07	2.56	.07	2.55	.07	2.61	.07	2.75	.07
1910	10.04	3.77	.38	3.35	.34	3.04	.31	2.88	.29	2.64	.27	2.56	.26	2.55	.26	2.61	.26
1911	.....	4.23	....	3.77	....	3.35	....	3.04	....	2.88	....	2.64	....	2.56	....	2.55	....
1912	20.8	4.96	.10	4.23	.09	3.77	.08	3.35	.07	3.04	.06	2.88	.06	2.64	.05	2.56	.05
1913	22.32	5.84	1.30	4.96	1.11	4.23	.94	3.77	.84	3.35	.75	3.04	.68	2.88	.64	2.64	.59
1914	.16	6.78	.01	5.84	.01	4.96	.01	4.23	.01	3.77	.01	3.35	.01	3.04	....	2.88	....
1915	3.10	7.24	.22	6.78	.21	5.84	.18	4.96	.15	4.23	.13	3.77	.12	3.35	.10	3.04	.09
1916	4.85	7.20	.35	7.24	.35	6.78	.33	5.84	.28	4.96	.24	4.23	.21	3.77	.18	3.35	.16
1917	.15	7.16	.01	7.20	.01	7.24	.01	6.78	.01	5.84	.01	4.96	.01	4.23	.01	3.77	.01
1918	8.50	7.73	.61	7.16	.61	7.20	.61	7.24	.62	6.78	.58	5.84	.50	4.96	.42	4.23	.36
1919	70.55	6.61	4.66	7.13	5.03	7.16	5.05	7.20	5.08	7.24	5.11	6.78	4.78	5.84	4.12	4.96	3.50
1920	109.05	5.59	5.59	6.61	6.61	7.13	7.13	7.16	7.16	7.20	7.20	7.24	7.24	6.77	6.78	5.84	5.84
1921	37.25	4.67	1.74	5.59	2.08	6.61	2.46	7.13	2.66	7.16	2.67	7.20	2.68	7.24	2.70	6.78	2.53
1922	10.60	3.80	.40	4.67	.50	5.59	.59	6.61	.70	7.13	.76	7.16	.76	7.20	.76	7.24	.77
1923	24.46	3.24	.79	3.80	.93	4.67	1.14	5.59	1.37	6.61	1.62	7.13	1.74	7.16	1.75	7.20	1.76
1924	127.52	2.68	3.42	3.24	4.13	3.80	4.85	4.67	5.96	5.59	7.13	6.61	8.43	7.13	9.09	7.16	9.13
1925	45.82	2.22	1.02	2.68	1.23	3.24	1.48	3.80	1.74	4.67	2.14	5.59	2.56	6.61	3.03	7.13	3.27
1926	96.33	1.82	1.75	2.22	2.14	2.68	2.58	3.24	3.12	3.80	3.66	4.67	4.50	5.59	5.38	6.61	6.37
1927	44.80	1.46	.65	1.82	.82	2.22	.99	2.68	1.20	3.24	1.45	3.80	1.70	4.67	2.09	5.59	2.50
1928	181.98	1.16	2.11	1.46	2.66	1.82	3.31	2.22	4.04	2.68	4.88	3.24	5.90	3.80	6.92	4.67	8.50
1929	354.56	.91	3.23	1.16	4.11	1.46	5.18	1.82	6.45	2.22	7.87	2.68	9.50	3.24	11.49	3.80	13.47
1930	266.81	.71	1.89	.91	2.43	1.16	3.09	1.46	3.90	1.82	4.86	2.22	5.92	2.68	7.15	3.24	8.64
1931	57.28	.55	.32	.71	.41	.91	.52	1.16	.66	1.46	.84	1.82	1.04	2.22	1.27	2.68	1.54
1932	98.52	.40	.39	.55	.54	.71	.70	.91	.90	1.16	1.14	1.46	1.44	1.72	1.79	2.22	2.19
1933	.....	.30	....	.40	....	.55	....	.71	....	.91	....	1.16	....	1.46	....	1.82	....
Miles 3 in. equivalent			31.03		36.42		41.62		47.28		53.45		60.11		66.05		71.60
Per cent of total			1.98		2.32		2.65		3.01		3.40		3.83		4.21		4.56

Column A—Miles of Field and Well Line Pipe (1,570.34 Miles Equivalent 3 Inch).
Column B—Annual Renewal Rate from Distribution Curve I, Including Replacements of Replacements.
Column C—Calculated Annual Renewals.

Defendant's Exhibit No. 42—Continued

[fol. 9448]

Calculated Future Annual Renewal Rates—Continued

Field Lines and Well Lines—From Mortality Curve I

Year	A	1950 B	1950 C	1951 B	1951 C	1952 B	1952 C	1953 B	1953 C	1954 B	1954 C	1955 B	1955 C	1956 B	1956 C	1957 B	1957 C
1909	2.61	2.90	.08	3.12	.08	3.36	.09	3.66	.10	3.95	.10	4.24	.11	4.52	.12	4.75	.12
1910	10.04	2.75	.28	2.90	.29	3.12	.31	3.36	.34	3.66	.37	3.96	.40	4.24	.43	4.52	.45
1911	.....	2.61	....	2.75	....	2.90	....	3.12	....	3.36	....	3.66	....	3.95	....	4.24	....
1912	2.08	2.55	.05	2.61	.05	2.75	.06	2.90	.06	3.12	.06	3.36	.07	3.66	.08	3.95	.08
1913	22.32	2.56	.57	2.55	.57	2.61	.58	2.75	.61	2.90	.65	3.12	.70	3.36	.75	3.66	.82
1914	.16	2.64	....	2.56	....	2.55	....	2.61	....	2.75	....	2.90	....	3.12	....	3.36	.01
1915	3.10	2.88	.09	2.64	.08	2.56	.07	2.55	.08	2.61	.08	2.75	.09	2.90	.09	3.12	.10
1916	4.85	3.04	.15	2.88	.14	2.64	.13	2.56	.12	2.55	.12	2.61	.13	2.75	.13	2.90	.14
1917	.15	3.35	.01	3.04	....	2.88	....	2.64	....	2.56	....	2.55	....	2.61	....	2.75	....
1918	8.50	3.77	.32	3.35	.28	3.04	.26	2.88	.24	2.64	.22	2.56	.22	2.55	.22	2.61	.22
1919	70.55	4.23	2.98	3.77	2.66	3.35	2.36	3.04	2.14	2.88	2.03	2.64	1.86	2.56	1.81	2.55	1.80
1920	100.05	4.96	4.96	4.23	4.23	3.77	3.77	3.35	3.35	3.04	3.04	2.88	2.88	2.64	2.64	2.56	2.56
1921	37.25	5.84	2.18	4.96	1.85	4.23	1.58	3.77	1.40	3.35	1.25	3.04	1.13	2.88	1.07	2.64	.98
1922	10.60	6.78	.72	5.84	.62	4.96	.53	4.23	.45	3.77	.40	3.35	.36	3.04	.32	2.88	.31
1923	24.46	7.24	1.77	6.78	1.66	5.84	1.43	4.96	1.21	4.23	1.03	3.77	.92	3.35	.72	3.04	.74
1924	127.52	7.20	9.18	7.24	9.23	6.78	8.65	5.84	7.45	4.96	6.32	4.23	5.39	3.77	4.81	3.35	4.27
1925	45.82	7.16	3.28	7.20	3.30	7.24	3.32	6.78	3.11	5.84	2.68	4.96	2.27	4.23	1.94	3.77	1.73
1926	96.33	7.13	6.87	7.16	6.90	7.20	6.94	7.24	6.97	6.78	6.53	5.84	6.53	4.96	4.78	4.23	4.07
1927	44.80	6.61	2.96	7.13	3.19	7.16	3.21	7.20	3.23	7.24	3.24	6.78	3.04	5.84	2.62	4.96	2.22
1928	181.98	5.59	10.17	6.61	12.03	7.13	12.98	7.16	13.03	7.20	13.10	7.24	13.18	6.78	12.34	5.84	10.63
1929	354.56	4.67	16.56	5.59	19.82	6.61	23.44	7.13	25.28	7.16	25.39	7.20	25.53	7.24	25.67	6.78	24.04
1930	266.81	3.80	10.14	4.67	12.46	5.59	14.91	6.61	17.64	7.13	19.02	7.16	19.10	7.20	19.21	7.24	19.32
1931	57.28	3.24	1.86	3.80	2.18	4.67	2.67	5.59	3.20	6.61	3.79	7.13	4.08	7.16	4.10	7.20	4.12
1932	98.52	2.68	2.64	4.24	3.19	3.80	3.74	4.67	4.60	5.59	5.51	6.61	6.51	7.13	7.02	7.16	7.05
1933	.....	2.22	....	2.68	....	3.24	....	3.80	....	4.67	....	5.59	....	6.61	....	7.13	....
Miles 3 in. equivalent			77.82		84.81		91.04		94.61		94.93		93.60		90.97		85.78
Per cent of total			4.96		5.40		5.80		6.02		6.05		5.96		5.79		5.46

Column A—Miles of Field and Well Line Pipe (1,570.34 Miles Equivalent 3 Inch).

Column B—Annual Renewal Rate from Distribution Curve I, Including Replacements of Replacements

Column C—Calculated Annual Renewals.

[fol. 9449]

Table VII-A

Calculated Future Annual Replacements, Removals and Abandonments

Field Lines and Well Lines—Mortality Curve III

Year	A	1934 B	1934 C	1935 B	1935 C	1936 B	1936 C	1937 B	1937 C	1938 B	1938 C	1939 B	1939 C	1940 B	1940 C	1941 B	1941 C
1909	2.61	6.10	.16	6.28	.16	6.47	.17	6.66	.17	6.86	.18	7.07	.18	7.28	.19	7.50	.20
1910	10.04	5.92	.59	6.10	.61	6.28	.63	6.47	.65	6.66	.67	6.86	.69	7.07	.71	7.28	.73
1911	.....	5.75	....	5.92	....	6.10	....	6.28	....	6.47	....	6.66	....	6.86	....	7.07	....
1912	2.08	5.58	.12	5.75	.12	5.92	.12	6.10	.13	6.28	.13	6.48	.13	6.66	.14	6.86	.14
1913	22.32	5.42	1.21	5.58	1.25	5.75	1.28	5.92	1.32	6.10	1.36	6.28	1.40	6.47	1.44	6.66	1.49
1914	.16	5.26	.01	5.42	.01	5.58	.01	5.75	.01	5.92	.01	6.10	.01	6.28	.01	6.48	.01
1915	3.10	5.11	.16	5.26	.16	5.42	.17	5.58	.17	5.75	.18	5.92	.18	6.10	.19	6.28	.19
1916	4.85	4.96	.24	5.11	.25	5.26	.26	5.42	.26	5.58	.27	5.75	.28	5.92	.29	6.10	.30
1917	.15	4.81	.01	4.96	.01	5.11	.01	5.26	.01	5.42	.01	5.58	.01	5.75	.01	5.92	.01
1918	8.50	4.67	.40	4.81	.41	4.96	.42	5.11	.43	5.26	.45	5.42	.46	5.58	.47	5.75	.49
1919	70.55	4.54	3.20	4.67	3.29	4.81	3.39	4.96	3.50	5.11	3.61	5.26	3.71	5.42	3.82	5.58	3.94
1920	100.05	4.41	4.41	4.54	4.54	4.67	4.67	4.81	4.81	4.96	4.96	5.11	5.11	5.26	5.26	5.42	5.42
1921	37.25	4.28	1.59	4.41	1.64	4.54	1.69	4.67	1.74	4.81	1.79	4.96	1.85	5.11	1.90	5.26	1.96
1922	10.60	4.15	.44	4.28	.45	4.41	.47	4.54	.48	4.67	.49	4.81	.51	4.96	.53	5.11	.54
1923	24.46	4.03	.99	4.15	1.02	4.28	1.05	4.41	1.08	4.54	1.11	4.67	1.14	4.81	1.18	4.96	1.21
1924	127.52	3.91	4.99	4.03	5.14	4.15	5.29	4.28	5.46	4.41	5.62	4.54	5.79	4.67	5.96	4.81	6.13
1925	45.82	3.80	1.74	3.91	1.79	4.03	1.85	4.15	1.90	4.28	1.96	4.41	2.02	4.54	2.08	4.67	2.14
1926	96.33	3.69	3.55	3.80	3.66	3.91	3.77	4.03	3.88	4.15	4.00	4.28	4.12	4.41	4.25	4.54	4.37
1927	44.80	3.58	1.60	3.69	1.65	3.80	1.70	3.91	1.75	4.03	1.81	4.15	1.86	4.28	1.92	4.41	1.98
1928	181.98	3.48	6.33	3.58	6.51	3.69	6.72	3.80	6.92	3.91	7.12	4.03	7.33	4.15	7.55	4.28	7.79
1929	354.56	3.38	11.98	3.48	12.34	3.58	12.69	3.69	13.08	3.80	13.47	3.91	13.86	4.03	14.29	4.15	14.71
1930	266.81	3.28	8.75	3.38	9.02	3.48	9.28	3.58	9.55	3.69	9.85	3.80	10.14	3.91	10.43	4.03	10.75
1931	57.28	3.18	1.82	3.28	1.88	3.38	1.94	3.48	1.99	3.58	2.05	3.69	2.11	3.80	2.18	3.91	2.44
1932	98.52	3.09	3.04	3.18	3.13	3.28	3.23	3.38	3.33	3.48	3.43	3.58	3.53	3.69	3.64	3.80	3.74
Miles 3 in. equivalent			57.33		59.04		60.81		62.62		64.53		66.42		68.44		70.48
Percent of total			3.65		3.76		3.87		3.99		4.11		4.23		4.36		4.49

Column A—Miles of Field and Well Line Pipe (1,570.34 Miles Equivalent 3 Inch).
Column B—Annual Renewal Rate from Distribution Curve III, Including Replacements of Replacements.
Column C—Calculated Annual Renewals.

Defendant's Exhibit No. 42—Continued

[fol. 9450]

Calculated Future Annual Replacements, Removals and Abandonments—Continued

Field Lines and Well Lines—Mortality Curve III

Year	A	1942 B	1942 C	1943 B	1943 C	1944 B	1944 C	1945 B	1945 C	1946 B	1946 C	1947 B	1947 C	1948 B	1948 C	1949 B	1949 C
1909	2.61	7.21	.20	7.96	.21	5.20	.14	5.26	.14	5.33	.14	5.39	.14	5.45	.14	5.52	.14
1910	10.04	7.50	.75	7.72	.77	7.96	.80	5.20	.52	5.26	.53	5.33	.54	5.39	.54	5.45	.55
1911	.....	7.28	....	7.50	....	7.72	....	7.96	.....	5.20	....	5.26	....	5.33	....	5.39	....
1912	2.08	7.07	.15	7.28	.15	7.50	.16	7.72	.16	7.96	.17	5.20	.11	5.26	.11	5.33	.11
1913	23.32	6.86	1.53	7.07	1.58	7.28	1.62	7.50	1.67	7.72	1.72	7.96	1.78	5.20	1.16	5.26	1.17
1914	.16	6.66	.01	6.86	.01	7.07	.01	7.28	.01	7.50	.01	7.72	.01	7.96	.01	5.20	.01
1915	3.10	6.47	.20	6.66	.21	6.86	.21	7.07	.22	7.28	.23	7.50	.23	7.72	.24	7.96	.25
1916	4.85	6.28	.30	6.47	.31	6.66	.32	6.86	.33	7.07	.34	7.28	.35	7.50	.36	7.72	.37
1917	.15	6.10	.01	6.25	.01	6.47	.01	6.66	.01	6.86	.01	7.07	.01	7.28	.01	7.50	.01
1918	8.50	5.92	.50	6.10	.52	6.28	.53	6.47	.55	6.66	.57	6.86	.58	7.07	.60	7.28	.62
1919	70.55	5.75	4.06	5.92	4.18	6.10	4.30	6.28	4.43	6.47	4.56	6.66	4.70	6.86	4.84	7.07	4.99
1920	100.05	5.58	5.58	5.75	5.75	5.92	5.92	6.10	6.10	6.28	6.28	6.47	6.47	6.66	6.66	6.86	6.86
1921	37.25	5.42	2.02	5.58	2.08	5.25	2.14	5.92	2.21	6.10	2.27	6.28	2.34	6.47	2.41	6.66	2.48
1922	10.60	5.26	.56	5.42	.57	5.58	.59	5.75	.61	5.92	.63	6.10	.65	6.28	.67	6.47	.69
1923	24.46	5.11	1.25	5.26	1.29	5.42	1.33	5.58	1.36	5.75	1.41	5.92	1.45	6.10	1.49	6.28	1.54
1924	127.52	4.96	6.32	5.11	6.52	5.26	6.71	5.42	6.91	5.58	7.12	5.75	7.33	5.92	7.55	6.10	7.78
1925	45.82	4.81	2.20	4.96	2.27	5.11	2.34	5.26	2.41	5.42	2.48	5.58	2.56	5.75	2.63	5.92	2.71
1926	96.33	4.67	4.50	4.81	4.63	4.96	4.78	5.11	4.92	5.26	5.07	5.42	5.22	5.58	5.38	5.75	5.54
1927	44.80	4.54	2.03	4.67	2.09	4.81	2.15	4.96	2.22	5.11	2.29	5.26	2.36	5.42	2.43	5.58	2.50
1928	181.98	4.41	8.03	4.54	8.26	4.67	8.50	4.81	8.75	4.96	9.03	5.11	9.30	5.76	9.57	5.42	9.86
1929	354.56	4.28	15.18	4.41	15.64	4.54	16.10	4.67	16.56	4.81	17.05	4.96	17.59	5.11	18.12	5.26	18.65
1930	266.81	4.15	11.07	4.28	11.42	4.41	11.77	4.54	12.11	4.67	12.46	4.81	12.83	4.96	13.23	5.11	13.63
1931	57.28	4.03	2.31	4.15	2.38	4.28	2.45	4.41	2.53	4.54	2.60	4.67	2.67	4.81	2.76	4.96	2.84
1932	98.52	3.91	3.85	4.03	3.97	4.15	4.09	4.28	4.22	4.41	4.34	4.54	4.47	4.67	4.60	4.81	4.74
Miles 3 in. equivalent			72.61		74.82		76.97		78.95		81.31		83.69		85.51		88.04

Percent of total.....	4.62		4.76		4.90		5.03		5.18		5.33		5.45		5.61	

[fol. 9451]

	1950			1951		1952		1953		1954		1955		1956		1957	
Year	A	B	C	B	C	B	C	B	C	B	C	B	C	B	C	B	C
1909.....	2.61	5.58	.15	5.64	.15	5.70	.15	5.75	.15	5.81	.15	5.86	.13	6.23	.16	6.26	.16
1910.....	10.04	5.52	.55	5.58	.56	5.64	.57	5.70	.57	5.75	.58	5.81	.58	5.86	.59	6.23	.63
1911.....	.....	5.45	....	5.52	....	5.58	....	5.64	....	5.70	....	5.75	....	5.81	....	5.86	....
1912.....	2.08	5.39	.11	5.45	.11	5.52	.11	5.58	.12	5.64	.12	5.70	.12	5.75	.12	5.81	.12
1913.....	22.32	5.33	1.19	5.39	1.20	5.45	1.22	5.52	1.23	5.58	1.25	5.64	1.26	5.70	1.27	5.75	1.28
1914.....	.16	5.26	.01	5.33	.01	5.39	.01	5.45	.01	5.52	.01	5.58	.01	5.64	.01	5.70	.01
1915.....	3.10	5.20	.16	5.26	.16	5.33	.17	5.39	.17	5.45	.17	5.52	.17	5.58	.17	5.64	.17
1916.....	4.85	7.96	.39	5.20	.25	5.26	.26	5.33	.26	5.39	.26	5.45	.26	5.52	.27	5.58	.27
1917.....	.15	7.72	.01	7.96	.01	5.20	.01	5.26	.01	5.33	.01	5.39	.01	5.45	.01	5.52	.01
1918.....	8.50	7.50	.64	7.72	.66	7.96	.68	5.20	.44	5.26	.45	5.33	.45	5.39	.46	5.45	.46
1919.....	70.55	7.28	5.14	7.50	5.29	7.72	5.45	7.96	5.62	5.20	3.67	5.26	3.71	5.33	3.76	5.39	3.80
1920.....	100.05	7.07	7.07	7.28	7.28	7.50	7.50	7.72	7.72	7.96	7.96	5.20	5.20	5.26	5.26	5.33	5.33
1921.....	37.25	6.86	2.56	7.07	2.63	7.28	2.71	7.50	2.79	7.72	2.88	7.96	2.97	5.20	1.94	5.26	1.96
1922.....	10.60	6.66	.71	6.86	.73	7.07	.75	7.28	.77	7.50	.79	7.72	.82	7.96	.84	5.20	.55
1923.....	24.46	6.47	1.58	6.66	1.63	6.86	1.68	7.07	1.73	7.28	1.78	7.50	1.83	7.72	1.12	7.96	1.15
1924.....	127.52	6.28	8.01	6.47	8.25	6.66	8.49	6.86	8.75	7.07	9.02	7.28	9.28	7.50	9.56	7.72	9.84
1925.....	45.82	6.10	2.80	6.28	2.88	6.47	2.96	6.66	3.05	6.86	3.14	7.07	3.24	7.28	3.34	7.50	3.44
1926.....	96.33	5.92	5.70	6.10	5.88	6.28	6.05	6.47	6.23	6.66	6.42	6.86	6.61	7.07	6.81	7.28	7.01
1927.....	44.80	5.75	2.58	5.92	2.65	6.10	2.73	6.28	2.81	6.48	2.90	6.66	6.98	6.86	3.07	7.07	3.17
1928.....	181.98	5.58	10.15	5.75	10.46	5.92	10.77	6.10	11.10	6.28	11.43	6.47	11.77	6.66	12.12	6.86	12.48
1929.....	354.56	5.42	19.22	5.58	19.78	5.75	20.39	5.92	20.99	6.10	21.63	6.28	22.27	6.47	22.94	6.66	23.61
1930.....	266.81	5.26	14.03	5.42	14.46	5.58	14.89	5.75	15.34	5.92	15.80	6.10	16.28	6.28	16.76	6.47	17.26
1931.....	57.28	5.11	2.93	5.26	3.01	5.42	3.10	5.58	3.20	5.75	3.29	5.92	3.39	6.10	3.49	6.28	3.60
1932.....	98.52	4.96	4.89	5.11	5.03	5.26	5.18	5.42	5.34	5.58	5.50	5.75	5.66	5.92	5.83	6.10	6.01
Miles 3 in. equivalent.			90.58		93.07		95.83		98.40		99.21		103.02		99.90		102.32
Percent of total.....			5.77		5.93		6.10		6.27		6.32		6.56		6.36		6.52

Column A—Miles of Field and Well Line Pipe (1,570.34 Miles Equivalent 3 Inch).
Column B—Annual Renewal Rate from Distribution Curve II, Including Replacements of Replacements.
Column C—Calculated Annual Renewals.

Defendant's Exhibit No. 42—Continued

[fol. 9452]

Table VIII-A

Tabulation Showing Adjusted Annual Reserve Accruals—Field Lines and Well Line

Year	A	B	C	D	E	F
1934	.43	.557	3.65	2.993	.99	4.540
1935	.53	.686	3.76	3.083	.99	4.759
1936	.66	.855	3.87	3.173	.99	5.018
1937	.80	1.036	3.99	3.272	.99	5.298
1938	.96	1.243	4.11	3.370	.99	5.603
1939	1.15	1.489	4.23	3.469	.99	5.948
1940	1.39	1.800	4.36	3.575	.99	6.365
1941	1.66	2.150	4.49	3.682	.99	6.822
1942	1.98	2.564	4.62	3.788	.99	7.342
1943	2.32	3.004	4.76	3.903	.99	7.897
1944	2.65	3.432	4.90	4.018	.99	8.440
1945	3.01	3.898	5.03	4.125	.99	9.013
1946	3.40	4.403	5.18	4.248	.99	9.641
1947	3.83	4.960	5.33	4.371	.99	10.321
1948	4.21	5.452	5.45	4.469	.99	10.911
1949	4.56	5.905	5.61	4.600	...	10.505
1950	4.96	6.423	5.77	4.731	...	11.154
1951	5.40	6.993	5.93	4.863	...	11.856
1952	5.80	7.511	6.10	5.002	...	12.513
1953	6.02	7.796	6.27	5.141	...	12.937
1954	6.05	7.835	6.32	5.182	...	13,017
1955	5.96	7.718	6.56	5.379	...	13.097

Column A—Annual Renewal Rates from Mortality Curve I.
Column B—Column A Times Factor .99 x 1.308 = 1.295.
Column C—Annual Renewal Rates from Mortality Curve III.
Column D—Column C Times Factor .82.
Column E—Decline in Per cent of New Condition Times Factor .99.
Column F—Sum of Columns B, D and E—Annual Reserve Accruals Adjusted for:

1. Salvable Value of Materials Recovered.
2. Excess Cost of Piece-meal Replacements.

Defendant's Exhibit No. 42—Continued

[fols. 9453-9454] Table IX-A

Tabulation Showing Cumulative Credit Balance by Years—1934-1963

Growing Out of Application of Uniform Annual Rate of 8.60 Per Cent

Year	A	B	C	D	E
1934	8.600	4.540	4.060	.....	4.060
1935	8.600	4.759	3.841	.203	8.104
1936	8.600	5.018	3.592	.405	12.091
1937	8.600	5.298	3.302	.605	15.998
1938	8.600	5.603	2.997	.800	19.795
1939	8.600	5.948	2.652	.990	23.437
1940	8.600	6.365	2.235	1.172	26.844
1941	8.600	6.822	1.778	1.342	29.964
1942	8.600	7.342	1.258	1.498	32.720
1943	8.600	7.897	.703	1.636	35.059
1944	8.600	8.440	.150	1.753	36.972
1945	8.600	9.013	− .413	1.849	38.408
1946	8.600	9.641	−1.041	1.920	39.287
1947	8.600	10.321	−1.721	1.964	39.530
1948	8.600	10.911	−2.311	1.977	39.196
1949	8.600	10.505	−1.905	1.960	39.251
1950	8.600	11.154	−2.554	1.963	38.660
1951	8.600	11.856	−3.256	1.933	37.337
1952	8.600	12.513	−3.913	1.867	35.291
1953	8.600	12.937	−4.337	1.765	32.719
1954	8.600	13.017	−4.417	1.636	29.938
1955	8.600	13.097	−4.497	1.497	26.938
1956	8.600	12.715	−4.115	1.347	24.170
1957	8.600	12.417	−3.817	1.209	21.562
1958	8.600	11.931	−3.331	1.078	19.309
1959	8.600	11.235	−2.635	.965	17.639
1960	8.600	10.705	−2.105	.882	16.416
1961	8.600	10.218	−1.618	.821	15.619
1962	8.600	9.920	−1.320	.781	15.080
1963	8.600	10.100*	−1.500	.754	14.334

* Limit of Annual Rates.

Column A—Adopted Uniform Annual Reserve Accrual.

Column B—Calculated Annual Charges—Per Cent of Reproduction Cost New—Field Lines and Well Lines.

Column C—Balance.

Column D—Interest on Cumulative Balance at 5 Per cent.

Column E—Cumulative Credit Balance Including Interest.

[fols. 9455-9462] Gas Well Construction and Equipment

* * * * * * *

[fol. 9463] Method of Annual Reserve Calculation—Gas Well Construction and Equipment

In the preceding discussion, consideration has been given to some of the difficulties encountered when an attempt is made to anticipate the mortality of existing gas wells and to estimate the probable rate of failure and abandonment

of wells to be drilled in the future, whether drilled in developed or in unproven areas.

A brief analysis has also been made of some of the factors that control the functions of reserve accruals designed to offset the decline in rated capacity and to provide for the ultimate loss of a group of producing gas wells. In this analysis, it was shown that, considered primarily as a group of units of physical property, a given number of wells might remain in service over a given number of years without the failure of any individual well during this interval. It was also shown if such a condition did exist, a dimunition of ratable capacity per well would inevitably take place during the interval and that the rate of this dimunition in ratable service capacity would be controlled by the rate of gas withdrawals rather than by the passage of time.

If the capital outlay involved in that part of the property of Lone Star Gas Company required to bring its gas reserves into possession is to be recovered by means of a reserve accrual, it is obvious that this reserve accrual in the aggregate should have a definite relation to the total volume of gas that may be brought into possession by means of the facilities provided for recovery. If the unit of production is M cubic feet of gas, it follows that the loss created by the withdrawal of a unit of production will be the reproduction cost of gas well construction and equipment [fol. 9464] of an individual well, divided by the total volume of recoverable gas expressed in terms of M cubic feet of gas that may ultimately be produced by this well. If the reproduction cost of gas well construction and equipment is a known factor and the volume of gas which can be recovered by means of the well and equipment can be estimated with comparative accuracy, then the simple mathematical process above outlined will fix the unit accrual rate in terms of cents per M cubic feet of gas that will be ultimately produced.

What has been said with reference to an individual well is equally applicable to a group of wells, and if similar determinations are made with reference to cost and expected recovery, a weighted accrual rate for the group expressed in terms of M cubic feet of withdrawals can be established.

In order to maintain the status quo of the ratable delivery capacity of gas wells owned and operated by Lone Star Gas Company and to deplete its developed reservoirs, the

group of wells in service as of January 1, 1933, must be supplemented by other wells with which to offset the inevitable decline which will take place in the ratable capacity of the wells in service as well as to permit complete depletion of the producing areas not fully developed at January 1, 1933. Normally, the first additional wells will be drilled in proven areas not fully developed. As the development of the present proven areas reaches saturation, the necessary supplementary drilling will be extended to other areas now classified as undeveloped. If the maintenance of the status quo alone is considered, this process will continue as a series of recurring cycles. If an increase in demand is considered, or if the demand remains constant, and if by reason of changed operating conditions the demand upon [fol. 9465] the production of company owned wells is increased, then in either case the processes of the cycle will be accelerated.

In the calculation of reserve accruals for any specific property, consideration must be given to the manner in which the operating charges of the company are handled and in the case of Gas Reserves and Gas Well Construction and Equipment, equal consideration must be given to the manner in which these property items have been treated in a reproduction cost estimate, or in the property base expressed in terms of dollars to which the accrual rates are to be applied.

In the reproduction cost estimate of the property and business of Lone Star Gas Company as of January 1, 1933, the gross value of the developed gas reserves of the company were determined upon the basis of the application of a determined unit value per M cubic feet to the volume of recoverable gas in the developed and defined reservoirs owned by the company. From this gross value there was deducted the reproduction cost now of all gas wells now owned and operated by the company together with the cost of all future drilling that will be required in the specific areas in order to secure a complete and ratable recovery from these reservoirs.

In order to make this evaluation of gas reserves, it was necessary, not only to determine the volumetric content of the reservoirs in M cubic feet of gas and the average unit value of gas after recovery, but it was also necessary to fix an average annual withdrawal rate for the purpose of

applying the proper discount factors to the unit value of the gas after it had been recovered.

[fol. 9466] It will be clear from this brief explanation that by the method of valuation adopted, there has been established a balanced relation between the gross value of the gas reserves owned by Lone Star Gas Company as of January 1, 1933, and the reproduction cost new of Gas Well Construction and Equipment as of that date as well as the cost of future drilling in the areas under consideration. The deduction of the full reproduction cost new of all gas wells now in service as well as the cost of future wells, from the gross value of the reservoirs, with no consideration given to the remaining life expectancy or potential production from any well requires that the amount thus deducted from the gross value of reserves be recovered during the period of depletion.

A careful determination has been made of the total delivery of gas in M cubic feet from all wells which have been attached to the system of Lone Star Gas Company, but which have been abandoned by reason of the practical exhaustion of their reservoirs. A careful determination has likewise been made of the recoverable gas in the gas reserves included in the reproduction cost estimate of property of the company as producing leaseholds. This determination has been made by Mr. F. E. Kendrick, Chief Geologist, Lone Star Gas Company, and Mr. J. H. Dunn, Production Engineer, Lone Star Gas Company. Mr. Dunn has also prepared a schedule of future drilling for the Shamrock, Leeray and Sipe Springs districts. All of this essential information has been available in connection with the preparation of this report.

The following schedule sets out the reproduction cost new of Gas Well Construction and Equipment in the various areas wherein Lone Star Gas Company owns gas reserves.

[fol. 9467]

Field	Cost per Well	Number of Wells	Total
Chickasha	$16,380.45	43.00	$704,359
Duncan	13,614.91	8.50	115,727
Fox (Loco)	8,248.38	6.50	53,614
Panhandle (Shamrock)	15,062.48	78.00	1,174,874
Petrolia	11,264.99	46.00	518,190
Cheaney	24,270.61	18.00	436,871
Leeray	30,991.21	42.19	1,307,442
Sipe Springs	22,359.99	8.00	178,880
Miscellaneous Wells	23,555.88	11.25	265,004
Total		261.44	$4,754,961

The following schedule sets out the estimate of the recoverable reserves owned by Lone Star Gas Company in the various fields and the estimated number of additional wells that will be required to recover these reserves.

Field	Additional Wells	Estimated Cost	Reserves M. Cubic Feet
Chickasha	...	...	1,877,000
Duncan	...	...	461,000
Fox (Loco)	...	...	270,000
Miscellaneous (Oklahoma)	...	...	1,390,000
Panhandle (Shamrock)	86	$1,295,332	211,000,000
Petrolia	...	...	1,877,000
Cheaney	...	...	1,800,000
Leeray	36*	1,115,676	123,570,000
Sipe Springs	18	402,480	19,000,000
Miscellaneous (Texas)	...	...	5,300,000
Total,	140	$2,813,488	366,545,000

* Includes five wells now producing gas but not included in the current appraisal.

The reproduction cost of the present wells, $4,754,961, together with the estimated cost of the future wells, $2,813,488, indicates a total cost of $7,568,459 for Gas Well Construction and Equipment required to recover 366,545,000 M cubic feet of gas.

The estimated unit cost of recovery is, therefore, $.0206 per M cubic feet of gas produced.

[fol. 9468] In connection with the foregoing determination, the following comment is offered: the total estimated production per well including the estimated additional wells required for the future development of the present producing areas is approximately 913,000 M cubic feet per well. An analysis of the total production from 502 gas wells which have been attached to the system of Lone Star Gas Company but which have been abandoned by reason of the depletion of their respective reservoirs hsows that the average total production from company owned wells has been 91,773 M. cubic feet, and that the average total production from other owned wells has been 180,079 M. cubic feet. The weighted total average production from all wells abandoned prior to January 1, 1933, has been 165,126 M. cubic feet. The basis of these calculations is set out in detail in the tabulations showing total deliveries of abandoned gas wells.

Mr. Dunn in his estimate of the number of wells that will be drilled in the future in the Sipe Springs, Leeray and Shamrock Districts has confined his estimate to the number

of wells required to conform to the lease obligations of the company and has given no consideration to an increase in the number of wells above this minimum that might be brought about by reason of future needed availability.

A primary function of a reserve accrual is the elimination of irregularities in current operation charges which will be caused by the variable rates of property, replacements and capital losses. In the case of an annual reserve accrual designed to provide for the uniform recovery of capital expenditures subject to the type of loss characteristic of the failure of gas wells, it is necessary to accrue [fol. 9469] this reserve at a uniform rate determined by the average rate of delivery over a period of years during which a rational estimate of average deliveries can be made.

As of January 1, 1933, the wells owned and operated by Lone Star Gas Company furnished approximately forty-two per cent of the potential capacity of all natural gas wells attached to the system. This ratio of potential delivery capacity of company owned wells has constantly increased since the Petrolia Field ceased to be a material factor as a source of supply and every known factor indicates that this ratio will continue to increase in the future.

The tabulation showing the number of company owned wells and the relation of gas produced from company owned wells to the amount of gas purchased from 1917 to 1932 inclusive clearly indicates the trend towards a higher ratio of gas produced to gas purchased.

An analysis of the facts disclosed by the tabulation gives a complete insight into the various phases of the development of the present gas supply of Lone Star Gas Company and an appreciation of the effect of the changes that have taken place in this phase of the company's operations since 1917. During the year 1917, 90 per cent of the total gas purchased and produced came from the production of company wells in the Petrolia Field. The rapid decline of this source of supply during the years immediately following 1917 and the effect of the attachment of independent gas production in Southern Oklahoma in 1918 is indicated by the rapid decline in per cent of gas produced and the corresponding increase in the percentage of gas purchased during the years 1918, 1919, 1920, 1921 and 1922.

During the year 1925, the volume of residue gas secured [fol. 9470] from casing head gasoline plants first became

an important factor as a source of supply and during that year the percentage of gas produced reached the minimum figure of 8.93 per cent of the total gas.

After the marked decline of the Petrolia Field and until the beginning of the year 1928, the production from company owned wells was relatively small compared to the production from casing head plants and other owned natural gas wells. During 1927, the production of the company was largely drawn from the depleted reserves of the Petrolia area and the Loco, Duncan and Walters Districts in Southern Oklahoma. During the latter part of 1927, the company began an active program of gas development together with the purchase of producing gas wells which has resulted in the situation with reference to potential production from company owned wells that exists as of this date. The increase in the number of company owned wells exclusive of Petrolia, from 45 in 1927 to 222 in 1933, is not fully indicative of the increased capacity of company owned wells. The total open flow of company owned wells in 1927 was 159,777 M. cubic feet. In 1932 the total open flow of company owned wells was 2,433,983 M. cubic feet—an increase of 1500 per cent.

The full effect of the normal increase in the ratio of produced gas to purchased gas is not reflected in the tabulation. It will be noted that there has been a decline of approximately 10,000,000 M. cubic feet in total deliveries from 1929 to 1933 due largely to a corresponding decline in industrial gas sales. It has been the policy of Lone Star Gas Company to secure its base load requirements from casing head plants for the reason that if this gas is not currently utilized, it will otherwise be wasted. Due to this fact, the decline in the amount of gas secured from casing head [fol. 9471] plants reflects a decline in potential deliveries from this source rather than a proportionate decline in deliveries due to a decline in market requirements. The history of casing head plants as a potential source of supply will be discussed in detail.

In addition to the increase in capacity to deliver previously discussed, certain other factors will have a direct bearing upon the future increase in the proportionate amount of total deliveries secured from company owned wells.

Incidental production of gas developed in connection with the exploration for oil has in the past been the most fruitful source of independent gas production. Practically every area now reached by the gathering system of Lone Star Gas Company is practically devoid of any prospects in profitable future oil production. Inasmuch as natural gas production per se cannot support wild cat operations on the part of independent producers, the practical elimination of prospective oil production in the areas reached by Lone Star Gas Company will sharply restrict independent wild catting for oil production and will correspondingly reduce the volume of gas available for purchase during future years.

Another important factor will also tend to increase the proportionate amount of the total market requirements that will be furnished by company owned wells. As indicated by the tabulation, the production of casing head gas in West Texas has, since 1924 furnished Lone Star Gas Company with a substantial part of its base load requirements. The general condition of the oil and gasoline markets has practically stopped any additional development for the production of gasoline from casing head gas in the areas reached by Lone Star Gas Company and there has been a steady [fol. 9472] decline in the potential deliveries from this source. The supply of casing head gas which has provided an annual average of approximately 15,000,000 M. cubic feet of purchased gas will soon cease to be a material factor with reference to the base supply of gas.

The history of the delivery of residue gas to Lone Star Gas Company from casing head gasoline plants is shown in two tabulations: Tabulation Showing Detail of Casing Head Gas Purchased by Years in M. Cubic Feet and Tabulation Showing Decline in Production of Casing Head Gas Major Sources of Supply Lone Star Gas Company.

While the detail tabulation of total deliveries shows a decline from a maximum production in 1927 of 17,641,453 M. cubic feet to 10,324,783 M. cubic feet in 1932, this indicated decline does not reflect the actual rate of decline in potential deliveries from this source due to the fact that additional plants have been attached during various years from 1924 to 1932. The second tabulation clearly sets out the actual potential decline that has taken place in the major sources of supply that have been in service continuously

since 1924. The relative annual deliveries from these sources, which have furnished the major portion of all residue gas purchased, have declined from 100 per cent (maximum delivery) in 1925 to 30.9 per cent in 1932.

A further study of the rate of decline in the potential delivery capacity of the sources of supply of casing head gas available to the various plants now connected to the system of Lone Star Gas Company is now being made by Mr. J. H. Dunn. The final results of this investigation are not available at this time, but sufficient progress has been made to indicate that the rate of decline indicated by the figures used herein are indicative of the rate of decline [fol. 9473] of casing head gas as a future source of supply for Lone Star Gas Company.

In addition to an increase in the ratio of the total market requirements that company owned wells will be called upon to produce by reason of the cumulative effect of the factors previously discussed, there will be a normal increase in the total market requirements due in part to the growth of the market and in part to some revival in general business conditions. Any horizontal increase in market requirements will also be reflected correspondingly in the volume of gas to be supplied by means of company owned wells.

It is impossible to make an exact estimate of the proportional part of the total deliveries that will in the future be supplied by means of the gas wells included in this estimate and the cost of which must be recovered by means of the reserve accrual set up. It is not difficult, however, in view of the information contained in the available data, to fix an average annual rate of future delivery which will be clearly within the limits of probable future results. This average annual rate of future deliveries has been fixed at 20,000,000 M. cubic feet. This rate of delivery contemplates the practical depletion of developed gas reserves of Lone Star Gas Company as of January 1, 1933, over a period of approximately nineteen years.

The estimated average annual sum required to recover the cost of gas well construction and equipment necessary for the ratable depletion of the developed reserves of Lone Star Gas Company as of January 1, 1933 is, therefore, $.0206 (estimated unit loss per M. cubic feet of gas produced) times 20,000,000 cubic feet (average annual with-

drawals—company owned wells on present producing areas) or $412,000.

[fol. 9474] Decline in Per Cent of New Condition

The average annual decline in per cent of new condition found by inspection to be applicable to the physical property of Lone Star Gas Company was approximately one per cent per annum of weighted age. Included in the property to which this decline in per cent of new condition applied was $3,894,317 for the direct physical costs of Gas well construction and equipment in service as of January 1, 1933. This rate of decline in per cent of new condition (as applied to the property in service as of January 1, 1933, without consideration of the effect of future capital additions) will continue until a static per cent of new condition is reached. The provision for this loss as applied to gas well construction and equipment will require an annual accrual of $38,943 for a period of approximately fifteen years following January 1, 1932.

Effect of Salvable Value of Equipment

The calculations from which the per cent of value lost on the abandonment of gas wells has been determined is shown in the tabulation—Determination of Salvable Value —Gas Well Construction and Equipment. As shown in this tabulation, which is based upon the experience of Lone Star Gas Company in the matter of the various items of construction costs as well as in the matter of the percentage of materials recovered on well abandonment, the loss on abandonment without consideration of the loss in value of the recovered materials, is 84.5 per cent of the direct structural costs. Included in the deductions from the gross value of gas reserves for the cost of gas well construction and equipment required for recovery was an item of 22.1 per cent of direct structural costs to cover General or Undistributed Costs. All general costs will be necessarily lost [fol. 9475] on abandonment. An adjustment for this fact places the per cent of loss on abandonment at 87.29 per cent of the total installed cost including general costs.

The estimated proportion of the total cost of gas well construction and equipment as shown in the tabulation, together with an allowance of 22.1 per cent for General Costs, represented by the gross value of the casing and

fittings recovered was found to be 18.41 per cent. The decline in worth of this equipment upon final recovery will not be less than 33.3 per cent of value new, or an additional loss of 6.14 per cent expressed as a percentage of total installed cost. This additional loss due to the final condition of recovered material when added to the estimated loss of 87.29 per cent results in a total estimated loss of 93.43 per cent of the total installed cost of Gas Well Construction and Equipment.

Conclusion

The final determination of the annual reserve accrual required for Gas Well Construction and Equipment may be summarized as follows:

Annual allowance for recovery of Physical Property and General Costs $.0206 x 20,000,000	$412,000
Annual allowance for decline in per cent of new condition	38,943
Total Annual Allowance	$450,943
Estimated percentage of total cost lost	93.43
Net Calculated Annual Reserve Accrual	$421,316

The method of calculation which has resulted in the estidated annual reserve accrual required for gas well construction and equipment shown in the above summary develops an annual sum for the accrual substantially less than would have been developed had gas wells been treated from [fols. 9476-9479] the standpoint of items of physical property and the mortality experience of gas wells been applied.

In the foregoing calculations, however, the obvious inconsistencies and the innumerable uncertainties that would necessarily have entered into any calculation based upon the average life of gas wells have been largely eliminated.

The number of wells in service as of January 1, 1933, was a matter of exact determination. The reproduction cost of these wells including general costs has been estimated in a manner which precludes the possibility of any material error finding its way into the estimate. The reserve calculations have been carefully made and have been based upon an accumulation and an assimilation of data which are complete and reliable. If there has been an over estimate of the recoverable reserves, this error has resulted in a

reduction in the estimated annual accrual rate. The number of future wells required for recovery has been based upon the leasehold obligations of Lone Star Gas Company rather than upon a consideration of these obligations, together with additional drilling that future needed availability may require and to this extent the estimate is of necessity a conservative one. The estimated future average annual production from company owned wells, while not based upon data as exact in character as those which controlled the other phases of the estimate, was nevertheless based upon a careful study of the effect of every factor that will have a bearing upon the future ratio of purchased and produced gas.

* * * * * * *

Defendant's Exhibit No. 42—Continued

[fols. 9480-9484]

Tabulation Showing

Company Owned Wells and Relation of Gas Produced to Gas Purchased—1917–1932

Year	Number of Wells*	Gas Produced M. Cubic Ft.**	Per cent of Total	Purchased Casing Head Gas M. Cu. Ft.	Per cent of Total	Other Gas Purchased M. Cubic Ft.	Per cent of Total	Total Gas M. Cubic Ft.
1917	..	7,605,761	89.90	.....	.....	854,345	10.10	8,460,106
1918	..	5,579,148	32.21	.....	.....	11,741,051	67.79	17,320,199
1919	3	3,036,385	18.06	.....	.....	13,772,373	81.94	16,808,758
1920	44	4,488,336	40.53	.....	.....	6,585,609	59.47	11,073,945
1921	55	2,640,048	29.01	.....	.....	6,461,321	70.99	9,101,369
1922	62	3,581,676	18.21	.....	.....	16,084,073	81.79	18,665,749
1923	65	3,959,067	19.12	186,682	.90	16,559,824	79.98	20,705,573
1924	57	3,769,945	13.74	11,699,183	42.64	11,969,857	43.62	27,438,985
1925	51	2,907,474	8.93	15,532,150	47.71	14,115,755	43.36	32,555,379
1926	44	4,740,107	12.96	17,181,128	46.98	14,649,961	40.06	36,571,196
1927	45	5,908,469	15.82	17,641,453	47.23	13,800,764	36.95	37,350,686
1928	59	6,662,952	18.74	14,445,444	40.62	14,453,450	40.64	35,561,846
1929	120	8,718,164	21.33	12,724,102	31.12	19,436,458	47.55	40,878.724
1930	167	10,188,345	26.16	13,107,607	33.66	15,648,059	40.18	38,944,011
1931	174	8,837,447	27.74	10,995,140	34.52	12,022,034	37.74	31,854,621
1932	222	9,075,842	29.96	10,324,783	34.09	10,890,392	35.95	30,291,017

* Exclusive of Petrolia.
** Includes Petrolia Field and Joshua Station Deliveries.
All Data from Records of Gas Measurement Department—Lone Star Gas Company.

• • • • • • •

[fol. 9485] Reserve Accrual for Gas Well Construction and Equipment Based on Mortality Data for Gas Wells

No report of this character would be complete unless it contained in summary form at least the available historical data relative to the actual mortalities of gas wells. The historical data herein contained permits the complete analysis of the performance to date of more than 500 producing gas wells now attached to the system of Lone Star Gas Company and the complete mortality experience of more than 500 wells that have been abandoned by reason of the practical exhaustion of their respective reservoirs. The essential facts that may be developed from a detailed study of these data have been reduced to condensed tabulations and graphic charts.

The basic historical data consist of the following tabulations:

Producing Wells—Classified by Fields, Company Owned and Other Owned Wells—531 Wells:

1. Meter Number.
2. Owner.
3. Farm Name.
4. Date Connected.
5. Years and Months in Service to Date.
6. Total Delivery to Date.
7. Original Rock Pressure.
8. Original Open Flow.
9. Present Rock Pressure.
10. Present Open Flow.

Abandoned Wells—Classified by Fields, Company Owned and Other Owned Wells—512 Wells:

1. Meter Number.
2. Owner.
3. Farm Name.
4. Date Connected.
5. Date Abandoned.
6. Years and Months in Service.
7. Total Delivery.

For reasons heretofore discussed, wells drilled in the Petrolia Field were eliminated from the studies.

[fol. 9486] From these basic historical data the following tabulations have been prepared and included in the report.

1. Table of Mortality Data 512 Abandoned Gas Wells, Texas and Oklahoma, Exclusive of Petrolia Field.

2. Condensed Mortality History of 512 Abandoned Gas Wells That Have Been Connected to Lone Star Gas Company System, Exclusive of Petrolia Field.

3. Summary of Total Average Deliveries of Abandoned Gas Wells that have Served the System of Lone Star Gas Company—Purchased and Produced.

4. Tabulations Showing Total Deliveries of Abandoned Gas Wells That Have Served the System of Lone Star Gas Company—Purchased and Produced.

5. Tabulation Showing Weighted Age of Gas Wells Now Serving the System of Lone Star Gas Company—Exclusive of Petrolia Field.

6. Tabulation Showing Weighted Age of Abandoned Gas Wells Having Served Lone Star Gas Company, Exclusive of Petrolia Field, Assuming all Abandoned Wells Now in Service.

7. Tabulation Showing Weighted Age of All Wells Having Served or Now Serving the System of Lone Star Gas Company—Exclusive of Petrolia Field, Assuming all Wells now in Service.

8. Condensed Mortality History of 1001 Gas Wells Through One Complete Life Cycle, All Wells Connected Since 1918, Exclusive of Petrolia Field.

From the information developed in these tabulations, Mortality Curves have been prepared which indicate the mortality characteristics of abandoned wells and the mortality characteristics of all wells connected since 1913.

The following summary sets out the essential facts shown by each of the tabulations.

The table of mortality data of 512 abandoned gas wells and the condensed mortality history of these same wells clearly indicate the extremely high mortality experience of natural gas wells in Southern Oklahoma and North Central Texas. Of the 512 wells abandoned, 50.6 per cent were abandoned after a service life of twenty-one months or less

[fol. 9487] and 75.6 per cent were abandoned after a service life of forty-one months or less. This extremely high rate of mortality is not indicative of the average well performance for the reason that abandoned wells only have been considered in the study. It nevertheless gives an insight into general characteristics of gas wells drilled in this section of the Mid-Continent Area.

The tabulations showing the total deliveries from abandoned gas wells have been commented upon in a preceding section of the report. The relatively small deliveries from these wells is in conformity with the facts developed relative to the high mortality rate of the same wells. As shown by the tabulations, the weighted average delivery from the abandoned wells was only 165,126 cubic feet. If the average cost of these wells was $20,000, the average cost for gas well construction and equipment without consideration of fixed charges during the period of depletion was in excess of $.12 per M. cubic feet produced. It is interesting to compare this unit cost of production with the unit cost of $.0206 used as the basis for the calculation of reserve accruals in the preceding section of this report.

The tabulation which sets out the weighted age of the wells now serving Lone Star Gas Company (exclusive of the Petrolia Field) shows that the two oldest wells now in service have had a service life of thirteen years and that only eighteen wells out of 531 have been in service eleven years. The weighted age of all wells now in service is approximately four years.

The tabulation which sets out the weighted age of the abandoned wells, wherein it is assumed that each of these wells is still in service, is of extreme interest in that it de- [fol. 9488] velops the fact that if each of the wells that have been abandoned were still in service, the weighted age of this group would be only 8.87 years.

The tabulation which sets out the weighted age of all wells in service and abandoned is a composite study based upon the two preceding tabulations. In this tabulation it is also assumed that all wells which have been abandoned are still in service and under this assumption, the weighted age of the entire group, 1043 in number, is 6.38 years.

The tabulation which sets out the condensed mortality history of 1001 gas wells through one complete life cycle is the most important in the group for the reason that it affords

the basis for the preparation of a true mortality curve for gas wells in Southern Oklahoma and North Central Texas.

This tabulation shows the percentages of failure to date for the group of wells attached to the System of Lone Star Gas Compay during each year from 1919 to 1932, inclusive. The year 1919 was selected as the initial year for the reason that the percentage of mortality for wells attached prior to 1920 has been 100 per cent.

The mortality curve derived from the tabulation is shown in graphic form in Lone Star Gas Company Depreciation Analysis—Mortality Curves for Gas Wells. From the mortality curve a distribution curve of annual replacements of original wells has also been developed and from this basic distribution curve, the necessary calculations have been made giving effect to replacements of original wells and replacements of replacements over two complete life cycles. In the calculations it was assumed that the replacements of original wells would have the same mortality characteristics as those of the original group.

[fol. 9489] The following tabulation sets out the calculated annual rates of replacements for various service years for gas wells as developed from the distribution curve of replacements of original wells and replacements of replacements.

Service Years	Calculated Annual Replacement Rates
1	.00
2	5.25
3	7.03
4	8.72
5	10.85
6	12.97
7	16.09
8	17.09
9	16.28
10	15.68
11	14.99
12	15.39
13	16.40
14	16.53
15	15.41

Service Years	Calculated Annual Replacement Rates
16	14.93
17	15.22
18	15.44
19	15.61
20	15.71
21	15.69
22	15.60
23	15.54
24	15.53
25	15.55
26	15.58
27	15.58
28	15.55
29	15.55

The weighted age of the wells now in service, as previously shown, is approximately four years. The average annual replacement rate for the twenty-five year period following the fourth service year is 15.4 per cent.

From a previous analysis of the cost of gas well abandonment it was determined that 84.5 per cent of the total installed cost of the wells would be lost on abandonment with- [fol. 9490] out consideration of any decline in worth of the salvable material. The estimated proportion of the total physical cost of gas well construction and equipment represented by the gross value of casing and fittings recovered was 22.50 per cent. The decline in worth of the equipment upon abandonment would not be less than 33.3 per cent of value new, or a loss of 7.50 per cent of the total installed cost of the physical property. The total loss on recovery would, therefore, be 92.0 per cent of the total installed cost. This percentage (92 per cent) applied to the average annual replacement rate (15.40 per cent) results in an annual rate of 14.17 per cent applicable to the reproduction cost of gas well construction and equipment.

The reproduction cost of the direct physical elements of gas well construction and equipment owned and operated by Lone Star Gas Company as of January 1, 1933, was $3,908,424. The application of the indicated annual rate of reserve accrual to this sum results in an estimated annual accrual of $553,824. This estimate has been based upon an

exact analysis of the most complete mortality data of gas wells drilled in the territory in which Lone Star Gas Company operates that have been compiled up to this time.

It is difficult to determine to what extent the accrual of annual reserves provide for the replacement of gas well construction and equipment should be based upon calculated annual rates developed from the Mortality Curve. The basic data from which the slope of the curve was determined was complete and included the history of the behavior of more than one thousand wells over a period of fourteen years.

It is seldom possible to secure a more complete background for the calculations of future rates of mortality than has been afforded by this study. Despite this fact, consider- [fol. 9491] ation must be given to certain factors that are applicable to gas wells and that are not applicable to other types of property units subject to periodic replacements. In practically all mortality calculations, the element of time is a basic factor. Time or service years is the ab-cissa of the rectangular co-ordinates that determine the slope of any mortality curve wherein the rate of replacement is a function of the passage of time. As has been previously set out the life of a gas well is primarily dependent upon the rate of gas withdrawals and is not primarily dependent upon the passage of time. It is also true in the calculation of future replacement rates that it is the usual practice to assume that the performance of replacements will correspond to the performance of the units replaced. In the case of most items of physical property, this assumption is basically sound. In the case of gas wells, however, the life of wells drilled in the future will be determined by the reservoir content and the rate of withdrawals and for this reason it is difficult, if not impossible, to anticipate the performance of future wells that may be drilled in widely scattered areas and from which varying rates of withdrawals will be made.

In this specific case it might be suggested the mortality data do not give the proper relative weight to the wells drilled in the Wheeler County district and to wells that will be drilled in this district in the future. An inspection of the tabulation upon which the mortality curve has been based discloses the fact that the slope of the curve is clearly indicated during the first five service years (1932-1928)

during which period a substantial number of the Wheeler County wells were attached. It is also true that future wells will not be confined to the Wheeler County District and no other rational assumption can be made than that the per-
[fols. 9492-9497] formance of wells drilled in other areas will conform in a general way to the performance of wells that have been drilled in the past in the same general territory.

The average life of gas wells indicated by the mortality curve is slightly in excess of 6 service years. There is no historical data available which would lead to a conclusion that the average life of a group of gas wells in this section of the Mid-continent Area will exceed six years. As previously stated, this indicated average life of gas wells based upon historical mortality data will result in a substantially higher annual reserve accrual than that determined by the application of an estimated average annual withdrawal rate to the unit cost per M. cubic feet of gas withdrawn. The behavior of the mortality curve eliminates the use of any type of reserve accrual based upon the sinking fund method.

* * * * * * *

[fol. 9498]

Tabulation Showing

Weighted Age of Gas Wells Now Serving

The System of Lone Star Gas Company, Exclusive of Petrolia Field

July 1, 1933

Year Connected	Number of Wells	Percent of Total	Service Years	Weighted Age
1920	2	.38	13.00	.0494
1921	5	.94	12.00	.1128
1922	11	2.07	11.00	.2277
1923	13	2.45	10.00	.2450
1924	13	2.45	9.00	.2205
1925	12	2.26	8.00	.1808
1926	22	4.14	7.00	.2898
1927	38	7.16	6.00	.4296
1928	50	9.42	5.00	.4710
1929	82	15.44	4.00	.6176
1930	124	23.35	3.00	.7005
1931	99	18.64	2.00	.3728
1932	23	4.33	1.00	.0433
1933	37	6.97	.25	.0174
Total	531	100.00		3.9782

Defendant's Exhibit No. 42—Continued

[fol. 9499]

Tabulation Showing

Weighted Age of Abandoned Gas Wells that Have Served the System of Lone Star Gas Company, Assuming All Wells Are Now in Service, Exclusive of Petrolia Field

July 1, 1933

Year Connected	Number of Wells	Percent of Total	Service Years	Weighted Age
1918	5	.98	15.0	.1470
1919	7	1.37	14.0	.1918
1920	8	1.56	13.0	.2028
1921	80	15.63	12.0	1.8756
1922	89	17.38	11.0	1.9118
1923	79	15.43	10.0	1.5430
1924	54	10.55	9.0	.9495
1925	42	8.20	8.0	.6560
1926	24	4.69	7.0	.3283
1927	40	7.81	6.0	.4686
1928	29	5.66	5.0	.2830
1929	18	3.51	4.0	.1404
1930	17	3.32	3.0	.0996
1931	17	3.32	2.0	.0664
1932	3	.59	1.0	.0059
Total	512	100.00		8.8697

[fols. 9500-9502]

Tabulation Showing

Weighted Age of All Wells Having Served or Now Serving the System of Lone Star Gas Company, Assuming All Wells Are Now in Service, Exclusive of Petrolia Field

July 1, 1933

Year Connected	Number of Wells	Percent of Total	Service Years	Weighted Age
1918	5	.48	15.00	.0720
1919	7	.67	14.00	.0938
1920	10	.96	13.00	.1248
1921	85	8.15	12.00	.9780
1922	100	9.59	11.00	1.0549
1923	92	8.82	10.00	.8820
1924	67	6.42	9.00	.5778
1925	54	5.18	8.00	.4144
1926	46	4.41	7.00	.3087
1927	78	7.48	6.00	.4488
1928	79	7.57	5.00	.3785
1929	100	9.59	4.00	.3836
1930	141	13.52	3.00	.4056
1931	116	11.12	2.00	.2224
1932	26	2.49	1.00	.0249
1933	37	3.55	.25	.0089
Total	1,043	100.00		6.3791

(Here follows one paster, side folios 9503-9504.)

Defendant's Exhibit No. 42—Continued

[fols. 9503-9504]

Calculation of Total Annual Replacement Rates

Gas Well Construction and Equipment—From Mortality Curves

Total Annual Replacements %	5.2500	7.0256	8.7232	10.8522	12.9693	16.0931	17.0919	16.2787	15.6791	14.9935	15.3875	16.4029	16.5344	15.4062
Year	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th
Total Annual Replacements %	14.9317	15.2228	15.4350	15.6105	15.7078	15.6862	15.6003	15.5370	15.5253	15.5547	15.5836	15.5768	15.5542	15.5475
Year	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th

Year	Replacements of Original Wells %														
1															
2	5.25														
3	6.75	.2756													
4	8.00	.3544	.3688												
5	9.50	.4200	.4742	.4580											
6	10.75	.4988	.5620	.5888	.5697										
7	12.75	.5644	.6674	.6979	.7325	.6809									
8	12.25	.6694	.7553	.8287	.8682	.8754	.8449								
9	9.75	.6431	.8958	.9377	1.0310	1.0375	1.0863	.8973							
10	7.50	.5119	.8606	1.1122	1.1666	1.2321	1.2874	1.1537	.8546						
11	5.25	.3938	.6850	1.0686	1.3837	1.3942	1.5288	1.3674	1.0988	.8232					
12	4.25	.2756	.5269	.8505	1.3294	1.6536	1.7300	1.6237	1.3023	1.0583	.7872				
13	4.00	.2231	.3688	.6542	1.0581	1.5887	2.0519	1.8374	1.5465	1.2543	1.0121	.8078			
14	3.00	.2100	.2986	.4580	.8139	1.2645	1.9714	2.1792	1.7499	1.4895	1.1995	1.0387	.8612		
15	1.00	.1575	.2810	.3707	.5697	.9727	1.5691	2.0938	2.0755	1.6855	1.4244	1.2310	1.1072	.8681	
16	....	.0525	.2108	.3489	.4612	.6809	1.2070	1.6665	1.9941	1.9991	1.6118	1.4618	1.3122	1.1161	.8088
17	....	.7839	.0703	.2617	.4341	.5512	.8449	1.2819	1.5872	1.9207	1.9117	1.6542	1.5583	1.3228	1.0399
18	....	1.0079	.7994	.0872	.3256	.5188	.6840	.8973	1.2209	1.5287	1.8367	1.9619	1.7633	1.5708	1.2325
19	....	1.1949	1.0278	.8103	.1085	.3891	.6437	.7264	.8546	1.1759	1.4619	1.8850	2.0914	1.7774	1.4636
20	....	1.4185	1.2181	1.0419	.8196	.1297	.4828	.6837	.6918	.8232	1.1245	1.5003	2.0094	2.1081	1.6562
21	....	1.6052	1.4462	1.2348	1.0537	.8247	.1609	.5128	.6511	.6664	.7872	1.1541	1.5993	2.0255	1.9643
22	....	1.9038	1.6365	1.4663	1.2488	1.0603	.8235	.1709	.4884	.6272	.6372	.8078	1.2302	1.6121	1.8873
23	....	1.8291	1.9409	1.6593	1.4830	1.2566	1.0588	.8190	.1628	.4704	.5997	.6540	.8612	1.2401	1.5021
24	....	1.4558	1.8648	1.9680	1.6781	1.4922	1.2549	1.0530	.8157	.1568	.4498	.6155	.6971	.8681	1.1555
25	....	1.1199	1.4842	1.8908	1.9903	1.6886	1.4902	1.2480	1.0487	.8151	.1499	.4616	.6561	.7027	.8086
26	....	.7839	1.1417	1.5049	1.9123	2.0027	1.6863	1.4820	1.2430	1.0480	.8166	.1539	.4921	.6614	.6548
27	....	.6346	.7992	1.1576	1.5220	1.9242	2.0000	1.6770	1.4760	1.2420	1.0499	.8181	.1640	.4960	.6162
28	....	.5973	.6470	.8103	1.1708	1.5315	1.9216	1.9890	1.6702	1.4749	1.2444	1.0519	.8178	.1653	.4622
29	....	.4480	.6089	.6560	.8196	1.1781	1.5294	1.9110	1.9810	1.6690	1.4777	1.2467	1.0514	.8166	.1541

BLANK

PAGE

[fol. 9505] Compressor Stations

[fol. 9506] The reproduction cost of Compressor Station Land, Structures and Equipment owned and operated by Lone Star Gas Company used in the public service as of January 1, 1933, and included in the reproduction cost estimate as of that date prepared by Mr. P. McDonald Biddison, Mr. E. A. Steinberger and Mr. Ed. C. Connor, is made up of the reproduction cost of two distinct types or groups of compressor installations. The first group may be defined as those stations so located on the main transmission trunks of the system as to be generally independent of the life of one or more gas fields with reference to service life in situ. This group of stations is hereinafter designated Main Line Stations. The second group of stations may be defined as those stations so located with reference to the system as a whole as to be generally dependent with reference to service life in situ (in part or as a whole) upon the life of one or more adjacent gas fields. This group of stations is hereinafter designated Field Stations.

In view of these definitions and classifications, it is evident that the factors that control the reserve accruals that will be applicable to Main Line Stations will differ in many essential respects from the reserve accruals that will be applicable to Field Stations. For this reason, it has been necessary to develop an independent estimate of the annual reserve accruals for each group.

The history of compressor station equipment in service in connection with the public service operations of Lone Star Gas Company has been comparatively brief. (See rate of growth Compressor Station Land, Structures and Equipment—Lone Star Gas Company.) The first installation was made in the year 1914, and consisted of a portion of the major units now in service as the Petrolia Main Line Sta-[fol. 9507] tion. This installation represents approximately fourteen per cent of the total horse-power installed and in service as of January 1, 1933. The first Field Station was installed in 1920, and this installation is now a part of the Fox Central Field Station. Of the present operative horse-power, seventy-five per cent has been in service less than ten years.

With the exception of certain major structures, the compressor units of Lone Star Gas Company are the largest individual property units found in the inventory of its

physical property. These units belonging to that class of property items whose mortality curve remains fairly constant at approximately one-hundred per cent survivors for a number of service years and then declines with comparative rapidity until one-hundred per cent abandonment is reached. The mortality of property items of this type, in practically every case, is brought about by excessive operating costs, or by the obsolescence of the equipment. True mortality data for this type of equipment are extremely rare due to the fact that a relatively small number of units are involved in any investigation, and to the comparatively long life cycle of the units themselves.

The history of Lone Star Gas Company offers no example of the complete functional depreciation of any of its individual compressor units. It must be borne in mind, however, that as of January 1, 1933, the oldest unit in service had been in service only seventeen years as of that date. Despite the lack of specific information concerning the mortality of any of the units, it is not reasonable to assume, in view of the mortality experience of all other types of reciprocating machinery, that the functional depreciation of the compressor units of Lone Star Gas Company will vary in [fol. 9508] any substantial way from the results of general experience and that the maximum service life of any given unit will exceed fifty years, or that the average service life of the group will exceed thirty-five years.

A typical mortality curve that compares to these basic stipulations has been prepared and will be discussed in detail in connection with the development of Functional Depreciation—Compressor Units.

An inspection of this curve discloses the fact that unlike the mortality curves of smaller property units whose individual mortalities have a wide variation from the average, the factor of replacements of replacements will have a relatively unimportant bearing upon the total replacements. In fact, any consideration of this factor may be eliminated without material error due to the fact that the life cycle of the group will probably extend beyond the period of time during which the property as a whole should be amortized and to the further fact that failures will be concentrated within a limited period of time.

In a situation of this character the logical method of reserve accrual is the accumulation of the reserves required

for complete functional depreciation upon a sinking fund basis.

What has been said up to this point has referred specifically to the complete functional depreciation of the main compressor units in service in both Main Lines and Field Stations. Incidental replacements of major elements of these main units have taken place in the past and will continue to take place at an accelerated rate as the age of the individual units, main and auxiliary, increases. Such replacements must be anticipated and be provided for by means of reserve accruals.

[fol. 9509] Included in the account, Compressor Station Land, Structures and Equipment, are many property items other than the main compressor units. These items include steel and wooden structures, cooling towers, underground and overhead piping and miscellaneous auxiliary equipment. Each of these items has a mortality rate that is dependent upon the class of materials used in construction and the type of service the units are called upon to render. For these reasons, it has been necessary to weigh the relative reproduction cost of the constituent elements of each compressor station in order to arrive at a rational basis for the calculation of the total reserve accrual requirements for Compressor Station Structures and Equipment.

As was stated at the beginning of this section of the report, the compressor installations of Lone Star Gas Company have been divided into two general classes—Main Line Stations and Field Stations. Field Stations have been defined as those stations so located with reference to the system as a whole as to be generally dependent with reference to service life in situ, upon the life expectancy of one or more gas fields. This condition introduces a factor of loss that grows out of the fact that the normal operations in the past have required, and will in the future require, the removal of units from one location to another and in many cases the complete abandonment of a station at a particular location and its wholesale transfer to another site better suited to the requirements of current operations.

It is evident that such removals, in part or as a whole, will result in substantial losses that must be met by means of reserve accruals. The history of the company's opera- [fol. 9510] tions from 1920 to July 1, 1933, affords a very fruitful source of information relative to mortalities aris-

ing from this source. These data have been fully correlated in the text.

Summarizing briefly the factors covered in the foregoing discussion, it may be stated that the determination of the proper annual reserve accruals designed to cover the depreciation, current replacements and other costs properly chargeable to reserve accounts in connection with the operation of the compressor stations of Lone Star Gas Company will require the following basic data:

1. The ratio of the reproduction cost of Main Line Stations to the reproduction cost of Field Stations.

2. An estimate of the rate of functional depreciation of the constituent elements of Main Line Stations and Field Stations.

3. The determination of the accrual charges for current replacements in all Structures and Equipment.

4. The determination of the probable rate of removal of compressor units due to depletion of gas reserves and other changed operating conditions.

5. The ratio of loss to salvable value in partial and complete removals of equipment installed in Field Stations.

Ratio of Reproduction Cost of Main Line Stations to the Reproduction Cost of Field Stations

Due to their location with reference to the main transmission lines of the system of Lone Star Gas Company, the following stations have been designated Main Line Stations:

[fol. 9511]

Station	Reproduction Cost January 1, 1933
Gainesville	$76,295
Joshua No. 1	441,056
Joshua No. 2	69,602
Petrolia	1,056,638
Total Main Line Stations	$1,643,591

Due to their location with reference to the system as a whole, the following stations have been designated Field Stations:

Defendant's Exhibit No. 42—Continued

Station	Reproduction Cost January 1, 1933
Alvord	$14,505
Brad	162,193
Brazos	89,622
Breckenridge	290,099
Caddo	261,986
Cheaney	137,093
Desdemona	77,230
Eastland	130,994
Fox Central	244,286
Fox East	101,216
Gas City	281,623
Ibex	249,131
Loco	136,705
Pueblo	87,368
Ranger No. 1	128,856
Ranger No. 2	113,005
Ranger No. 3	291,651
Ranger No. 4	165,904
Sipe Springs	182,576
Tiffin	51,067
X-Ray	69,241
Total Field Stations	$3,266,355

Annual Rates for Functional Depreciation

As was set out in the previous discussion, the total reserve accruals required for Compressor Station Land, Structures and Equipment of Lone Star Gas Company will consist of the accruals required to meet the functional depreciation of the individual property units which will ac- [fol. 9512] crue irrespective of the location of these units, the losses brought about by reason of the removal of units or the complete removal of stations, the cost of current renewals, and the decline in over-all per cent of new condition.

For the purpose of determining the relative reproduction cost of the constituent items making up the total reproduction cost of compressor stations, a break-down has been prepared for both Main Line Stations and Field Stations.

The following tabulations set out in summary form the result of these break-downs.

Main Line Stations

Item	Amount	Per cent of Total
Land and Improvements	$26,181	1.59
Leaseholds and Improvements	3,072	.19
Structures—Class A	120,064	7.30
Structures—Class B	129,849	7.90
Main Units	772,811	47.02
Boiler Plant	54,815	3.34
Auxiliary Units	68,755	4.18
Water Supply	20,965	1.28
Water Storage Tanks	37,154	2.26
Cooling Towers	26,606	1.62
Plant Piping	253,800	15.44
Field Water Lines	34,724	2.11
Shop Equipment	25,168	1.53
Furniture and Fixtures	2,515	.16
Fire Protection Equipment	1,360	.08
Other Equipment	59,707	3.63
Joint Facilities	6,046	.37
Total	$1,643,592	100.00

Field Stations

Item	Amount	Per cent of Total
Land and Improvements	$70,368	2.15
Leaseholds and Improvements	26,914	.82
Structures—Class A	195,308	5.98
Structures—Class B	272,835	8.35
Main Units	1,674,822	51.28
Auxiliary Units	127,418	3.90
Water Supply	52,267	1.60
[fol. 9513] Water Storage Tanks	36,464	1.12
Cooling Towers	64,600	1.98
Plant Piping	534,529	16.36
Field Water Lines	96,881	2.97
Shop Equipment	7,583	.23
Furniture and Fixtures	4,662	.14
Fire Protection Equipment	6,732	.21
Other Equipment	94,967	2.91
Total	$3,266,350	100.00

Class A Structures—Steel Frame, Iron sides—Lighting equipment included.

Class B Structures—Wood Frame, Iron or wood sides—Lighting equipment included.

Water Supply—Water wells, dams and pumping equipment.

Cooling towers—Cooling Tower, Louvre vents and concrete basins.

Plant piping—All plant piping, overhead and underground.

Field Water Lines—All pipe and fittings to source of supply.

Other Equipment—Machinery parts, guard rails, miscellaneous equipment and supplies.

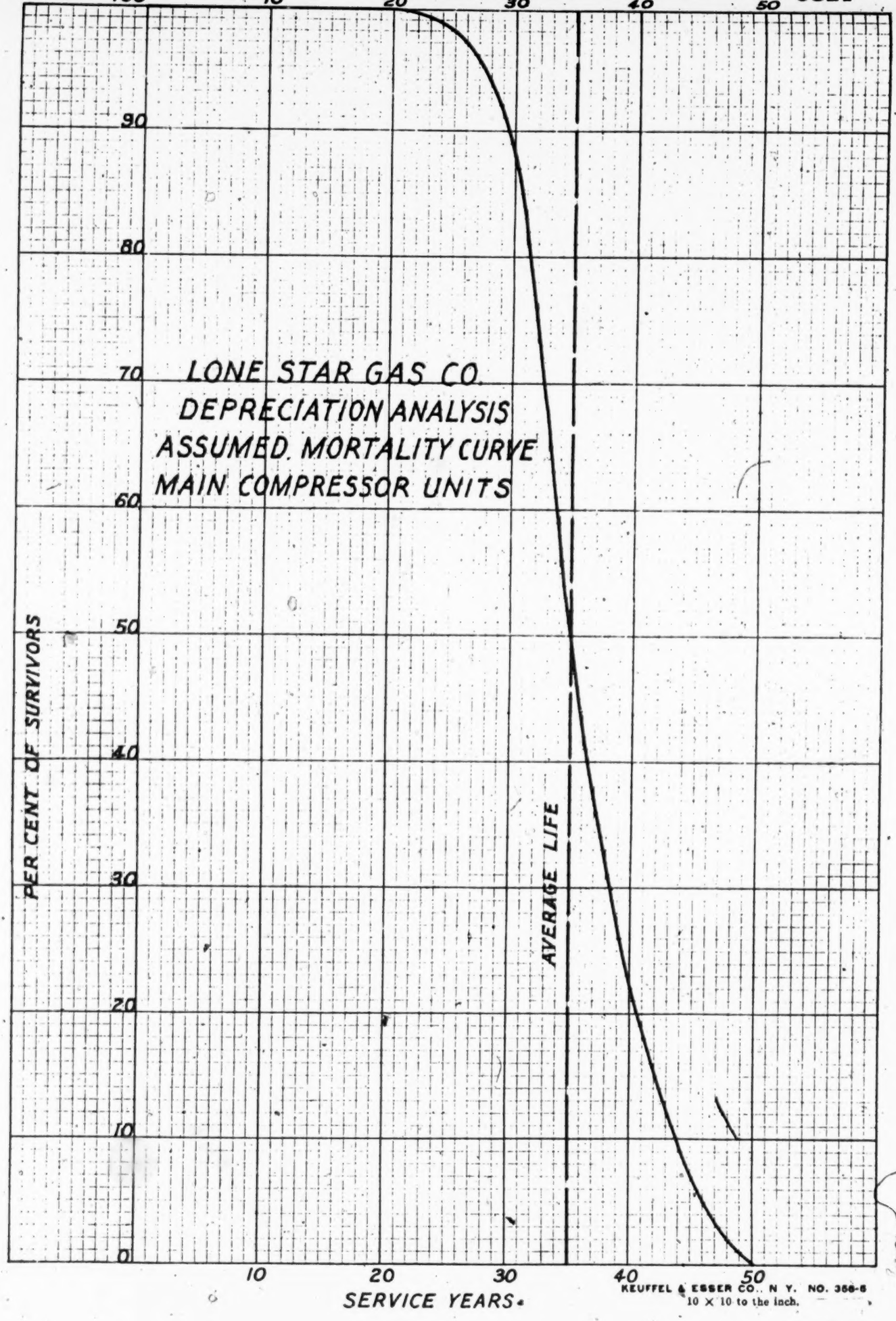
As indicated by the mortality curve adopted for the functional depreciation of main units, the estimated average life of the Main Units is 35.00 years (area under Mortality Curve equals 3,500 units. Total area equals 5,000 units. Ratio equals 70.0 per cent times total life of 50 years equals 35.0 years average life), or an ultimate average rate for replacements of 2.86 per cent per annum.

(Here follows photolithograph, side folio 9514)

9514

BLANK

PAGE


LONE STAR GAS CO.
DEPRECIATION ANALYSIS
ASSUMED MORTALITY CURVE
MAIN COMPRESSOR UNITS
PER CENT OF SURVIVORS
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
AVERAGE LIFE
SERVICE YEARS.
KEUFFEL & ESSER CO., N. Y. NO. 366-6
10 X 10 to the inch.

3160A

BLANK

PAGE

As previously suggested, due to the indicated characteristics of the mortality curve, this annual rate should be expressed as an annuity. A thirty-five year annuity calculated upon the basis of five per cent interest compounded annually becomes 1.10 per cent per annum. This annual rate has been adopted for the functional depreciation of [fol. 9515] Main Units.

All other annual rates herein applied to other items included in the general account—Compressor Station Land, Structures and Equipment were selected after a careful consideration of the type of equipment in service and the character of service rendered. Consideration was also given to the annual rates prescribed for similar equipment in Depreciation Studies—Preliminary Report of the Bureau of Internal Revenue.

Main Line Stations

Item	Per cent of Total	Annual Rate of Reserve	Annual Weighted Rate
Land and Improvements	1.59	2.00	.0318
Leaseholds and Improvements	.19	2.00	.0038
Structures—Class A	7.30	3.33	.2431
Structures—Class B	7.90	6.67	.5269
Main Units	47.02	1.10	.5172
Boiler Plant	3.34	7.00	.2338
Auxiliary Units	4.18	5.00	.2090
Water Supply	1.28	2.00	.0256
Water Storage Tanks	2.26	5.00	.1130
Cooling Towers	1.62	6.67	.1081
Plant Piping	15.44	5.00	.7720
Field Water Lines	2.11	5.00	.1055
Shop Equipment	1.53	15.00	.2295
Furniture and Fixtures	.16	10.00	.0160
Fire Protection Equipment	.08	6.67	.0053
Other Equipment	3.63	10.00	.3630
Joint Equipment	.37	5.00	.0185
Total Weighted Annual Rate			3.5221

Field Stations

Land and Improvements	2.15	2.00	.0430
Leaseholds and Improvements	.82	2.00	.0164
Structures—Class A	5.98	3.33	.1991
Structures—Class B	8.35	6.67	.5569
Main Units	51.28	1.10	.5641
Auxiliary Units	3.90	5.00	.1950
Water Supply	1.60	2.00	.0320
Water Storage Tanks	1.12	5.00	.0560
Cooling Towers	1.98	6.67	.1321

[fol. 9516]

Field Stations (Cont'd)

Item	Per cent of Total	Annual Rate of Reserve	Annual Weighted Rate
Plant piping	16.36	5.00	.8180
Field Water Line	2.97	5.00	.1485
Shop Equipment	.23	15.00	.0345
Furniture and Fixtures	.14	10.00	.0140
Fire Protection Equipment	.21	6.67	.0140
Other Equipment	2.91	10.00	.2910
Total Weighted Annual Rate			3.1146

Reserves Required for Losses Due to Removals

The calculation of the annual reserve accrual required to offset losses growing out of the removal of individual compressor units, or the complete removal or abandonment of Field Stations is based upon the experience of Lone Star Gas Company with reference to this type of loss.

As shown by the tabulation included herein, 9,175 horsepower originally installed in Field Stations has been removed or abandoned as of July 1, 1933. The horsepower as shown by the tabulations represented 32.30 per cent of the total horsepower in service in Field Stations as of January 1, 1933, together with such horsepower as has been abandoned or transferred to other classes of service. This determination was made by dividing 9,175 by 28,405.

It is also shown by the tabulations that the weighted age of Field Station Units, together with units previously used in Field Stations and subsequently transferred to other classes of service was 8.39 years. The rate of removal indicated by these data is 3.85 per cent at approximately eight service years.

It is obvious that the same probability of future removal will apply to units that have been removed from an original location to a new location as was applicable to these units [fol. 9517] when originally installed.

For this reason, the mortality curve shown in the graph—Lone Star Gas Company Depreciation Analysis—Mortality Curve—Field Compressor Stations, and the distribution curve of annual removals gives effect to factor of removals of removals.

This distribution curve was based upon a uniform slope for the mortality curve indicating a rate of 3.30 per cent per annum for the removal of units from original locations.

The calculated annual rates of removals of original units and removals of removed units are shown in the tabulation —Calculated Annual Removal Rates from Mortality Curve —Field Compressor Stations.

As a check upon the accuracy of the mortality curve adopted the cumulative removal rates for various service years have been applied to the horsepower installed for the corresponding service years. The results of this check are shown in the following tabulation:

Year	Horse Power	Cumulative % Age of Removals	Horse Power Calculated Removals
1919	300	57.54	172.63
1920	880	52.51	462.10
1921	1,800	47.64	857.51
1922	4,320	42.92	1,854.28
1923	3,200	38.36	1,227.44
1924	4,160	33.94	1,411.80
1925	1,615	29.66	478.99
1926	5,890	25.52	1,502.94
1927	2,340	21.51	503.27
1928	800	17.63	141.00
1929	2,940	13.87	407.72
1930	.....	10.23	.....
1931	160	6.71	10.73
1932	.....	3.30	.....
1933	.....	.....	.....
Total	28,405		9,030.41

[fol. 9518] The calculated horsepower removed, 9,030.41, is to be compared with 9,175 horsepower historically removed from Field Stations.

The accuracy of the adopted mortality curve for Field Station removals having been established by the foregoing check, the future removal rates from the distribution curve were calculated for the years 1934 to 1955 inclusive in the tabulation—Calculation of Future Renewal Rates—Field Compressor Stations. For convenience and reference, the results shown in the calculation are set out in the following summary:

Defendant's Exhibit No. 42—Continued

Year	Calculated Horse Power Removed*	Per cent of Total*
1934	1,235.34	4.35
1935	1,276.26	4.94
1936	1,318.33	4.64
1937	1,361.88	4.79
1938	1,406.92	4.95
1939	1,453.17	5.12
1940	1,501.09	5.28
1941	1,550.86	5.46
1942	1,601.96	5.64
1943	1,645.99	5.83
1944	1,709.68	6.02
1945	1,765.82	6.22
1946	1,824.24	6.42
1947	1,884.15	6.63
1948	1,946.44	6.85
1949	2,010.68	7.08
1950	2,076.82	7.31
1951	2,135.44	7.52
1952	2,176.39	7.66
1953	2,187.62	7.70
1954	2,113.71	7.44
1955	2,069.89	7.29

* Calculated horse power removed is based upon 28,405 horse power installed. The actual horse power in service in Field Stations is 26,005. The use of the larger figure does not affect the calculated per cent of total.

Of the total horsepower removed or abandoned, 6,370.00 horsepower, or 69.43 per cent of the removals, was represented by complete removal or abandonment.

[fol. 9519] For this reason, an estimate has been made of the ratio of loss for both complete and partial removal or abandonment for a typical Field Station equipped with seven type 80, 170 horse power Cooper units, and two type 2, 10 horse power Fairbanks Morse auxiliary engines. Another estimate was made from an actual cost break-down of three typical Field Stations, and the results obtained from both estimates were in approximate agreement. From the tabulation—Estimated Loss on Total Removal or Abandonment—Typical Field Stations, and from the tabulation—Estimated Loss on Partial Removal—Typical Field Stations, it was developed that the percentage of loss on total removal or abandonment would be approximately 49.2 per cent of the total installed cost, and that the percentage of loss in partial removals would be approximately 21.9 per

cent of the total installed cost. The weighted percentage of loss is found as follows:

30.57 per cent times 21.9 per cent	6.69 per cent.
69.43 per cent times 49.2 per cent	34.16 per cent.
	40.85 per cent.

This weighted per cent of the total installed cost of Field Stations which represents the estimated per cent of loss by reason of partial and complete removals becomes the factor to be applied to the Calculated Future Removal Rates—Field Compressor Stations.

When this factor is applied to each of the annual rates of removal from 1934 to 1955 inclusive, which annual rates have been taken from the distribution curve of annual removals—Mortality Curve Field Compressor Stations, the resultant annual rates become the estimated future annual rates for losses on removals of Field Compressor Stations after giving effect to the salvable value of equipment in both partial and complete removals. The following summary [fol. 9520] sets out the results obtained by the application of the factor to each of the estimated removal rates, 1934 to 1955 inclusive.

Year	Annual Rate Per cent	Factor	Adjusted Annual Rate Per cent
1934	4.35	40.85	1.78
1935	4.49	40.85	1.83
1936	4.64	40.85	1.90
1937	4.79	40.85	1.96
1938	4.95	40.85	2.02
1939	5.12	40.85	2.09
1940	5.28	40.85	2.16
1941	5.46	40.85	2.23
1942	5.64	40.85	2.30
1943	5.83	40.85	2.38
1944	6.02	40.85	2.46
1945	6.22	40.85	2.54
1946	6.42	40.85	2.62
1947	6.63	40.85	2.71
1948	6.85	40.85	2.80
1949	7.08	40.85	2.89
1950	7.31	40.85	2.99
1951	7.52	40.85	3.07
1952	7.66	40.85	3.13
1953	7.70	40.85	3.15
1954	7.44	40.85	2.04
1955	7.29	40.85	2.98

[fol. 9521] Annual Reserve Accrual Required for Current Replacements

The annual rate of reserve accrual required for the functional depreciation of the constituent elements of both Main Line Stations and Field Stations and the annual rate of reserve accrual required for the cost of removals in Field Stations have been covered in the foregoing discussion. Consideration remains to be given to the annual rate required for current replacements and renewals properly chargeable to reserve accounts. The term Current Replacements, as used in this connection, is intended to cover the cost of the renewal of integral parts of the various items of equipment as distinguished from the replacement of the unit as a whole; the renewal of paint and other similar charges have been included under the general head of Current Replacements.

A complete analysis has been made of charges to the account Reserve for Depreciation—Compressor Station Construction and Equipment, the years 1929, 1930 and 1931. The results of this analysis are shown in the tabulation Summary of Charges to Reserve for Depreciation—Compressor Station Construction and Equipment.

It is evident from the summary that the annual charges to cover the cost of current replacements, as heretofore defined as distinguished from the cost of functional depreciation and the cost of major removals have been approximately one per cent per annum applied to the reproduction cost of Compressor Station Structures and Equipment. It is probable that the annual rate indicated by the current charges will increase with the increasing age of the structures and units and for this reason the adopted annual rate of reserve accrual, one per cent, is conservative.

Defendant's Exhibit No. 42—Continued

[fol. 9522]

Summary of Charges to Reserve for Depreciation—

Compressor Station Construction and Equipment

Classification of Charges	Year 1929	Year 1930	Year 1931	Average Three Years
Painting Class A and B Structures	$23,420.36	$7,213.89	$297.27†	$10,112.33*
Repairs to Class A and B Structures	1,416.78	1,473.73	1,453.00	1,447.84*
Furniture and Fixtures	.....	67.50	23.00	30.17*
Major Repairs to Main Units	6,702.96	15,822.67	24,590.63	15,705.42*
Major Repairs to Auxiliary Units	1,330.85	4,215.64	1,223.44	2,256.64*
Repairs to Gas Piping	4,216.81	10,377.79	9,192.90	7,929.17*
Repairs to Cooling Coils	12,027.04	2,410.33	2,062.34	5,499.90*
Abandonment of Class B Structures	637.55	.....	20.00	219.18
Abandonment of Lines	3,067.41	8,082.50	5,489.01	5,546.31
Replacements and Abandonments of Miscellaneous Items	2,106.54	3,790.66	18,249.00	8,048.73
Major Removals	148,078.09	22,775.09	101,610.78	90,821.32
Removals and Abandonments of Auxiliary Units	.....	437.62	2,016.38	818.00
Total Reserve Charges	$203,004.39	$76,667.42	$165,633.21	$148,435.01
Decline in Percent of New Condition Sustained but not charged	50,000.00	50,000.00	50,000.00	50,000.00
Total	$253,004.39	$126,667.42	$215,633.21	$198,435.01

* Items included under Current Replacements.

† Red in copy.

7813

[fol. 9523] Annual Reserve Accrual Required for Decline in Per Cent of New Condition

The reproduction cost of Compressor Station Structures and Equipment was included in the reproduction cost of the physical property, which, as a whole, was found to have suffered an annual decline in per cent of new condition of approximately one per cent per weighted service year and this rate of annual decline will continue for approximately fifteen years and the annual loss in value must be provided for by means of a reserve accrual of one per cent per annum for a period of at least fifteen years.

Salvable Value—Items Subject to Functional Depreciation

Of the total installed cost of the Main Line and Field Compressor Stations approximately fifty per cent would have some salvable value on replacement or abandonment. In order to salvage this material, approximately five per cent of the installed cost would be expended for recovery, leaving a net salvable value of forty-five per cent of the total installed cost upon the assumption that the recovered material has a salvage value of one hundred per cent of new. In view of the fact that functional depreciation as herein used contemplates the loss of usable value in the property item under consideration, not more than 33.3 per cent of value new could be obtained from items replaced or abandoned by reason of accrued functional depreciation—33.3 per cent applied to the gross salvable value, 45 per cent, results in an estimated net salvable value of 15 per cent. Therefore, .85 becomes the factor applicable to the indicated annual rate designed to provide for functional depreciation of equipment in both Main Line and Field Stations.

[fol. 9524] Summary

Main Line Stations:

The total annual rate of reserve accrual for Main Line Stations is as follows:

1. Annual Rate for Functional Depreciation 3.522 per cent times .85	2.994 per cent.
2. Annual Rate for Current Replacements	1.000 per cent.
3. Annual Rate for Decline in Per Cent of New Condition	1.000 per cent.
Total Annual Rate—Main Line Stations	4.994 per cent.

Field Stations:

The total annual rate for Field Stations is shown in Tabulation Showing Annual Rate of Reserve Accrual Field Compressor Stations, wherein average annual accrual of 6.83 per cent is indicated.

As previously set out, the reproduction cost of Main Line Stations as of January 1, 1933 was found to be $1,643,591 and the reproduction cost of Field Stations as of the same date was found to be $3,266,355. The ratio of the reproduction cost of Main Line Stations to the reproduction cost of Field Stations is, therefore, 33.47 to 66.53.

The weighted average annual rate of reserve accrual for both Main Line and Field Stations is, therefore:

33.47 per cent times 4.994 per cent = 1.6715 per cent.
66.53 per cent times 6.831 per cent = 4.5447 per cent.

Weighted Average Annual Rate 6.2162 per cent.

[fols. 9525-9528]

Tabulation Showing

Annual Rate of Reserve Accrual

Field Compressor Stations

Year	A	B	C	D	E
1934	1.00	1.00	2.648	1.78	6.428
1935	1.00	1.00	2.648	1.83	6.478
1936	1.00	1.00	2.648	1.90	6.548
1937	1.00	1.00	2.648	1.96	6.608
1938	1.00	1.00	2.648	2.02	6.668
1939	1.00	1.00	2.648	2.09	6.738
1940	1.00	1.00	2.648	2.16	6.808
1941	1.00	1.00	2.648	2.23	6.878
1942	1.00	1.00	2.648	2.30	6.948
1943	1.00	1.00	2.648	2.38	7.028
1944	1.00	1.00	2.648	2.46	7.108
1945	1.00	1.00	2.648	2.54	7.188
1946	1.00	1.00	2.648	2.62	7.268
1947	1.00	1.00	2.648	2.71	7.358
1948	1.00	1.00	2.648	2.80	7.448
1949	....	1.00	2.648	2.89	6.538
1950	....	1.00	2.648	2.99	6.638
1951	....	1.00	2.648	3.07	6.718
1952	....	1.00	2.648	3.13	6.778
1953	....	1.00	2.648	3.15	6.798
1954	....	1.00	2.648	3.04	6.688
1955	....	1.00	2.648	2.98	6.628
Average Annual Rate					6.831

A—Annual Percentage for Decline in Percent of New Condition.
B—Annual Percentate for Current Replacements.
C—Annual Percentage for Functional Depreciation (3.115 x .85).
D—Annual Percentage for Major Removals.
E—Total Annual Reserve Accrual—Percentage of Reproduction Cost—Field Compressor Station Structure and Equipment.

* * * * * * *

(Here follows one paster, side folios 9529 to 9531.)

BLANK

PAGE

3170 A

Defendant's Exhibit No. 42—Continued

[fol. 9529]

Compressor Stations

Future Annual Removal Rates—Field Stations—From Mortality Curves

Year	A	1934 B	1934 C	1935 B	1935 C	1936 B	1936 C	1937 B	1937 C	1938 B	1938 C	1939 B	1939 C	1940 B	1940 C	1941 B	1941 C
1919	300.00	5.20	15.60	5.37	16.11	5.55	16.65	5.73	17.19	5.92	17.76	6.12	18.36	6.32	18.96	6.53	19.59
1920	880.00	5.03	44.26	5.20	45.76	5.37	47.26	5.58	48.84	5.73	50.42	5.92	52.10	6.12	53.86	6.32	55.62
1921	1,800.00	4.87	87.66	5.03	90.54	5.20	93.60	5.37	96.66	5.55	99.90	5.73	103.14	5.92	106.56	6.12	110.16
1922	4,320.00	4.72	203.90	4.87	210.38	5.03	217.30	5.20	224.64	5.37	231.98	5.55	239.76	5.73	247.54	5.92	255.74
1923	3,200.00	4.57	146.24	4.72	151.04	4.87	155.84	5.03	160.96	5.20	166.40	5.37	171.84	5.55	177.60	5.73	183.36
1924	4,160.00	4.42	183.87	4.57	190.11	4.72	196.35	4.87	202.59	5.03	209.25	5.20	216.32	5.37	223.39	5.55	230.88
1925	1,615.00	4.28	69.12	4.42	71.38	4.57	73.81	4.72	76.23	4.87	78.65	5.03	81.23	5.20	83.98	5.37	86.73
1926	5,890.00	4.14	243.85	4.28	252.09	4.42	260.34	4.57	269.17	4.72	278.01	4.87	286.84	5.03	296.27	5.20	306.28
1927	2,340.00	4.01	93.83	4.14	96.88	4.28	100.15	4.42	103.43	4.57	106.94	4.72	110.45	4.87	113.96	5.03	117.70
1928	800.00	3.88	31.04	4.01	32.08	4.14	33.12	4.28	34.24	4.42	35.36	4.57	36.56	4.72	37.76	4.87	38.96
1929	2,940.00	3.76	110.54	3.88	114.07	4.01	117.89	4.14	121.72	4.28	125.83	4.42	129.95	4.57	134.36	4.72	138.77
1930	.....	3.64	.....	3.76	.....	3.88	.....	4.01	.....	4.14	.....	4.28	.....	4.42	.....	4.57	.....
1931	160.00	3.52	5.63	3.64	5.82	3.76	6.02	3.88	6.21	4.01	6.42	4.14	6.62	4.28	6.85	4.42	7.07
1932	.....	3.41	.....	3.52	.....	3.64	.....	3.76	.....	3.88	.....	4.01	.....	4.14	.....	4.28	.....
1933	.....	3.30	.....	3.41	.....	3.52	.....	3.64	.....	3.76	.....	3.88	.....	4.01	.....	4.14	.....
Total Horse Power	.....		1,235.54		1,276.26		1,318.33		1,361.88		1,406.92		1,453.17		1,501.09		1,550.86
Per Cent of Total	.....		4.35		4.49		4.64		4.79		4.95		5.12		5.28		5.46

[fols. 9530–9531]

Year	A	1942 B	1942 C	1943 B	1943 C	1944 B	1944 C	1945 B	1945 C	1946 B	1946 C	1947 B	1947 C	1948 B	1948 C	1949 B	1949 C
1919	300.00	6.74	20.22	6.96	20.88	7.19	21.57	7.43	22.29	7.68	23.04	7.93	23.79	8.19	24.57	8.46	25.38
1920	880.00	6.53	57.46	6.74	59.31	6.96	61.25	7.19	63.27	7.43	65.38	7.68	67.58	7.93	69.78	8.19	72.07
1921	1,800.00	6.32	113.76	6.53	117.54	6.74	121.32	6.96	125.28	7.19	129.42	7.43	133.74	7.68	138.24	7.93	142.74
1922	4,320.00	6.12	264.38	6.32	273.02	6.53	282.10	6.74	291.17	6.96	300.67	7.19	310.61	7.43	320.98	7.68	331.78
1923	3,200.00	5.92	189.44	6.12	195.84	6.32	202.24	6.53	208.96	6.74	215.68	6.96	222.72	7.19	230.08	7.43	237.76
1924	4,160.00	5.73	238.37	5.92	246.27	6.12	254.59	6.32	262.91	6.53	271.65	6.74	280.38	6.96	289.54	7.19	299.10
1925	1,615.00	5.55	89.63	5.73	92.54	5.92	95.61	6.12	98.84	6.32	102.07	6.53	105.46	6.74	108.85	6.96	112.40
1926	5,890.00	5.37	316.29	5.55	326.90	5.73	337.50	5.92	348.69	6.12	360.47	6.32	372.25	6.53	384.62	6.74	396.99
1927	2,340.00	5.20	121.68	5.37	125.66	5.55	129.87	5.73	134.08	5.92	138.53	6.12	143.21	6.32	147.89	6.53	152.80
1928	800.00	5.03	40.24	5.20	41.60	5.37	42.96	5.55	44.40	5.73	45.84	5.92	47.36	6.12	48.96	6.32	50.56
1929	2,940.00	4.87	143.18	5.03	147.88	5.20	152.88	5.37	157.88	5.55	163.17	5.73	168.46	5.92	174.05	6.12	179.93
1930	.....	4.72	.....	4.87	.....	5.03	.....	5.20	.....	5.37	.....	5.55	.....	5.73	.....	5.92	.....
1931	160.00	4.57	7.31	4.72	7.55	4.87	7.79	5.03	8.05	5.20	8.32	5.37	8.59	5.55	8.88	5.73	9.17
1932	.....	4.42	.....	4.57	.....	4.72	.....	4.87	.....	5.03	.....	5.20	.....	5.37	.....	5.55	.....
1933	.....	4.28	.....	4.42	.....	4.57	.....	4.72	.....	4.87	.....	5.03	.....	5.20	.....	5.37	.....
Total Horse Power	.....		1,601.96		1,654.99		1,709.68		1,765.82		1,824.24		1,884.15		1,946.44		2,010.68
Per Cent of Total	.....		5.64		5.83		6.02		6.22		6.42		6.63		6.85		7.08

Year	A	1950 B	1950 C	1951 B	1951 C	1952 B	1952 C	1953 B	1953 C	1954 B	1954 C	1955 B	1955 C	1956 B	1956 C	1957 B	1957 C
1919	300.00	8.74	26.22	5.72	17.16	5.81	17.43	5.89	17.67	5.97	17.91	6.04	18.12	6.12	18.36	6.19	18.57
1920	880.00	8.46	74.45	8.74	76.91	5.72	50.34	5.81	51.13	5.89	51.83	5.97	52.54	6.04	53.15	6.12	53.86
1921	1,800.00	8.19	147.42	8.46	152.28	8.74	157.32	5.72	102.96	5.81	104.58	5.89	106.02	5.97	107.46	6.04	108.72
1922	4,320.00	7.93	342.58	8.19	353.81	8.46	365.47	8.74	377.57	5.72	247.10	5.81	250.99	5.89	254.45	5.97	257.90
1923	3,200.00	7.68	245.76	7.93	253.76	8.19	262.08	8.46	270.72	8.74	279.68	5.72	183.04	5.81	185.92	5.89	188.48
1924	4,160.00	7.43	309.09	7.68	319.49	7.93	329.89	8.19	340.70	8.46	351.94	8.74	363.58	5.72	237.95	5.81	241.70
1925	1,615.00	7.19	116.12	7.43	119.99	7.68	124.03	7.93	128.07	8.19	132.27	8.46	136.63	8.74	141.15	5.72	92.38
1926	5,890.00	6.96	409.94	7.19	423.49	7.43	437.63	7.68	452.35	7.93	467.08	8.19	482.39	8.46	498.29	8.74	514.79
1927	2,340.00	6.74	157.72	6.96	162.85	7.19	168.25	7.43	173.86	7.68	179.71	7.93	185.56	8.19	191.65	8.46	197.96
1928	800.00	6.53	52.24	6.74	53.92	6.96	55.68	7.19	57.52	7.43	59.44	7.68	61.44	7.93	63.44	8.19	65.52
1929	2,940.00	6.32	185.81	6.53	191.98	6.74	198.16	6.96	204.62	7.19	211.39	7.43	218.44	7.68	225.79	7.93	233.14
1930	.....	6.12	.....	6.32	.....	6.53	.....	6.74	.....	6.96	.....	7.19	.....	7.43	.....	7.68	.....
1931	160.00	5.92	9.47	6.12	9.79	6.32	10.11	6.53	10.45	6.74	10.78	6.96	11.14	7.19	11.50	7.43	11.89
1932	.....	5.73	.....	5.92	.....	6.12	.....	6.32	.....	6.53	.....	6.74	.....	6.96	.....	7.19	.....
1933	.....	5.55	.....	5.73	.....	5.92	.....	6.12	.....	6.32	.....	6.53	.....	6.74	.....	6.96	.....
Total Horse Power	.....		2,076.82		2,135.44		2,176.39		2,187.62		2,113.71		2,069.89		1,989.11		1,984.91
Per Cent of Total	.....		7.31		7.52		7.66		7.70		7.44		7.29		7.00		6.99

Column A—Total Horse Power Originally Installed Adjusted to Proper Years in Service (28,405).
Column B—Calculated Horse Power Removed.
Column C—Annual Removal Rate—From Mortality Curve—Field Compressor Stations.

BLANK

PAGE

Defendant's Exhibit No. 42—Continued

[fol. 9532]

Lone Star Gas Company—Compressor Department

Horsepower Installed as of January 1, 1933.

Stations	Description of the Units	Horsepower of Unit	Total Station Horsepower
Alvord	1-Type XOG Ingersoll-Rand Gas Engine	90	90
Brad	7-Type 80 C.&G. Cooper Gas Engine	170	1,190
Brazos	3-Type 75 C.&G. Cooper Gas Engine	160	480
Breckenridge	16-Type 80 C.&G. Cooper Gas Engine	170	2,720
Caddo	11-Type 80 C.&G. Cooper Gas Engine	170	1,870
Cheaney	5-Type 75 C.&G. Cooper Gas Engine	160	.....
	2-Miller Improved Gas Engine	165	1,130
Desdemona	3-Type 75 C.&G. Cooper Gas Engine	160	480
Eastland	2-Watts Miller Gas Engine	225	.....
	3-Miller Improved Gas Engine	190	1,020
Fox Central	5-Type 1919 C.&G. Cooper Gas Engine	110	.....
	2-Type 1919 C.&G. Cooper Gas Engine	150	.....
	5-Type 75 C.&G. Cooper Gas Engine	160	.....
	1-Miller Improved Gas Engine	110	.....
	1-Bessemer Gas Engine	80	1,840
Fox East	2-Type 1919 C.&G. Cooper Gas Engine	110	.....
	4-Type 1919 C.&G. Cooper Gas Engine	150	820
Gainesville	4-Type 75 C.&G. Cooper Gas Engine	160	640
Gas City	14-Type 75 C.&G. Cooper Gas Engine	160	2,240
Ibex	14-Type 75 C.&G. Cooper Gas Engine	160	2,240
Josuha	8-Type 75 C.&G. Cooper Gas Engine	160	.....
	9-Type 75 C.&G. Cooper Gas Engine	170	.....
	4-Type XPV Ingersoll-Rand	250	3,810
Loco	2-Type 1919 C.&G. Cooper Gas Engine	110	.....
	6-Type 1919 C.&G. Cooper Gas Engine	150	1,120
Petrolia	2-Single Tandem Worthington Engine	650	.....
	5-Twin Tandem Worthington Engine	250	.....
	1-Type 75 C.&G. Cooper Gas Engine	160	7,710
Pueblo	4-Type X Bessemer Gas Engine	165	660
Ranger No. 1	5-Type 75 C.&G. Cooper Gas Engine	160	.....
	1-Twin Worthington Gas Engine	320	1,120
Ranger No. 2	5-Twin 75 C.&G. Cooper Gas Engine	160	800
Ranger No. 3	15-Type 75 C.&G. Cooper Gas Engine	160	2,400
Ranger No. 4	9-Type 75 C.&G. Cooper Gas Engine	160	1,440
Sipe Springs	6-Type E. C.Bessemer Gas Engine	165	.....
	2-Type X Bessemer Gas Engine	80	1,150
Tiffin	2-Type 75 C.&G. Cooper Gas Engine	160	320
X-Ray	2-Type 75 C.&G. Cooper Gas Engine	160	.....
	1-Twin Clark Gas Engine	175	495
Total	194-Units		37,785
Moran	2-Miller Improved Gas Engine	190	380
Grand Total	196-Units		38,165

Defendant's Exhibit No. 42—Continued

[fol. 9533]

Compressor Stations

Horse Power Capacity—January 1, 1933

	Number of Engines	Individual Capacity	Total Capacity	
Field Line Compressor Stations				
Alvord	1	90	90	
Brad	7	170	1,190	
Brazos	3	160	480	
Breckenridge	16	170	2,720	
Caddo	11	170	1,870	
Cheaney	5	160	.....	
Cheaney	2	165	1,130	
Desdemona	3	160	480	
Eastland	2	225	.....	
Eastland	3	190	1,020	
Fox Central	5	110	.....	
Fox Central	2	150	.....	
Fox Central	5	160	.....	
Fox Central	1	110	.....	
Fox Central	1	80	1,840	
Fox East	2	110	.....	
Fox East	4	150	820	
Gas City	14	160	2,240	
Ibex	14	160	2,240	
Loco	2	110	.....	
Loco	6	150	1,120	
Moran	2	190	380	
Pueblo	4	165	660	
Ranger No. 1	5	160	.....	
Ranger No. 1	1	320	1,120	
Ranger No. 2	5	160	800	
Ranger No. 3	15	160	2,400	
Ranger No. 4	9	160	1,440	
Sipe Springs	6	165	.....	
Sipe Springs	2	80	1,150	
Tiffin	2	160	.....	
X-ray	2	160	.....	
	1	175	495	
				26,005
Main Line Compressor Stations				
Gainesville	4	160	640	
Joshua	8	160	.....	
Joshua	9	170	.....	
Joshua	4	250	3,810	
Petrolia	2	650	.....	
Petrolia	r	1,250	.....	
Petrolia	1	160	7,710	
				12,160
Total Capacity—All Compressor Stations				38,165

Defendant's Exhibit No. 42—Continued

[fol. 9534]

Tabulation Showing Weighted Age—Field Compressor Units Originally Installed

Year	A	B	C	D	E	F	G
1919	300	.....	.....	300	1.056	14	.1478
1920	990	110 (a)	.....	880	3.098	13	.4027
1921	1,800	.....	.....	1,800	6.337	12	.7604
1922	4,800	480 (b)	.....	3,200	11.266	10	1.1266
1923	3,360	160 (c)	.....	4,320	15.208	11	1.6729
1924	4,960	800 (d)	.....	4,160	14.645	9	1.3181
1925	1,615	.....	.....	1,615	5.687	8	.4550
1926	6,030	850 (e)	110 (1)	5,890	20.736	7	1.4515
1927	2,720	380 (f)	.....	2,340	8.238	6	.4943
1928	.....	.....	800 (2)	800	2.816	5	.1408
1929	1,230	.....	1,710 (3)	2,940	10.350	4	.4140
1930	.....	.....	.....	.....	.....	3	.....
1931	.....	.....	160 (4)	160	.563	2	.0113
1932	.....	.....	.....	.....	.....	1	.....
	28,405	2,780	2,780	28,405	100.000		8.3954

Column A—Total Horse Power Originally Installed.
Columns B & C—Adjustment of Total Horse Power to Give Proper Years in Service.
Column D—Total Horse Power Adjusted to Proper Years in Service.
Column E—Per cent of Total.
Column F—Service Years.
Column G—Weighted Age.

[fol. 9535] Estimated Loss on Total Removal or Abandonment

Typical Field Station

	A	B	C	D
Average Land and Improvements	$4,358.00	$3,268.50	.....	$3,268.50
Material	106,041.30	23,010.05	.....	23,010.05
Labor and Hauling	26,688.91	26,688.91	$5,337.58	32,026.49
Engineering	2,793.90	2,793.90	.....	2,793.90
Supervision	1,968.30	1,968.30	393.60	2,361.90
Stores Expense	2,553.94	2,553.94	510.75	3,064.69
Car Earnings	2,082.18	2,082.18	.....	2,082.18
Clerical	1,863.53	1,863.53	.....	1,863.53
Timekeeper	315.80	315.80	.....	315.80
Watchman	701.38	701.38	.....	701.38
Water Pumper	254.68	254.68	.....	254.68
Welding Material	.....	1,560.66	260.11	1,820.77
	$149,621.92	$67,061.83	$6,502.04	$73,563.87

Per Cent of Total Cost Lost on Removal..... 49.17
Column A—Estimated Total Cost.
Column B—Loss on Total Removal or Abandonment.
Column C—Cost to Remove or Abandon.
Column D—Total Loss.

Defendant's Exhibit No. 42—Continued

[fol. 9536] Estimated Loss on Partial Removal

Typical Field Station

	A	B	C	D
Material Cost	$77,231.39	$7,102.63	.....	$7,102.63
Labor and Hauling	7,014.34	7,014.34	$1,608.00	8,622.34
Stores Expense	3,061.76	3,061.76	67.00	3,128.76
Welding Material	.....	.....	95.00	95.00
Supervision	.....	.....	150.00	150.00
	$87,307.49	$17,178.73	$1,920.00	$19,098.73

Per cent of Total Cost Lost on Removal 21.87

Column A—Estimated Total Cost.
Column B—Lost on Partial Removal.
Column C—Cost of Partial Removal.
Column D—Total Loss on Partial Removal.

[fols. 9537-9544] Field Compressor Stations

Horse Power Removed

Station	Number of Units	Unit Horse Power	Total Horse Power
Caddo	5	170	850
Gas City*	6	160	960
Holloway*	1	160	160
Ibex	7	170	1,190
	1	175	175
	2	160	320
Irving*	4	160	640
Loco	1	110	110
Mineral Wells*	2	160	320
	3	160	480
Oil City*	5	160	800
Parks*	6	165	990
Pernell*	6	160	960
	1	160	160
Ranger No. 1	1	160	160
Fox West*	1	110	110
	1	80	80
Wynnewood*	2	165	330
Total			9,175

Per cent of removals of total field station horse power installed (9,175 divided by 28,405) 32.30
Per cent per annum removed (32.30 divided by 8.395) 3.85

* Complete removals.

• • • • • • •

Defendant's Exhibit No. 42—Continued

[fol. 9545]

Summary of Compressor Station Construction

Yearly Horsepower Installed

Compiled from System Set Up as of January 1, 1933

	Horsepower of Units Installed																
Year	80	90	110	150	160	165	170	175	190	225	250	320	650	1250	Total	Per Cent of Total	Cumulative Per Cent
1914													1,300	3,750	5,050	13.36	13.36
1920			880												880	2.33	15.69
1921				1,800											1,800	4.76	20.45
1922					2,240										2,240	5.93	26.38
1923	80		220		3,200										3,500	9.62	35.64
1924					5,760						1,000			1,250	8,010	21.20	56.84
1925					800							320			1,120	2.96	59.80
1926							5,270								5,270	13.94	73.74
1927					160				570	450					1,180	3.12	76.86
1928					1,760	330									2,090	5.53	82.39
1929	160	90			960	1,650									2,860	7.60	89.99
1930					320		2,040	175						1,250	3,785	10.01	100.00
Total	240	90	1,100	1,800	15,200	1,980	7,310	175	570	450	1,000	320	1,300	6,250	37,785	100.00	

[fol. 9546] Part V

[fol. 9547] Miscellaneous Items

[fol. 9548] Miscellaneous Property Items

The miscellaneous property items included in the property account of Lone Star Gas Company subject to depreciation, replacements, removals and abandonments but which have not been covered by the detailed analyses in the preceding sections of the report may be summarized as follows:

1. Telephone Line Equipment.
2. General Office Structure.
3. Other General Structures.
4. Production System Structures.
5. Field Measuring Station Structures and Equipment.
6. Transmission System Structures and Equipment.
7. Drilling and Cleaning Equipment.
8. General Shop Equipment.
9. General Office Furniture and Fixtures.
10. Automotive Equipment.
11. Construction Tools.

Due to the manner in which Lone Star Gas Company handles the depreciation charges on Drilling and Cleaning Equipment and Automotive Equipment and Construction Tools, no annual reserve accrual is required in connection with this particular study except that which is necessary to provide for the decline in per cent of new condition. The current depreciation sustained on each of these property items other than the decline in per cent of new condition is charged direct either to an operating account or to a capital account. This practice eliminates the necessity for the accrual of an independent reserve so long as the same method of treating these items is followed.

Telephone Line Equipment

The basic mortality data for treated poles have been taken from a life study of 248,707 treated poles (Christiani —"Relative Life and Value of Treated Poles"). These data are shown in graphic form Lone Star Gas Company [fol. 9549] Mortality and Distribution Curve of Annual Failures of Original Units—Treated Poles.

The average annual renewal rate for treated poles, as indicated by the mortality and distribution curves, is slightly in excess of ten percent.

A breakdown of the reproduction cost estimate of the account Telephone Line Equipment is shown in the following tabulation:

Item	Amount	Per Cent of Total
Rights of way	$7,059.37	2.28
Wire	87,500.17	28.20
Poles and Cross Arms	163,488.90	52.70
Booths, Phones and Other Equipment	13,083.46	4.22
Insulators, Guys and Hardware	39,095.22	12.60
Total	$310,227.12	100.00

A further analysis shown that of the total wire in service, approximately 78.50 per cent is copper wire, and $21.50 per cent is iron wire.

Application of Annual Rates

The net salvable value of poles and other material removed is approximately fifty per cent of the installed cost.

Due to the accounting practice of Lone Star Gas Company with reference to charges to the accrued reserves, it is estimated that approximately fifty per cent of the cost of all replacements will be charged direct to current operating accounts.

Giving effect to each of these factors, the estimated annual weighted rate of reserve accrual required for Telephone Line Equipment is shown in the following tabulation:

[fols. 9550-9553]

Item	Per Cent of Total	Annual Rate	Weighted Annual Rate Per Cent
Rights of Way	2.28	....	.....
Insulators Guys and Hardware	12.60	2.50	.3150
Poles and Cross Arms	52.70	2.50*	1.3175
Booths, Phones and Other Equipment	4.22	2.50*	.1055
Wire—Iron	6.06	3.90**	.2363
Wire—Copper	22.14	1.65**	.3653
Weighted Annual Rate			2.3396

* Effect given to 50 per cent salvage and 50 per cent of charges made direct to operating accounts.

** Experience of Bell Telephone Company with effect given to 50 per cent of charges made direct to operating accounts.

Decline in Per Cent of New Condition

The average annual decline of one per cent per annum in per cent of new condition applicable to the property as a whole is applicable to Telephone Line Equipment.

Calculation of Annual Rate of Reserve

Weighted Annual Rate	2.34	per cent
Annual decline in per cent of New Condition	1.00	per cent
Total Annual Rate	3.34	per cent

* * * * * * *

[fol. 9554] Weighted Service Life of Telephone System

Lone Star Gas Company

January 1, 1933

Year	Total Miles	Per Cent of Total	Service Years	Weighted Age
1910	164.48	15.332	22.5	3.4497
1911	.....	.....	21.5	.....
1912	.....	.....	20.5	.....
1913	.....	.....	19.5	.....
1914	.....	.....	18.5	.....
1915	.....	.....	17.5	.....
1916	.....	.....	16.5	.....
1917	68.31	6.368	15.5	.9870
1918	104.98	9.786	14.5	1.4190
1919	49.84	4.646	13.5	.6272
1920	28.88	2.692	12.5	.3365
1921	100.03	9.324	11.5	1.0723
1922	14.15	1.319	10.5	.1385
1923	.04	.004	9.5	.0004
1924	68.28	6.365	8.5	.5410
1925	51.48	4.799	7.5	.3599
1926	141.57	13.196	6.5	.8577
1927	201.44	18.777	5.5	1.0327
1928	9.41	.877	4.5	.0395
1929	9.24	.861	3.5	.0301
1930	47.18	4.398	2.5	.1100
1931	13.48	1.256	1.5	.0188
1932	.....	.....	.5	.....
Total	1,072.79			
Weighted Service Life				11.0203 Years

[fol. 9555] General Office Structure

The details of the calculations of the annual reserve accrual required for the General Office Structure are shown in the tabulation Schedule of Annual Reserve Accruals—General Office Structure.

As shown in the schedule, the reproduction cost of the General Office Structure was broken down into its constituent elements and an independent annual reserve rate applied to the various items. The individual rates applied were taken from Depreciation Studies Preliminary Report of Bureau of Internal Revenue, Treasury Department, January 1, 1931. The amortization of the reproduction cost of the structure as a whole was based upon a forty year sinking fund accrual compounded annually at 5 per cent. The weighted annual accrual rate developed by this study is 3.30 per cent.

Other General Structures

The property account Other General Structures consists of the general warehouse of Lone Star Gas Company located on Logan Street, Dallas, Texas. The basic rate of reserve accrual for Other General Structures is based upon a thirty year useful life calculated upon a five per cent annuity or sinking fund accrual, which calculation results in an annual accrual for the amortization of the structure of 1.50 per cent.

An annual rate of reserve accrual of one per cent is estimated for the costs of charges and current replacements.

An annual rate of reserve accrual of one per cent is included to offset the annual decline in per cent of new condition applicable to the property as a whole.

The total estimated annual reserve accrual required for Other General Structures is, therefore, 3.50 per cent.

[fol. 9556] Schedule of Annual Reserve Accruals

General Office Structure

	Reproduction Cost New	Probable Life (Years)	Depreciation Rate (Percent)	Annual Amount
Elevators	$13.500	20	5.00	$675.00
Sidewalk Lift	550	25	4.00	22.00
Heating System and Plumbing	29,147	22	4.50	1,311.62
Lighting System				
Wiring	7,600	25	4.00	304.00
Fixtures	15,430	15	6.67	1,029.18
Linoleum	17,456	8	12.50	2,182.03
Venetian Blinds	936	10	10.00	93.60
Roofing	584	20	5.00	29.20
Fuel Tank	500	30	3.33	16.65
Retirement of Total Cost 40 year basis—5% annuity	321,438	40	.80	2,571.50
Painting, Removals and Changes	321,438		1.50	4,821.57
Decline in percent of new condition	321,438		1.00	3,214.38
Total Annual Reserve Accrual				$10,607.45
Reproduction Cost of Structure				321,438.00
Weighted Average Annual Rate				3.30%

[fol. 9557] Production System Structures

The annual rate of reserve accrual for the property account Production System Structures, which consist in the main of frame cottages located on producing leaseholds is based upon the following factors:

Decline in Per cent of New Condition	1.00% per annum.
Current Replacements	2.00% per annum.
Amortization in twelve years, Five per cent annuity basis	6.30% per annum.
Total Annual Accrual Rate	9.30%

Field Measuring Station Structures

The property account Field Measuring Station Structures consists of the wood framed corrugated iron meter houses located on the various well lines. These structures will be removed from an original location in conformity to the indicated average life of gas wells which has previously been determined to be approximately six years. The replacements and loss incident to periodic removals are approximated twenty-five per cent of the reproduction cost of these structures. The over-all life of the structures will not exceed twenty service years. This analysis indicates a loss of 150 per cent of the reproduction cost of the structures during a service life of twenty years or an annual reserve accrual of 7.50 per cent to provide for the loss on removals and ultimate abandonment. The total annual reserve accrual required is determined as follows:

Decline in Per Cent of New Condition	1.00% per annum.
Current Replacements and Paint	2.00% per annum.
Cost of Removals and Abandonment	7.50% per annum.
Total Annual Accrual Rate	10.50%

[fol. 9558] Field Measuring Station Equipment

The annual rate of reserve accrual for Field Measuring Station Equipment is based upon the same factors as were found to be applicable to Field Measuring Station Structures and the same annual rate, 10.5 per cent, is used.

Transmission System Measuring Station Structures and Equipment

The annual rate of reserve accrual for Transmission Measuring Station Structures is based upon the following factors:

Decline in per cent of new condition	1.0% per annum.
Current Replacements, Painting and Removals	2.0% per annum.
Amortization in 25 years, 5 per cent annuity basis	2.1% per annum.
Total Annual Accrual Rate	5.1%

The annual rate of reserve accrual for Transmission System Measuring Station Equipment is based upon the same factors which were found to be applicable to Transmission System Measuring Station Structures and the same annual accrual rate, 5.1 per cent, is used.

Office Furniture and Fixtures

The basis for the determination of the annual rate of reserve accrual for Office Furniture and Fixtures is shown in schedule of Annual Reserve Accruals General Office Furniture and Fixtures.

As shown in the schedule, a complete breakdown of the account has been made and to each class of items there has been applied the specific rate for the particular class prescribed by Depreciation Studies, Preliminary Report of the Bureau of Internal Revenue—Treasury Department, January 1931. To the weighted average rate shown in the schedule, 8.70 per cent, there is added 1 per cent to provide for the annual decline in per cent of new condition applicable to the property as a whole, resulting in an annual accrual rate of 9.70 per cent for General Office Furniture and Fixtures.

Defendant's Exhibit No. 42—Continued

[fol. 9559]

Schedule of Annual Reserve Accruals

General Office Furniture and Fixtures

Items	Total Amount	Probable Life (Years)	Depreciation Rate (Per Cent)	Annual Amount
Desks and Tables	$30,504.47	15	6.67	$2,034.65
Plate Glass for Desk and Table Tops	1,220.20	20	5.00	61.01
Chairs and Stools	14,094.49	16	6.25	880.91
Settees and Davenports	1,470.01	13	7.50	110.25
Book Cases, Cabinets and Files	44,622.66	20	5.00	2,231.13
Typewriters	9,873.94	6	16.67	1,645.99
Comptometers and Adding Machines	9,487.50	10	10.00	948.75
Calculators (Monroe and Marchant)	4,435.00	6	16.67	739.31
Billing, Posting, and Accounting Machines	32,932.35	8	12.50	4,116.54
Dictaphones and Equipment	3,834.14	6	16.67	639.15
Addressographs (Multigraph and Mimeograph)	3,066.46	10	10.00	306.65
Blue Print Machines	2,410.75	15	6.67	160.80
Photostat Machines	2,059.05	16	6.25	128.69
Letter Opening and Sealing Machines	291.00	10	10.00	29.10
Scales	253.44	10	10.00	25.34
Postage Machines	648.00	10	10.00	64.80
Check Writer and Protectographs	1,149.00	10	10.00	114.90
Costumers	1,116.29	20	5.00	55.81
Line-a-times	1,106.10	6	16.67	184.39
Stands (Telephone and Machine)	2,320.17	15	6.67	154.76
Fire Extinguishers	47.45	20	5.00	2.37
Trucks (Platform and Warehouse)	40.60	10	10.00	4.06
Waste Baskets, Letter Trays and Cuspidors	1,754.25	10	10.00	175.43
Stapler, Number and Punch Machines	1,015.23	10	10.00	101.52
Clocks (Wall)	28.00	20	5.00	1.40
Fans (Electric)	338.62	10	10.00	33.86
Map Racks and Holders	854.62	15	6.67	57.00
Water Cooler (Electric)	320.50	10	10.00	32.05
Lamps (Electric)	240.00	15	6.67	16.01

Stepladders	44.50	10	10.00	4.45
Thermometer	62.15	10	10.00	6.22
Ink Wells and Stands and Pens	582.67	10	10.00	58.27
Rugs and Mats	7,651.87	6	16.67	1,275.57
Draperies	3,005.50	10	10.00	300.55
Smoking Stands, Desk Pads	238.82	10	10.00	23.88
Law Library	9,604.52	20	5.00	480.23
Ash Cans and Pails	41.80	5	20.00	8.36
Directory and Easel Board	117.74	50	2.00	2.35
Thermos Jugs	60.00	5	20.00	12.00
Floor Cleaning Equipment	385.50	6	16.67	64.26
Dictographs and Buzzers	11,495.21	20	5.00	574.76
Shelves	2,777.27	15	6.67	185.24
Total	$207,601.84			$18,052.77
Weighted Average			8.70	

[fol. 9560] Amortization Accruals for Property as a Whole

[fol. 9561] In the preceding sections of this report consideration has been given to the annual rate of reserve accruals that should be set aside to provide for the future cost of replacements, removals and abandonments of the various items of physical property included in the property account of Lone Star Gas Company. Consideration has also been given to the loss in value that will currently accrue in this physical property but which cannot be offset by replacements and repairs until such time as a static condition has been brought about by the cumulative effect of replacements of original units and replacements of replacements.

One of the basic assumptions upon which this study has been predicated was that the reserve accruals should provide for the maintenance of the status quo of the property as of January 1, 1933, with respect to the number of units in service and to the operating efficiency of the property as of that date. In the case of a few specific property units, a provision was made for the ultimate retirement of the units as a whole. The manner in which the property unit General Office Structure was treated is typical of the limited use of this method of reserve accrual. With these exceptions eliminated, no consideration has been given to the annual reserve accrual that would have as its primary function the provision for the loss caused by the ultimate abandonment of the property as a whole.

It will be obvious to anyone who has made a study of the natural gas business that any company that is engaged primarily in the production and transportation of natural gas should make some definite provision for that ultimate loss of service value in property dedicated to the production and transportation of natural gas that will grow out of the inevitable final exhaustion of the very basis of the property's operations.

[fol. 9562] The production and transportation of natural gas is primarily a mining venture and continuity of operation is directly dependent upon the capacity of natural reservoirs of gas which cannot be replenished and which are subject to inevitable exhaustion. This basic fact sharply differentiates the characteristics of the natural gas business from those of any other public utility enterprise. This basic fact also creates the obvious necessity for a

fundamentally different treatment of certain phases of reserve accruals on the part of natural gas production and transportation properties as contrasted with the methods of accrual applicable to properties having service lives which are independent of the depletion of a limited supply of a natural resource.

The rational method of providing for the conditions that are brought about by the inherent characteristics of the production and transportation of natural gas is the accumulation of an annual sum which at the end of a given period of time will return to the owners of the property a sum of money equal to the value which will be lost upon the abandonment of the enterprise.

Inasmuch as the reserve accruals that have heretofore been developed are designed to provide for the future cost of current replacements, removals and abandonments of property items required to maintain the status quo of the physical property of Lone Star Gas Company in service as of January 1, 1933, any accumulation in a reserve account in excess of the amounts accrued for the costs of current replacements, removals and abandonments will build up as credit balance until such time as it will be required for final liquidation. A reserve accrual of this type will not be subject to current withdrawals and for this reason may be accumulated upon a sinking fund basis provided no deduction is made from a rate-base by reason [fol. 9563] of so-called accrued amortization.

Property Value Subject to Final Liquidation

Before any estimate can be made of the annual sum required for the liquidation of future losses that will be caused by the final abandonment of the property and business of Lone Star Gas Company now in service as an agency for the production and transportation of natural gas, a determination must first be made of the values as of this date which will be lost on final abandonment and for the liquidation of which no reserve accrual has otherwise been provided.

The measure of this future loss is present value as distinguished from original or historic cost. The predominant factor in the determination of the present value of a property and business as of any given date is the reproduction cost of this property and business less the decrement in service value that has taken place in that portion of the

property subject to depreciation. The reproduction cost of the property of Lone Star Gas Company as of January 1, 1933, less value lost by depreciation suffered up to this date, is, therefore, used as the basis for this estimate. The estimate of the reproduction cost of the property and business of Lone Star Gas Company used, is the estimate made by P. McDonald Biddison, E. A. Steinberger and Ed. C. Conne[illegible]. A summary of this estimate is set out in the schedule—Summary of Reproduction Cost New—Property and Business of Lone Star Gas Company, January 1, 1933.

Included in this estimate of the cost of reproduction are certain major property items for which complete retirance has been provided in the reserve accruals heretofore set up. These property items and the estimated reproduction cost of each are as follows:

[fol. 9564] Item	Reproduction Cost
Leaseholds—Developed	$2,681,689
Leaseholds—Undeveloped	893,291
Gas Well Construction and Equipment*	3,894,317
Other production system Structures	9,450
Other production system Equipment	95,764
Measuring Station Structures—Well Lines	37,304
Measuring Station Equipment—Well Lines	130,223
Measuring Station Structures—Field Lines	3,474
Measuring Station Equipment—Field Lines	8,539
Measuring Station Structures—Transmission System	145,098
Other Structures—Transmission System	145,016
Measuring Station Equipment	402,068
Structures and Equipment—Compressor Stations	4,867,679
General Office Structure	321,438
Other General Structures	46,790
Other General Furniture and Fixtures	12,060
General Office Furniture and Fixtures	207,602
General Shop Equipment	104,000
General Tools	131,550
Automotive and Construction Equipment	423,718
Other Undistributed General Costs	860,644
Total Reproduction Cost	$15,421,714

* Direct structural costs—Company owned wells.

Provision has been made for the complete retirance of the present value of developed leaseholds by means of a depletion unit applied to the estimated future annual withdrawals of gas from the calculated reserves embraced by these developed leaseholds. The value of undeveloped leaseholds will be retired in the same manner when these leaseholds pass from the classification—Undeveloped Leaseholds, to the classification—Developed Leaseholds. Should the undeveloped leaseholds be cancelled or surrendered, then cost to date of cancellation or surrender will be charged direct to operating expense as has been the accounting practice of Lone Star Gas Company.

Provision has also been made for the complete retirance of the present value of Gas Well Construction and Equipment by means of the application of a unit of production cost [fol. 9565] to the estimated future average annual production from company owned wells. The value of any producing gas wells drilled or purchased by the company in the future will also be completely retired by means of the same process.

Provision has also been made for the complete retirance of the property items—General Office Structure and Other General Structures by means of an amortization accrual which in its application is independent of the accrual rates set up to provide for the cost of current replacements and renewals and for the decline in per cent of new condition.

Provision has also been made for the complete retirance of practically all of the items included in Compressor Station Structures and Equipment by means of the accruals set up for the functional depreciation of the constituent elements of the property account.

Included in the estimate of the cost of reproduction are certain property items upon which no losses will be incurred incident to the final abandonment of the business of Lone Star Gas Company as an agency for the production and transportation of natural gas. These items consist of General Office Land and Other General Land. The other parcels of land owned by Lone Star Gas Company as of January 1, 1933, consisting largely of compressor station sites and measuring station sites would have little if any value if severed from their present utilization and are therefore not included in this classification.

Included in the estimate of the cost of reproduction are certain property groups that have relatively short service lives, that are mobile and may be utilized without loss in other classes of service. These items consist of Other Production System Equipment, Automotive Equipment, General Tools, General Shop Equipment and Office Furniture and Fixtures.

[fol. 9566] The total estimated reproduction cost of these specific property items for which no additional reserve accruals will be required to provide for loss of value on the final abandonment of the business of Lone Star Gas Company as an agency for the production and transportation of natural gas is set out in the following summary:

Property Items	Reproduction Cost
Leaseholds—Developed	$2,681,689
Leaseholds—Undeveloped	893,291
Gas Well Construction and Equipment*	3,894,317
Other production system Structures	9,450
Other production system Equipment	95,764
Measuring Station Structures—Well Lines	37,304
Measuring Station Equipment—Well Lines	130,223
Measuring Station Structures—Field Lines	3,474
Measuring Station Equipment—Field Lines	8,539
Measuring Station Structures—Transmission System	145,098
Other Structures—Transmission System	145,016
Measuring Station Equipment	402,068
Structures and Equipment—Compressor Stations	4,867,679
General Office Structure	321,438
Other General Structures	46,790
Other General Furniture and Fixtures	12,060
General Office Furniture and Fixtures	207,602
General Shop Equipment	104,000
General Tools	131,550
Automotive and Construction Equipment	423,718
Other Undistributed General Costs	860,644
Measuring Station Land and Improvements—Transmission System	45,195
Other Transmission System land and Improvements	13,243
Land and Leaseholds including Improvements—Compressor Stations	63,267

Defendant's Exhibit No. 42—Continued

Property Items	Reproduction Cost
General Office Land	44,545
Other General Land	49,274
Working Capital	1,701,600
Total Reproduction Cost New	$17,338,838

*Includes $860,644 for General Costs allocated to Gas Well Construction and Equipment.

In the calculation of the annual rate of reserve accrual required for various property items included in the property account of Lone Star Gas Company as of January 1, 1933, an annual allowance of one per cent per annum was set [fol. 9567] up as a part of the total annual accrual rate to provide for the future decline in per cent of new condition which would take place in these specific property items before a static per cent of new condition would ultimately be reached. This annual reserve accrual was not a continuous one but was limited in its application to the estimated period of time required for the effect of replacements, renewals and repairs to offset any further decline in per cent of new condition. Inasmuch as the loss in value below the value as of January 1, 1933, brought about by decline in per cent of new condition has been thus provided for in the current accrual rates, it is obvious that only the residual value represented by the value of the various property items after they have reached a static per cent of new condition will be the value which will be lost on final abandonment and which must be provided for by means of the amortization accrual set up for this specific purpose.

The weighted per cent of new condition of the physical property of Lone Star Gas Company as of January 1, 1933, as determined by P. McDonald Biddison was approximately 93 per cent. The application of an annual reserve accrual of one per cent to provide for the future decline in per cent of new condition of the specific property in service as of January 1, 1933, was extended over a period of fifteen years from January 1, 1933. The annual rate of reserve accrual of one per cent for fifteen years set up for the specific purpose of providing for future decline in per cent of new condition in certain property items taken in connection with

Mr. Biddison's determination of weighted per cent of new condition as of January 1, 1933, indicates that a residual value of approximately 78 per cent of the reproduction cost new of these specific items, less net salvable value on abandonment, should be provided for by means of an amortiza-
[fol. 9568] tion accrual.

In this connection, attention should be directed to the fact that Mr. Biddison applied to General Undistributed Costs the same weighted per cent of new condition that he found for the physical property items and that in this estimate of the annual rate of reserve accruals required for various property items there has been included an annual accrual of one per cent to provide for the corresponding future decline in per cent of new condition applicable to General Undistributed Costs. This treatment of Undistributed General Costs requires that 78 per cent representing the residual value of these items after a static per cent of new condition has been reached should be amortized. Inasmuch as $860,644 of Undistributed General Costs have been included in the account—Gas Well Construction and Equipment, the estimated reproduction cost new of Undistributed General Costs should be reduced by this amount. As previously set out, the complete retirance of the reproduction cost of Gas Well Construction and Equipment together with an allocation of $860,644 for General Overheads has been provided for by means of a production unit applied to the estimated average annual production from company owned wells.

This discussion covers most of the adjustments in the reproduction cost estimate of the property and business of Lone Star Gas Company as of January 1, 1933, required to determine the value of the items to which an amortization accrual is applicable. The manner in which this determination has been made is set out in tabulation showing—Value of Property Items to be Amortized—Lone Star Gas Company, January 1, 1933.

Other Basic Factors

Three other factors which have not been covered by the
[fol. 9569] foregoing discussion have a direct bearing upon the annual amortization rate. The most important of these factors is the period of time assigned for accumulation of the reserve. The second factor is the interest rate at which the annuity will be compounded upon a sinking fund basis.

The third factor is the amount of net salvable value that may be recovered upon the final abandonment of the property as an agency for the production and transportation of natural gas.

It is impossible to predict with accuracy the ultimate life of any company primarily engaged in the production and transportation of natural gas within a specific area of production and final delivery. Many contingencies may arise that will either lengthen or shorten the total life of such a business with reference to an estimate made at a given time and based upon a set of conditions existing at the date of estimate. This fact, however, does not remove the necessity for the provision of an accrual designed to liquidate an inevitable loss, nor does it eliminate from the current cost of service a proportionate part of this inevitable loss of physical and intangible values. The limitation governing the amount of accrual of this nature should be the reasonableness of the period of time assigned for its accumulation in view of all available date. In this estimate, a period of forty years from January 1, 1933, has been adopted as a reasonable period upon which to base the accruals of the annuity. Based upon the expected rate of average future withdrawals, the developed gas reserves of Lone Star Gas Company as of January 1, 1933, will have a life expectancy of twenty years. In view of all known facts, the adoption of an amortization period which is double the life expectancy of the present developed reserves is clearly within the rule of conservatism.

The annual interest rate upon which the annuity is com- [fol. 9570] pounded is five per cent. An annuity designed for the purpose of liquidating a future loss must conform to certain definite specifications. Its principle sum must be safe throughout the period of accumulation. This principal sum must be subject to prompt liquidation without loss and the continuity of the interest payments must be assured. If any of these basic stipulations are not met, the accrual will be inadequate. It is not reasonable to assume that securities carrying a coupon rate higher than five per cent per annum will conform to these basic stipulations.

It is estimated that the net salvable value of the property of Lone Star Gas Company in service as of January 1, 1933, together with the renewals and replacements of this specific property during the forty year interim will be fifteen per cent of reproduction cost new as of January 1, 1933. This

estimate is based upon a careful analysis of the losses that will be incurred upon final abandonment, the cost of recovery of the materials salvaged and a liberal consideration for the residual value of the material recovered. In this connection, consideration must be given to the fact that this estimate is confined to the property in service as of January 1, 1933, and does not take into account any net capital additions that may be made during the future life of the property. The effect of the application of net salvable value to items subject to amortization is shown in Column E of the tabulation showing—Value of Items To Be Amortized —Lone Star Gas Company, January 1, 1933.

Calculation of Annual Amortization Accrual

From the foregoing basic data, the calculation of the annual amortization accrual resolves itself into the application of the annual percentage required for amortization over a forty year period upon a five per cent sinking fund [fols. 9571-9573] basis to the net value as of January 1, 1933, subject to amortization. The annual percentage for a forty year amortization accrual upon a five per cent sinking fund basis is .828 per cent. The total net value as of January 1, 1933, subject to amortization, was found to be $42,332,672. The annual accrual required for the amortization of this amount upon a forty year sinking fund basis is $350,515.

* * * * * * *

(Here follows one paster, side folios 9574 to 9576.)

BLANK

PAGE

Defendant's Exhibit N

3192

[fol. 9574]

Value of Property Item

Lone Star Gas

January 1,

Property Items	A	
Production System Property:		
Leaseholds—Developed	$ 2,681,689.00	$ 2,
Leaseholds—Undeveloped	893,291.28	
Gas Wells	4,057,020.15	3,
Other Production System Structures	9,450.29	
Other Production System Equipment	95,764.08	
Gathering System Property:		
Well Lines:		
Rights of Way	11,184.07	
Measuring Station Structures	37,304.09	
Measuring Station Equipment	130,222.96	
Line Equipment	1,329,447.00	
Field Lines:		
Land	509.00	
Rights of Way	117,020.00	
Measuring Station Structures	3,474.00	
Measuring Station Equipment	8,539.00	
Line Equipment	3,496,999.00	
Transmission System Property:		
Transmission Lines:		
Measuring Station Land and Improvements	90,389.48	
Measuring Station Leaseholds and Improvements	9,270.32	
Other Land and Improvements	26,485.54	
Other Leaseholds and Improvements	2,267.21	
Rights of Way	1,124,980.69	
Measuring Station Structures	145,098.34	
Other Structures	145,016.29	
Measuring Station Equipment	402,067.98	
Line Equipment	28,524,682.40	
Compressor Station Property:		
Main Line and Field Line Stations:		
Land and Leaseholds, Including Improvements	126,534.22	
Structures and Equipment	4,867,679.03	4,
General System Property:		
General Office Land	44,545.00	
Other General Land	49,273.87	
General Office Structure	321,437.63	

[fols. 9575-9576]

Other General Structures	46,789.56	
Other General Furniture and Fixtures	12,059.97	
General Office Furniture and Fixtures	207,601.84	
General Shop Equipment	104,000.27	
General Tools	131,549.72	
Automotive and Construction Equipment	423,717.82	
General Telephone Equipment	370,464.12	
Final Engineering Records	765,690.35	
Total Direct Structural Costs	$50,813,515.57	$14,
Other Undistributed General Costs	9,201,130.00	
Preliminary Development and Organization Costs	4,474,272.00	
Going Value (Cost of Business Development)	7,792,888.00	
Working Capital	1,701,600.00	
Total	$73,983,405.57	$15,

Column A—Reproduction Cost New.
Column B—Property Items for which complete retirance has been provided in Annual Accrual Rat
Column C—Property Items on which no loss will be incurred on liquidation. (Note—A loss of fift
Column D—Decline in per cent of new condition provided for (22 per cent) plus salvable value on s
Column E—Sum of Columns B, C and D.
Column F—Estimated net amount subject to amortization.

* Twenty-two per cent applied to $9,201,130 less $860,644.

o. 42—Continued

A

to be Amortized

ompany

933

B	C	D	E	F
31,689.00	.....	.....	$ 2,681,689.00	.....
93,291.28	.....	.....	893,291.28	.....
94,317.16	.....	.....	3,894,317.16	$ 162,702.99
9,450.29	.....	.....	9,450.29	.....
95,764.08	.....	.....	95,764.08	.....
.....	.....	.....	.....	11,184.07
37,304.09	.....	.....	37,304.09	.....
30,222.96	.....	.....	130,222.96	.....
.....	.....	$ 491,895.39	491,895.39	837,551.61
.....	.....	.....	.....	509.00
.....	.....	.....	.....	117,020.00
3,474.00	.....	.....	3,474.00	.....
8,539.00	.....	.....	8,539.00	.....
.....	.....	1,293,889.63	1,293,889.63	2,203,109.37
.....	$ 45,194.74	.....	45,194.74	45,194.74
.....	.....	.....	.....	9,270.32
.....	13,242.77	.....	13,242.77	13,242.77
.....	.....	.....	.....	2,267.21
.....	.....	.....	.....	1,124,980.69
5,098.34	.....	.....	145,098.34	.....
5,016.29	.....	.....	145,016.29	.....
2,067.98	.....	.....	402,067.98	.....
.....	.....	10,554,132.49	10,554,132.49	17,970,549.91
.....	63,267.11	.....	63,267.11	63,267.11
7,679.03	.....	.....	4,867,679.03	.....
.....	44,545.00	.....	44,545.00	.....
.....	49,273.87	.....	49,273.87	.....
1,437.63	.....	.....	321,437.63	.....
6,789.56	.....	.....	46,789.56	.....
2,059.97	.....	.....	12,059.97	.....
7,601.84	.....	.....	207,601.84	.....
4,000.27	.....	.....	104,000.27	.....
1,549.72	.....	.....	131,549.72	.....
3,717.82	.....	.....	423,717.82	.....
.....	.....	137,071.72	137,071.72	233,392.40
.....	.....	.....	.....	765,690.35
1,070.31	$ 215,523.49	$12,476,989.23	$27,253,583.03	$23,559,932.54
0,644.00	.....	1,834,906.92	2,695,550.92	6,505,579.08
.....	.....	.....	.....	4,474,272.00
.....	.....	.....	.....	7,792,888.00
.....	1,701,600.00	.....	1,701,600.00	.....
1,714.31	$ 1,917,123.49	$14,311,896.15	$31,650,733.95	$42,332,671.62

per cent is estimated for certain parcels of land.)
andonment (15 per cent.)

BLANK

PAGE

[fol. 9577] Treatment of Undistributed General Costs in Connection With an Estimate of Annual Reserve Accounts

It has been the general custom of engineers in calculating reserve accruals to apply to General Undistributed Costs in reproduction cost estimates the weighted annual rate of reserve accrual found to be applicable to the reproduction cost estimate of the physical elements of the property usually styled Direct Structural Costs. In this connection, Undistributed General Costs include Administration and Legal Expenses During Construction, General Engineering Costs, General Supervision Costs, Taxes During Construction and Interest During Construction.

In the preceding sections of this report, a careful analysis has been made of the functions of the various reserve accruals set up for specific property items in service in the system of Lone Star Gas Company as of January 1, 1933. It is obvious that consistency requires that the reserve accruals set up for the General Undistributed Costs should be calculated in a manner that takes into consideration the manner in which the reserve accruals for specific property items have been determined and the manner in which charges would be made to the reserve account under the general plan that has been adopted.

For this purpose of illustration, the manner in which the annual rate of reserve accrual for Main Line Pipe was developed may be taken as a typical example of how annual rates for specific property items were determined. This annual rate was based upon the cumulative effect of the following factors:

1. The future decline in per cent of new condition.

2. The calculated rate of future replacements of pipe due primarily to the physical condition of the pipe.

[fol. 9578] 3. The calculated rate of future replacements, removals and abandonments of pipe due primarily to changed operating conditions.

4. The future cost of major rehabilitation of Lines chargeable to reserve account.

With the exception of the cost of rehabilitation, these primary factors were in the first step of the investigation,

expressed in terms of the average future rate of occurrence. After certain adjustments, which took into account cost of replacements and salvable value of pipe replaced, this average future rate of occurrence was translated into an annual percentage of the reproduction cost of Main Lines. It was pointed out that the unit cost of replacements made piece-meal would be in excess of the unit cost based upon a wholesale reproduction cost estimate. With reference to the incurrence of General Undistributed Costs, the situation is reversed and practically all of the general costs which will be incurred in substantial amounts in wholesale reproduction will be negligible factors in connection with piece-meal replacements.

For this and for other reasons which readily suggest themselves, there is no relation between the necessary reserve accruals that are designed to provide for certain costs of replacements of physical property and the reserve accruals that are designed to provide for the ultimate loss of that proportionate part of reproduction cost represented by General Undistributed Costs.

In this report an effort has been made to fix the annual rate of reserve accrual for the various classes of property and the various elements of reproduction cost in a manner consistent with the methods used by Lone Star Gas Company in its current accounting practice and with the methods used in the determination of the present value of the property. Lone Star Gas Company makes practically no charges [fol. 9579] to the reserve account for Undistributed General Costs in connection with the cost of replacements for the reason as above stated—that these costs are actually incurred in a very limited amount in making current replacements. On the other hand, P. McDonald Biddison in fixing the per cent of new condition of the property reduced the reproduction estimate of Undistributed General Costs by an amount equal to the weighted reduction in per cent of new condition found in the depreciable physical property.

For these reasons, the annual rate of reserve determined for General Undistributed Costs has been confined to an allowance to cover a future decline in per cent of new condition corresponding to the estimated future decline in per cent of new of the depreciable property together with an amortization allowance designed to provide for the loss that will be incurred by reason of the final abandonment of the property as a whole.

[fol. 9580] Depletion Allowance—Gas Reserves

[fol. 9581] The value of the developed gas reserves of Lone Star Gas Company as of January 1, 1933, was determined upon the basis of the present value per M. cubic feet of the volume of recoverable gas contained in reservoirs under lease by the company and proven as to production by actual exploration and development.

The net value of these reserves as determined by D. A. Hulcy was $2,681,689, and the volume of recoverable gas contained in these reserves as determined by J. H. Dunn was 367,362,084 M. cubic feet. The unit value of recoverable gas as of January 1, 1933, was, therefore, $.0073 per M. cubic feet.

The withdrawals of each M. cubic feet of gas from these developed reserves will reduce the value as of January 1, 1933, by $.0073 and this dissipation of a capital asset must be provided for by means of a reserve accrual.

As previously stated, the basic reason for the accrual of reserves to provide for the cost of current replacements and current capital losses rather than the use of direct operating charges, grows out of the fact that the use of the uniform reserve accrual eliminates the distortion of current operating charges and properly distributes the cost of service. In the discussion covering the development of the annual charges for Gas Well Construction and Equipment, it was shown that the annual withdrawals of gas from company owned wells, which withdrawals will effect a corresponding reduction in the capital asset—Developed Leaseholds, would be a variable factor which will materially increase with the passage of time. This increase in production by means of company owned wells and company owned gas reserves will increase without consideration of any increase in market demand.

After a careful analysis of all factors that will have a [fols. 9582-9584] *h*earing upon the future annual rate of withdrawal of gas from company owned wells and from company owned leaseholds it was estimated that the future average annual rate of withdrawal would be not less than 20,000,000 M. cubic feet. This average annual rate of withdrawal applied to the unit value of gas reserves, $.0073 per

M. cubic feet, results in an average annual depletion allowance of $146,000.

[fol. 9585] DEFENDANT'S EXHIBIT No. 43

Lone Star Gas Company

Current Quotations on Bonds and Other Senior Securities

Natural Gas, Manufactured Gas and Electric Utilities

Ed. C. Connor, Consulting Engineer, Dallas, Texas

[fol. 9586]

Manufactured Gas Companies

Bonds and Other Senior Securities as of May 22, 1934

	Maturity Date	1934 High	1934 Low	Last Sale	Yield to Maturity
Binghamton Gas Works 1st 5s	38	101	95	101	4.70
Brooklyn Borough Gas Gen. & Ref. "A" 5s	67	101	99	100	5.00
Brooklyn Union Gas 1st Cons. 5s	45	111	106	111	3.72
Chicago Gas Light and Coke 1st 5s	37	105	98	105	3.24
Connecticut Coke Company 1st SF "A" 5s	48	99	92	99	5.05
Consolidated Gas Company of Baltimore 1st 5s	39	109	104	108	....
Consolidated Gas Company of New York Deb. 5.5s	45	107	101	106	4.76
Deb. 4.5s	51	101	90	100	4.48
Consumers Gas Company 1st Assumed 5s	36	105	100	105	2.91
Harrisburg Gas Company 1st 5s	70	105	100	105	5.67
Koppers Gas and Coke Company SF Deb. 5s	47	97	82	95	5.54
Newark Consolidated Gas Company Cons. 5s	48	110	103	110	4.14
St. Pauls Gas Light Company Gen. 5s	44	103	97	100	4.56
Waterbury Gas Light Company 1st 4.5s	58	102	98	102	4.23
York Gas Company 1st 5s	41	102	100	100	5.00
Syracuse Gas Company 1st 5s	46	109	102	109	4.05
Grand Rapids Gas Light Company 1st 5s	39	103	97	103	4.22
Detroit City Gas Company 1st "A" 6s	47	101	84	100	6.00
Laclede Gas Light Company Ref. & Ext. 5s	34	95	79	90	....
Consolidated Gas El. Lt. & Pwr. (Balt.) 1st Ref. 5.5s	52	103	101	102	....
1st Ref. & SF "G" 4.75s	69	103	102	102	....
1st Ref. & SF "H" 5.50s	70	108	105	108	4.32
1st Ref. & SF 4s	81	107	103	106	4.17
Boston Consolidated Gas Company Deb. 5s	47	106	104	106	4.34
Milwaukee Gas Light Company 1st 4.5s	57	104	93	104	4.26
Peoples Gas Light and Coke Company 1st Cons. 6s	43	111	101	111	4.50
Washington Gas & Coke Company 1st 5s	60	106	101	106	4.57
Portland Gas & Coke Company 1st & Ref. 5s	40	94	83	88	7.60
Portland (Me.) Gas Light Company 1st Ref. "A" 5s	50	101	98	101	4.91
Allentown Bethlehem Gas Company 1st SF 5.5s	54	106	103	106	5.02
Atlanta Gas Light Company 1st SF 5s	47	100	95	100	5.02
Atlantic City 1st SF 5s	60	100	83	99	4.93
King Lighting Company 1st Ref. 5s	54	108	103	106	4.52
Ogden Gas Company 1st 5s	45	96	77	95	5.55

Defendant's Exhibit No. 43—Continued

[fol. 9587]

Natural Gas Pipe Line and Distributing Companies

Bonds and Other Senior Securities as of May 22, 1934

	Maturity Date	1934 High	1934 Low	Last Sale	Yield to Maturity
Allegheny Gas Corporation 1st and Coll. SF (ww) 6.5s	43	11	8	*	....
American Natural Gas SF Deb. 6.5s	42	1	1	*	....
Appalachian Gas Corporation Conv. Deb. 6s	45	6	2	6*	....
Appalachian Gas Corporation Conv. Deb. "B" 6s	45	6	2	6*	....
West Virginia Gas Corporation 1st SF (ww) 6.5s	37	78	68	77	....
Ohio Valley Gas Corporation 1st SF (ww) 6.5s	43	57	37	55	....
Wayen United Gas Corporation 1st Conv. SF 6.5s	44	41	34	40*	....
Texas Gas Utilities 1st SF Exchangeable 6s	45	25	14	14*	....
Ohio Ky. Gas Co. 1st SF "A" (ww) 6.5s	43	22	17	22*	....
Cities Service Gas Company 1st Pipe Line 5.5s	42	68	46	64	....
Cities Service Gas Company 1st Pipe Line 6s	43	82	57	77	9.91
Little Rock Gas and Fuel Ref. 1st 6s	37	68	41	68	....
Columbia Gas and Electric Corporation Deb. 5s	52	89	69	85	6.32
Columbia Gas and Electric Corporation Deb. 5s	52	89	68	84	6.43
Columbia Gas and Electric Corporation Deb. 5s	61	88	66	84	6.21
Consolidated Gas Utilities Co. 1st and Coll. 6s	43	53	33	49	....
Consolidated Gas Utilities Co. Conv. Deb. 6.5s	43	13	7	9*	....
Southern Natural Gas Corporation 1st SF (wp) 6s	44	74	59	70	10.92
Southern Natural Gas Corporation 1st SF (x-p) 6s	44	74	60	70	10.92
Southern Natural Gas Corporation Conv. Deb. 6s	44	24	11	23*	....
Southwest Gas Utilities 1st Lien & Sec. (ww) 6.5s	43	17	9	15*	....
El Paso Natural Gas Company 1st SF 6.5s	43	69	66	69	12.05
El Paso Natural Gas Company Conv. Deb. 6.5s	43	55	35	55	....
Duquesne Gas Corporation 1st Conv. 6s	45	3	1	3*	....
Duquesne Gas Corporation Conv. Sec. SF 6.5s	35	1	1	1*	....
Hamilton Gas Company 1st SF Conv. "A" (ww) 6.5s	37	29	12	29*	....
Mississippi River Fuel 1st SF (ww) 6s	44	100	90	99	6.13
Mississippi River Fuel 1st SF 6s	44	99	89	97	6.53
Lone Star Gas Corporation 15 Yr. SF Deb. 5s	42	97	82	95	5.79
Houston Natural Gas Corporation 1st Coll. (ww) 6s	43	68	54	68	11.66
Houston Gulf Gas 1st and Col. SF "A" 6s	43	77	42	74	....

* Interest Defaulted

Natural Gas Pipe Line and Distributing Companies

Bonds and Other Senior Securities as of May 22, 1934

	Maturity Date	1934 High	1934 Low	Last Sale	Yield to Maturity
Houston Gulf Gas Conv. Deb. (ww) 6.5s	43	62	31	61	....
Oklahoma Natural Gas 1st SF "A" 6s	46	75	63	79	10.44
Oklahoma Natural Gas 1st SF "B" 5s	48	59	43	56	11.13
Arkansas Western Gas Company 1st (ww) 5s	39	41	32	40	....
Ky. Fuel Gas 1st SF (ww) 6.5s	42	4	1	3*	....
Palmer Corporation 1st SF 6s	38	100	85	100	6.00
Rio Grande Valley Gas Company 1st SF "A" 7s	37	42	23	39	....
South Texas Gas 1st Coll. SF "A" (ww) 6.5s	38	95	74	94	8.29
Southern Gas Utilities 1st SF "A" (ww) 6.5s	39	84	58	84	10.42
Southern Gas Company 1st SF 6.5s	35	102	96	101	5.79
Southern Gas Company SF Deb. "A" 6.5s	36	97	90	97	6.50
Southern Union Gas Company 1st Coll. "A" 6.5s	39	22	14	20*	....
Southern United Gas Company 1st Lien SF "A" (ww) 6s	37	8	5	7*	....
Southwest Gas Company SF (ww) 6.5s	37	38	25	37	....
Southwestern Natural Gas Company 1st Conv. SF 6s	45	54	34	54	....
Stamford and Western 1st SF 7s	36	98	89	98	6.38
New Orleans Public Service 1st & Ref. "A" 5s	52	65	41	61	9.52
1st & Ref. "B" 5s	55	65	40	60	9.27
General Lien SF 4.5s	35	59	36	53	....
Income "A" 6s	49	44	25	41	....
San Antonio Public Service 1st & Ref. "A" 6s (G. & E.)	52	98	71	96	6.32
San Antonio Public Service 1st & Ref. "B" 5s (G. & E.)	58	91	65	88	5.92
Memphis Power and Light Company 1st and Ref. "A" 5s	48	92	70	92	5.87
Dayton Power and Light 1st & Ref. 5s (G. & E.)	41	107	102	107	3.80
Oklahoma Gas and Electric 1st 5s	50	96	73	93	5.60
Oklahoma Gas and Electric Deb. 6s	40	92	66	88	8.61
Dallas Gas Company 1st SF 6s	41	101	95	101	5.51
County Gas Company 1st 5s	46	89	81	88	6.39
Texas Cities Gas Company 1st 5s	48	61	51	55	....
Municipal Gas Company 1st "A" 6s	35	94	82	94	....
Albuquerque Natural Gas Company Conv. Deb. 6.5s	40	22	12	19*	....
Kansas City (Mo.) Gas Company 1st 5s	46	95	73	94	5.70
Kansas City (Mo.) Gas Company 1st "A" 6s	42	103	86	96	5.53
Montana Cities Gas 1st SF "A" 7s	37	72	48	72	....

* Interest Defaulted.

Defendant's Exhibit No. 43—Continued

[fols. 9589-9590]

Electric Companies in Texas

Bonds and Other Senior Securities as of May 22, 1934

		Maturity Date	1934 High	1934 Low	Last Sale	Yield to Maturity
Dallas Power and Light	1st SF "A" 6s	49	110	104	108	5.18
	1st SF "B" 6.5s	49	109	105	108	6.60
	1st SF "C" 5s	52	105	99	105	4.61
	1st SF "D" 5.5s	54	103	95	103	5.25
Texas Power and Light	1st SF 5s	37	103	89	102	4.21
	1st & Ref. 5s	56	92	67	91	5.69
	Debenture "A" 6s	2022	87	56	86	6.99
Houston Light & Power	1st Lien and Ref. "A" 5s	53	104	93	103	4.73
	1st Lien and Ref. "D" 4.5s	78	99	82	98	4.57
	1st Lien and Ref. "E" 4.5s	81	99	81	98	4.57

[fol. 9591] DEFENDANT'S EXHIBIT No. 44

[fol. 9592] Five Year Summary Gas Transportation

Lone Star Gas Company

Year	Transported from and thru Oklahoma	Total Transported	Percent Transported thru Oklahoma
1929	14,683,790 M.	44,625,913 M.	32.9
1930	13,040,072 M.	42,472,195 M.	30.7
1931	9,032,390 M.	34,703,119 M.	26.0
1932	9,742,751 M.	32,967,130 M.	29.6
1933	7,323,991 M.	31,385,293 M.	23.3
Weighted Average Percent Transported thru Oklahoma			28.9

[fol. 9593] Year 1929

Gas Transported by Lone Star Gas Company

	M.C.F.	
Produced and Purchased in Oklahoma:		
Chickasha and Nellie Field	2,981,976	
Duncan "	936,554	
Loco "	474,937	
Fox "	3,393,734	
Robberson "	997,965	
Total Oklahoma Fields	8,785,166	
Total Oklahoma Deliveries (See Note I)	726,990	
Net Oklahoma Gas Transported into Texas		8,058,176
Produced and Purchased Shamrock	7,004,965	
Total Delivery Shamrock Gas in Okla. (See Note II)	379,351	
Net Shamrock Gas Transported thru Oklahoma		6,625,614
Total Gas Transported from & thru Oklahoma		14,683,790
Total Gas Transported from all Sources		44,625,913
Percent of Total Transported from & thru Oklahoma		32.9%

Note I—Davis, Elmore, Marietta, Maysville, Paoli, Pauls Valley, Sulphur, Wayne, Wynnewood, Loco, Ryan, Temple, Walters, Waurika; Loco, Fox and Gas City compressor fuel and main line sales.

Note II—Hollis, Davidson, Frederick, Tipton, Snyder, Hollis Gasoline Plant fuel and shrinkage, and main line sales.

[fol. 9594] Year 1930

Gas Transported by Lone Star Gas Company

Produced and Purchased in Oklahoma:

	M. C. F.	
Chickasha and Nellie Fields	2,074,735	
Duncan Field	591,458	
Loco Field	242,210	
Fox Field	2,718,338	
Robberson Field	835,201	
Palacine Field	244,571	
Total Oklahoma Fields	6,706,513	
Total Oklahoma Deliveries (See Note I)	661,657	
Net Oklahoma Gas Transported into Texas		6,044,856
Produced and Purchased Shamrock Field	7,380,845	
Total Delivery Shamrock Gas in Okla. (See Note II)	385,629	
Net Shamrock Gas Transported thru Oklahoma		6,995,216
Total Gas Transported from and thru Oklahoma		13,040,072
Total Gas Transported from all Sources		42,472,195
Percent of Total Transported from & thru Oklahoma		30.7%

Note I—Davis, Elmore, Marietta, Maysville, Paoli, Pauls Valley, Sulphur, Wayne, Wynnewood, Loco, Hastings, Ryan, Temple, Walters, Waurika; Loco, Fox, and Gas City compressor fuel and main line sales.

Note II—Hollis, Davidson, Frederick, Tipton, Manitou, Snyder, Mountain Park, Hollis Gasoline Plant fuel and shrinkage, and main line sales.

Defendant's Exhibit No. 44—Continued

[fol. 9595] Year 1931

Gas Transported By Lone Star Gas Company

Produced and Purchased in Oklahoma:

	M.C.F.	
Chickasha and Nellie Fields	1,058,047	
Duncan Field	651,557	
Loco "	153,940	
Fox	1,521,928	
Robberson Field	296,081	
Palacine	41,483	
Total Oklahoma Fields	3,723,036	
Total Oklahoma Deliveries (See Note I)	582,620	
Net Oklahoma Gas Transported into Texas		3,140,416
Produced and Purchased Shamrock Field	6,249,635	
Total Delivery Shamrock Gas in Okla. (See Note II)	357,661	
Net Shamrock Gas Transported thru Oklahoma		5,891,974
Total Gas Transported from & thru Oklahoma		9,032,390
Total Gas Transported from all Sources		34,703,119
Per cent of Total Transported from & thru Oklahoma		26.0%

Note I—Davis, Elmore, Marietta, Maysville, Paoli, Pauls Valley, Sulphur, Wayne, Wynnewood, Loco, Hastings, Ryan, Temple, Walters, Waurika; Loco, Fox and Gas City Compressor fuel and main line sales.

Note II—Hollis, Davidson, Frederick, Tipton, Manitou, Snyder, Mountain Park, Hollis Gasoline Plant fuel and shrinkage, and main line sales.

Defendant's Exhibit No. 44—Continued

[fol. 9596] Year 1932

Gas Transported By Lone Star Gas Company

Produced and Purchased in Oklahoma:

	M.C.F.	
Chickasha and Nellie Fields	811,993	
Duncan Field	216,455	
Loco "	114,574	
Fox "	1,041,899	
Robberson Field	313,633	
Palacine "	43,392	
Total Oklahoma Fields	2,541,946	
Total Oklahoma Deliveries (Note I)	483,694	
Net Oklahoma Gas Transported into Texas		2,058,252
Produced and Purchased Shamrock Field	8,055,747	
Total Delivery Shamrock Gas in Okla. (See Note II)	371,248	
Net Shamrock Gas Transported thru Oklahoma		7,684,499
Total Gas Transported from & thru Oklahoma		9,742,751
Total Gas Transported from all Sources		32,967,130
Per cent of Total Transported from & thru Oklahoma		29.6%

Note I—Davis, Elmore, Marietta, Maysville, Paoli, Pauls Valley, Sulphur, Wayne, Wynnewood, Loco, Hastings, Ryan, Temple, Walters, Waurika; Loco, Fox and Gas City Compressor fuel and main line sales.

Note II—Hollis, Davidson, Frederick, Tipton, Manitou, Snyder, Mountain Park, Hollis Gasoline Plant fuel and shrinkage, and main line sales.

Defendant's Exhibit No. 44—Continued

[fol. 9597] Year 1933

Gas Transported By Lone Star Gas Company

Produced and Purchased in Oklahoma:

	M.C.F	
Chickasha and Nellie Fields	734,629	
Duncan Field	54,312	
Loco "	22,580	
Fox "	653,527	
Robberson Field	207,807	
Palacine "	17,487	
Total Oklahoma Fields	1,690,342	
Total Oklahoma Deliveries (See Note I)	479,551	
Net Oklahoma Gas Transported into Texas		1,210,791
Produced and Purchased Shamrock Field	6,448,138	
Total Delivery Shamrock Gas in Okla. (See Note II)	334,938	
Net Shamrock Gas Transported thru Oklahoma		6,113,200
Total Gas Transported from & thru Oklahoma		7,323,991
Total Gas Transported from all Sources		31,385,293
Per cent of Total Transported from & thru Oklahoma		23.3%

Note I—Davis, Elmore, Marietta, Maysville, Paoli, Pauls Valley, Sulphur, Wayne, Wynnewood, Loco, Hastings, Ryan, Temple, Walters, Waurika; Loco, Fox and Gas City Compressor fuel and main line sales.

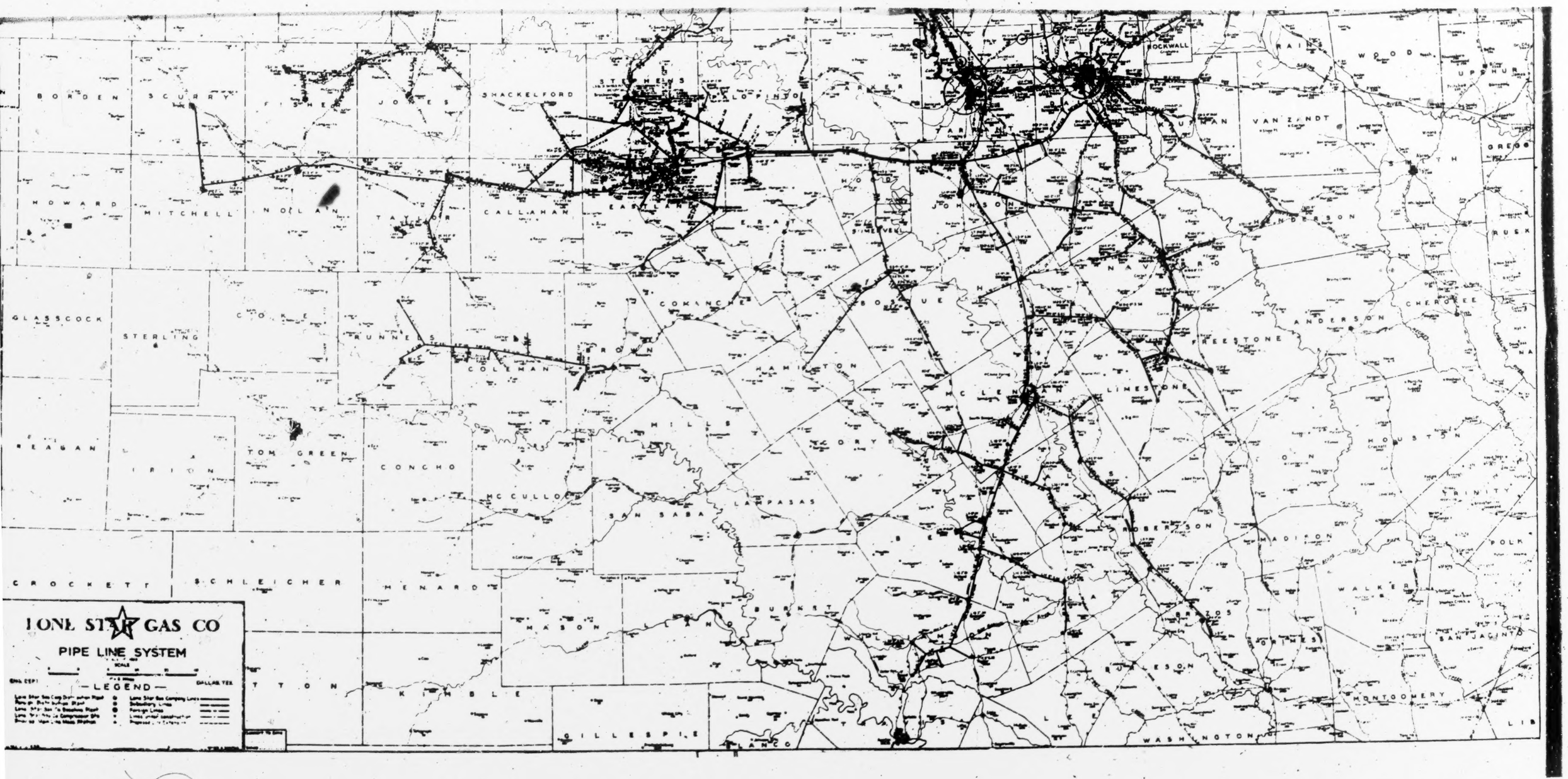
Note II—Hollis, Davidson, Frederick, Tipton, Manitou, Snyder, Mountain Park, Hollis Gasoline Plant fuel and shrinkage, and main line sales.

(Here follows 1 photolithograph, side folios 9598-9599)

BLANK

PAGE

HANSFORD
OCHILTREE
LIPSCOMB
ROBERTS
HEMPHILL
ARMSTRONG
GRAY
WHEELER
DONLEY
COLLINGSWORTH
ELLIS
ROGER MILLS
CUSTER
WOODWARD
BECKHAM
WASHITA
CADDO
GRADY
GARVIN
MURRAY
JOHNSTON
MARSHALL
BRYAN
CHOCTAW
MCCURTAIN
PUSHMATAHA
ATOKA
LATIMER
LEFLORE
HASKELL
PITTSBURG
PONTOTOC
SEMINOLE
POTTAWATOMIE
CLEVELAND
OKLAHOMA
LINCOLN
PAYNE
NOBLE
KINGFISHER
LOGAN
GARFIELD
NOWATA
OSAGE
WASHINGTON
DELAWARE
MAYES
CHEROKEE
ADAIR
SEQUOYAH
MUSKOGEE
MCINTOSH
OKMULGEE
CREEK
HARMON
JACKSON
COMANCHE
TILLMAN
COTTON
JEFFERSON
CARTER
LOVE
CHILDRESS
HARDEMAN
WILBARGER
FOARD
KNOX
BAYLOR
ARCHER
CLAY
MONTAGUE
COOKE
GRAYSON
FANNIN
DELTA
HUNT
RAINS
WOOD
UPSHUR
FRANKLIN
TITUS
MORRIS
ROCKWALL
DENTON
COLLIN
HOPKINS
LAMAR
RED RIVER
BRISCOE
HALL
FLOYD
MOTLEY
COTTLE
CROSBY
DICKENS
KING
STONEWALL
HASKELL
THROCKMORTON
YOUNG
STEPHENS
PALO PINTO
PARKER
JACK
WISE
GARZA
KENT
BORDEN
SCURRY
FISHER
JONES
SHACKELFORD


LONE STAR GAS CO
PIPE LINE SYSTEM
SCALE
— LEGEND —
BORDEN
SCURRY
FISHER
JONES
SHACKELFORD
STEPHENS
YOUNG
HOWARD
MITCHELL
NOLAN
TAYLOR
CALLAHAN
EASTLAND
ERATH
COMANCHE
BOSQUE
HAMILTON
HILL
CORYELL
MCLENNAN
LIMESTONE
FREESTONE
ANDERSON
CHEROKEE
GLASSCOCK
STERLING
COKE
RUNNELS
COLEMAN
BROWN
REAGAN
IRION
TOM GREEN
CONCHO
MCCULLOCH
SAN SABA
LAMPASAS
CROCKETT
SCHLEICHER
MENARD
MASON
BURNET
LLANO
KIMBLE
GILLESPIE
ROCKWALL
RAINS
WOOD
UPSHUR
VAN ZANDT
SMITH
GREGG
HENDERSON
RUSK
NAVARRO
HOUSTON
ROBERTSON
MADISON
TRINITY
POLK
WALKER
SAN JACINTO
MONTGOMERY
WASHINGTON
LEE
BRAZOS
GRIMES
BURLESON
LIB

BLANK

PAGE

[fols. 9600-9605] DEFENDANT'S EXHIBIT No. 45

Lone Star Gas Company

Analysis of Transportation and Sale of Gas Produced in Central West Texas and Gas Produced in Shamrock Area and Southern Oklahoma

Year 1933

E. F. Schmidt. Ed. C. Connor

3207

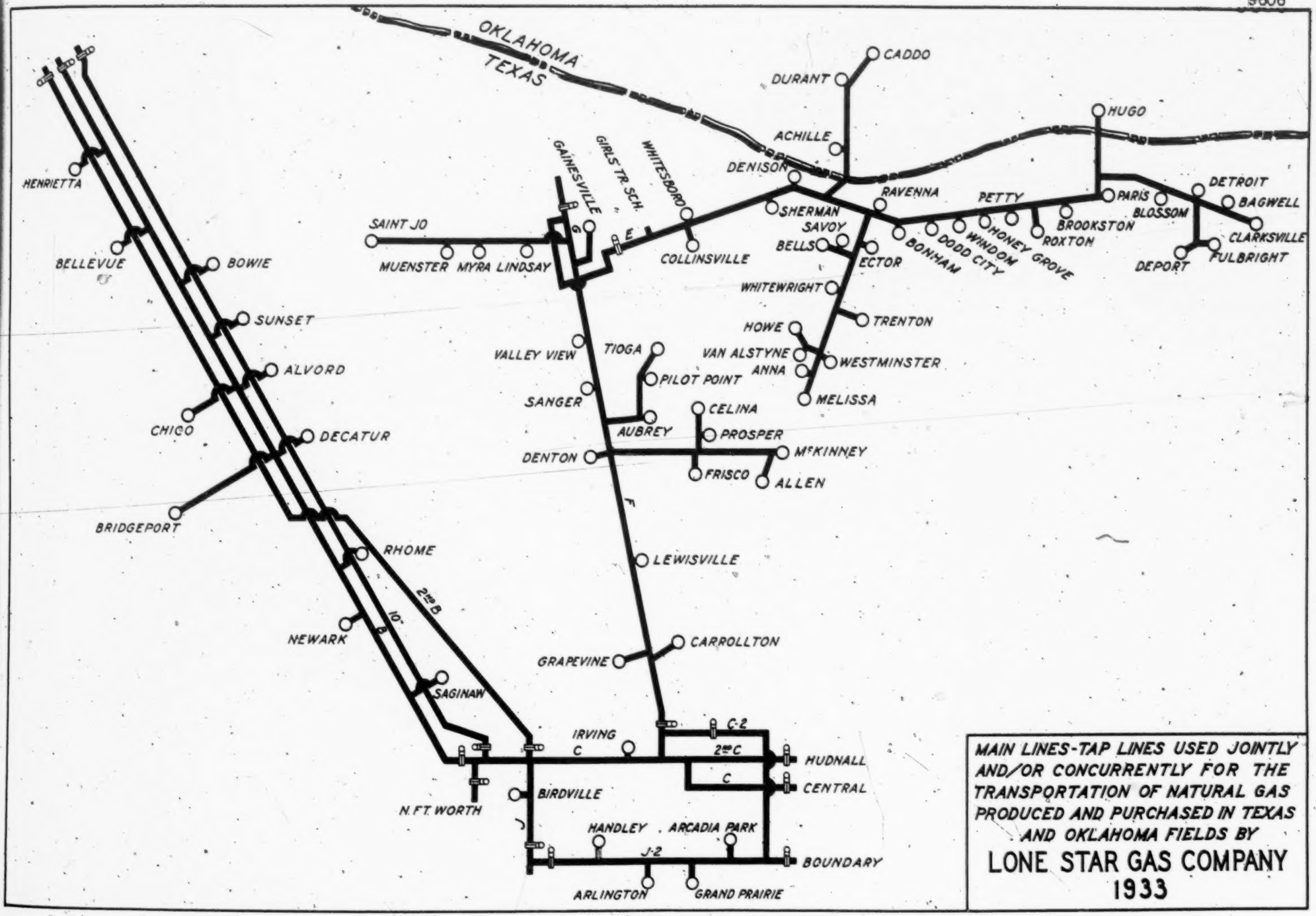
(Here follows 1 photolithograph, side folio 9606.)

BLANK

PAGE

3208A

9606



MAIN LINES-TAP LINES USED JOINTLY AND/OR CONCURRENTLY FOR THE TRANSPORTATION OF NATURAL GAS PRODUCED AND PURCHASED IN TEXAS AND OKLAHOMA FIELDS BY

LONE STAR GAS COMPANY

1933

BLANK

PAGE

[fol. 9607] Part I

[fol. 9608] Analysis of Specific Gravity Records and Determination of Percentages of West Texas Gas

[fol. 9609] Explanation of Specific Gravity Method for Determining Percentages of West Texas Gas Transported in Lone Star Gas Company's Lines During the Year 1933

The specific gravity of gas is the ratio of its density to the density of air when both the air and gas are under the same conditions of temperature and pressure. Specific gravity, therefore, is a measure of the relative weights of gases. A gas having a specific gravity of .6 weighs 6/10 as much as an equal quantity of air.

When two fluids (all gases are fluids) of known weights are mixed, and the weight of the mixture is known, the percentage of each of the two components present in the mixture can be determined by simple proportion. For instance, if the weight of a gallon of alcohol and the weight of a gallon of water is known, and the weight of a gallon of a mixture of alcohol and water is also known, the respective percentages of alcohol and water in the mixture can be determined. Also, if the specific gravity of two different gases is known, and the specific gravity of a mixture of the two gases is known, the percentage of each which must be in the mixture to give the specific gravity of the mixture can likewise be determined.

The problem of determining the percentage of West Texas gas in the lines of Lone Star Gas Company by the above method was simplified by the fact that there is a wide divergence between the specific gravity of gas taken from the Oklahoma and Shamrock Fields combined and the specific gravity of gas taken from West Texas Fields. The accuracy of the calculations used herein was increased by [fol. 9610] reason of this fact. For all practical purposes the specific gravity of Oklahoma and Shamrock gas averages .63, and no gas taken from either of these sources varies very slightly from .63 specific gravity. The slight variations which do occur are plus and minus and tend to equalize, and .63 therefore represents a fair average for the specific gravity of gas from these two sources. A continuous record of the specific gravity of gas from West Texas Fields is maintained at all times and the average for the year 1933

was .825. Any mixture of gases with a specific gravity between .63 and that recorded for West Texas gas must contain some percentage of West Texas gas.

Lone Star Gas Company maintains and operates recording gravitometers which make a continuous record of specific gravity of gases in its main lines at all times. When the recorded specific gravity of the gas in any of these lines during the year 1933 was more than .63, (which showed that the mixture contained West Texas gas) the percentage of West Texas gas was obtained by dividing the difference between .63 and the actual specific gravity by the difference between .63 and the specific gravity of West Texas gas.

As an example: if the recorded specific gravity of the gas in a line was .70 and the specific gravity of West Texas gas was .83, the calculation would be as follows: .70 — .63 divided by .83 — .63 equals 35 per cent West Texas gas. In order to furnish a rapid means of determining these percentages of West Texas gas, a graph for each month was prepared which shows the percentages corresponding to different specific gravities. By reading directly from the graphs the trouble of making the calculations was avoided.

[fol. 9611] Line B—Per Cent West Texas Gas of Total Used and Unaccounted for 1933

Gas was measured into the North end of Line B through Meter #12 and into and out of the South end through Meter #17. All West Texas gas into the line had to come into the South end by way of Line C.

During January, February, March, April and November there was practically no gas delivered from Line C into Line B; consequently no West Texas gas was transported in the line. During the remainder of the year gas was delivered into the line from the South end, a part of which was West Texas gas. Since the North Station at Fort Worth obtained its gas from Line C at the same point as did Line B, the percentage of West Texas gas delivered into line B was the same as that which was delivered to the North Station at the same time.

During the months of May, June, July, August, September, October and December the daily amount of gas used and unaccounted for in Line B was determined by subtracting the outlet volume from the inlet volume. From the daily volume used and unaccounted for there was sub-

acted the daily volume into the North end. The remainder as the daily amount delivered into the South end from ine C, and the daily volumes were added to obtain the total olume into the South end for each month. By applying the me percentages of West Texas gas as was delivered to e North Fort Worth Station, the volume of West Texas as delivered by months into Line B was obtained.

The Trinity Portland Cement Company secured its gas ol. 9612] from Line B, which gas comes off relatively close the inlet meter #17 at the South end of Line B, and down-ream from the inlet. The volume of West Texas gas to the rinity Portland Cement Company, having previously been etermined, was deducted from the total volume of West exas gas into Line B by months, and the result was the et volume of west Texas gas delivered to Line B by months. he ratio of this volume to the total used and unaccounted or gave the percentage of the total gas in the line which me from West Texas Fields. Following is a tabulation of ese percentages by months for the year 1933.

Defendant's Exhibit No. 45—Continued

[fol. 9613]

Line B

Per Cent West Texas Gas of Total Used and Unaccounted For

1933

Month	M. C. F. North	% West Texas	M. C. F. West Texas	Less to T.P.C. Co.	Net M.C.F. West Texas	Total M.C.F.	Net % Joshua
January	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....	.....	.....
May	10,483	92.00	9,644	.....	9,644	14,229	67.78
June	6,766	97.00	6,563	.....	6,563	7,510	87.39
July	1,733	100.00	173	.....	173	3,392	5.10
August	54,180	99.00	53,638	34,107	19,531	54,322	35.95
September	93,039	83.00	77,222	89,703	−12,481	.....	.....
October	4,781	86.00	4,112	.....	4,112	11,418	36.01
November	.....	.....	.....	.....	.....	.....	.....
December	9,628	34.00	3,274	.....	3,274	9,628	34.00
Total	180,610		154,626	123,810	30,816	100,499	

[fol. 9614] Line C—Per Cent West Texas Gas of Total Transported—1933

Gas was delivered out of Line C during the year 1933 at the following points of measurement:

Central City Gate Station—Dallas.
Hudnall City Gate Station—Dallas.
North City Gate Station—Fort Worth.
South End—Line B.
South End—Line F.
North End—Line C-2.
Marathon Oil Company—Refinery—Fort Worth.
Irving City Gate Station.

All of the West Texas gas reaching these points of measurement was transported through Line C. The actual volume of West Texas gas delivered to these points by months was determined from the specific gravity at each point. The total gas delivered in each case was determined from meter records at each point.

The ratio of the total West Texas gas delivered from the line to the grand total delivered from the line gave the percentage of the grand total which came from West Texas Fields. Percentages of West Texas gas delivered to each of the above points of discharge are shown in separate reports for each elsewhere in this exhibit.

Following is a tabulation of these percentages:

[fol. 9615]

Line C

Per Cent West Texas Gas of Total Transported—1933

Month	Total Millions	Total West Texas Millions	Per cent West Texas
January	1,282	718	56.00
February	1,229	608	49.00
March	1,092	578	53.00
April	902	681	76.00
May	804	766	95.00
June	749	721	96.00
July	693	689	99.00
August	743	745	100.00
September	809	695	86.00
October	821	745	91.00
November	1,227	633	52.00
December	1,347	674	50.00
Total	11,698	8,253	

[fol. 9616] Central and Hudnall City Gate Stations—Dallas —Per Cent West Texas Gas in Total Delivered—1933

A continuous record of the specific gravity for the year 1933 was made at the point of measurement. During the months of January, February, March, October, November and December the specific gravity varied to such an extend that it was necessary to take daily averages of the specific gravity and determine the corresponding percentage of West Texas gas from the graphs by days. These percentages were applied to the daily total volumes to obtain the daily volumes of West Texas gas, which were totaled to obtain the volume of West Texas gas for each month. The total volume of West Texas gas was divided by the total of all the gas to obtain the percentage of West Texas gas in the total volume delivered.

For the remaining months of the year the specific gravity did not vary enough to warrant using daily averages. The monthly average specific gravity was used to determine from the graphs the per cent of West Texas gas in the total delivered. A tabulation of these percentages by months for the year 1933 for both stations follows:

[fol. 9617] Central City Gate Station—Dallas

Per Cent West Texas Gas in Total Delivered—1933

Month	Total Millions	Total West Texas Millions	Per cent West Texas
January	464	306	66.00
February	536	288	54.00
March	400	256	64.00
April	319	290	91.00
May	262	257	98.00
June	244	234	96.00
July	236	236	100.00
August	239	239	100.00
September	238	207	87.00
October	286	264	92.00
November	459	285	62.00
December	494	280	57.00
Total	4,177	3,142	

In working up the above data volumes in M. C. F. were used whereas only the nearest number of millions is shown in the above tabulation. Hence, some of the above figures may not check exactly.

Defendant's Exhibit No. 45—Continued

[fol. 9618] Hudnall City Gate Station—Dallas

Per Cent West Texas Gas of Total Delivered—1933

Month	Total Millions	Total West Texas Millions	Per cent West Texas
January	86	50	58.00
February	99	38	38.00
March	60	29	48.00
April	23	22	94.00
May	6	6	93.00
June	....	....	.....
July	....	....	.....
August	....	....	.....
September	....	....	.....
October	13	11	87.00
November	65	33	52.00
December	89	42	47.00
Total	441	231	

In working up above volumes in M. C. F. were used, whereas only the nearest number of millions is shown in the above calculation. Hence, some of the above figures may not check exactly.

[fol. 9619] North Station—Fort Worth—Per Cent West Texas Gas of Total Delivered—1933

A continuous record of the specific gravity of the gas for the year 1933 was made at the point of measurement. During the months of January, February, March, April, October, November and December the specific gravity varied to such an extent that it was necessary to take daily averages of the specific gravity and determine from the graphs the corresponding percentage of West Texas gas by days. These percentages were applied to the daily total volumes to determine the volume of West Texas gas for each day, which were totaled to get the total volume of West Texas gas for each month. These totals were divided by the total of all gas to obtain the per cent of West Texas gas in the total delivered.

For the remaining months of the year the specific gravity did not vary enough to warrant the use of daily averages and the monthly average specific gravity was applied to the graphs to obtain the per cent of West Texas gas in the total delivered.

Following is a tabulation of the percentages by months for the year 1933:

Defendant's Exhibit No. 45—Continued

[fol. 9620]

North Station—Fort Worth

Per Cent West Texas Gas in Total Delivered—1933

Month	Total Millions	Total West Texas Millions	Per cent West Texas
January	459	148	32.00
February	469	115	25.00
March	401	134	33.00
April	343	188	55.00
May	318	292	92.00
June	303	294	97.00
July	311	311	100.00
August	300	297	99.00
September	305	253	83.00
October	328	282	86.00
November	446	134	30.00
December	499	168	34.00
Total	4,482	2,616	

In working up the above data volumes in M. C. F. were used, whereas in the tabulation above only the nearest number of millions is shown. Hence, some of the above figures may not check exactly.

[fol. 9621] Irving, Texas, City Gate Per Cent West Texas Gas in Total Delivered—1933

The gas delivered to Irving came off Line C at about the same point as did the gas into Line C-2. Therefore the same percentages of West Texas gas was used as was determined for Line C-2 in order to obtain the percentage of West Texas gas in the total delivered. Following is a tabulation by months for the year 1933.

[fol. 9622]

Irving, Texas, City Gate

Per Cent West Texas Gas in Total Delivered—1933

Month	Total M.C.F.	Total West Texas M.C.F.	Per cent West Texas
January	1,619	1,166	72.00
February	1,512	983	65.00
March	1,202	817	68.00
April	945	803	85.00
May	497	477	96.00
June	410	394	96.00
July	346	346	100.00
August	465	456	98.00
September	632	550	87.00
October	729	688	93.00
November	982	628	64.00
December	1,019	693	68.00
Total	10,358	8,001	

[fol. 9623] Marathon Oil Company—Fort Worth Plant—Per Cent West Texas Gas in Total Delivered—1933

The gas delivered to the Marathon Oil Company came from Line C at about the same point as did gas to North Station, Fort Worth, and the same percentages of West Texas gas as was determined for the North Station was used on gas delivered to the Marathon Oil Company. Following is a tabulation by months for the year 1933.

[fol. 9624] Marathon Oil Company—Fort Worth
Per Cent West Texas Gas in Total Delivered—1933

Month	Total M.C.F.	Total West Texas M.C.F.	Per cent West Texas
January	3,568	1,142	32.00
February	2,821	705	25.00
March	2,771	914	33.00
April	2,760	1,518	55.00
May	2,835	2,608	92.00
June	3,155	3,060	97.00
July	3,464	3,464	100.00
August	1,451	1,436	99.00
September	1,932	1,604	83.00
October	3,221	2,770	86.00
November	2,000	600	30.00
December	4,492	1,527	34.00
Total	34,470	21,348	

[fol. 9625] Trinity Portland Cement Company—Dallas Plant—Per Cent West Texas Gas of Total Delivered—1933

The specific gravity of this gas was not recorded during the year 1933. The gas delivered to the Trinity Portland Cement Company came from Line C-2 and the same per cent was used for West Texas gas in the total as was determined for Line C-2. Following is a tabulation of the percentages by months for the year 1933.

[fol. 9626] Trinity Portland Cement Company—Dallas
Per Cent West Texas Gas of Total Delivered—1933

Month	Total M.C.F.	Total West Texas M.C.F.	Per cent West Texas
January	1,059	762	72.00
February	1,474	958	65.00
March	13,853	9,420	68.00
April	33,325	28,326	85.00
May	40,917	39,280	96.00
June	48,740	46,790	96.00
July	1,710	1,710	100.00
August	1,291	1,265	98.00
September	5,793	5,040	87.00
October	614	571	93.00
November	854	547	64.00
December	2,105	1,431	68.00
Total	151,735	136,100	

[fol. 9627] Trinity Portland Cement Company—Fort Worth —Per Cent West Texas Gas in Total Delivered—1933

This plant was in actual operation during August and September only. The average specific gravity for each day of operation was determined from a recording gravitometer located at the point of measurement of the gas. The corresponding percentage of West Texas gas was determined from the graphs for each day and added in order to secure the total volume for each month. These monthly totals were divided by the total volume of gas delivered during the month to obtain the percentage of West Texas gas in the total.

Following is a tabulation of results by months:

[fol. 9628] Trinity Portland Cement Company—Fort Worth Plant

Per Cent West Texas Gas in Total Delivered—1933

Month	Total M.C.F.	Total West Texas M.C.F.	Per cent West Texas
January	502	.....	.....
February	363	.....	.....
March	191	.....	.....
April	103	.....	.....
May	74	.....	.....
June	70	.....	.....
July	87	.....	.....
August	41,594	34,107	82.00
September	190,857	89,703	47.00
October	94	.....	.....
November	206	.....	.....
December	247	.....	.....
Total	234,388	123,810	

[fol. 9629] Line C-2—Per Cent West Texas Gas of Total Transported—1933

A Continuous record of the specific gravity of gas transported was made at the point of measurement of gas into the line. During the months of January, February, March, April, October, November and December the specific gravity varied to such an extent that it was necessary to take daily averages of the specific gravity and determine the corresponding percentage of West Texas gas from the graphs by days. These daily percentages were multiplied by the daily total volumes to obtain the volume of West Texas gas by days and the daily figures added to get the monthly total for each month. The monthly total volume of West Texas gas divided by the monthly total volume

of all gas gave the percentage of West Texas gas for each month.

During the months of May, June, July, August and September the specific gravity was fairly constant for each month and the monthly average specific gravity was used to determine the percentage of West Texas gas from the graphs for those months.

Following is a tabulation for the year 1933:

[fol. 9630] Line C-2

Per Cent West Texas Gas of Total Transported—1933

Month	Total Millions	Total West Texas Millions	Per cent West Texas
January	47	33	72.00
February	35	23	65.00
March	47	32	68.00
April	70	59	85.00
May	76	73	96.00
June	69	66	96.00
July	23	23	100.00
August	25	25	98.00
September	24	21	87.00
October	30	28	93.00
November	60	39	64.00
December	62	42	68.00
Total	568	464	

NOTE.—The above percentages in right hand column were obtained from gravity record. The total in M. C. F. each month was multiplied by the percentages to get West Texas Gas in M. C. F. The figures in the first two columns above represent the nearest number of millions and explains why the above figures may not check each other exactly.

[fol. 9631] Line E—Per Cent West Texas Gas of Total Used and Unaccounted for—1933

A continuous record of the specific gravity of gas transported was made at the point of measurement of gas into the line. During the months of January, February, March, October, November and December the specific gravity varied to such an extent that it was necessary to take daily averages of the specific gravity and determine the corresponding percentage of West Texas gas from the graphs by days. These daily percentages were multiplied by the daily total volumes to obtain the volume of West Texas gas by days and the daily figures added to arrive at the monthly total for each month. The monthly total volume of West Texas gas divided by the monthly total volume of all gas gave the percentage of West Texas gas for each month.

During the months of April, May, June, July, August and September the specific gravity was fairly constant for each month and the monthly average specific gravity was used to determine the percentage of West Texas gas from the graphs for those months.

Following is a tabulation by months for the year 1933:

[fol. 9632] Line E

Per Cent West Texas Gas Used and Unaccounted For—1933

Month	Total Millions	Total West Texas Millions	Per cent West Texas
January	173	89	51.00
February	184	65	35.00
March	149	73	49.00
April	99	74	75.00
May	79	73	93.00
June	74	69	93.00
July	76	65	85.00
August	77	72	94.00
September	104	86	83.00
October	115	90	78.00
November	164	87	53.00
December	176	77	44.00
Year	1,470	920	

NOTE.—Percentages in right hand column were obtained from specific gravity record. The total in M. C. F. each month was multiplied by the percentages to get West Texas gas in M. C. F. The volumes shown above represent the nearest number of millions and explains why the above figures may not check each other exactly.

[fol. 9633] Line F—Per Cent West Texas Gas in Total Used and Unaccounted for—1933

The recording gravitometer on gas in Line F was located on the tap line from Line F to the McKinney City Gate Station, located about midway between the two ends of Line F. Since flow through the McKinney Tap Line was continuous, this gravitometer made an accurate record of the specific gravity in Line F at all times.

The line was fed from both ends. Gas was delivered into the North end from Line G, which transported gas from Fox and surrounding fields. Gas was fed into the South end from Line C, part or all of which gas came from West Texas. During the months of January, February, March, April, October, November and December, the specific gravity varied to such an extend that it was necessary to take daily averages of the specific gravity and determine from the graphs the corresponding percentages of West Texas gas by days.

The gas used and unaccounted for in the line was determined for each day by deducting the gas metered out from that metered in. The percentages of West Texas gas mentioned above were applied to these total daily volumes and the volume of West Texas gas for each day determined. By adding the daily figures the total volume of West Texas gas for each month was obtained and by dividing these totals into the total used and unaccounted for, the per cent of West Texas gas for each of the months mentioned above was obtained.

[fol. 9634] During the months of May, June, July, August and September, the specific gravity record did not vary enough to warrant the use of daily averages. The monthly average specific gravity was used to determine the corresponding per cent of West Texas gas for each of those months.

Following is a tabulation of these percentages by months for the year 1933:

[fol. 9635] Line F

Per Cent West Texas Gas in Total Used and Unaccounted For—1933

Month	Total Millions	Total West Texas Millions	Per cent West Texas
January	110	90	81.00
February	125	77	62.00
March	75	52	69.00
April	55	46	83.00
May	54	52	96.00
June	49	48	97.00
July	51	50	99.00
August	56	56	100.00
September	56	49	87.00
October	67	62	94.00
November	80	54	68.00
December	97	60	62.00
Total	875	696	

In working up the above volumes in M. C. F. were used, whereas only the nearest number of millions is shown above. Hence, some of the above figures may not check exactly.

[fol. 9636] Part II

[fol. 9637] Allocation of Property

[fol. 9638] As previously determined by the analysis of the specific gravity of the flowing gas, during the year ended December 31, 1933, certain property units of Lone Star

Gas Company were jointly and/or concurrently used in the transportation and/or compression of gas which has been withdrawn from the Central West Texas area and the Petrolia Field and gas which had been withdrawn from the Shamrock area and Southern Oklahoma. The specific items of physical property which were jointly and/or concurrently used in the transportation and/or the compression of gas from these respective areas during the year 1933 were as follows:

Lines and Equipment:

Line B and B taps.
Line C.
Line C-2.
Line E and E taps.
Line F and F taps.
Line G.
Line G-3 and G-3 taps.

Compressor Station:

Gainesville Compressor Station.
Petrolia Compressor Station.

All other items of property included in the property account of Lone Star Gas Company, during the year ended December 31, 1933, were used exclusively in either the production, compression and transportation of gas which had been withdrawn either from the Central West Texas area and the Petrolia Field or from the Shamrock area and Southern Oklahoma.

This situation relative to the joint and/or concurrent use of property items in the transportation and/or compression of gas which during the process of its transportation remained wholly within the boundaries of the State of Texas, [fol. 9639] and in the transportation and/or compression of gas which during the process of its transportation passed from the State of Oklahoma into the State of Texas, creates the necessity for the allocation of the property items involved. This allocation is necessary in order that a determination may be made of the proportionate amount of the fixed charges (return, reserve accruals and taxes) on the value of the property which may be ascribed to each service. This same situation also holds true with reference to cer-

tain operating charges incurred by Lone Star Gas Company during the year ended December 31, 1933.

Method of Allocation:

The fixed charges which accrue on the value of the property items of Lone Star Gas Company are largely a function of the passage of time and are therefore independent of the amount of use to which these property units are put measured in terms of the volume of gas transported. Interest or return, ad valorem taxes and local assessments and the reserves required for depreciation, amortization and the cost of replacements will accrue uniformly upon the value of a pipe line irrespective of the volume of gas which may be transported through this line during the period of time (the year 1933 in the instant case) in which these fixed charges will accrue. With this fact in mind, the allocation of the various lines jointly and/or concurrently used during the year ended December 31, 1933, for the transportation of gas produced in the Central West Texas area and the Petrolia Field and for the transportation of gas produced in the Shamrock area and in Southern Oklahoma was made in the following manner:

[fol. 9640] As previously set out, the percentage of the total gas transported each month in lines jointly and/or concurrently used which was represented by gas produced in the Central West Texas area was determined by means of daily calculations from gravitometer records. The summation of these daily calculations determined the weighted percentage of gas produced in the Central West Texas area which was transported in lines jointly and/or concurrently used during each month of the year ended December 31, 1933.

The total fixed charges for any year on any property item equal 100 per cent of these fixed charges for the year. The proportionate part of the total annual fixed charges which accrue during any one month is 8.33 per cent, or one-twelfth of 100 per cent. The percentage of the total gas delivered by any line jointly and/or concurrently used which was represented by gas produced in the Central West Texas area was applied to 8.33 per cent in order to ascertain the percentage of the fixed charges accrued during any one month which should be allocated to the delivery of gas produced in the Central West Texas area. This method of al-

location has been designated the time-volume method inasmuch as it gives effect to the element of time in fixing the percentage of fixed charges for each month, while it also gives effect to the relative volume of gas from the respective sources for each month.

When the sum of the percentages derived from the application of the percentage of the total gas transported each [fol. 9641] month represented by gas produced in Central West Texas (as determined by daily gravitometer readings) to 8.33 per cent is determined for each of the twelve months during the year 1933, this cumulative percentage represents the weighted annual percentage of the line in question which should be allocated to the transportation of gas produced in Central West Texas. The percentage thus derived also provides the basis for the allocation of the cost of the fixed charges, return, taxes and reserve accruals to the transportation of gas produced in Central West Texas by means of facilities jointly and/or concurrently used during the year ended December 31, 1933. It also provides the basis for the allocation of certain operating charges which are subject to allocation by reason of the joint and/or concurrent use of certain property items in the transportation and/or compression of gas which has been produced in the Shamrock area and Southern Oklahoma.

The tabulations which follow set out the application of the weighted monthly percentages of the total gas delivered represented by gas produced in the Central West Texas area during the year ended December 31, 1933, to 8.33 per cent per month in Lines B and B taps, C, C-2, E and E taps, F and F taps, G, G-3 and G-3 taps.

The allocation of the value of the compressor station located at Gainesville, Texas, has been based upon the weighted percentage developed for Line F which line provides the gas compressed at this station.

The allocation of the value of the compressor station located at Petrolia, Texas, has been based upon the fact that 2,500 horse power out of a total of 7,710 horse power in- [fol. 9642] stalled was used solely for the compression of gas produced in the Petrolia field during the year ended December 31, 1933.

It must be borne in mind that the allocations herein set out are applicable only to the operations of Lone Star Gas Company during the year ended December 31, 1933.

Defendant's Exhibit No. 45—Continued

[fol. 9643]

Allocation of Line "B" and "B" Taps—Time Volume Basis—to West Texas Deliveries—1933

Month	Per Cent of Total	West Texas % of Del.	Per Cent by Months
January	8.33	.....	.....
February	8.33	.....	.....
March	8.33	.....	.....
April	8.33	.....	.....
May	8.33	67.78	5.65
June	8.33	87.39	7.28
July	8.33	5.10	.42
August	8.33	35.95	2.99
September	8.33	.....	.....
October	8.33	36.01	3.00
November	8.33	.....	.....
December	8.33	34.00	2.83
			22.17%

Allocation of Line "C" and "C" Taps—Time Volume Basis—to West Texas Deliveries—1933

Month	Per Cent of Total	West Texas % of Del.	Per cent by Months
January	8.33	56.00	4.66
February	8.33	49.00	4.08
March	8.33	53.00	4.41
April	8.33	76.00	6.33
May	8.33	95.00	7.91
June	8.33	96.00	8.00
July	8.33	99.00	8.25
August	8.33	100.00	8.33
September	8.33	86.00	7.16
October	8.33	91.00	7.58
November	8.33	52.00	4.33
December	8.33	50.00	4.17
			75.21%

Defendant's Exhibit No. 45—Continued

[fol. 9644]

Allocation of Line "C-2"—Time Volume Basis—to West Texas Deliveries—1933

Month	Per cent of Total	West Texas % of Del.	Per cent by Months
January	8.33	72.00	6.00
February	8.33	65.00	5.41
March	8.33	68.00	5.66
April	8.33	85.00	7.08
May	8.33	96.00	8.00
June	8.33	96.00	8.00
July	8.33	100.00	8.33
August	8.33	98.00	8.16
September	8.33	87.00	7.25
October	8.33	93.00	7.75
November	8.33	64.00	5.33
December	8.33	68.00	5.66
			82.63%

Allocation of Line "G"—3.74 Miles of 16 In. Line—Time Volume Basis—to West Texas Deliveries—1933

83.13% (Based on Allocation of Line "F")

Allocation of Line "G-3" and Taps—Time Volume Basis—to West Texas Deliveries—1933

83.13% (Based on Allocation of Line "F")

[fol. 9645]

Allocation of the "F" System—Time Volume Basis—to West Texas Deliveries—1933

Month	Per Cent of Total	West Texas % of Del.	Per cent by Months
January	8.33	81.00	6.75
February	8.33	62.00	5.16
March	8.33	69.00	5.75
April	8.33	83.00	6.91
May	8.33	96.00	8.00
June	8.33	97.00	8.08
July	8.33	99.00	8.25
August	8.33	100.00	8.33
September	8.33	87.00	7.25
October	8.33	94.00	7.83
November	8.33	68.00	5.66
December	8.33	62.00	5.16
			83.13%

Defendant's Exhibit No. 45—Continued

Allocation of the "E" System—Time Volume Basis—to West Texas Deliveries—1933

Month	Per Cent of Total	West Texas % of Del.	Per cent by Months
January	8.33	51.00	4.25
February	8.33	35.00	2.92
March	8.33	49.00	4.08
April	8.33	75.00	6.25
May	8.33	93.00	7.75
June	8.33	93.00	7.75
July	8.33	85.00	7.08
August	8.33	94.00	7.83
September	8.33	83.00	6.91
October	8.33	78.00	6.50
November	8.33	53.00	4.41
December	8.33	44.00	3.67
			69.40%

fol. 9646]

Part III

fol. 9647]

Allocation of Sales by Classes

fol. 9648] As disclosed by the allocation of property items sed for the joint and/or concurrent transportation of gas roduced in the Central West Texas area, and gas produced n the Shamrock area and in Southern Oklahoma, the per-entage of the total deliveries represented by gas produced n West Texas varied materially from month to month. An nalysis of the sales records of the various cities and towns ocated on lines used for the joint and/or concurrent trans-ortation of gas produced in the Central West Texas area nd gas produced in the Shamrock area and Southern Okla-oma also disclosed the fact that there had been a wide ariation from month to month in the proportionate amount f gas for which Lone Star Gas Company received 40 cents er M. C. F., and the proportionate amount of the total olume of gas delivered each month for which Lone Star as Company received what may be termed its proportion-e part of the industrial rate for gas. Due to the existence these variable factors, it was necessary to make a de-rmination by months of the relative volume of gas pro-ced in the Central West Texas area which had been sold the domestic rate and the gas from the same area which

had been sold at the industrial rate. The necessity for this determination grows out of the fact that an essential factor in this study is the amount of revenue which Lone Star Gas Company derived during the year ended December 13, 1933, from gas which was transported wholly within the State of Texas and the revenues which Lone Star Gas Company received during the same period from the sale of gas which was transported from the State of Oklahoma into the State of Texas.

The particular localities which during the year ended De- [fol. 9649] cember 13, 1933, were involved in the situation which grew out of the delivery of gas produced in the Central West Texas area and gas produced in the Shamrock area and Southern Oklahoma were as follows:

The cities and towns served by Line B, the town of Irving which was served by Line C, the metropolitan area of the city of Dallas which was served in part by deliveries from Line C and Line C-2. The metropolitan area of the City of Fort Worth which was served in part by deliveries made at the North Fort Worth measuring station. The cities and towns which were served by Line E, the cities and towns which were served by Line F, the cities and towns which were served by Line G-3, the Cities of Arlington, Handley, Dalworth, Grand Prairie and Arcadia Park which were served in part from Line C-2.

In addition to these cities and towns certain large industrial consumers received varying amounts of gas from the sources under consideration and a separate study has been made of the deliveries to each of these industrial plants.

The first step in the allocation of sales by classes was the determination of the volume of domestic and unaccounted for gas and the volume of industrial gas which each city or town purchased from Lone Star Gas Company during each month of the year 1933. In the case of the cities and towns which were served wholly from one point of delivery, it was necessary only to determine the proportionate amount of the gas delivered during each month from the Central West Texas area and from the Shamrock area and Southern Oklahoma. These percentages which [fol. 9650] were determined by the methods heretofore described were then applied to the respective volume of domestic and unaccounted for gas and the volume of industrial gas purchased by each city or town during each month of the year 1933. The results of these calculations are shown

n a series of tabulations which are a part of this report. In the case of the metropolitan area of the city of Dallas and the metropolitan area of the city of Fort Worth, a different method was required by reason of the fact that concurrent deliveries of gas from Central West Texas and gas from the Shamrock area and Southern Oklahoma by means of common facilities did not constitute the entire volume of gas used by these particular cities.

As an example: The metropolitan area of the city of Dallas received its supply of gas from 5 points of delivery; Boundary measuring station, Hudnall measuring station, Central measuring station, Second Avenue measuring station, and the Lisbon measuring station. Of these measuring stations, the Lisbon and Second avenue measuring stations delivered gas which was wholly produced in the Central West Texas area. It became necessary, therefore, o determine the percentages by months which the deliveries nade at the stations which carried mixed gas bore to the otal deliveries into the metropolitan area during the same nonths. These percentages were then applied to the total volume purchased for the city of Dallas from Lone Star Gas Company at 40 cents per M. C. F., and to the total volume purchased each month from Lone Star Gas Company at industrial rates. By these processes, the monthly totals of as of these two classes represented by deliveries made rom measuring stations where mixed gas had been de-
fol. 9651] livered was determined. To these monthly volmes of gas which were purchased at 40 cents per M. C. F. nd gas which was purchased at industrial rates, there was hen applied the corresponding percentage of the deliveries or each month represented by gas produced in Southern klahoma and the Shamrock Area. In this way it was posible to ascertain the volume of gas represented by gas roduced from the Central West Texas area which was aid for at a rate of 40 cents per M. C. F. and at the industrial rate. The various results of the calculations which ave been explained are clearly shown in the tabulations hich are incorporated in this report. In the case of the roup of small towns located on Line J-2, it was necessary o ascertain the amount of gas which fed into Line J-2 from ine C-2. This step was taken and the resultant allocations re clearly set out in the tabulation—Allocation of Sales by lasses, Arlington, Handley, Dalworth, Grand Prairie and rcadia Park.

Defendant's Exhibit No. 45—Continued

[fol. 9652]

Allocation of Sales by Classes

"F" System

Month	Domestic Sales M.C.F.	Lost and Unaccounted for	Net at $.40	Industrial Sales M.C.F.	Per cent O. & T. Pn. H.	M.C.F. at $.40	M.C.F. Industrial
January	55,893	— 342	55,551	26,294	19.00	10,555	4,996
February	57,182	3,551	60,733	26,916	38.00	23,079	10,228
March	42,428	2,433	44,861	22,131	31.00	13,907	6,861
April	31,788	— 1,735	30,053	17,815	17.00	5,109	3,029
May	17,703	2,411	20,114	21,101	4.00	805	844
June	14,567	2,130	16,697	24,096	3.00	501	723
July	11,425	3,830	15,255	27,731	1.00	153	277
August	12,014	2,938	14,952	24,957	.....	.....	.....
September	10,835	5,111	15,946	22,303	13.00	2,073	2,899
October	14,522	7,544	22,066	22,881	6.00	1,324	1,373
November	29,818	10,108	39,926	22,136	32.00	12,776	7,084
December	35,575	12,514	48,089	18,475	38.00	18,274	7,021
Total	333,750	50,493	384,243	276,836		88,556	45,335

West Texas Domestic 295,687 = 56.09%, Industrial 231,501 = 43.91%; Oklahoma and Texas Panhandle Domestic 88,556 = 66.14%, Industrial 45,335 = 33.86%

"E" System

January	127,071	—14,910	112,161	41,221	49.00	54,959	20,198
February	126,425	— 4,753	121,672	44,517	65.00	79,087	28,936
March	91,530	2,162	93,692	40,627	51.00	47,783	20,720
April	71,461	— 9,993	61,468	27,986	25.00	15,367	6,997
May	40,687	3,256	43,943	27,716	7.00	3,076	1,940
June	30,340	98	30,438	34,054	7.00	2,131	2,384
July	24,829	5,985	30,814	36,739	15.00	4.622	5.511
August	25,523	6,589	32,112	35,030	6.00	1,927	2,102
September	26,189	19,605	45,794	39,914	17.00	7,785	6,785
October	32,455	— 1,945	30,510	68,103	22.00	6.712	14,983
November	65,909	16,153	82,062	56,475	47.00	38,569	26,543
December	74,492	15,826	90,318	57,945	56.00	50,578	32,449
Total	736,911	38,073	774,984	510,327		312,596	169,548

West Texas Domestic 462,388 = 57.57%, Industrial 340,779 = 42.43%; Oklahoma and Texas Panhandle Domestic 312,596 = 64.83%, Industrial 169,548 = 35.17%

Defendant's Exhibit No. 45—Continued

Allocation of Sales by Classes

"B" and Taps

Month	Domestic Sales M.C.F.	Lost and Unaccounted for	Net at $.40	Industrial Sales M.C.F.	Per cent O. & T. Pn. H.	M.C.F. at $.40	M.C.F. Industrial
January	25,405	− 1,595	23,810	5,616	100.00	23,810	5,616
February	23,298	3,462	26,760	6,997	100.00	26,760	6,997
March	18,645	486	19,131	2,698	100.00	19,131	2,698
April	14,091	− 1,272	12,819	2,579	100.00	12,819	2,579
May	8,508	− 45	8,463	2,313	32.22	2,727	745
June	6,252	706	6,958	2,838	12.61	877	358
July	4,905	634	5,539	2,739	94.90	5.257	2,599
August	4,989	1,058	6,047	2,678	64.05	3,873	1,715
September	5,118	239	5,357	4,175	100.00	5,357	4,175
October	5,510	1,861	7,371	3,769	63.99	4,717	2,412
November	11,320	4,652	15,972	6,098	100.00	15,972	6,098
December	14,467	3,353	17,820	5,135	66.00	11,761	3,389
Total	142,508	13,539	156,047	47,635		133,061	39,381

West Texas Domestic 22,986 = 73.58%, Industrial 8,254 = 26.42%; Oklahoma and Texas Panhandle Domestic 133,061 = 77.16%, Industrial 39,381 = 22.84%

(Here follows one paster, side folio 9653)

Defendant's Exhibit No. 45—Continued

[fol. 9653]

Allocation of Sales by Classes

Metropolitan Area of Dallas—From Hudnall and Central Stations

Month	Domestic Sales M.C.F.	Unaccounted For	Net At $.40	Industrial	Total	Total H. & C. Stations	% H. & C. of Total	% H. & C. of Total Times Net at $.40	% H. & C. of Total Times Industrial	Oklahoma and Texas Panhandle		
										Percent	Net at $.40	M.C.F. Industrial
January	812,992	−131,511	681,481	264,752	946,233	550,115	58.14	396,214	153,927	35.27	139,744	54,290
February	710,221	50,822	761,042	284,181	1,045,223	635,261	60.78	462,561	172,725	48.66	225,082	84,048
March	618,043	−80,051	537,992	240,408	778,400	460,004	59.10	317,953	142,081	38.04	120,949	54,048
April	422,494	−70,872	351,623	195,209	546,832	342,025	62.55	219,940	122,103	8.77	19,289	10,708
May	261,181	−29,171	232,010	193,497	425,507	267,845	62.95	146,050	121,806	1.87	2,731	2,278
June	206,780	−14,508	192,272	189,879	382,151	243,886	63.82	122,707	121,181	4.10	5,031	4,968
July	166,862	3,014	169,876	200,924	370,800	235,896	63.62	108,075	127,828	.....	.....	.....
August	160,971	16,701	177,672	188,026	365,698	238,611	65.25	115,930	122,687	.....	.....	.....
September	169,559	11,453	181,012	192,002	373,014	237,828	63.76	115,413	122,420	13.03	15,038	15,951
October	187,613	73,058	260,671	218,936	479,607	298,845	62.31	162,424	136,419	8.03	13,043	10,954
November	355,201	153,934	509,135	274,495	783,630	523,644	66.82	340,204	183,418	39.31	133,734	72,102
December	491,119	150,667	641,786	276,193	917,979	582,849	63.49	407,470	175,355	44.77	182,424	78,506
Total	4,563,036	133,536	4,696,572	2,718,502	7,415,074	4,616,809		2,914,940	1,701,950		857,065	387,853

West Texas

Domestic—2,057,875 M.C.F. 61.03%
Industrial—1,314,097 M.C.F. 38.97%

Oklahoma and Texas Panhandle

Domestic—857,065 M.C.F. 68.85%
Industrial—387,853 M.C.F. 31.15%

BLANK

PAGE

Defendant's Exhibit No. 45—Continued

[fol. 9654]

Boundary

Allocation of Sales by Classes

Month	Total Net at $.40	M.C.F. Industrial	Total	Boundary	% of Total	Oklahoma and Texas Panhandle Net at $.40	M.C.F. Industrial	Per cent	Net at $.40	M.C.F. Industrial
January	681,481	264,752	946,233	44,115	4.66	31,757	12,337	28.00	8,892	3,454
February	761,042	284,181	1,045,223	38,362	3.67	27,930	10,429	35.00	9,776	3,650
March	537,992	240,408	778,400	26,271	3.38	18,184	8,126	32.00	5,819	2,600
April	351,623	195,209	546,832	20,155	3.69	12,975	7,203	15.00	1,946	1,080
May	232,010	193,497	425,507	13,424	3.15	7,308	6,095	4.00	292	244
June	192,272	189,879	382,151	127	.03	58	57	4.00	2	2
July	169,876	200,924	370,800	.....	.....	.....	.....	.....	.....	.....
August	177,672	188,026	365,698	.....	.....	.....	.....	2.00	.....	.....
September	181,012	192,002	373,014	.....	.....	.....	.....	13.00	.....	.....
October	260,671	218,936	479,607	9,071	1.89	4,927	4,138	7.00	345	290
November	509,135	274,495	783,630	36,147	4.61	23,471	12,654	36.00	8,450	4,555
December	641,786	276,193	917,979	51,561	5.62	36,068	15,522	32.00	11,542	4,967
Total	4,696,572	2,718,502	7,415,074	239,233		162,678	76,561		47,064	20,842

West Texas

Domestic—115,614 M.C.F..... 67.48%
Industrial—55,719 M.C.F..... 32.52%

Oklahoma and Texas Panhandle

Domestic—47,064 M.C.F..... 69.31%
Industrial—20,842 M.C.F..... 30.69%

Defendant's Exhibit No. 45—Continued

[fol. 9655]

Allocation of Sales by Classes

Fort Worth Division—Lone Star Gas Company—North Fort Worth Station

Month	Net at $.40	Industrial	Total	Total N. Ft. Worth	Per cent N. Ft. W.	Net at $.40 N. Ft. Worth	M.C.F. Industrial N. Ft. Worth	Oklahoma and Texas Panhandle Per cent	Net at $.40	M.C.F. Industrial
January	332,298	231,546	563,844	459,196	81.44	270,623	188,571	68.00	184,024	128,228
February	351,491	251,966	603,457	468,874	77.70	273,109	195,778	75.00	204,832	146,834
March	269,181	218,830	488,011	401,316	82.24	221,374	179,966	67.00	148,321	120,577
April	186,316	185,544	371,860	342,855	92.20	171,783	171,072	45.00	77,302	76,982
May	121,380	196,964	318,344	318,344	100.00	121,380	196,964	8.00	9,710	15,757
June	107,072	196,055	303,127	303,127	100.00	107,072	196,055	3.00	3,212	5,882
July	101,965	209,209	311,174	311,174	100.00	101,965	209,209	.....	.....	.....
August	92,650	206,926	299,576	299,576	100.00	92,650	206,926	1.00	927	2,069
September	109,019	195,589	304,608	304,608	100.00	109,019	195,589	17.00	18,533	33,250
October	149,265	178,601	327,866	327,866	100.00	149,265	178,601	14.00	20,897	25,004
November	251,287	232,692	483,979	445,711	92.09	231,410	214,286	70.00	161,987	150,000
December	347,183	210,500	557,683	499,006	89.48	310,659	188,355	66.00	205,035	124,314
Total	2,419,107	2,514,422	4,933,529	4,481,653		2,160,309	2,321,372		1,034,780	828,897

West Texas

Domestic—1,125,529 M.C.F..... 42.99%
Industrial—1,492,475 M.C.F..... 57.01%

Oklahoma and Texas Panhandle

Domestic—1,034,780 M.C.F..... 55.52%
Industrial—828,897 M.C.F..... 44.48%

Defendant's Exhibit No. 45—Continued

[fol. 9656]

Allocation of Sales by Classes

Irving—Using Line C-2 Per Cents

Month	West Texas Net At $.40	West Texas M.C.F. Industrial	Oklahoma and Texas Panhandle Per cent	Oklahoma and Texas Panhandle Net at $.40	Oklahoma and Texas Panhandle M.C.F. Industrial
January	1,616	3	28.00	452	1
February	1,508	4	35.00	528	1
March	1,202	...	32.00	385	..
April	945	...	15.00	142	..
May	491	6	4.00	20	..
June	410	...	4.00	16	..
July	346	...	.....	.....	..
August	465	...	2.00	9	..
September	285	347	13.00	37	45
October	582	147	7.00	41	10
November	918	64	36.00	330	23
December	997	22	32.00	319	7
Total	9,765	593		2,279	87

West Texas		Oklahoma and Texas Panhandle	
Domestic—7,486 M.C.F.	93.67%	Domestic—2,279 M.C.F.	96.32%
Industrial—506 M.C.F.	6.33%	Industrial—87 M.C.F.	3.68%

Defendant's Exhibit No. 45—Continued

[fol. 9657]

Allocation of Sales by Classes

Arlington, Handley, Dalworth, Grand Prairie and Arcadia Park

Month	Domestic and Unaccounted for	M.C.F. Industrial	Total	Delivery from Line J	Balance from Line C-2	% of Total	Texas and Oklahoma Panhandle Net at $.40	Texas and Oklahoma Panhandle M.C.F. Industrial	Texas and Oklahoma Panhandle Per cent	Texas and Oklahoma Panhandle Net at $.40	Texas and Oklahoma Panhandle M.C.F. Industrial
January	17,408	3,815	21,223	−24,518	.....	.....	.....	.....	.....	.....	.....
February	17,106	4,604	21,710	34,168	.....	.....	.....	.....	.....	.....	.....
March	12,529	3,278	15,807	13,987	1,820	11.51	1,442	377	32.00	461	121
April	4,076	3,399	7,475	2,424	5,051	67.57	2,754	2,297	15.00	413	345
May	5,742	6,623	12,365	.....	12,365	100.00	5,742	6,623	4.00	230	265
June	4,230	7,886	12,116	.....	12,116	100.00	4,230	7,886	4.00	169	315
July	3,865	10,478	14,343	.....	14,343	100.00	3,865	10,478	.....	.....	.....
August	3,991	11,772	15,763	.....	15,763	100.00	3,991	11,772	2.00	80	235
September	3,961	11,219	15,180	1,111	14,069	92.68	3,671	10,398	13.00	477	1,352
October	6,216	8,212	14,428	251	14,177	98.26	6,108	8,069	7.00	428	565
November	11,886	6,418	18,304	2,573	15,731	85.94	10,215	5,516	36.00	3,677	1,986
December	13,884	8,484	22,368	20,508	1,860	8.32	1,155	706	32.00	370	226
Total	104,894	86,188	191,082	99,540	107,295		43,173	64,122		6,305	5,410

West Texas

Domestic—98,589 M.C.F..... 54.96%
Industrial—80,778 M.C.F..... 45.04%

Oklahoma and Texas Panhandle

Domestic—6,305 M.C.F..... 53.82%
Industrial—5,410 M.C.F..... 46.18%

[fol. 9658]

Allocation of Sales by Classes

West Dallas—Off Line "C-2"

Month	Domestic and Uncounted for	M.C.F. Industrial	Oklahoma and Texas Panhandle		
			Per cent	Net at $.40	M.C.F. Industrial
January	2,943	2,643	28.00	825	740
February	3,210	3,031	35.00	1,124	1,061
March	2,560	1,693	32.00	819	542
April	1,360	2,409	15.00	204	361
May	882	3,230	4.00	35	129
June	752	5,286	4.00	30	211
July	594	4,899	.....	.....	.....
August	719	5,666	2.00	14	113
September	601	3,185	13.00	78	414
October	846	3,586	7.00	59	251
November	1,794	3,623	36.00	646	1,304
December	2,249	2,157	32.00	720	690
Total	18,513	41,408		4,554	5,816

West Texas		Oklahoma and Texas Panhandle	
Domestic—13,959 M.C.F.	28.17%	Domestic—4,554 M.C.F.	43.92%
Industrial—35,592 M.C.F.	71.83%	Industrial—5,816 M.C.F.	56.08%

Defendant's Exhibit No. 45—Continued

[fol. 9659]

Allocation of Sales by Classes

Line "G-3"—Including Gainesville

Month	Domestic Sales M.C.F.	Lost and Unaccounted	Net at $.40	M.C.F. Industrial	Oklahoma and Texas Panhandle Per cent	M.C.F. at $.40	M.C.F. Industrial
January	26,380	−595	25,785	5,935	19.00	4,899	1,128
February	26,207	450	26,657	7,161	38.00	10,130	2,721
March	17,686	−275	17,411	6,883	31.00	5,397	2,134
April	14,389	116	14,505	3,602	17.00	2,466	612
May	8,656	−233	8,423	5,879	4.00	337	235
June	7,378	− 76	7,302	6,383	3.00	219	191
July	5,147	− 11	5,136	8,278	1.00	51	83
August	5,817	92	5,909	6,411	.....	.....	.....
September	5,427	517	5,944	8,770	13.00	773	1,140
October	6,136	97	6,233	12,887	6.00	374	773
November	12,388	304	12,692	10,552	32.00	4,061	3,377
December	15,726	− 85	15,641	8,741	38.00	5,944	3,322
Total	151,337	301	151,638	91,482		34,651	15,716

West Texas

Domestic—116,987 M.C.F.....60.69%
Industrial—75,766 M.C.F.....39.31%

Oklahoma and Texas Panahndle

Domestic—34,651 M.C.F.....68.80%
Industrial—15,716 M.C.F.....31.20%

Defendant's Exhibit No. 45—Continued

[fol. 9660] **Allocation of Sales**

Marathon Oil Company—Fort Worth

Month	West Texas M.C.F. Industrial	Per cent	Oklahoma and Texas Panhandle M.C.F. Industrial
January	3,568	23.00	1,142
February	2,821	25.00	705
March	2,771	33.00	914
April	2,760	55.00	1,518
May	2,835	92.00	2,608
June	3,155	97.00	3,060
July	3,464	100.00	3,464
August	1,451	99.00	1,436
September	1,932	83.00	1,604
October	3,221	86.00	2,770
November	2,000	30.00	600
December	4,492	34.00	1,527
Total	34,470		21,348

West Texas
Industrial—21,348 M.C.F.

Oklahoma and Texas Panhandle
Industrial—13,122 M.C.F.

[fol. 9661] **Allocation of Sales**

Trinity Portland Cement Company—Dallas

Month	Oklahoma and Texas Panhandle M.C.F. Industrial	Per cent	M.C.F. Industrial
January	1,059	28.00	297
February	1,474	35.00	516
March	13,853	32.00	4,433
April	33,325	15.00	4,999
May	40,917	4.00	1,637
June	48,740	4.00	1,950
July	1,710	.....	.....
August	1,291	2.00	26
September	5,793	13.00	753
October	614	7.00	43
November	854	36.00	307
December	2,105	32.00	674
Total	151,735		15,635

West Texas
Industrial—136,100 M.C.F.

Oklahoma and Texas Panhandle
Industrial—15,635 M.C.F.

Defendant's Exhibit No. 45—Continued

[fol. 9662] Allocation of Sales

Trinity Portland Cement Company—Fort Worth

Month	M.C.F. Industrial	Oklahoma and Texas Panhandle Per Cent	M.C.F. Industrial
January	502	100.00	502
February	363	100.00	363
March	191	100.00	191
April	103	100.00	103
May	74	100.00	74
June	70	100.00	70
July	87	100.00	87
August	41,594	18.00	7,487
September	190,857	53.00	101,154
October	94	100.00	94
November	206	100.00	206
December	247	100.00	247
Total	234,388		110,578

West Texas Industrial—123,810 M.C.F.

Oklahoma and Texas Panhandle Industrial—110,578 M.C.F.

[fol. 9663]

Allocation of J-2 and J-2 Taps—Time Volume Basis—To West Texas

Deliveries 1933

	M.C.F. Total	M.C.F. From Line C-2	Per Cent From Line C-2	Shamrock & Okla. Per Cent in Line C-2	Shamrock & Okla. Per Cent in Total	West Texas Per Cent in Total
Jan.	24,518	.....	...	...	...	100
Feb.	21,710	.....	...	...	...	100
Mar.	15,807	1,820	12	32	4	96
Apr.	7,475	5,051	68	15	10	90
May	12,365	12,365	100	4	4	96
June	12,116	12,116	100	4	4	96
July	14,343	14,343	100	...	...	100
Aug.	15,763	15,763	100	2	2	98
Sept.	15,180	14,069	93	13	12	88
Oct.	14,428	14,117	98	7	7	93
Nov.	18,308	15,731	86	36	31	69
Dec.	22,368	1,860	8	32	2	98

	Per Cent of Total	West Texas % of Del.	Per Cent by Months
Jan.	8.33	100	8.33
Feb.	8.33	100	8.33
Mar.	8.33	96	8.00
Apr.	8.33	90	7.50
May	8.33	96	8.00
June	8.33	96	8.00
July	8.33	100	8.33
Aug.	8.33	98	8.16
Sept.	8.33	88	7.33
Oct.	8.33	93	7.75
Nov.	8.33	69	5.75
Dec.	8.33	98	8.16
			93.64

[fol. 9664] Appendix

[fol. 9665] Line B

The same weighted monthly percentages as were determined for North Station at Fort Worth were used on the net into South end of Line B.

These percentages were applicable to delivery both into South end of Line B and delivery into North Station—Fort Worth on account of the fact that both deliveries were taken from Line C at approximately the same point.

[fol. 9666] Line C

Covered by detailed explanation in Part I.

[fol. 9667] Central Station—Dallas

January, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1	.69	36	21,626	7,785
2	.70	43	20,723	8,911
3	.72	53	16,419	8,702
4	.75	71	12,842	9,118
5	.76	78	14,013	10,930
6	.76	75	14,876	11,157
7	.76	80	16,184	12,947
8	.75	75	17,794	13,346
9	.73	62	18,005	11,163
10	.73	58	17,047	9,887
11	.74	63	15,332	9,659
12	.71	46	20,026	921
13	.70	43	19,097	821
14	.71	50	19,418	9,709
15	.74	64	16,236	10,391
16	.74	66	15,009	9,906
17	.77	87	9,173	7,981
18	.77	86	8,637	7,428
19	.80	100	11,835	11,835
20	.78	91	10,851	9,871
21	.80	100	8,384	8,384
22	.81	100	9,355	9,355
23	.81	100	11,768	11,768
24	.81	100	13,604	13,604
25	.78	90	12,578	11,320
26	.77	83	13,222	10,974
27	.76	75	16,219	12,164
28	.74	67	18,023	12,075
29	.75	74	18,713	13,848
30	.74	67	13,947	9,344
31	.77	83	13,338	11,071
Total			464,294	306,375

Weighted Monthly Percentage = 306,375 divided by 464,294 = 66.0%

Defendant's Exhibit No. 45—Continued

[fol. 9668]

February, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1	.77	85	14,844	12,617
2	.76	78	13,951	10,882
3	.73	59	15,608	9,209
4	.71	50	18,280	9,140
5	.71	50	16,053	8,027
6	.72	56	15,764	8,828
7	.73	58	23,299	13,513
8	.65	14	35,708	4,999
9	.65	16	35,475	5,676
10	.67	21	30,224	6,347
11	.69	34	31,049	10,557
12	.68	30	27,624	8,287
13	.70	42	17,858	7,500
14	.76	80	12,880	10,304
15	.73	57	25,786	14,670
16	.70	44	21,654	9,528
17	.74	65	14,911	9,692
18	.75	70	17,054	11,938
19	.77	82	14,732	12,080
20	.77	85	13,619	11,576
21	.76	75	16,372	12,279
22	.75	72	15,955	11,488
23	.75	73	14,194	10,362
24	.80	100	9,625	9,625
25	.82	100	9,894	9,894
26	.80	100	17,650	17,650
27	.75	72	17,167	12,360
28	.71	47	18,968	8,915
Total			536,148	287,943

Weighted Monthly Average = 287,943 divided by 536,148 = 53.71%

[fol. 9669]

March, 1933

1	.69	31	18,057	5,598
2	.72	48	13,492	6,476
3	.73	51	12,969	6,614
4	.76	68	11,739	7,983
5	.77	71	11,430	8,115
6	.72	48	18,431	8,847
7	.69	31	20,104	6,232
8	.70	38	15,669	5,954
9	.74	56	10,340	5,790
10	.76	67	14,788	9,908
11	.74	57	14,880	8,482
12	.78	76	9,893	7,519
13	.82	96	8,196	7,868
14	.82	100	8,867	8,867
15	.83	100	15,020	15,020
16	.75	69	15,241	10,516
17	.75	60	11,562	6,937
18	.81	92	6,801	6,257
19	.82	100	11,042	11,042
20	.71	43	19,089	8,208
21	.69	32	19,382	6,202
22	.73	52	10,565	5,494
23	.77	73	11,060	8,074
24	.76	67	11,496	7,702

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
25	.77	74	14,230	10,530
26	.78	75	11,852	8,889
27	.78	75	13,269	9,952
28	.78	79	10,398	8,214
29	.80	89	9,022	8,030
30	.82	98	9,641	9,448
31	.82	99	11,045	10,935
Total			399,570	255,703

Weighted Monthly Percentage = 255,703 divided by 399,570 = 63.99%

[fol. 9670] October, 1933

1	.81	92	6,819	6,273
2	.83	100	7,147	7,147
3	.81	92	9,499	8,739
4	.81	92	9,424	8,760
5	.82	95	9,631	9,149
6	.82	94	8,249	7,754
7	.80	88	6,370	5,606
8	.82	99	7,808	7,730
9	.81	90	9,948	8,953
10	.79	82	12,217	10,018
11	.78	75	10,179	7,634
12	.79	81	9,310	7,541
13	.80	85	8,978	7,631
14	.81	90	9,168	8,251
15	.81	91	8,113	7,383
16	.83	100	8,687	8,687
17	.81	93	12,170	11,318
18	.79	83	9,984	8,287
19	.79	82	9,583	7,858
20	.80	85	8,546	7,264
21	.82	95	8,532	8,105
22	.83	100	7,610	7,610
23	.84	100	7,786	7,786
24	.83	100	10,298	10,298
25	.83	100	10,161	10,161
26	.82	94	11,785	11,078
27	.82	94	11,190	10,519
28	.82	95	10,972	10,423
29	.82	94	8,113	7,626
30	.83	100	8,118	8,118
31	.83	100	9,897	9,897
Total			286,292	263,604

Weighted Monthly Percentage = 263,604 divided by 286,292 = 92.1%

[fol. 9671] November, 1933

1	.84	100	10,508	10,508
2	.84	100	10,421	10,421
3	.78	76	16,527	12,561
4	.73	52	17,860	9,287
5	.73	52	15,870	8,252
6	.73	52	17,838	9,276
7	.71	41	18,687	7,662
8	.71	42	21,358	8,970
9	.71	43	19,733	8,485
10	.73	51	17,834	9,095

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
11	.74	57	13,319	7,592
12	.77	72	9,558	6,882
13	.79	81	12,366	10,016
14	.76	65	17,270	11,226
15	.77	70	14,904	10,433
16	.76	65	19,215	12,490
17	.73	51	15,271	7,788
18	.77	71	11,801	8,379
19	.79	81	13,555	10,980
20	.79	83	11,500	9,545
21	.80	84	10,915	9,169
22	.77	69	18,157	12,528
23	.74	55	18,325	10,079
24	.74	54	17,587	9,497
25	.72	47	19,891	9,349
26	.74	54	16,351	8,830
27	.75	60	16,355	9,813
28	.77	70	14,730	10,311
29	.78	74	10,847	8,027
30	.77	71	10,139	7,199
Total			458,692	284,651

Weighted Monthly Percentage = 284,692 divided by 284,651 = 62.1%

[fol. 9672]

December, 1933

1	.78	82	8,667	7,107
2	.78	81	9,547	7,733
3	.77	74	12,187	9,018
4	.77	78	13,690	10,678
5	.77	74	12,513	9,260
6	.75	63	19,484	12,275
7	.70	40	18,035	7,214
8	.72	48	19,466	9,344
9	.72	51	21,330	10,878
10	.74	57	13,107	7,471
11	.75	66	11,472	7,572
12	.76	72	17,595	12,668
13	.73	56	19,432	10,882
14	.74	60	12,431	7,459
15	.77	79	10,798	8,530
16	.78	82	13,364	10,958
17	.80	94	9,605	9,029
18	.75	66	17,766	11,726
19	.70	38	22,643	8,604
20	.71	44	22,063	9,708
21	.73	56	19,209	10,757
22	.74	57	16,864	9,612
23	.74	61	11,353	6,925
24	.78	82	8,801	7,217
25	.76	70	13,051	9,136
26	.73	54	16,215	8,756
27	.71	43	24,248	10,427
28	.70	38	21,294	8,092
29	.69	35	21,901	7,665
30	.69	31	19,045	5,904
31	.71	42	16,429	6,900
Total			493,605	279,505

Weighted Monthly Percentage = 279,505 divided by 493,605 = 56.6%

Defendant's Exhibit No. 45—Continued

[fol. 9673]

Hudnall Station—Dallas

January, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1	.66	15	3,896	584
2	.66	17	3,841	653
3	.68	31	4,398	1,363
4	.72	54	2,106	1,137
5	.76	77	2,923	2,251
6	.75	69	3,124	2,156
7	.74	65	3,147	2,046
8	.75	69	2,840	1,960
9	.73	58	2,941	1,706
10	.71	46	2,811	1,293
11	.71	48	2,671	1,282
12	.68	30	3,890	1,167
13	.67	22	4,759	1,047
14	.68	31	4,166	1,291
15	.70	42	3,048	1,280
16	.72	54	3,038	1,641
17	.75	74	2,069	1,531
18	.77	87	2,036	1,771
19	.81	100	2,149	2,149
20	.79	98	1,991	1,951
21	.80	100	1,934	1,934
22	.82	100	2,012	2,012
23	.82	100	1,228	1,228
24	.81	100	1,795	1,795
25	.78	93	2,534	2,357
26	.77	82	2,404	1,971
27	.75	71	2,379	1,689
28	.73	59	2,248	1,326
29	.75	70	2,940	2,058
30	.75	73	2,257	1,648
31	.75	71	2,246	1,595
Total			85,821	49,872

Weighted Monthly Percentage = 49,872 divided by 85,821 = 58.1%

[fol. 9674]

February, 1933

1	.77	84	2,136	1,794
2	.76	79	1,947	1,538
3	.72	55	2,026	1,114
4	.68	30	2,247	674
5	.69	33	2,000	660
6	.70	44	2,176	957
7	.71	49	2,970	1,455
8	.62	...	9,630	.....
9	.62	...	6,628	.....
10	.62	...	6,845	.....
11	.65	11	6,980	768
12	.64	07	3,914	274
13	.70	42	4,141	1,739
14	.73	60	2,402	1,441
15	.72	52	3,212	1,670
16	.68	27	3,948	1,066
17	.71	46	3,414	1,570
18	.74	63	3,759	2,368
19	.74	63	3,393	2,138
20	.78	67	3,288	2,203
21	.75	73	2,722	1,987

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
22	.74	66	2,669	1,762
23	.74	64	2,013	1,288
24	.75	73	1,960	1,431
25	.83	100	1,297	1,297
26	.79	97	2,596	2,259
27	.76	77	3,457	2,662
28	.68	28	5,340	1,495
Total			99,110	37,610

Weighted Monthly Percentage = 37,610 divided by 99,110 = 37.9%

[fol. 9675] March, 1933

1	.65	09	3,627	326
2	.69	32	2,246	719
3	.77	70	1,994	1,396
4	.73	53	1,770	938
5	.76	69	1,993	1,375
6	.72	47	2,935	1,379
7	.67	22	3,952	869
8	.68	24	3,856	925
9	.72	48	1,791	860
10	.73	53	1,574	834
11	.71	44	1,972	868
12	.75	63	1,397	880
13	.79	85	853	725
14	.83	100	1,079	1,079
15	.83	100	1,113	1,113
16	.76	65	2,096	1,362
17	.72	48	1,509	724
18	.77	71	1,991	1,414
19	.83	100	974	974
20	.71	43	2,647	1,138
21	.65	12	4,188	503
22	.70	35	2,629	920
23	.74	57	1,588	905
24	.73	51	1,635	834
25	.73	51	1,793	914
26	.76	66	2,472	1,632
27	.76	65	1,333	866
28	.75	62	618	383
29	.78	78	1,110	866
30	.81	91	976	888
31	.85	100	723	723
Total			60,434	29,332

Weighted Monthly Percentage = 29,322 divided by 60,434 = 48.4%

[fol. 9676] November, 1933

1	.80	84	428	360
2	.80	87	468	407
3	.80	88	958	843
4	.78	78	2,902	2,264
5	.74	58	2,789	1,618
6	.73	50	3,216	1,608
7	.72	44	4,191	1,844
8	.70	36	4,156	1,496
9	.70	34	3,207	1,090
10	.72	45	2,180	981

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
11	.71	42	1,499	630
12	.72	47	1,726	811
13	.74	55	1,758	967
14	.73	50	3,860	1,930
15	.74	54	2,252	1,216
16	.74	54	2,151	1,162
17	.73	51	2,553	1,302
18	.73	50	1,740	1,370
19	.73	50	1,140	570
20	.74	54	1,436	775
21	.75	62	2,373	1,471
22	.76	66	1,529	1,009
23	.75	60	1,763	1,058
24	.73	50	1,721	861
25	.71	41	2,685	1,101
26	.71	41	1,966	806
27	.71	40	2,592	1,037
28	.72	45	1,750	788
29	.73	50	2,090	1,045
30	.74	56	1,873	1,049
Total			64,952	33,469

Weighted Monthly Percentage = 33,469 divided by 64,952 = 51.52%

[fol. 9677]

December, 1933

1	.74	59	1,665	982
2	.75	64	1,854	1,187
3	.75	66	1,784	1,177
4	.75	66	1,450	957
5	.75	66	1,444	953
6	.75	65	3,246	2,110
7	.73	53	2,908	1,541
8	.72	47	3,551	1,669
9	.70	39	2,700	1,053
10	.71	42	1,004	422
11	.71	44	1,201	528
12	.72	49	3,001	1,470
13	.72	49	3,638	1,783
14	.72	49	1,841	902
15	.72	50	1,803	902
16	.73	55	1,885	1,037
17	.74	60	936	562
18	.74	60	2,925	1,755
19	.72	48	4,976	2,388
20	.69	33	4,022	1,327
21	.69	33	3,055	1,008
22	.70	39	3,112	1,214
23	.71	42	2,521	1,059
24	.72	48	1,461	701
25	.72	50	2,353	1,177
26	.73	52	4,678	2,433
27	.71	43	4,502	1,936
28	.69	34	4,428	1,506
29	.69	30	4,636	1,391
30	.72	49	5,926	2,904
31	.72	49	4,738	2,322
Total			89,244	42,356

Weighted Monthly Percentage = 42,356 divided by 89,244 = 47.46%

Defendant's Exhibit No. 45—Continued

North Station—Fort Worth

[fol. 9678] January, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1	.64	07	18,589	1,301
2	.64	08	15,314	1,225
3	.65	09	15,106	1,360
4	.69	35	15,138	5,298
5	.69	35	16,342	5,720
6	.69	36	16,166	5,820
7	.70	39	14,142	5,515
8	.70	42	17,594	7,389
9	.67	23	15,314	3,522
10	.66	16	14,640	2,342
11	.66	18	13,934	2,508
12	.65	10	18,429	1,843
13	.64	07	19,215	1,345
14	.65	10	16,422	1,642
15	.67	23	15,844	3,644
16	.68	30	15,186	4,556
17	.72	53	12,297	6,517
18	.74	68	12,344	8,394
19	.76	77	12,264	9,443
20	.74	68	13,485	9,170
21	.77	85	11,365	9,660
22	.78	89	11,992	10,673
23	.75	71	13,292	9,437
24	.69	37	13,950	5,162
25	.70	42	13,982	5,872
26	.67	21	14,015	2,943
27	.66	19	14,720	2,797
28	.67	21	15,828	3,324
29	.67	21	16,374	3,439
30	.66	15	13,051	1,958
31	.69	36	12,862	4,630
Total			459,196	148,449

Weighted Monthly Percentage = 148,449 divided by 459,196 = 32.33%

[fol. 9679] February, 1933

1	.71	45	13,837	6,227
2	.67	25	14,400	3,600
3	.66	18	14,994	2,699
4	.65	14	15,973	2,236
5	.65	10	16,294	1,629
6	.66	19	14,801	2,812
7	.67	23	17,659	4,062
8	.63	01	25,107	251
9	.64	06	25,636	1,538
10	.63	03	23,084	693
11	.65	12	22,345	2,681
12	.64	08	19,762	1,581
13	.64	07	16,968	1,188
14	.70	39	13,998	5,459
15	.66	20	21,190	4,238
16	.66	15	18,589	2,788
17	.67	23	16,069	3,696
18	.68	30	15,908	4,772
19	.71	49	14,785	7,245
20	.72	53	14,142	7,495
21	.69	34	15,957	5,425
22	.68	30	15,828	4,748

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
23	.68	28	13,757	3,852
24	.73	61	10,338	6,306
25	.78	88	10,659	9,380
26	.75	70	16,149	11,304
27	.69	33	15,299	5,049
28	.65	14	15,347	2,149
Total			468,875	115,103

Weighted Monthly Percentage = 115,103 divided by 468,875 = 24.55%

[fol. 9680]

March, 1933

1	.66	13	15,786	2,052
2	.67	19	15,339	2,914
3	.67	19	13,804	2,623
4	.72	47	12,891	6,059
5	.72	48	12,364	5,935
6	.67	18	15,819	2,847
7	.65	09	16,522	1,487
8	.64	06	15,163	910
9	.68	27	12,220	3,299
10	.70	36	13,660	4,918
11	.67	22	15,866	3,491
12	.73	50	13,115	6,558
13	.79	80	8,205	6,564
14	.75	61	9,501	5,796
15	.78	75	14,827	11,120
16	.69	32	15,210	4,867
17	.66	16	12,667	2,027
18	.74	59	10,428	6,153
19	.75	63	12,092	7,618
20	.64	07	15,963	1,117
21	.67	20	16,394	3,279
22	.66	15	13,148	1,972
23	.70	37	11,148	4,125
24	.67	20	12,124	2,425
25	.68	25	11,580	2,895
26	.71	39	12,700	4,953
27	.70	36	11,084	3,990
28	.70	38	9,597	3,647
29	.73	52	10,333	5,373
30	.75	60	10,796	6,478
31	.75	63	10,972	6,912
Total			401,318	134,404

Weighted Monthly Percentage = 134,404 divided by 401,318 = 33.49%

[fol. 9681]

April, 1933

1	.72	45	11,355	5,110
2	.73	49	9,810	4,807
3	.71	41	8,342	3,420
4	.71	36	10,644	3,832
5	.69	27	10,320	2,786
6	.68	23	13,579	3,123
7	.68	25	12,406	3,102
8	.73	50	10,366	5,183
9	.79	79	9,346	7,383
0	.81	85	7,338	6,237
1	.78	72	11,710	8,431
2	.74	51	13,456	6,863

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
13	.72	44	13,378	5,886
14	.70	31	14,367	4,454
15	.67	19	16,870	3,205
16	.68	22	14,337	3,154
17	.75	57	9,254	5,275
18	.76	63	9,331	5,879
19	.78	71	10,134	7,195
20	.77	68	10,736	7,300
21	.76	63	12,081	7,611
22	.77	65	11,787	7,662
23	.81	86	11,092	9,539
24	.83	94	9,563	8,989
25	.80	83	11,556	9,591
26	.82	93	12,838	11,939
27	.80	80	12,560	10,048
28	.75	58	12,483	7,240
29	.75	57	11,185	6,375
30	.75	59	10,629	6,271
Total			342,853	187,890

Weighted Monthly Percentage = 187,890 divided by 342,853 = 54.80%

[fol. 9682]

October, 1933				
1	.77	68	9,512	6,468
2	.81	89	8,424	7,497
3	.80	85	10,242	8,706
4	.80	85	11,420	9,707
5	.81	89	10,839	9,647
6	.81	90	11,480	10,332
7	.80	88	10,183	8,961
8	.82	95	9,899	9,404
9	.81	89	10,168	9,050
10	.80	84	11,524	9,680
11	.78	75	10,601	7,951
12	.78	78	10,287	8,024
13	.79	82	10,332	8,472
14	.80	86	11,048	9,501
15	.80	87	10,064	8,756
16	.82	95	8,737	8,300
17	.80	87	11,913	10,364
18	.79	78	10,809	8,431
19	.79	81	11,003	8,912
20	.79	81	10,675	8,647
21	.80	88	10,436	9,184
22	.81	93	9,870	9,179
23	.83	99	9,676	9,579
24	.82	98	11,152	10,929
25	.80	85	11,107	9,441
26	.81	91	11,987	10,908
27	.78	77	12,017	9,253
28	.77	70	12,211	8,548
29	.80	84	10,376	8,716
30	.82	97	9,244	8,967
31	.82	99	10,630	10,524
Total			327,866	282,038

Weighted Monthly Percentage = 282,038 divided by 327,866 = 86.02%

Defendant's Exhibit No. 45—Continued

[fol. 9683]

November, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1	.81	94	11,917	11,202
2	.81	93	12,316	11,454
3	.71	39	16,251	6,338
4	.68	27	16,539	4,466
5	.69	29	14,796	4,291
6	.68	23	15,164	3,488
7	.67	20	17,515	3,503
8	.65	09	18,715	1,684
9	.65	11	18,602	2,046
10	.66	14	17,115	2,396
11	.66	16	15,707	2,513
12	.70	35	12,349	4,322
13	.75	59	11,165	6,587
14	.67	22	15,627	3,438
15	.69	29	14,539	4,216
16	.68	25	16,108	4,027
17	.65	09	16,251	1,463
18	.72	46	13,500	6,210
19	.73	51	14,124	7,203
20	.72	45	11,212	5,045
21	.72	46	12,269	5,644
22	.70	34	15,964	5,428
23	.65	09	15,931	1,434
24	.66	15	15,355	2,303
25	.65	09	18,283	1,645
26	.65	12	15,435	1,852
27	.67	22	14,780	3,252
28	.69	28	14,732	4,125
29	.71	40	12,252	4,901
30	.75	63	11,198	7,055
Total			445,711	133,531

Weighted Monthly Percentage = 133,531 divided by 445,711 = 30.0%

[fol. 9684]

December, 1933

1	.78	83	10,344	8,586
2	.78	81	12,305	9,967
3	.76	72	13,261	9,548
4	.77	75	12,671	9,503
5	.75	68	12,209	8,302
6	.72	48	17,166	8,240
7	.66	16	18,600	2,976
8	.65	11	17,596	1,936
9	.65	13	17,421	2,265
10	.67	19	15,715	2,986
11	.73	56	12,910	7,230
12	.72	48	16,353	7,849
13	.66	15	19,333	2,900
14	.71	45	13,771	6,197
15	.76	73	12,767	9,320
16	.76	72	14,839	10,684
17	.77	79	11,938	9,431
18	.72	48	17,070	8,194
19	.66	17	21,820	3,709
20	.64	04	18,123	725
21	.65	11	16,401	1,804
22	.65	10	15,603	1,560
23	.72	49	14,600	2,154

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
24	.77	76	13,165	10,005
25	.72	50	14,648	7,324
26	.67	24	17,310	4,154
27	.65	09	22,266	2,004
28	.65	10	21,262	2,126
29	.64	03	20,561	617
30	.63	02	20,003	400
31	.64	04	16,975	679
Total			499,006	168,375

Weighted Monthly Percentage = 168,375 divided by 499,006 = 33.7%

[fol. 9685] Irving Gate Station

Covered by detailed description in Part I.

[fol. 9686] Marathon Oil Company

Fort Worth Plant

The same weighted monthly percentages as were determined for North Station—Fort Worth were used on the delivery to this plant.

The same percentages were applicable to both deliveries on account of the fact that the delivery to the Marathon Oil Company was taken from Line C at approximately the same point as was delivery to the North Fort Worth Station.

[fol. 9687] Trinity Portland Cement Company

Dallas Plant

The same weighted monthly percentages as were determined for Line C-2 were used on the delivery to this plant.

The same percentages were applicable to both deliveries on account of the fact that delivery to the Cement Plant was taken from Line C-2 near the point where the specific gravity record for Line C-2 was made.

Defendant's Exhibit No. 45—Continued

[fol. 9688] Trinity Portland Cement Co.—Fort Worth

August, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1	.84	100	.....	.....
2	.84	100	.....	.....
3	.83	98	.....	.....
4	.81	88	.....	.....
5	.80	84	.....	.....
6	.81	88	.....	.....
7	.82	93	.....	.....
8	.81	88	.....	.....
9	.83	98	.....	.....
10	.82	93	.....	.....
11	.81	88	.....	.....
12	.81	88	.....	.....
13	.82	93	.....	.....
14	.82	93	.....	.....
15	.82	93	.....	.....
16	.83	98	.....	.....
17	.82	93	.....	.....
18	.83	98	.....	.....
19	.82	93	.....	.....
20	.82	93	.....	.....
21	.82	93	.....	.....
22	.83	98	.....	.....
23	.83	98	.....	.....
24	.82	93	2,840	2,641
25	.82	93	3,293	3,062
26	.81	88	4,037	3,553
27	.81	88	6,654	5,856
28	.80	83	6,314	5,241
29	.77	69	6,050	4,175
30	.79	79	6,579	5,197
31	.78	74	5,774	4,273
Total			41,541	33,998

Weighted Monthly Percentage = 33,998 divided by 41,541 = 81.84%

[fol. 9689] September, 1933

1	.67	20	5,780	1,156
2	.79	78	6,798	5,302
3	.71	39	6,912	2,696
4	.78	73	6,736	4,917
5	.75	59	6,657	3,928
6	.73	49	6,719	3,292
7	.73	49	4,055	1,987
8	.71	39	6,666	2,600
9	.70	34	3,338	1,135
10	.72	44	5,089	2,239
11	.77	68	6,666	4,533
12	.71	39	6,647	2,592
13	.70	34	6,978	2,373
14	.73	49	6,990	3,425
15	.73	49	6,755	3,310
16	.74	54	6,916	3,735
17	.72	44	7,139	3,141
18	.73	49	6,934	3,398
19	.72	44	6,562	2,887
20	.70	34	6,010	2,043
21	.65	10	6,010	601
22	.63	..	6,637	6,637

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
23	.63	..	6,655	6,655
24	.63	..	6,632	6,632
25	.65	10	6,739	674
26	.65	10	6,726	673
27	.70	34	6,531	2,221
28	.69	30	6,615	1,985
29	.69	30	6,670	2,001
30	.68	25	5,295	1,324
Total			190,857	90,092

Weighted Monthly Percentage = 90,092 divided by 190,857 = 47.20%

[fol. 9690] Line "C-2" Station

January, 1933

1	.73	60	549	329
2	.70	42	954	401
3	.74	66	939	620
4	.72	54	866	468
5	.75	72	2,851	2,053
6	.76	78	3,101	2,419
7	.74	66	2,509	1,656
8	.76	78	2,955	2,305
9	.74	66	1,516	1,001
10	.73	60	2,878	1,727
11	.73	60	2,665	1,599
12	.71	48	3,415	1,639
13	.73	60	1,162	697
14	.75	72	762	549
15	.75	72	732	527
16	.74	66	686	453
17	.74	66	217	143
18	.77	84	280	235
19	.79	96	389	373
20	.78	90	1,286	1,157
21	.79	96	939	901
22	.80	100	904	904
23	.81	100	1,528	1,528
24	.80	100	1,292	1,292
25	.78	90	1,807	1,626
26	.77	84	1,167	980
27	.76	78	1,224	955
28	.74	66	1,247	823
29	.75	72	1,642	1,182
30	.74	66	2,217	1,463
31	.76	78	1,834	1,431
Total			46,512	33,436

Weighted Monthly Percentage = 33,436 divided by 46,512 = 71.89%

[fol. 9691] February, 1933

1	.77	84	304	255
2	.75	72	264	190
3	.72	55	511	281
4	.71	49	575	282
5	.70	42	365	153
6	.72	54	320	173
7	.72	54	814	440
8	.66	18	927	167
9	.66	18	451	81
10	.70	42	716	301

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
11	.67	24	372	89
12	.69	36	304	109
13	.69	36	272	98
14	.75	72	1,589	1,144
15	.73	60	2,848	1,709
16	.71	48	3,013	1,446
17	.72	54	2,209	1,193
18	.74	66	945	624
19	.75	72	1,588	1,143
20	.76	78	1,819	1,419
21	.75	72	1,223	881
22	.74	66	2,224	1,468
23	.77	83	2,019	1,676
24	.78	90	1,055	950
25	.81	100	834	834
26	.79	95	2,389	2,270
27	.76	78	2,802	2,186
28	.73	60	2,579	1,547
Total			35,331	23,109

Weighted Monthly Percentage = 23,109 divided by 35,331 = 65.41%

[fol. 9692]

March, 1933

1	.72	47	2,248	1,057
2	.71	42	611	257
3	.72	47	956	449
4	.76	67	1,551	1,039
5	.76	67	1,593	1,067
6	.73	52	3,098	1,611
7	.69	31	1,399	434
8	.70	36	317	114
9	.73	52	56	29
10	.75	62	232	144
11	.77	72	220	158
12	.77	72	864	622
13	.81	93	600	558
14	.81	93	448	417
15	.83	100	1,098	1,098
16	.77	73	1,944	1,419
17	.74	57	1,584	903
18	.80	88	1,421	1,250
19	.82	98	1,405	1,377
20	.72	47	2,747	1,291
21	.69	31	1,370	425
22	.72	47	964	453
23	.77	72	1,803	1,298
24	.75	62	2,429	1,506
25	.77	72	2,241	1,614
26	.78	78	2,383	1,859
27	.78	78	2,604	2,031
28	.78	78	2,143	1,672
29	.80	80	2,151	1,721
30	.81	93	1,663	1,547
31	.81	93	2,490	2,316
Total			46,633	31,736

Weighted Monthly Percentage = 31,736 divided by 46,633 = 68.05%

Defendant's Exhibit No. 45—Continued

[fol. 9693]

Line "C-2" Station

April, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1	.82	92	2,402	2,210
2	.82	92	2,308	2,123
3	.82	92	2,220	2,042
4	.83	97	2,351	2,280
5	.83	97	2,333	2,263
6	.78	72	2,713	1,953
7	.75	58	2,795	1,621
8	.79	77	2,374	1,828
9	.83	97	2,569	2,492
10	.84	100	1,758	1,758
11	.85	100	2,149	2,149
12	.80	82	2,426	1,989
13	.79	77	3,050	2,349
14	.77	68	2,773	1,886
15	.72	43	3,474	1,494
16	.73	48	1,475	708
17	.79	77	2,466	1,899
18	.82	87	4,227	3,677
19	.82	92	1,860	1,711
20	.82	92	2,254	2,074
21	.81	87	2,059	1,791
22	.81	87	2,255	1,962
23	.83	97	1,961	1,902
24	.86	100	2,233	2,233
25	.84	100	1,742	1,742
26	.84	100	2,047	2,047
27	.84	100	2,079	2,079
28	.82	92	2,072	1,906
29	.82	92	1,570	1,444
30	.83	97	1,873	1,817
Total			69,868	59,429

Weighted Monthly Percentage = 59,429 divided by 69,868 = 85.06%

[fol. 9694]

October, 1933

1	.82	94	988	929
2	.84	100	914	914
3	.82	96	848	814
4	.82	95	832	790
5	.82	97	1,162	1,127
6	.82	95	1,198	1,138
7	.80	87	984	856
8	.82	97	844	819
9	.81	93	1,324	1,231
10	.80	84	948	796
11	.78	74	848	628
12	.70	80	860	688
13	.79	82	801	657
14	.81	89	988	879
15	.81	92	942	867
16	.83	100	1,522	1,522
17	.83	99	866	857
18	.79	82	859	704
19	.79	82	776	636
20	.80	84	702	590
21	.82	95	902	857
22	.83	100	742	742
23	.84	100	777	777
24	.84	100	778	778

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Tex	M.C.F. Total	M.C.F. West Texas
25	.83	100	456	456
26	.82	96	981	942
27	.82	94	1,956	1,839
28	.82	96	1,771	1,700
29	.82	94	1,029	967
30	.83	100	916	916
31	.83	100	884	884
Total			30,398	28,300

Weighted Monthly Percentage—28,300 divided by 30,398—93.1%.

[fol. 9695] November, 1933

1	.83	98	887	869
2	.83	97	875	849
3	.78	78	1,498	1,168
4	.74	54	2,850	1,539
5	.73	52	2,573	1,338
6	.74	55	3,112	1,712
7	.71	41	3,122	1,280
8	.72	48	3,467	1,664
9	.72	45	2,272	1,022
10	.74	55	2,275	1,251
11	.74	56	2,071	1,160
12	.77	71	1,129	802
13	.82	95	1,912	1,816
14	.77	71	2,933	2,082
15	.78	75	2,137	1,603
16	.77	71	1,906	1,353
17	.73	52	858	446
18	.78	76	1,348	1,024
19	.81	90	1,586	1,427
20	.80	89	1,475	1,313
21	.80	86	1,014	872
22	.77	73	1,749	1,277
23	.75	59	2,399	1,415
24	.75	61	1,662	1,014
25	.73	53	3,071	1,628
26	.74	57	2,416	1,377
27	.76	66	2,176	1,436
28	.77	73	2,659	1,941
29	.78	76	1,294	983
30	.78	75	1,188	891
Total			59,914	38,552

Weighted Monthly Percentage—38,552 divided by 59,914—64.35%.

[fol. 9696] December, 1933

1	.79	88	1,660	1,461
2	.76	70	1,082	757
3	.78	83	1,024	850
4	.79	89	1,380	1,228
5	.78	80	1,116	893
6	.77	75	2,041	1,531
7	.72	51	1,864	951
8	.74	58	2,792	1,619
9	.73	53	1,112	589
0	.75	64	2,461	1,575
1	.77	74	1,220	903
2	.79	86	2,548	2,191
3	.75	66	3,536	2,334

3257

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
14	.75	63	2,255	1,421
15	.78	83	1,525	1,266
16	.79	88	1,915	1,685
17	.81	98	1,602	1,570
18	.78	82	2,874	2,357
19	.73	55	2,728	1,500
20	.73	55	3,476	1,912
21	.75	66	1,440	950
22	.75	66	1,188	784
23	.75	66	1,952	1,288
24	.79	88	1,214	1,068
25	.78	82	1,920	1,574
26	.75	66	3,263	2,154
27	.73	55	4,051	2,228
28	.73	55	1,609	885
29	.71	44	1,783	785
30	.70	38	1,368	520
31	.72	49	1,530	750
Total			61,529	41,579

Weighted Monthly Percentage—41,579 divided by 61,529—67.58%.

[fol. 9697]

Line E

January, 1933

1	.72	54	7,629	4,120
2	.67	24	11,328	2,719
3	.70	42	7,099	2,982
4	.72	54	5,945	3,210
5	.73	60	5,440	3,264
6	.71	48	5,937	2,850
7	.72	54	5,536	2,989
8	.68	30	5,585	1,676
9	.72	54	5,253	2,837
10	.69	36	5,876	2,115
11	.70	42	5,613	2,357
12	.68	30	6,850	2,055
13	.68	30	7,492	2,248
14	.69	30	6,663	1,999
15	.69	36	5,749	2,070
16	.69	36	5,349	1,926
17	.73	60	4,726	2,836
18	.71	48	4,287	2,058
19	.72	54	2,862	1,545
20	.73	60	4,887	2,932
21	.77	84	3,698	3,106
22	.79	96	3,125	3,000
23	.75	72	4,126	2,971
24	.76	78	3,518	2,744
25	.77	84	4,913	4,127
26	.75	72	4,948	3,563
27	.75	72	5,791	4,170
28	.73	60	5,876	3,526
29	.72	54	6,518	3,520
30	.75	72	5,184	3,732
31	.74	66	5,391	3,558
Total			173,194	88,805

Weighted Monthly Percentage—88,805 divided by 173,194—51.27%.

Defendant's Exhibit No. 45—Continued

[fol. 9698]

February, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1	.74	66	5,265	3,475
2	.74	66	5,165	3,409
3	.74	66	5,552	3,664
4	.71	48	5,440	2,611
5	.71	48	5,850	2,808
6	.71	48	5,215	2,503
7	.69	36	7,900	2,844
8	.65	12	12,553	1,506
9	.65	12	12,398	1,488
10	.65	12	10,794	1,295
11	.66	18	9,391	1,690
12	.66	18	8,516	1,533
13	.66	18	5,796	1,043
14	.67	24	5,924	1,422
15	.67	24	8,090	1,942
16	.66	18	8,222	1,480
17	.68	30	6,730	2,019
18	.71	48	5,382	2,583
19	.71	48	5,335	2,561
20	.71	48	4,080	1,958
21	.72	54	5,719	3,088
22	.70	42	6,141	2,579
23	.73	60	4,669	2,801
24	.73	60	3,545	2,127
25	.76	78	3,112	2,427
26	.73	60	5,424	3,254
27	.72	54	5,165	2,789
28	.67	24	6,843	1,642
Total			184,216	64,541

Weighted Monthly Percentage—64,541 divided by 184,216—35.04%.

[fol. 9699]

March, 1933

1	.66	16	5,970	955
2	.69	31	4,953	1,535
3	.71	42	4,261	1,790
4	.71	42	4,432	1,861
5	.71	42	5,022	2,109
6	.70	36	5,460	1,966
7	.68	26	7,305	1,899
8	.70	36	6,678	2,404
9	.71	42	5,240	2,201
10	.72	47	4,665	2,202
11	.70	36	5,868	2,112
12	.73	52	5,309	2,761
13	.77	73	3,857	2,816
14	.80	88	3,509	3,088
15	.76	67	3,543	2,374
16	.75	62	5,816	3,606
17	.76	67	5,267	3,529
18	.75	62	3,524	2,185
19	.77	73	3,619	2,642
20	.77	73	6,095	4,449
21	.66	16	8,209	1,313
22	.67	21	5,418	1,138
23	.71	42	4,261	1,790
24	.74	57	4,972	2,834
25	.75	62	5,006	3,104
26	.76	67	4,413	2,957

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
27	.76	67	3,956	2,651
28	.77	73	3,426	2,501
29	.77	73	2,696	1,968
30	.75	62	3,229	2,002
31	.77	73	3,330	2,431
Total			149,329	73,173

Weighted Monthly Percentage=73,173 divided by 149,329=49.00%.

[fol. 9700] October, 1933

1	.79	81	3,912	3,169
2	.81	91	3,242	2,950
3	.78	76	3,608	2,742
4	.77	71	3,754	2,665
5	.77	71	3,853	2,736
6	.78	76	4,017	3,053
7	.78	76	4,197	3,190
8	.79	81	4,076	3,302
9	.80	86	3,648	3,137
10	.77	71	4,362	3,097
11	.76	66	4,416	2,915
12	.76	66	4,310	2,845
13	.77	71	4,010	2,847
14	.77	71	3,885	2,758
15	.78	76	3,828	2,909
16	.79	76	3,070	2,333
17	.78	76	3,198	2,430
18	.78	76	3,773	2,867
19	.78	76	3,845	2,922
20	.78	76	3,699	2,811
21	.78	76	3,356	2,551
22	.78	76	3,322	2,525
23	.82	96	2,854	2,740
24	.81	91	3,264	2,970
25	.81	91	3,165	2,880
26	.78	76	3,878	2,947
27	.79	81	3,878	3,141
28	.79	81	3,967	3,213
29	.81	91	3,904	3,553
30	.81	91	3,044	2,770
31	.80	86	3,356	2,886
Total			114,691	89,854

Weighted Monthly Percentage=89,854 divided by 114,691=78.34%.

[fol. 9701] November, 1933

1	.80	87	3,509	3,053
2	.80	87	3,475	3,023
3	.76	66	4,042	2,668
4	.72	46	6,375	2,933
5	.70	35	5,555	1,944
6	.72	46	5,108	2,350
7	.70	36	7,524	2,709
8	.79	30	7,271	2,181
9	.69	30	7,252	2,176
10	.72	46	6,401	2,944
11	.73	51	6,266	3,196
12	.74	56	4,885	2,736
13	.75	61	3,974	2,424

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
14	.74	56	5,903	3,306
15	.76	66	5,453	3,599
16	.74	56	5,732	3,210
17	.72	46	6,560	3,018
18	.74	56	4,953	2,774
19	.75	61	4,878	2,976
20	.78	76	4,330	3,291
21	.78	76	5,460	4,150
22	.75	61	5,630	3,434
23	.72	46	6,443	2,964
24	.73	51	5,903	3,011
25	.70	36	6,409	2,307
26	.72	46	5,472	2,517
27	.73	51	4,345	2,216
28	.73	51	6,239	3,182
29	.77	71	4,863	3,453
30	.77	71	4,226	3,000
Total			164,436	86,745

Weighted Monthly Percentage—86,745 divided by 164,436—52.75%.

[fol. 9702]

December, 1933				
1	.75	66	3,644	2,405
2	.74	60	3,798	2,279
3	.74	60	3,549	2,129
4	.78	82	3,328	2,729
5	.73	55	4,803	2,642
6	.75	66	4,691	3,096
7	.70	38	7,007	2,663
8	.71	44	7,045	3,100
9	.72	49	6,934	3,398
10	.72	49	6,510	3,190
11	.70	38	4,203	1,597
12	.71	44	5,081	2,236
13	.72	49	6,067	2,973
14	.73	55	5,849	3,217
15	.73	55	3,939	2,166
16	.73	55	4,443	2,444
17	.75	66	4,543	2,998
18	.76	71	4,210	2,989
19	.68	27	7,771	2,098
20	.69	32	7,676	2,456
21	.71	44	6,945	3,056
22	.72	49	6,120	2,999
23	.74	60	5,039	3,023
24	.74	60	3,985	2,391
25	.74	60	4,287	2,572
26	.73	55	5,509	3,030
27	.67	21	8,558	1,797
28	.64	05	8,585	429
29	.66	16	7,496	1,199
30	.67	21	7,611	1,598
31	.69	32	6,740	3,157
Total			175,964	77,056

Weighted Monthly Percentage—77,056 divided by 175,964—43.79%.

Defendant's Exhibit No. 45—Continued

[fol. 9703]

Line F

January, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1	.72	54	5,399	2,915
2	.73	60	—2,817	—1,690
3	.74	66	4,070	2,686
4	.76	78	5,477	4,272
5	.77	84	3,630	3,049
6	.78	90	3,823	3,441
7	.78	90	4,832	4,349
8	.79	96	3,323	3,190
9	.75	72	3,608	2,598
10	.75	72	3,889	2,800
11	.74	66	3,876	2,558
12	.74	66	3,038	2,005
13	.72	54	4,744	8,562
14	.73	60	4,370	2,622
15	.75	72	5,445	3,920
16	.75	72	2,541	1,830
17	.77	84	4,763	4,001
18	.77	84	3,622	3,042
19	.80	100	2,297	2,297
20	.80	100	2,186	2,186
21	.81	100	3,582	3,582
22	.81	100	2,844	2,844
23	.81	100	2,023	2,023
24	.81	100	3,251	3,251
25	.79	96	3,020	2,899
26	.79	96	3,818	3,664
27	.78	90	2,848	2,563
28	.77	84	4,421	3,714
29	.78	90	3,654	3,289
30	.77	84	4,796	4,029
31	.77	84	3,770	3,167
Total			110,143	89,658

Weighted Monthly Percentage—89,658 divided by 110,143—81.40%.

[fol. 9704]

February, 1933

1	.77	83	3,503	2,907
2	.77	83	4,522	3,753
3	.74	66	4,270	2,818
4	.74	66	4,168	2,751
5	.73	60	5,540	3,324
6	.74	66	4,287	2,829
7	.74	66	5,099	3,365
8	.69	36	5,778	2,080
9	.69	36	—1,912	—688
10	.69	36	7,611	2,740
11	.69	36	5,070	1,825
12	.69	36	5,982	2,154
13	.70	42	8,555	3,593
14	.78	90	2,608	2,347
15	.74	66	3,936	2,598
16	.71	48	8,404	4,034
17	.74	66	4,351	2,872
18	.75	72	3,652	2,629
19	.77	83	3,991	3,313
20	.79	96	2,841	2,727
21	.75	72	4,204	3,027
22	.74	66	4,280	2,825
23	.74	66	4,614	3,045

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
24	.77	83	4,176	3,486
25	.80	100	3,778	3,778
26	.79	96	1,622	1,557
27	.76	78	3,139	2,448
28	.70	42	7,039	2,956
Total			125,108	77,073

Weighted Monthly Percentage—77,073 divided by 125,108—61.61%.

[fol. 9705]

March, 1933

1	.70	36	331	119
2	.72	47	3,255	1,530
3	.72	47	2,710	1,274
4	.75	62	2,509	1,556
5	.76	67	2,026	1,357
6	.74	57	226	129
7	.70	36	2,434	876
8	.71	42	4,383	1,841
9	.75	62	4,554	2,823
10	.75	62	1,146	711
11	.76	67	1,548	1,037
12	.78	77	3,145	2,422
13	.80	88	3,057	2,690
14	.81	93	3,672	3,415
15	.82	98	190	186
16	.77	78	2,358	1,721
17	.76	67	3,677	2,464
18	.79	83	4,716	3,914
19	.82	98	2,934	2,875
20	.71	42	942	396
21	.67	21	—1,650	—347
22	.72	47	2,783	1,308
23	.76	67	2,733	1,831
24	.76	67	3,393	2,273
25	.76	67	3,303	2,213
26	.77	73	2,908	2,123
27	.77	73	1,813	1,323
28	.77	78	3,398	2,481
29	.77	73	2,240	1,635
30	.80	88	2,827	2,488
31	.80	88	1,725	1,518
Total			75,286	52,182

Weighted Monthly Percentage—52,182 divided by 75,286—69.31%.

April, 1933

1	.81	87	2,285	1,988
2	.83	97	4,268	4,140
3	.81	87	2,501	2,176
4	.83	97	2,445	2,372
5	.84	99	2,787	2,759
6	.80	82	2,685	2,202
7	.76	63	3,967	2,499
8	.77	68	3,760	2,557
9	.81	87	2,876	2,502
10	.84	100	2,036	2,036
11	.83	97	602	584
12	.82	92	—1,131	—1,041
13	.81	85	2,044	1,737

Defendant's Exhibit No. 45—Continued

[fol. 9706] Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
14	.80	82	4,008	3,287
15	.76	63	2,230	1,405
16	.76	63	4,535	2,857
17	.79	77	580	447
18	.81	87	322	280
19	.82	92	—1,010	—929
20	.82	92	—905	—833
21	.83	94	1,567	1,473
22	.81	87	1,673	1,456
23	.81	85	587	499
24	.81	87	876	762
25	.81	87	1,038	903
26	.83	97	718	696
27	.83	97	1,446	1,403
28	.82	92	2,316	2,131
29	.81	87	2,277	1,981
30	.82	92	1,403	1,291
Total			54,786	45,620

Weighted Monthly Percentage—45,620 divided by 54,786—83.27%.

[fol. 9707]	October, 1933			
1	.82	96	3,329	3,196
2	.82	96	2,318	2,225
3	.82	96	1,071	1,028
4	.82	96	1,202	1,154
5	.82	96	1,394	1,338
6	.82	96	1,512	1,452
7	.81	91	2,052	1,867
8	.82	96	2,740	2,630
9	.81	91	1,574	1,432
10	.80	86	1,311	1,127
11	.78	76	2,275	1,729
12	.79	81	2,569	2,081
13	.80	86	2,968	2,552
14	.81	91	2,776	2,526
15	.81	91	3,124	2,843
16	.83	100	1,943	1,943
17	.83	100	1,556	1,556
18	.80	86	2,695	2,318
19	.80	86	2,311	1,987
20	.80	86	2,559	2,201
21	.82	96	2,159	2,073
22	.83	100	2,490	2,490
23	.83	100	2,130	2,130
24	.85	100	1,624	1,624
25	.84	100	1,378	1,378
26	.83	100	1,378	1,378
27	.83	100	2,114	2,114
28	.83	100	2,541	2,541
29	.83	100	3,350	3,350
30	.84	100	1,997	1,997
31	.84	100	2,121	2,121
Total			66,561	62,381

Weighted Monthly Percentage—62,381 divided by 66,561—93.72%.

Defendant's Exhibit No. 45—Continued

[fol. 9708]

November, 1933

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
1	.83	100	1,709	1,709
2	.83	100	1,379	1,379
3	.79	81	1,051	851
4	.76	66	1,676	1,106
5	.75	61	4,430	2,702
6	.75	61	1,066	650
7	.72	46	−589	−271
8	.73	51	3,084	1,573
9	.73	51	2,017	1,029
10	.74	56	2,046	1,146
11	.74	56	3,021	1,692
12	.76	66	5,065	3,343
13	.79	81	1,142	925
14	.77	71	395	280
15	.77	71	4,108	2,917
16	.76	66	1,502	991
17	.74	56	3,021	1,692
18	.76	66	5,051	3,334
19	.79	81	3,110	2,519
20	.80	86	2,967	2,552
21	.79	81	3,711	3,006
22	.78	76	749	569
23	.75	61	3,387	2,066
24	.75	61	3,749	2,287
25	.74	56	2,765	1,548
26	.75	61	6,032	3,680
27	.75	61	2,714	1,656
28	.77	71	2,088	1,482
29	.78	76	5,319	4,042
30	.77	71	2,148	1,525
Total			79,913	53,980

Weighted Monthly Percentage—53,980 divided by 79,913—67.55%.

[fol. 9709]

December, 1933

1	.78	82	1,790	1,468
2	.79	88	2,013	1,771
3	.78	82	1,627	1,334
4	.78	82	703	576
5	.78	82	2,572	2,109
6	.75	66	390	257
7	.71	44	4,592	2,020
8	.74	60	2,124	1,274
9	.74	60	3,731	2,239
10	.75	66	8,340	5,504
11	.74	60	788	473
12	.78	82	1,543	1,265
13	.75	66	2,936	1,938
14	.74	60	4,503	2,702
15	.77	76	2,099	1,595
16	.79	88	1,726	1,519
17	.80	93	3,754	3,491
18	.77	76	1,526	1,160
19	.71	44	4,267	1,877
20	.73	55	2,878	1,583
21	.75	66	3,638	2,401
22	.76	71	5,882	4,176
23	.75	66	4,394	2,900

Defendant's Exhibit No. 45—Continued

Date	Specific Gravity	Per cent West Texas	M.C.F. Total	M.C.F. West Texas
24	.78	82	2,974	2,439
25	.78	82	2,690	2,206
26	.74	60	2,559	1,535
27	.70	38	3,571	1,357
28	.69	32	5,212	1,668
29	.71	44	2,725	1,199
30	.71	44	4,417	1,943
31	.72	49	4,606	2,257
Total			96,570	60,236

Weighted Monthly Percentage—60,236 divided by 96,570—62.38%.

BLANK

PAGE

LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT SPECIFIC GRAVITIES

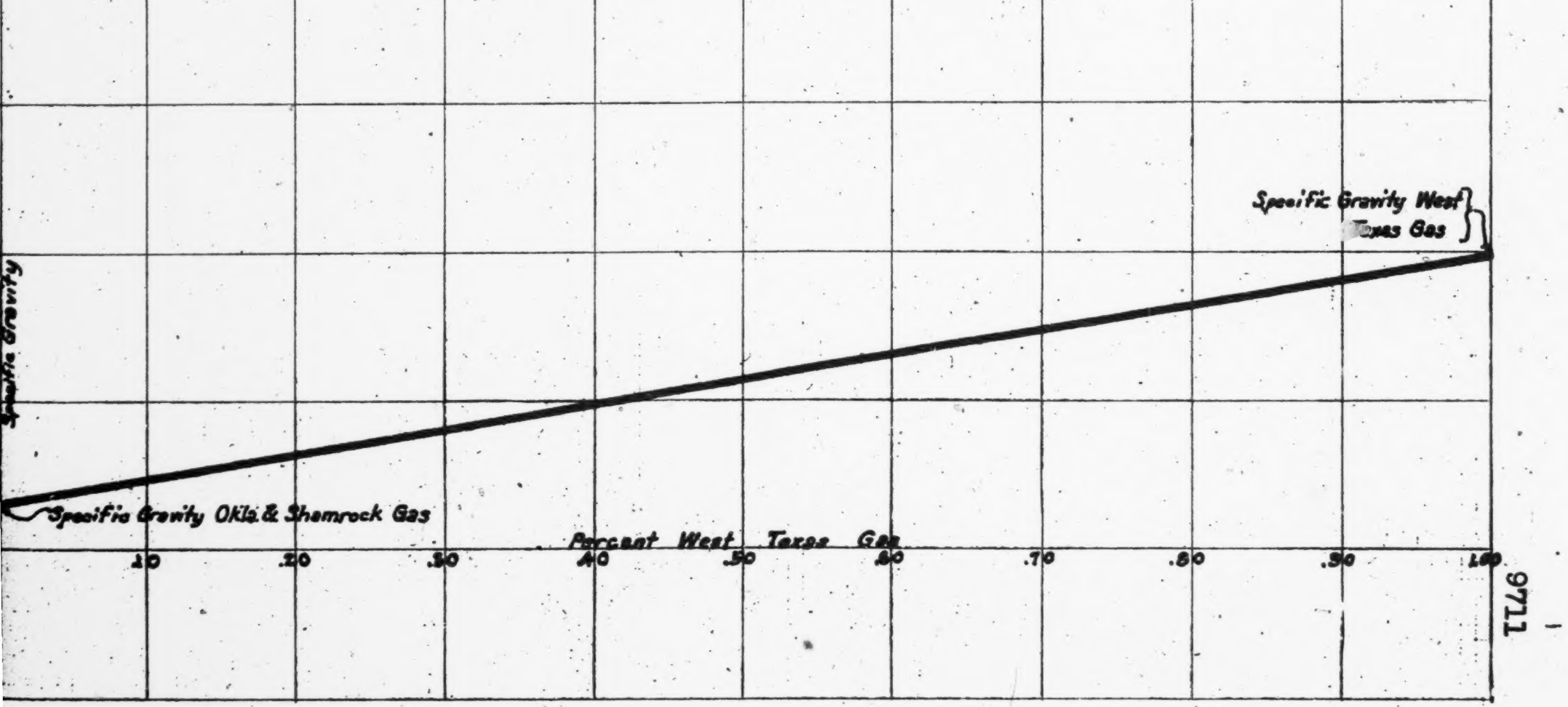
JANUARY 1933

9710

LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT SPECIFIC GRAVITIES

FEBRUARY 1933

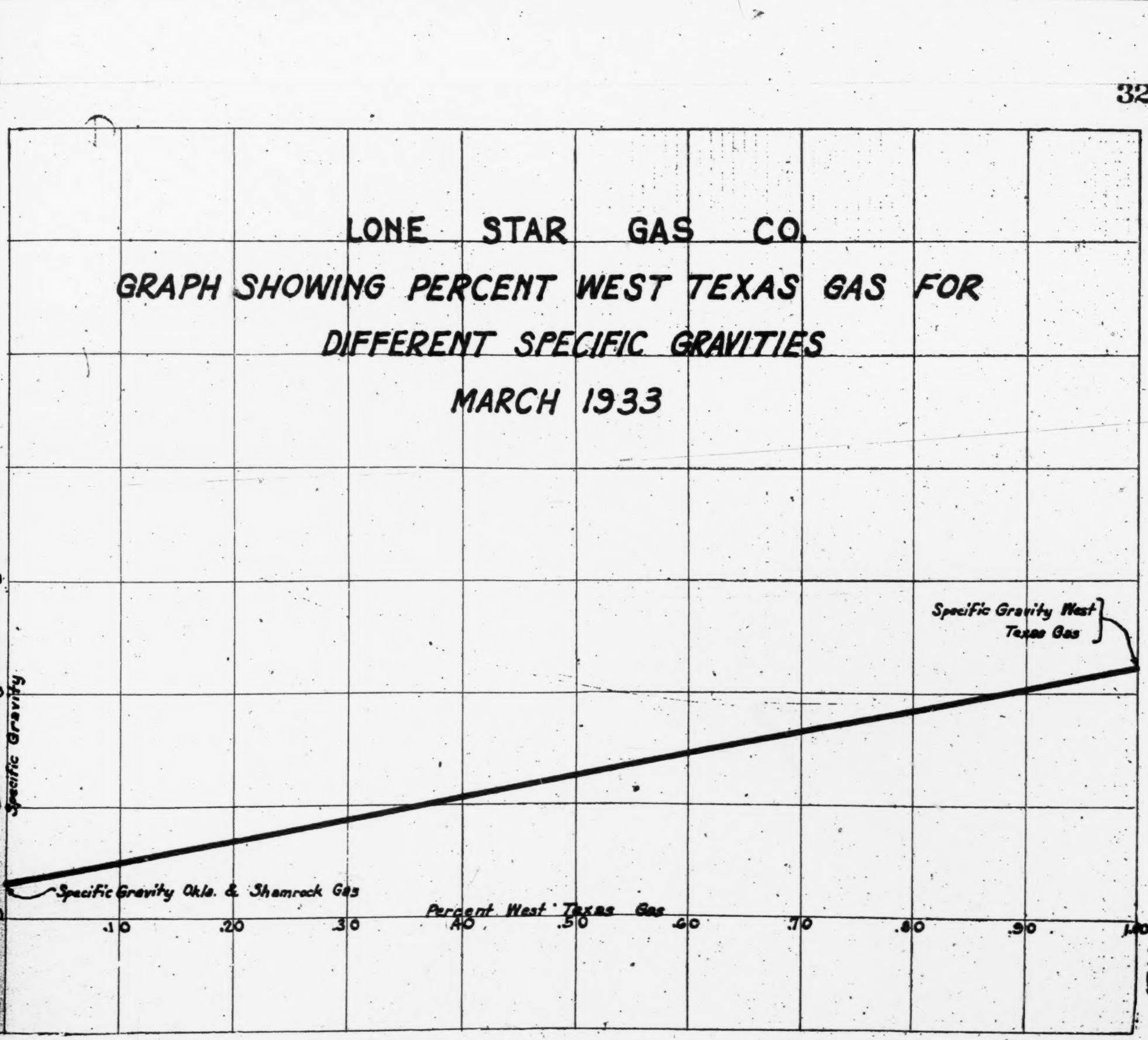


9711

LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT SPECIFIC GRAVITIES

MARCH 1933

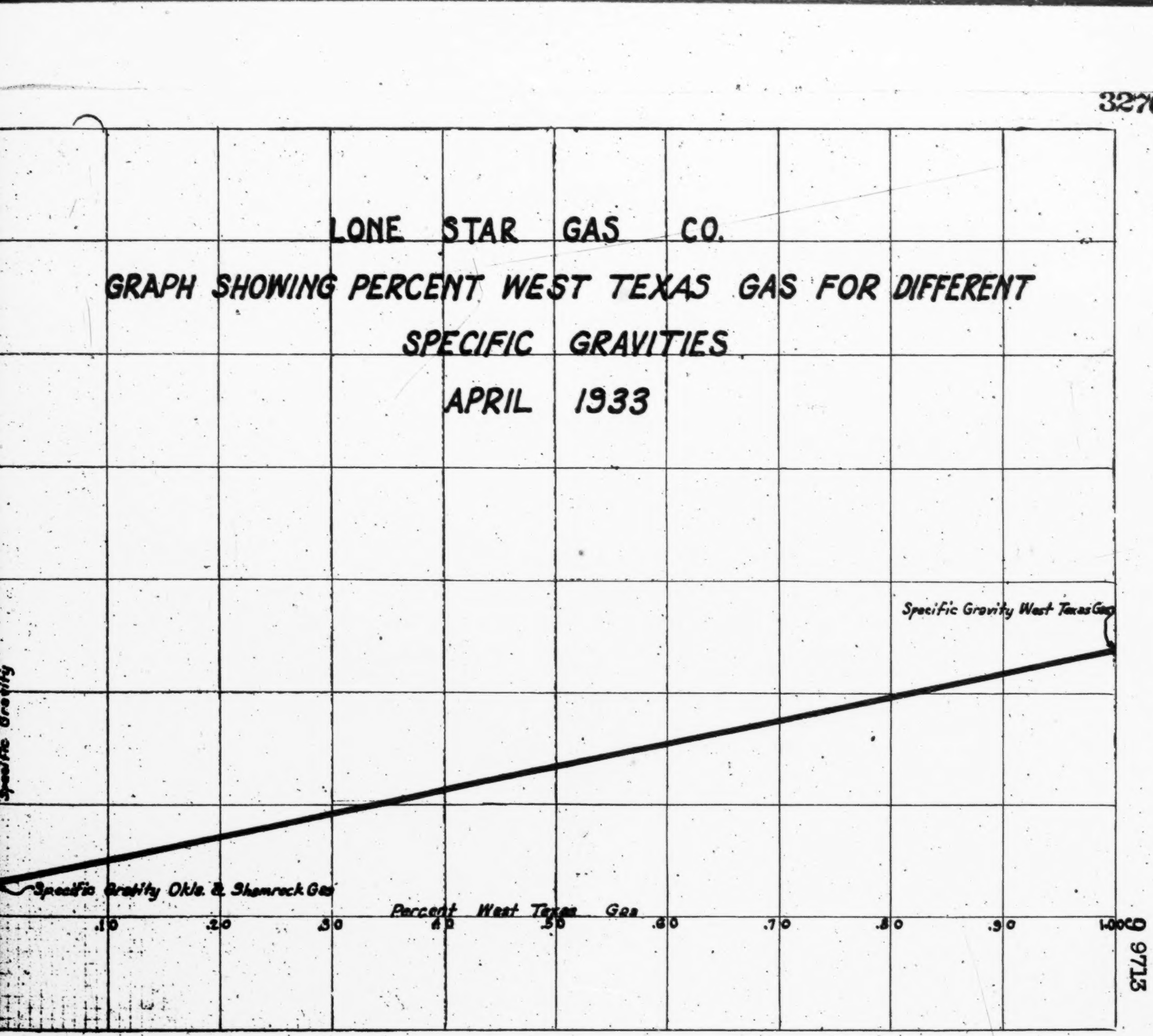


9712

LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT SPECIFIC GRAVITIES

APRIL 1933

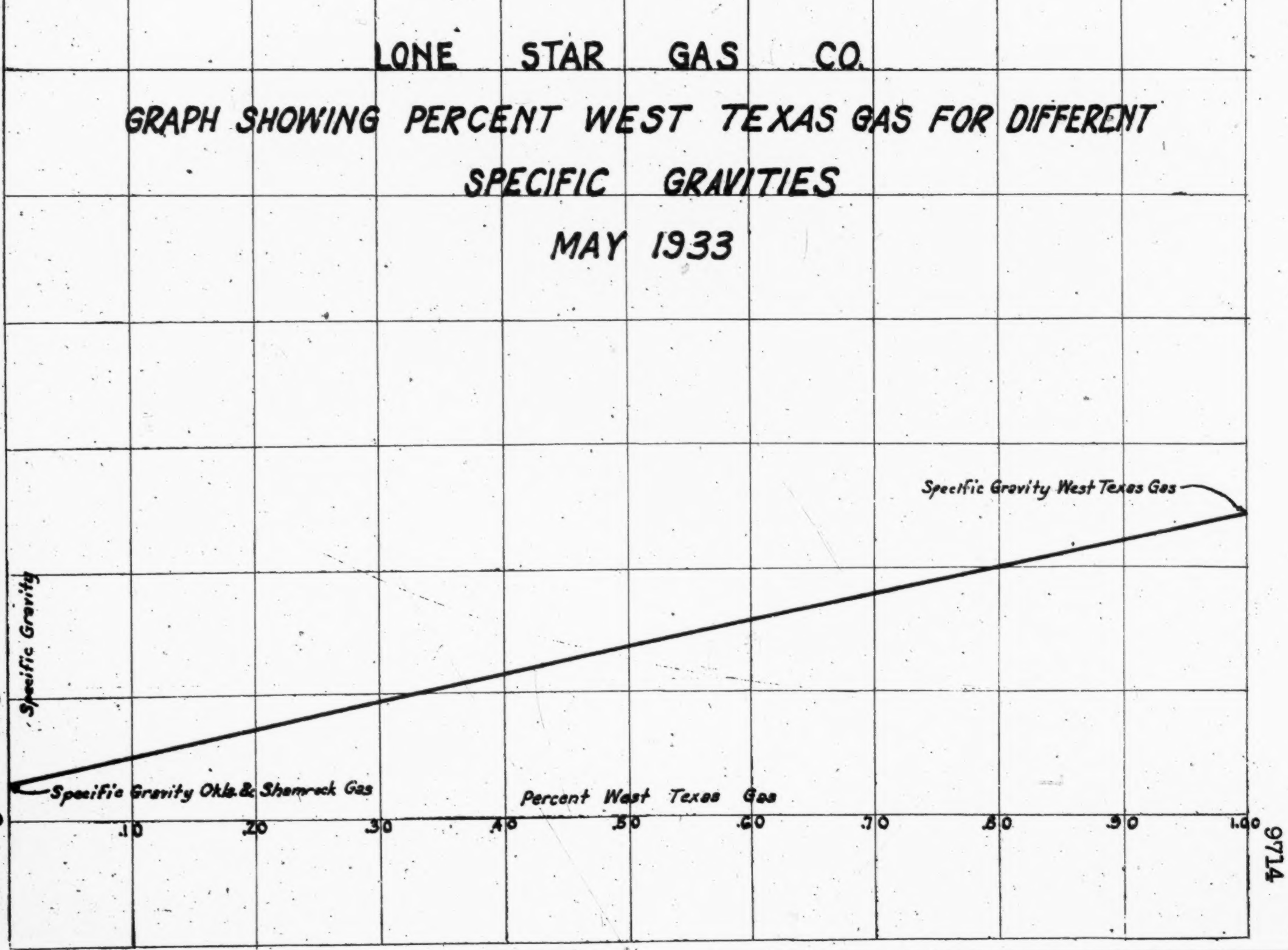


9713

LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT SPECIFIC GRAVITIES

MAY 1933

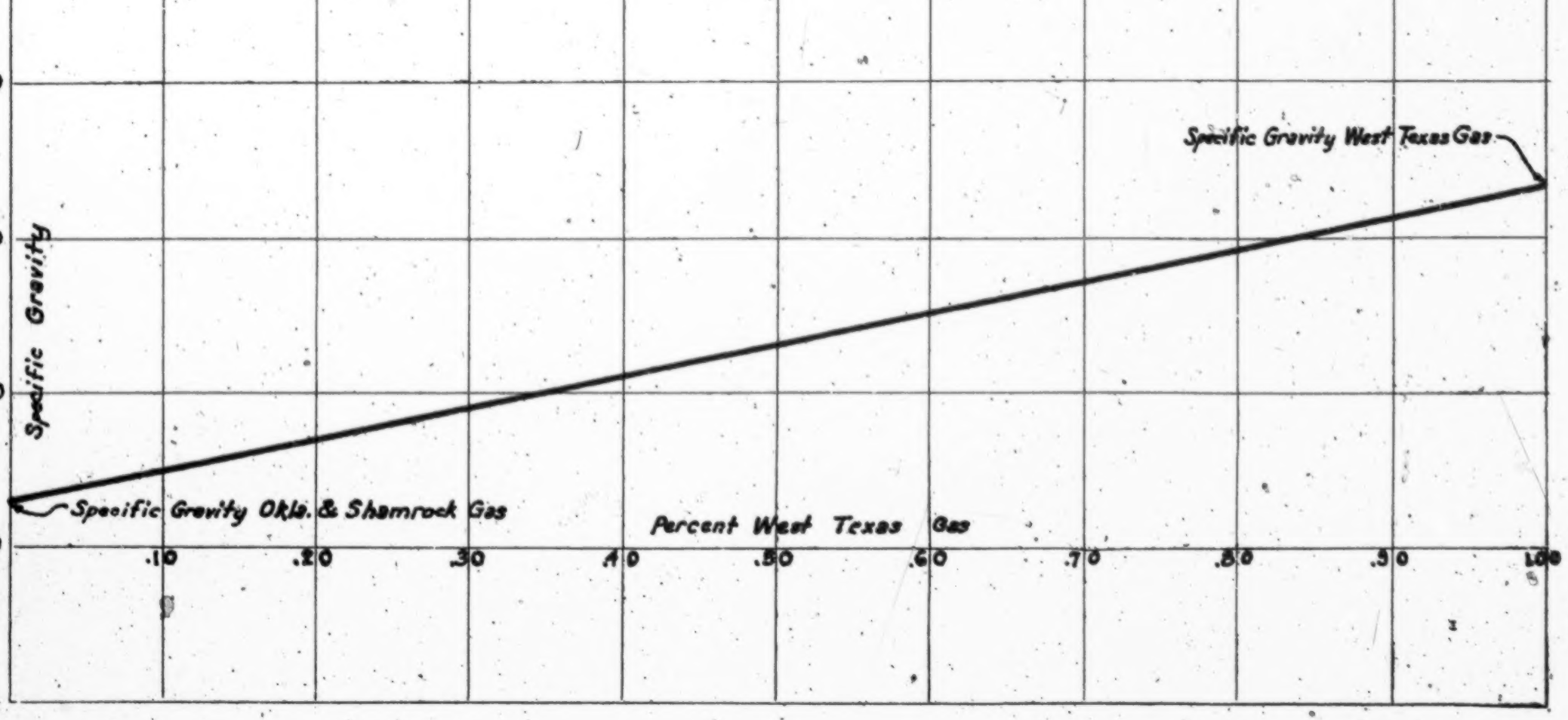


9714

LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT SPECIFIC GRAVITIES

JUNE 1933



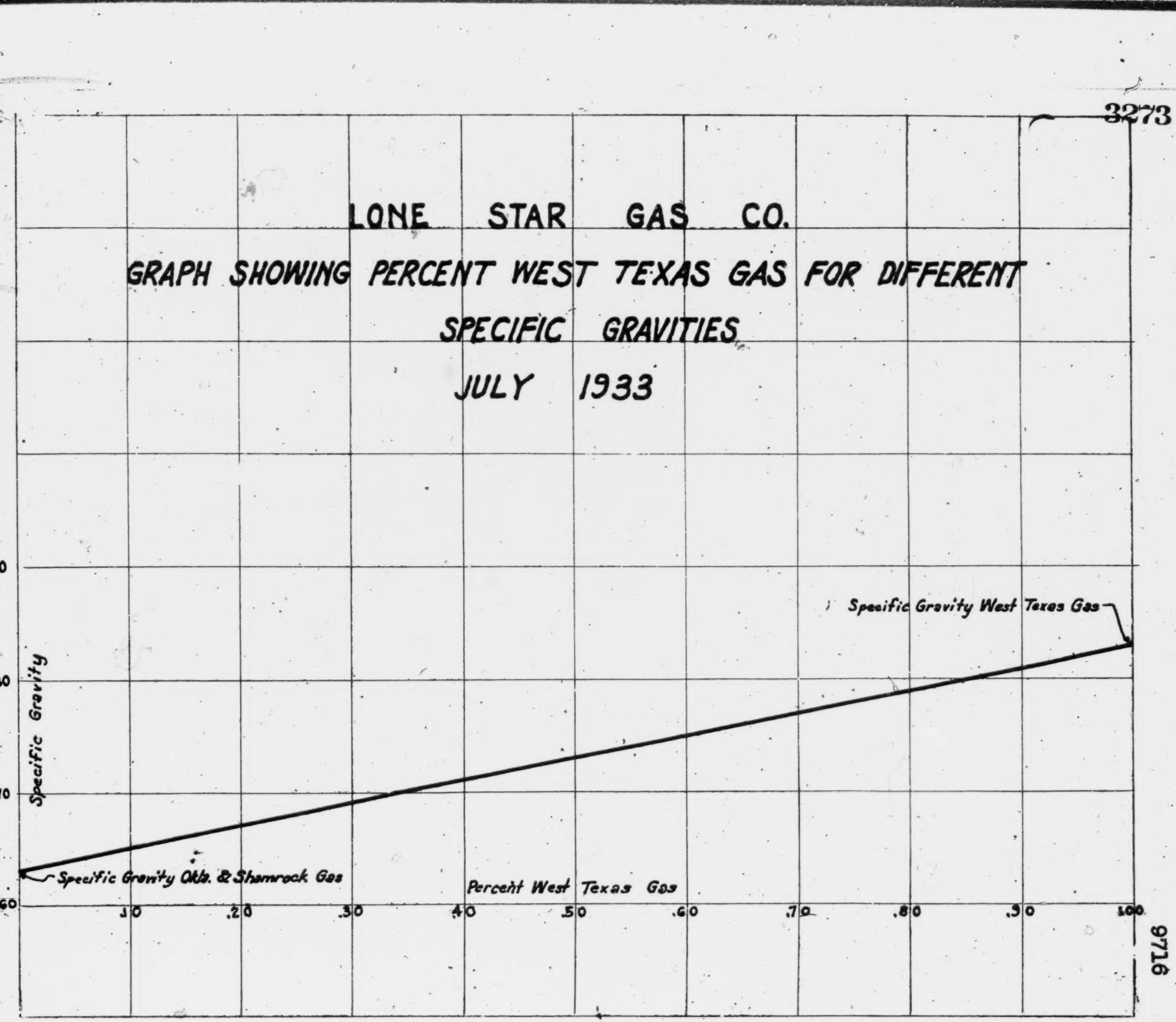
9715

3273

LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT SPECIFIC GRAVITIES

JULY 1933



9716

LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT SPECIFIC GRAVITIES

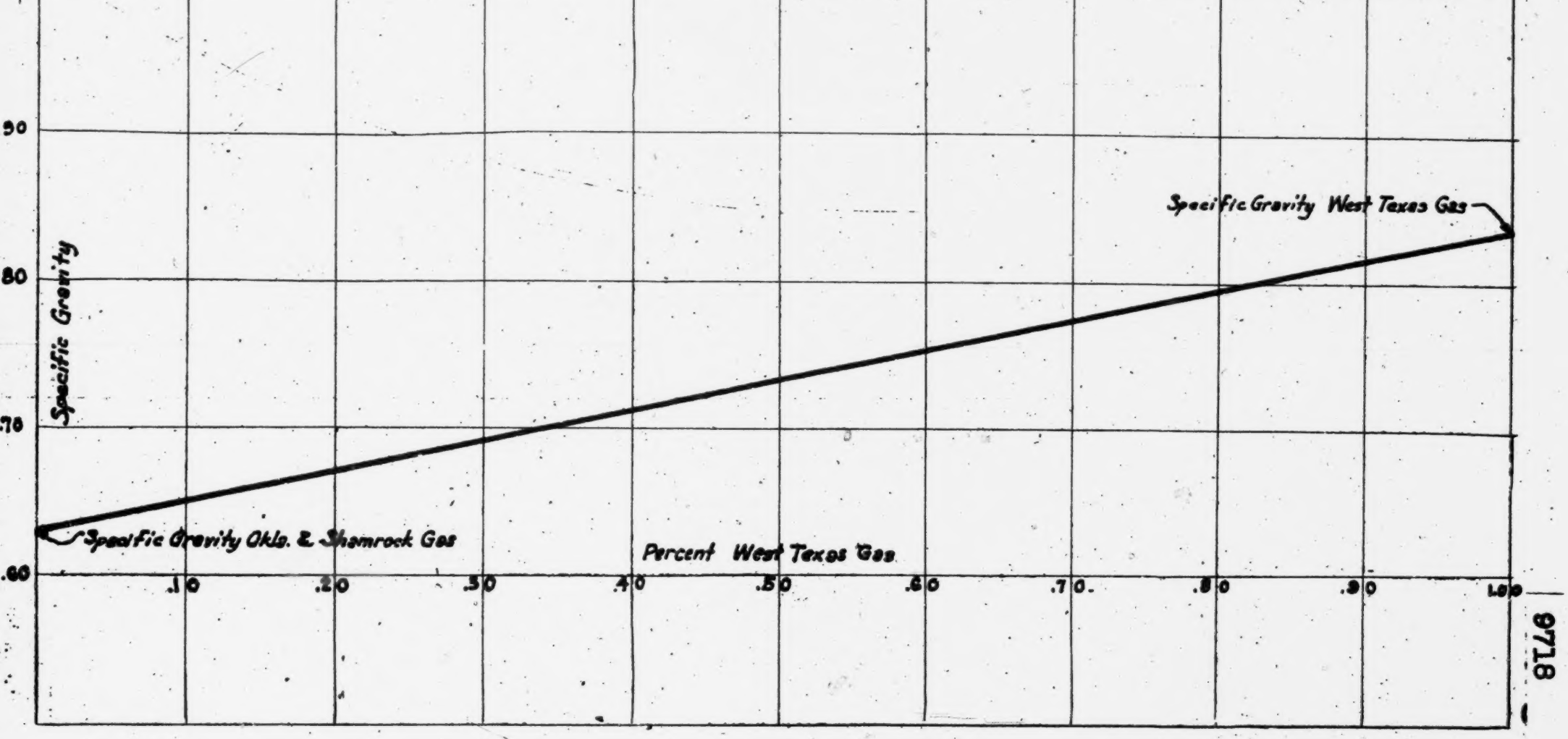
AUGUST 1933

97717

LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT SPECIFIC GRAVITIES

SEPTEMBER 1933



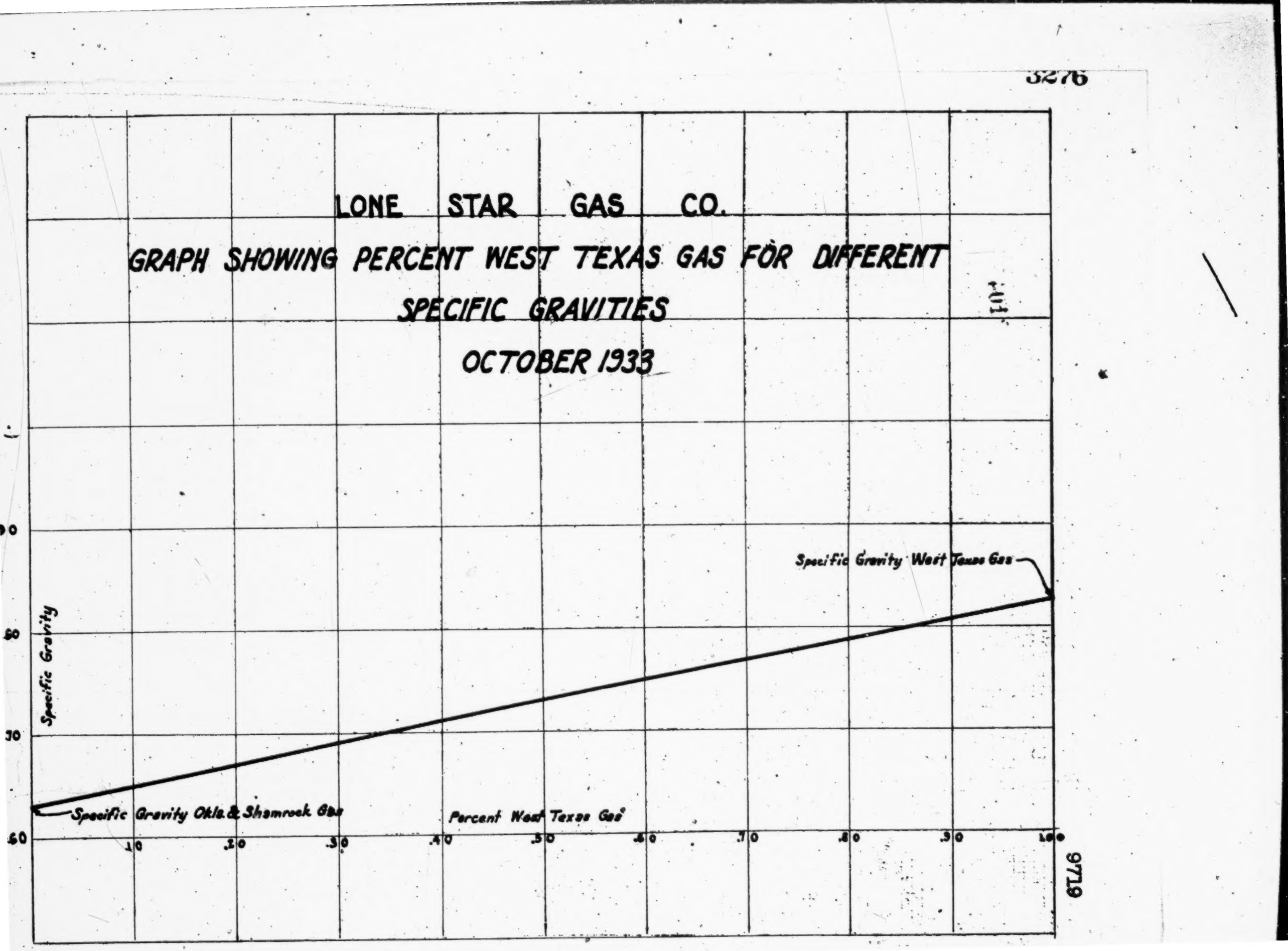
9718

3276

LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT SPECIFIC GRAVITIES

OCTOBER 1933



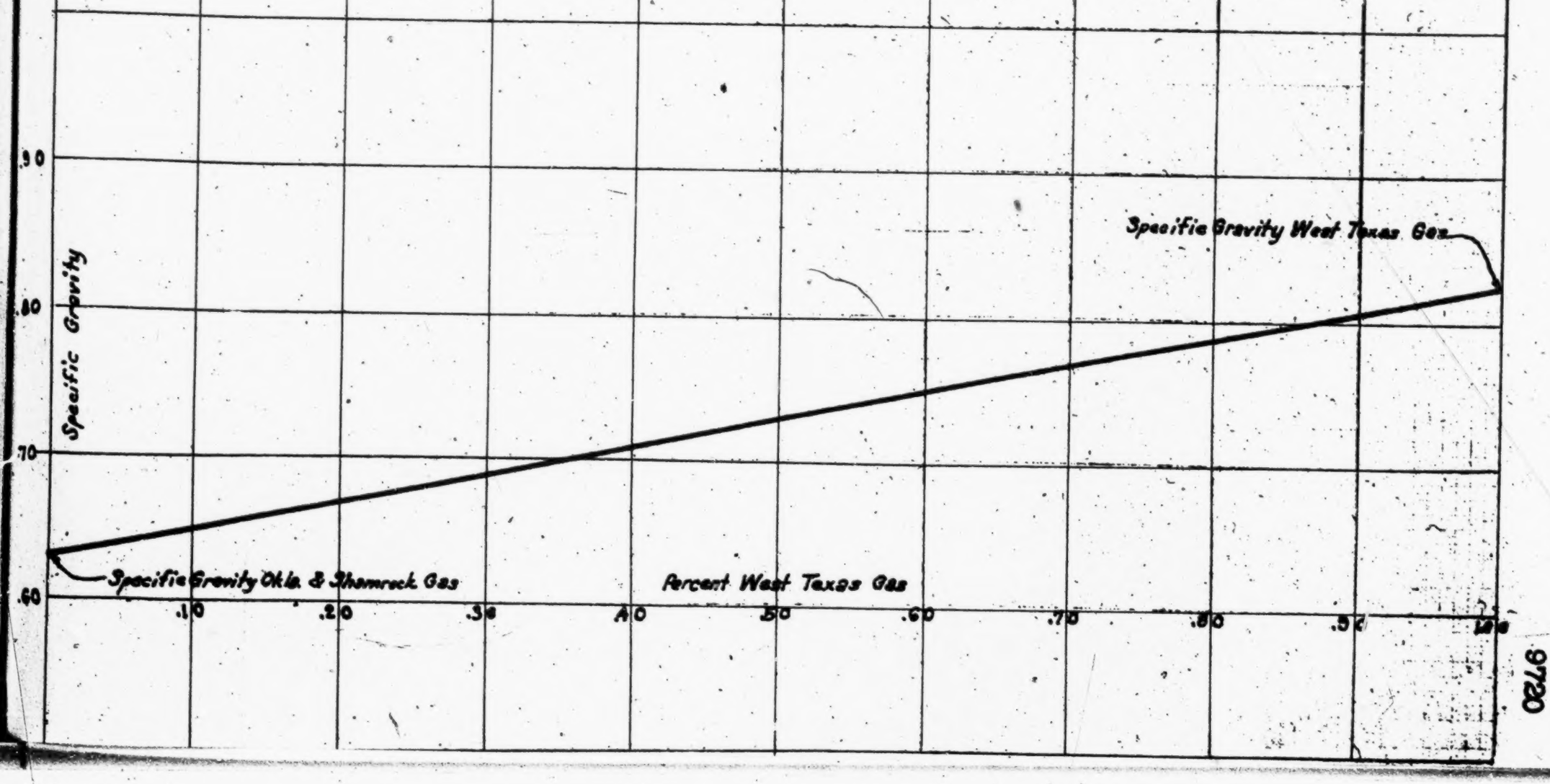
9779

3277

LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT SPECIFIC GRAVITIES

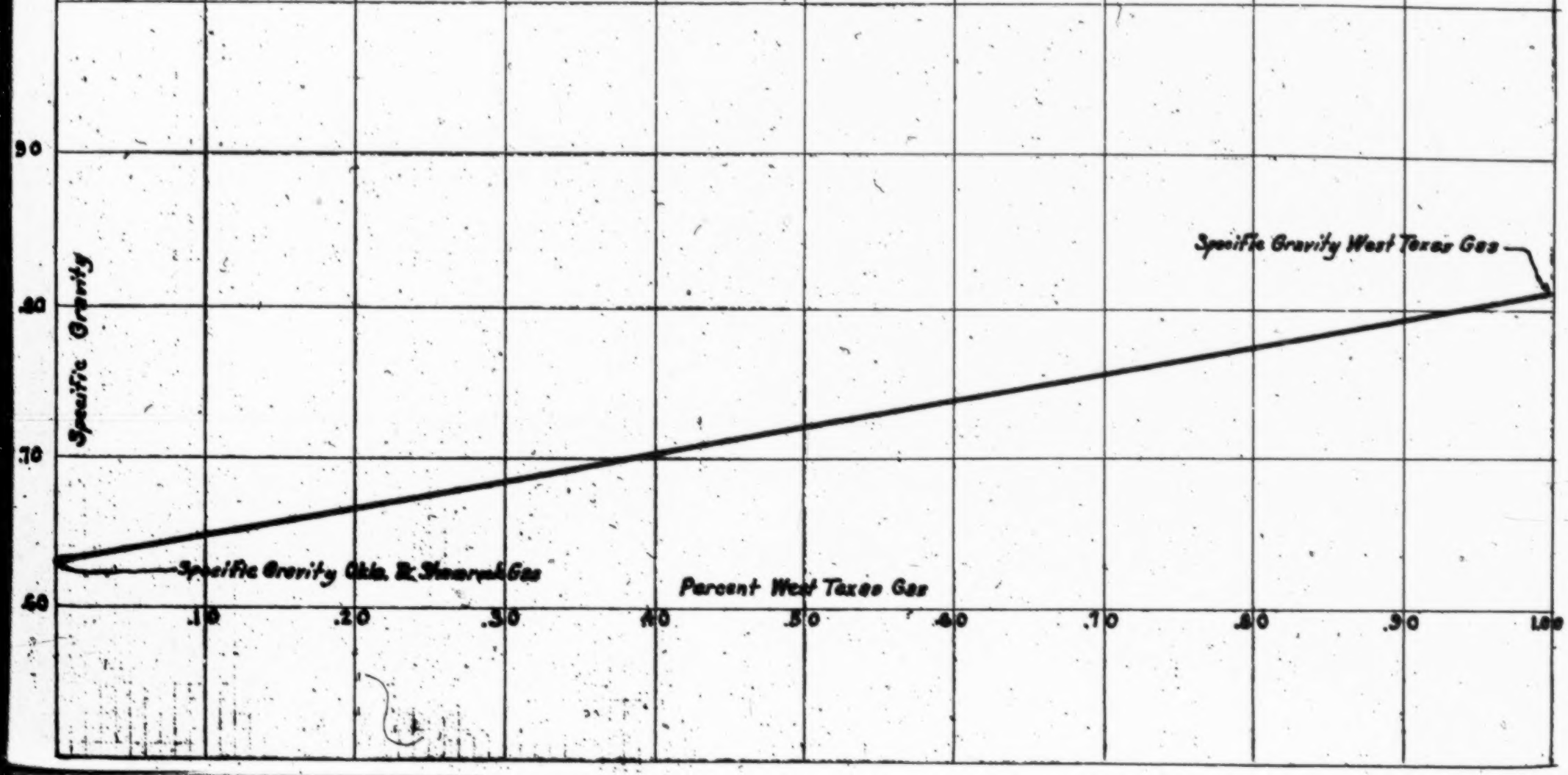
NOVEMBER 1933



9720

LONE STAR GAS CO.

GRAPH SHOWING PERCENT WEST TEXAS GAS FOR DIFFERENT SPECIFIC GRAVITIES DECEMBER 1933



9721-9722

BLANK

PAGE

[fol. 9723] DEFENDANT'S EXHIBIT No. 46

Lone Star Gas Company

Report on Property, Revenues and Expenses Within Specified Areas

Year 1933

[fol. 9724] Dallas, Texas, June 30th, 1934.

Lone Star Gas Company, Dallas, Texas.

GENTLEMEN:

As requested by you, I have prepared and tender herewith, report covering property, revenues, and expenses of Lone Star Gas Company, Public Service Operations, for the calendar year 1933.

This report has been prepared upon the basis of segregating property and business between defined areas, and in order to do this it has been necessary to collaborate with Messrs. E. F. Schmidt and Ed C. Connor, who have made rather extensive studies covering that portion of the system where a joint or concurrent use of facilities occurs. The results of their studies have been prepared in report form, a copy of which was furnished to me, and specific reference is made to such report insofar as it pertains to use of property and sale of gas in that portion of the pipe line system that is jointly and/or concurrently used.

The public service property and business of Lone Star Gas Company has been divided in this report as follows:

Area "A"—Gas sales, expenses, and property used in connection with gas purchased and produced in Texas, transported and sold wholly within the State of Texas, and in areas where the source of supply can be easily defined.

[fol. 9724½] *Area "B"*—Gas sales, expenses, and property used in connection with gas purchased and produced in Texas and/or Oklahoma, transported through and sold in the Stat-s of Oklahoma and/or Texas, and areas where the source of supply can be easily defined.

Area "C"—Gas sales, expenses, and property used in connection with gas purchased and produced in both Okla-

homa and Texas, where the sale thereof and facilities used, are joint and concurrent.

The total property account, revenues and expenses of Lone Star Gas Company, Public Service Operations, have been divided into the three areas shown above. The production, gathering and transportation system of the company is so arranged that under normal operating conditions it becomes very easy to segregate the property and business into Areas "A" and "B"; however, it requires rather extensive studies to define just what part of the property and business should be included in Area "C". As mentioned before, this area has been defined and is set out in report prepared by Messrs. Schmidt and Connor.

After dividing the Public Service Property and business of the company into the three areas set out above, it was then necessary to further classify such property and business as follows:

"D" Operations—Gas sales, expenses, and property used in connection with gas purchased and produced in the State of Texas, transported and sold wholly within the State of Texas. ("D" Operations include all items shown in Area "A" plus a portion of Area "C".)

[fols. 9725-9728] *"E" Operations*—Gas sales, expenses, and property used in connection with gas purchased and produced in the State of Texas and/or Oklahoma, transported through and sold in the State of Oklahoma and/or Texas. ("E" Operations include all items shown in Area "B" plus a portion of Area "C".)

Tabulated statements have been prepared and are included in this report, showing sales, operating expenses, and property by locations, and I believe in sufficient detail to enable the easy verification thereof.

D. A. Hulcy.

[fol. 9729]

Lone Star Gas Company
Public Service Operations
Statement of Revenues, Expenses and Amount Available for Depreciation and Return
Property Account—Actual Cost as Reflected by Books
Twelve Months Ended December 31st, 1933

	Total	Applicable to "D" Operations	Applicable to "E" Operations
Operating Revenues:			
Gas Sales	$7,688,724.10	$5,619,684.64	$2,069,039.46
Miscellaneous Operating Revenues	1,442.91	1,442.91	.....
Total	$7,690,167.01	$5,621,127.55	$2,069,039.46
Operating Expenses:			
Gas Purchased	$1,086,587.44	$962,028.68	$124,558.76
Production System Expense	105,554.86	76,956.69	28,598.17
Gathering System Expense	131,326.29	70,068.24	61,258.05
Transmission System Expense	431,520.56	280,020.70	151,499.86
Compressor Station Expense	338,433.01	253,516.28	84,916.73
New Business Expense	99,793.94	64,087.66	35,706.28
General Expense	859,234.88	551,798.64	307,436.24
Uncollectible Bills	6,530.77	4,555.25	1,975.52
Taxes—Other than Federal	360,476.91	221,192.90	139,284.01
Cancelled & Surrendered Leases	188,629.92	132,605.38	56,024.54
Total	$3,608,088.58	$2,616,830.42	$991,258.16

Defendant's Exhibit No. 46—Continued

	Total	Applicable to "D" Operations	Applicable to "E" Operations
Operating Earnings	$4,082,078.43	$3,004,297.13	$1,077,781.30
Non-Operating Revenues	61,198.22	39,520.24	21,677.98
Gross Income	$4,143,276.65	$3,043,817.37	$1,099,459.28
Non-Operating Revenue Deductions:			
Federal Income Tax	$223,331.34	$195,572.34	$27,759.00
Other Non-Operating Deductions	27,196.73	17,465.74	9,730.99
Total	$250,528.07	$213,038.08	$37,489.99
Amount Available for Depreciation and Return	$3,892,748.58	$2,830,779.29	$1,061,969.29
Property Account: (Actual cost as Reflected by Books)	$49,837,026.06	$32,080,146.32	$17,756,879.74
Amount Available for Depreciation and Return: (Per Cent of Property Account)	7.81	8.82	5.98

Defendant's Exhibit No. 46—Continued

[fol. 9730]

Lone Star Gas Company

Public Service Operations

Statement of Revenues, Expenses and Amount Available for Depreciation and Return

Property Account—Actual Cost as Reflected by Books

(After Giving Effect to 32¢ Domestic Gate Rate)

Twelve Months Ended December 31st, 1933

		Applicable to	
	Total	"D" Operations	"E" Operations
Operating Revenues:			
Gas Sales	$6,573,137.46	$4,812,790.16	$1,760,347.30
Miscellaneous Operating Revenues	1,442.91	1,442.91	.....
Total	$6,574,580.37	$4,814,233.07	$1,760,347.30
Operating Expenses:			
Gas Purchased	$1,086,587.44	$962,028.68	$124,558.76
Production System Expense	105,554.86	76,956.69	28,598.17
Gathering System Expense	131,326.29	70,068.24	61,258.05
Transmission System Expense	431,520.56	280,020.70	151,499.86
Compressor Station Expense	338,433.01	253,516.28	84,916.73
New Business Expense	99,793.94	64,087.66	35,706.28
General Expense	859,234.88	551,798.64	307,436.24
Uncollectible Bills	6,530.77	4,555.25	1,975.52
Taxes—Other than Federal	360,476.91	221,192.90	139,284.01
Cancelled & Surrendered Leases	188,629.92	132,605.38	56,024.54
Total	$3,608,088.58	$2,616,830.42	$991,258.16

3283

Defendant's Exhibit No. 46—Continued

	Total	Applicable to "D" Operations	Applicable to "E" Operations
Operating Earnings	$2,966,491.79	$2,197,402.65	$769,089.14
Non-Operating Revenues	61,198.22	39,520.24	21,677.98
Gross Income	$3,027,690.01	$2,236,922.89	$790,767.12
Non-Operating Revenue Deductions:			
Federal Income Tax	$69,938.27	$84,624.35	†$14,686.08
Other Non-Operating Deductions	27,196.73	17,465.74	9,730.99
Total	$97,135.00	$102,090.09	†$4,955.09
Amount Available for Depreciation and Return	$2,930,555.01	$2,134,832.80	$795,722.21
Property Account: (Actual Cost as Reflected by Books)	$49,837,026.06	$32,080,146.32	$17,756,879.74
Amount Available for Depreciation and Return: (Per Cent of Property Account)	5.88	6.65	4.48

† Red in copy.

Defendant's Exhibit No. 46—Continued

[fol. 9731]

Lone Star Gas Company

Public Service Operations

Statement of Revenues, Expenses and Amount Available for Depreciation and Return
Property Account—Reproduction Cost New, Less Observed Depreciation
Twelve Months Ended December 31st, 1933

		Applicable to	
	Total	"D" Operations	"E" Operations
Operating Revenues:			
Gas Sales	$7,688,724.10	$5,619,684.64	$2,069,039.46
Miscellaneous Operating Revenues	1,442.91	1,442.91	.....
Total	$7,690,167.01	$5,621,127.55	$2,069,039.46
Operating Expenses:			
Gas Purchased	$1,086,587.44	$962,028.68	$124,558.76
Production System Expense	105,554.86	76,956.69	28,598.17
Gathering System Expense	131,326.29	70,068.24	61,258.05
Transmission System Expense	431,520.56	280,020.70	151,499.86
Compressor Station Expense	338,433.01	253,516.28	84,916.73
New Business Expense	99,793.94	64,087.66	35,706.28
General Expense	859,234.88	551,798.64	307,436.24
Uncollectible Bills	6,530.77	4,555.25	1,975.52
Taxes—Other than Federal	360,476.91	221,192.90	139,284.01
Cancelled & Surrendered Leases	188,629.92	132,605.38	56,024.54
Total	$3,608,088.58	$2,616,830.42	$991,258.16

Defendant's Exhibit No. 46—Continued

	Total	Applicable to "D" Operations	Applicable to "E" Operations
Operating Earnings	$4,082,078.43	$3,004,297.13	$1,077,781.30
Non-Operating Revenues	61,198.22	39,520.24	21,677.98
Gross Income	$4,143,276.65	$3,043,817.37	$1,099,459.28
Non-Operating Revenue Deductions:			
Federal Income Tax	$140,088.20	$152,461.03	†$12,372.83
Other Non-Operating Deductions	27,196.73	17,465.74	9,730.99
Total	$167,284.93	$169,926.77	†$2,641.84
Amount Available for Depreciation and Return	$3,975,991.72	$2,873,890.60	$1,102,101.12
Property Account:			
Present value shown by P. M. Biddison in Appraisal dated Jan. 1st, 1933 (Before Going Concern Value)	$61,945,133.16	$38,350,882.32	$23,594,250.84
Amount Available for Depreciation and Return:			
(Per Cent of Property Account)	6.42	7.49	4.66

[fol. 9732]

Lone Star Gas Company

Public Service Operations

Statement of Revenues, Expenses and Amount Available for Depreciation and Return

Property Account—Reproduction Cost New, Less Observed Depreciation

(After Giving Effect to 32¢ Domestic Gate Rate)

Twelve Months Ended December 31st, 1933

		Applicable to	
	Total	"D" Operations	"E" Operations
Operating Revenues:			
Gas Sales	$6,573,137.46	$4,812,790.16	$1,760,347.30
Miscellaneous Operating Revenues	1,442.91	1,442.91	.....
Total	$6,574,580.37	$4,814,233.07	$1,760,347.30
Operating Expenses:			
Gas Purchased	$1,086,587.44	$962,028.68	$124,558.76
Production System Expense	105,554.86	76,956.69	28,598.17
Gathering System Expense	131,326.29	70,068.24	61,258.05
Transmission System Expense	431,520.56	280,020.70	151,499.86
Compressor Station Expense	338,433.01	253,516.28	84,916.73
New Business Expense	99,793.94	64,087.66	35,706.28
General Expense	859,234.88	551,798.64	307,436.24
Uncollectible Bills	6,530.77	4,555.25	1,975.52
Taxes—Other than Federal	360,476.91	221,192.90	139,284.01
Cancelled & Surrendered Leases	188,629.92	132,605.38	56,024.54
Total	$3,608,088.58	$2,616,830.42	$991,258.16

9887

Defendant's Exhibit No. 46—Continued

	Total	Applicable to "D" Operations	Applicable to "E" Operations
Operating Earnings	$2,966,491.79	$2,197,402.65	$769,089.14
Non-Operating Revenues	61,198.22	39,520.24	21,677.98
Gross Income	$3,027,690.01	$2,236,922.89	$790,767.12
Non-Operating Revenue Deductions:			
Federal Income Tax	.....	.....	.....
Other Non-Operating Deductions	$27,196.73	$17,465.74	$9,730.99
Total	$27,196.73	$17,465.74	$9,730.99
Amount Available for Depreciation and Return	$3,000,493.28	$2,219,457.15	$781,036.13
Property Account:			
Present value shown by P. M. Biddison in Appraisal dated Jan. 1st, 1933 (Before Going Concern Value)	$61,945,133.16	$38,350,882.32	$23,594,250.84
Amount Available for Depreciation and Return:			
(Per Cent of Property Account)	4.84	5.78	3.31

† Red in copy.

(Here follow three pasters, side folios 9733 to 9742)

BLANK

PAGE

Defendant's Exhibit No. 46—Continued

[fols. 9733-9734]

Gas Sales

Summary of Gas Sales—By Companies

Twelve Months Ended December 31st, 1933

	Total		Applicable to Area "A"		Applicable to Area "B"		Applicable to Area "C"		Applicable to "D" Operations		Applicable to "E" Operations	
Dallas & County Gas Co's.:	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Domestic	4,814,444	$1,925,722.20	1,638,513	$655,405.20	.....	.....	3,175,931	$1,270,317.00	3,900,973	$1,560,389.20	913,471	$365,333.00
Industrial	2,848,717	407,515.24	942,610	134,842.43	.....	.....	1,906,107	272,672.81	2,428,796	347,444.63	419,921	60,070.61
Total	7,663,161	$2,333,237.44	2,581,123	$790,247.63	.....	.....	5,082,038	$1,542,989.81	6,329,769	$1,907,833.83	1,333,392	$425,403.61
Fort Worth Division:												
Domestic	2,419,107	$967,642.36	258,798	$103,518.76	.....	.....	2,160,309	$864,123.60	1,384,327	$553,730.36	1,034,780	$413,912.00
Industrial	2,514,422	326,344.96	193,050	25,055.80	.....	.....	2,321,372	301,289.16	1,685,525	218,763.25	828,897	107,581.71
Total	4,933,529	$1,293,987.32	451,848	$128,574.56	.....	.....	4,481,681	$1,165,412.76	3,069,852	$772,493.61	1,863,677	$521,493.71
Community Natural Gas Co.:												
Domestic	3,763,538	$1,510,546.43	2,737,080	$1,101,790.82	657,445	$261,415.85	369,013	$147,339.76	2,958,612	$1,190,297.75	804,926	$320,248.68
Industrial	4,432,953	566,110.11	2,198,297	317,209.28	2,126,674	227,258.45	107,982	21,642.38	2,273,506	332,341.87	2,159,447	233,768.24
Total	8,196,491	$2,076,656.54	4,935,377	$1,419,000.10	2,784,119	$488,674.30	476,995	$168,982.14	5,232,118	$1,522,639.62	2,964,373	$554,016.92
Municipal Gas Company:												
Domestic	1,985,170	$794,068.00	507,440	$202,977.00	644,653	$257,860.20	833,077	$333,230.80	1,003,505	$401,403.00	981,665	$392,665.00
Industrial	1,217,081	196,885.24	483,465	77,174.80	75,822	15,989.46	657,794	103,720.98	944,559	149,904.35	272,522	46,980.89
Total	3,202,251	$990,953.24	990,905	$280,151.80	720,475	$273,849.66	1,490,871	$436,951.78	1,948,064	$551,307.35	1,254,187	$439,645.89
Gainesville Gas & Elec. Co.:												
Domestic	138,820	$55,528.00	.....	.....	.....	.....	138,820	$55,528.00	107,100	$42,840.00	31,720	$12,688.00
Industrial	85,348	13,553.68	.....	.....	.....	.....	85,348	13,553.68	70,668	11,222.50	14,680	2,331.18
Total	224,168	$69,081.68	.....	.....	.....	.....	224,168	$69,081.68	177,768	$54,062.50	46,400	$15,019.18
Southwestern Lt. & Power Co.:												
Domestic	19,591	$7,836.40	.....	.....	19,591	$7,836.40	.....	.....	.....	.....	19,591	$7,836.40
Industrial	2,486	532.13	.....	.....	2,486	532.13	.....	.....	.....	.....	2,486	532.13
Total	22,077	$8,368.53	.....	.....	22,077	$8,368.53	.....	.....	.....	.....	22,077	$8,368.53

[fol. 9735]

Texas Cities Gas Co.:												
Domestic	740,336	$296,134.60	566,470	$226,588.44	.....	.....	173,866	$69,546.16	670,233	$268,093.64	70,103	$28,040.96
Industrial	414,524	68,814.70	334,629	53,747.07	.....	.....	79,895	15,067.63	387,981	63,777.25	26,543	5,037.45
Total	1,154,860	$364,949.30	901,099	$280,335.51	.....	.....	253,761	$84,613.79	1,058,214	$331,870.89	96,646	$33,078.41
Waxahachie Gas Co.:												
Domestic	61,431	$24,572.12	61,431	$24,572.12	.....	.....	.....	.....	61,431	$24,572.12	.....	.....
Industrial	8,191	1,995.75	8,191	1,995.75	.....	.....	.....	.....	8,191	1,995.75	.....	.....
Total	69,622	$26,567.87	69,622	$26,567.87	.....	.....	.....	.....	69,622	$26,567.87	.....	.....
Shasta Oil Company:												
Domestic	2,396	$958.40	.....	.....	2,396	$958.40	.....	.....	.....	.....	2,396	958.40
Industrial	136,711	15,038.21	.....	.....	136,711	15,038.21	.....	.....	.....	.....	136,711	15,038.21
Total	139,107	$15,996.61	.....	.....	139,107	$15,996.61	.....	.....	.....	.....	139,107	15,996.61
Miscellaneous:												
Domestic	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Industrial	3,715,879	$412,818.52	3,103,944	$343,677.18	44,835	$6,217.06	567,100	$62,924.28	3,473,189	$384,607.67	242,690	$28,210.85
Total	3,715,879	$412,818.52	3,103,944	$343,677.18	44,835	$6,217.06	567,100	$62,924.28	3,473,189	$384,607.67	242,690	$28,210.85
Compressors & Driers:												
Domestic	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Industrial	1,517,249	$96,107.05	1,093,356	$65,601.36	189,617	$12,705.18	234,276	$17,800.51	1,125,983	$68,301.30	391,266	$27,805.75
Total	1,517,249	$96,107.05	1,093,356	$65,601.36	189,617	$12,705.18	234,276	$17,800.51	1,125,983	$68,301.30	391,266	$27,805.75
Grand Total:												
Domestic	13,944,833	$5,583,008.51	5,769,732	$2,314,852.34	1,324,085	$528,070.85	6,851,016	$2,740,085.32	10,086,181	$4,041,326.07	3,858,652	$1,541,682.44
Industrial	16,893,561	2,105,715.59	8,357,542	1,019,303.67	2,576,145	277,740.49	5,959,874	808,671.43	12,398,398	1,578,358.57	4,495,163	527,357.02
Total	30,838,394	$7,688,724.10	14,127,274	$3,334,156.01	3,900,230	$805,811.34	12,810,890	$3,548,756.75	22,484,579	$5,619,684.64	8,353,815	$2,069,039.46

[fol. 9736]

Summary of Gas Sales—By Locations

Twelve Months Ended December 31st, 1933

Western, Southern, and Eastern System:												
Dallas & County Gas Co's	2,581,123	$790,247.63	2,581,123	$790,247.63	.....	.....	.....	.....	2,581,123	$790,247.63	.....	.....
Ft. Worth Division	451,848	128,574.56	451,848	128,574.56	.....	.....	.....	.....	451,848	128,574.56	.....	.....
Community Natural Gas Co	4,935,377	1,419,000.10	4,935,377	1,419,000.10	.....	.....	.....	.....	4,935,377	1,419,000.10	.....	.....
Municipal Gas Company	990,905	280,151.80	990,905	280,151.80	.....	.....	.....	.....	990,905	280,151.80	.....	.....
Texas Cities Gas Co	901,099	280,335.51	901,099	280,335.51	.....	.....	.....	.....	901,099	280,335.51	.....	.....
Waxahachie Gas Co	69,622	26,567.87	69,622	26,567.87	.....	.....	.....	.....	69,622	26,567.87	.....	.....
Miscellaneous Sales												

tern, Southern, and Eastern System:												
Dallas & County Gas Co's	2,581,123	$790,247.63	2,581,123	$790,247.63					2,581,123	$790,247.63		
Ft. Worth Division	451,848	128,574.56	451,848	128,574.56					451,848	128,574.56		
Community Natural Gas Co	4,935,377	1,419,000.10	4,935,377	1,419,000.10					4,935,377	1,419,000.10		
Municipal Gas Company	990,905	280,151.80	990,905	280,151.80					990,905	280,151.80		
Texas Cities Gas Co	901,099	280,335.51	901,099	280,335.51					901,099	280,335.51		
Waxahachie Gas Co	69,622	26,567.87	69,622	26,567.87					69,622	26,567.87		
Miscellaneous Sales	3,103,944	343,677.18	3,103,944	343,677.18					3,103,944	343,677.18		
Compressors & Driers	1,093,356	65,601.36	1,093,356	65,601.36					1,093,356	65,601.36		
Total	14,127,274	$3,334,156.01	14,127,274	$3,334,156.01					14,127,274	$3,334,156.01		
System:												
Community Natural Gas Co	2,050,761	$273,957.83			2,050,761	$273,957.83					2,050,761	$273,957.83
Municipal Gas Company	696,690	265,128.23			696,690	265,128.23					696,690	265,128.23
Shasta Oil Company	139,107	15,996.61			139,107	15,996.61					139,107	15,996.61
Miscellaneous Sales	23,671	1,836.00			23,671	1,836.00					23,671	1,836.00
Compressors & Gas Driers	378,208	25,937.19			156,413	9,384.78	221,795	$16,552.41	22,180	$1,655.24	356,028	24,281.95
Total	3,288,437	$582,855.86			3,066,642	$566,303.45	221,795	$16,552.41	22,180	$1,655.24	3,266,257	$581,200.62
System:												
Ft. Worth Division	4,481,681	$1,165,412.76					4,481,681	$1,165,412.76	2,618,004	$643,919.05	1,863,677	$521,493.71
Community Natural Gas Co	46,593	18,109.51					46,593	18,109.51	6,913	2,692.18	39,680	15,417.33
Municipal Gas Company	161,932	53,491.52					161,932	53,491.52	24,992	8,047.88	136,940	45,443.64
Miscellaneous Sales	236,308	25,981.66					236,308	25,981.66	125,045	13,834.39	111,263	12,147.27
Total	4,926,514	$1,262,995.45					4,926,514	$1,262,995.45	2,774,954	$668,493.50	2,151,560	$594,501.95
System:												
Dallas & County Gas Co's	4,676,811	$1,422,772.41					4,676,811	$1,422,772.41	3,421,523	$1,021,809.60	1,255,288	$400,962.81
Community Natural Gas Co	21,812	8,073.26					21,812	8,073.26	17,137	6,307.04	4,675	1,766.22
Miscellaneous Sales	186,205	22,483.92					186,205	22,483.92	157,448	18,420.90	28,757	4,063.02
Total	4,884,828	$1,453,329.59					4,884,828	$1,453,329.59	3,596,108	$1,046,537.54	1,288,720	$406,792.05
System:												
Community Natural Gas Co	517,314	$168,237.78			236,290	$72,694.76	281,024	$95,543.02	173,396	$58,076.44	343,918	$110,161.34
Municipal Gas Company	764,636	222,129.16					764,636	222,129.16	481,199	136,563.64	283,437	85,565.52
Texas Cities Gas Company	253,761	84,613.79					253,761	84,613.79	157,115	51,535.38	96,646	33,078.41
Total	1,535,711	$474,980.73			236,290	$72,694.76	1,299,421	$402,285.97	811,710	$246,175.46	724,001	$228,805.27

Defendant's Exhibit No. 46—Continued

fol. 9737]

Gas Sales—Continued

Summary of Gas Sales—By Locations

Twelve Months Ended December 31st, 1933

	Total		Applicable to Area "A"		Applicable to Area "B"		Applicable to Area "C"		Applicable to "D" Operations		Applicable to "E" Operations	
F-System:	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Community Natural Gas Co.	108,614	$41,020.46					108,614	$41,020.46	84,327	$31,690.25	24,287	$9,330.21
Municipal Gas Company	564,303	161,331.10					564,303	161,331.10	450,968	126,544.03	113,335	34,787.07
Compressors & Gas Driers	12,481	1,248.10					12,481	1,248.10	10,447	1,044.70	2,034	203.40
Total	685,398	$203,599.66					685,398	$203,599.66	545,742	$159,278.98	139,656	$44,320.68
G-System:												
Community Natural Gas Co.	401,468	$110,736.22			382,516	$104,500.33	18,952	$6,235.89	14,968	$4,873.61	386,500	$105,862.61
Gainesville Gas & Elec. Co.	224,168	69,081.68					224,168	69,081.68	177,768	54,062.50	46,400	15,019.18
Miscellaneous Sales	9,074	2,385.39			9,074	2,385.39					9,074	2,385.39
Compressors & Gas Driers	5,440	544.00			5,440	544.00					5,440	544.00
Total	640,150	$182,747.29			397,030	$107,429.72	243,120	$75,317.57	192,736	$58,936.11	447,414	$123,811.18
H-System:												
Community Natural Gas Co.	114,552	$37,521.38			114,552	$37,521.38					114,552	$37,521.38
Municipal Gas Company	23,785	8,721.43			23,785	8,721.43					23,785	8,721.43
Southwestern Lt. & Power Co.	22,077	8,368.53			22,077	8,368.53					22,077	8,368.53
Miscellaneous Sales	12,090	1,995.67			12,090	1,995.67					12,090	1,995.67
Compressors & Gas Driers	27,764	2,776.40			27,764	2,776.40					27,764	2,776.40
Total	200,268	$59,383.41			200,268	$59,383.41					200,268	$59,383.41
J-2 System:												
Dallas & County Gas Co's	405,227	$120,217.40					405,227	$120,217.40	327,123	$95,776.60	78,104	$24,440.80
Petrolia Field:												
Miscellaneous Sales	144,587	$14,458.70					144,587	$14,458.70	86,752	$8,675.20	57,835	$5,783.50
Grand Total	30,838,394	$7,688,724.10	14,127,274	$3,334,156.01	3,900,230	$805,811.34	12,810,890	$3,548,756.75	22,484,579	$5,619,684.64	8,353,815	$2,069,039.46

[fol. 9738]

Statement of Gas Sales—By Companies

Twelve Months Ended December 31st, 1933

Dallas & County Gas Co's.:												
Hudnall & Central Stations:												
Domestic	2,914,940	$1,165,976.00					2,914,940	$1,165,976.00	2,057,875	$823,150.00	857,065	$342,826.00
Industrial	1,701,950	243,467.69					1,701,950	243,467.69	1,314,097	187,984.47	387,853	55,483.22
Total	4,616,890	$1,409,443.69					4,616,890	$1,409,443.69	3,371,972	$1,011,134.47	1,244,918	$398,309.22
Boundary Station:												
Domestic	162,678	$65,015.80					162,678	$65,015.80	115,614	$46,245.60	47,064	$18,770.20
Industrial	76,561	10,952.22					76,561	10,952.22	55,719	7,970.73	20,842	2,981.49
Total	239,239	$75,968.02					239,239	$75,968.02	171,333	$54,216.33	67,906	$21,751.69
Arlington, Dalworth, etc.:												
Domestic	79,800	$31,920.00					79,800	$31,920.00	75,012	$30,004.80	4,788	$1,915.20
Industrial	86,188	12,329.38					86,188	12,329.38	80,778	11,555.47	5,410	773.91
Total	165,988	$44,249.38					165,988	$44,249.38	155,790	$41,560.27	10,198	$2,689.11
West Dallas:												
Domestic	18,513	$7,405.20					18,513	$7,405.20	13,959	$5,583.60	4,554	$1,821.60
Industrial	41,408	5,923.52					41,408	5,923.52	35,592	5,091.53	5,816	831.99
Total	59,921	$13,328.72					59,921	$13,328.72	49,551	$10,675.13	10,370	$2,653.59
Second Avenue-Lisbon:												
Domestic	1,638,513	$655,405.20	1,638,513	$655,405.20					1,638,513	$655,405.20		
Industrial	942,610	134,842.43	942,610	134,842.43					942,610	134,842.43		
Total	2,581,123	$790,247.63	2,581,123	$790,247.63					2,581,123	$790,247.63		
Grand Total:												
Domestic	4,814,444	$1,925,722.20	1,638,513	$655,405.20			3,175,931	$1,270,317.00	3,900,973	$1,560,389.20	913,471	$365,333.00
Industrial	2,848,717	407,515.24	942,610	134,842.43			1,906,107	272,672.81	2,428,796	347,444.63	419,921	60,070.61
Total	7,663,161	$2,333,237.44	2,581,123	$790,247.63			5,082,038	$1,542,989.81	6,329,769	$1,907,833.83	1,333,392	$425,403.61
Fort Worth Division:												
North Ft. Worth Station:												
Domestic	2,160,309	$864,123.60					2,160,309	$864,123.60	1,125,529	$450,211.60	1,034,780	$413,912.00
Industrial	2,321,372	301,289.16					2,321,372	301,289.16	1,492,475	193,707.45	828,897	107,581.71
Total	4,481,681	$1,165,412.76					4,481,681	$1,165,412.76	2,618,004	$643,919.05	1,863,677	$521,493.71
Haines & So. Ft. Worth Sta.:												
Domestic	258,798	$103,518.76	258,798	$103,518.76					258,798	$103,518.76		
Industrial	193,050	25,055.80	193,050	25,055.80					193,050	25,055.80		
Total	451,848	$128,574.56	451,848	$128,574.56					451,848	$128,574.56		
Grand Total:												
Domestic	2,419,107	$967,642.36	258,798	$103,518.76			2,160,309	$864,123.60	1,384,327	$553,730.36	1,034,780	$413,912.00
Industrial	2,514,422	326,344.96	193,050	25,055.80			2,321,372	301,289.16	1,685,525	218,763.25	828,897	107,581.71
Total	4,933,529	$1,293,987.32	451,848	$128,574.56			4,481,681	$1,165,412.76	3,069,852	$772,493.61	1,863,677	$521,493.71

[fol. 9739]

Domestic	2,419,107	$967,642 36	258,798	$103,518.76	.....	.....	2,160,309	$864,123.60	1,384,327	$553,730.36	1,034,780	$413,912.80
Industrial	2,514,422	326,344.96	193,050	25,055.80	.....	.....	2,321,372	301,289.16	1,685.525	218,763.25	828,897	107,581.71
Total	4,933,529	$1,293,987.32	451,848	$128,574.56	.....	.....	4,481,681	$1,165,412.76	3,069,852	$772,493.61	1,863,677	$521,493.71
[fol. 9739]												
Community Natural Gas Co.:												
Western, Southern, and Eastern Towns:												
Domestic	2,737,080	$1,101,790.82	2,737,080	$1,101,790.82	.....	.....	.....	.....	2,737,080	$1,101,790.82	.....	.....
Industrial	2,198,297	317,209.28	2,198,297	317,209.28	.....	.....	.....	.....	2,198,297	317,209.28	.....	.....
Total	4,935,377	$1,419,000.10	4,935,377	$1,419,000.10	.....	.....	.....	.....	4,935,377	$1,419,000.10	.....	.....
A-System:												
Domestic	251,135	$99,865.14	.....	.....	251,135	$99,865.14	.....	.....	.....	.....	251,135	$99,865.14
Industrial	1,799,626	174,092.69	.....	.....	1,799,626	174,092.69	.....	.....	.....	.....	1,799,626	174,092.69
Total	2,050,761	$273,957.83	.....	.....	2,050,761	$273,957.83	.....	.....	.....	.....	2,050,761	$273,957.83
B-System:												
Domestic	44,123	$17,542.70	.....	.....	.....	.....	44,123	$17,542.70	6,486	$2,594.40	37,637	$14,948.30
Industrial	2,470	566.81	.....	.....	.....	.....	2,470	566.81	427	97.78	2,043	469.03
Total	46,593	$18,109.51	.....	.....	.....	.....	46,593	$18,109 51	6,913	$2,692.18	39,680	$15,417.33
C-System:												
Domestic	17,073	$6,734.47	.....	.....	.....	.....	17,073	$6,734 47	13,095	$5,165 15	3,978	$1,569.32
Industrial	4,739	1,338.79	.....	.....	.....	.....	4,739	1,338 79	4,042	1,141.89	697	196.90
Total	21,812	$8,073.26	.....	.....	.....	.....	21,812	$8,073.26	17,137	$6,307.04	4,675	$1,766.22
E-System:												
Domestic	344.076	$137.599.21	.....	.....	143,125	$57,250.00	200,951	$80,349 21	119,927	$47,970.80	224,149	$89,628.41
Industrial	173.238	30.638.57	.....	.....	93,165	15,444.76	80,073	15,193.81	53,469	10,105.64	119,769	20,532.93
Total	517,314	$168,237.78	.....	.....	236,290	$72,694.76	281,024	$95.543.02	173,396	$58,076.44	343,918	$110,161.34
F-System:												
Domestic	94,048	$37,586.18	.....	.....	.....	.....	94,048	$37,586 18	72,135	$28,820.98	21,913	$8,765.20
Industrial	14,566	3,434.28	.....	.....	.....	.....	14,566	3,434 28	12,192	2,869.27	2,374	565.01
Total	108,614	$41,020.46	.....	.....	.....	.....	108,614	$41,020 46	84,327	$31,690.25	24,287	$9,330.21
G-System (Excl. of G-3):												
Domestic	187,746	$74,402.62	.....	.....	187,746	$74,402.62	.....	.....	.....	.....	187,746	$74,402.62
Industrial	194,770	30.097.71	.....	.....	194,770	30.097.71	.....	.....	.....	.....	194,770	30,097.71
Total	382,516	$104,500.33	.....	.....	382,516	$104,500.33	.....	.....	.....	.....	382,516	104,500.33
G-3-System:												
Domestic	12,818	$5,127.20	.....	.....	.....	.....	12,818	$5,127 20	9,889	$3,955.60	2,929	$1,171.60
Industrial	6,134	1,108.69	.....	.....	.....	.....	6,134	1,108.69	5,079	918.01	1,055	190.68
Total	18,952	$6,235.89	.....	.....	.....	.....	18,952	$6,235.89	14,968	$4,873.61	3,984	$1,362.28
H-System:												
Domestic	75,439	$29,898.09	.....	.....	75,439	$29,898.09	.....	.....	.....	.....	75,439	$29,898.09
Industrial	39,113	7,623.29	.....	.....	39,113	7,623.29	.....	.....	.....	.....	39,113	7,623.29
Total	114,552	$37,521.38	.....	.....	114,552	$37,521.38	.....	.....	.....	.....	114,552	$37,521.38
Grand Total:												
Domestic	3,763,538	$1,510,546.43	2,737,080	$1,101,790.82	657,445	$261,415.85	369,013	$147,339.76	2,958,612	$1,190,297.75	804,926	$320,248.68
Industrial	4,432,953	566,110.11	2,198,297	317,209.28	2,126 674	227,258.45	107,982	21,642 38	2,273,506	332,341.87	2,159,447	233,768.24
Total	8,196,491	$2,076,656.54	4,935,377	$1,419,000.10	2,784,119	$488,674.30	476,995	$168,982.14	5,232,118	$1,522,639.62	2,964,373	$554,016.92

Defendant's Exhibit No. 46—Continued

[fol. 9740]

Gas Sales—Continued

Summary of Gas Sales—By Companies

Twelve Months Ended December 31st, 1933

	Total		Applicable to Area "A"		Applicable to Area "B"		Applicable to Area "C"		Applicable to "D" Operations		Applicable to "E" Operations	
Municipal Gas Company:	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Southern Towns:												
Domestic	507,440	$202,977.00	507,440	$202,977.00	.....	.....	.....	.....	507,440	$202,977.00	.....	.....
Industrial	483,465	77,174.80	483,465	77,174.80	.....	.....	.....	.....	483,465	77,174.80	.....	.....
Total	990,905	$280,151.80	990,905	$280,151.80	.....	.....	.....	.....	990,905	$280,151.80	.....	.....
A-System:												
Domestic	624,739	$249,895.60	.....	.....	624,739	$249,895.60	.....	.....	.....	.....	624,739	$249,895.60
Industrial	71,951	15,232.63	.....	.....	71,951	15,232.63	.....	.....	.....	.....	71,951	15,232.63
Total	696,690	$265,128.23	.....	.....	696,690	$265,128.23	.....	.....	.....	.....	696,690	$265,128.23
B-System:												
Domestic	116,767	$46,706.80	.....	.....	.....	.....	116,767	$46,706.80	17,165	$6,866.00	99,602	$39,840.80
Industrial	45,165	6,784.72	.....	.....	.....	.....	45,165	6,784.72	7,827	1,181.88	37,338	5,602.84
Total	161,932	$53,491.52	.....	.....	.....	.....	161,932	$53,491.52	24,992	$8,047.88	136,940	$45,443.64
E-System:												
Domestic	414,277	$165,710.80	.....	.....	.....	.....	414,277	$165,710.80	247,241	$98,596.40	167,036	$66,814.40
Industrial	350,359	56,418.36	.....	.....	.....	.....	350,359	56,418.36	233,958	37,667.24	116,401	18,751.12
Total	764,636	$222,129.16	.....	.....	.....	.....	764,636	$222,129.16	481,199	$136,563.64	283,437	$85,565.52
F-System:												
Domestic	302,033	$120,813.20	.....	.....	.....	.....	302,033	$120,813.20	231,659	$92,663.60	70,374	$28,149.60
Industrial	262,270	40,517.90	.....	.....	.....	.....	262,270	40,517.90	219,309	33,880.43	42,961	6,637.47
Total	564,303	$161,331.10	.....	.....	.....	.....	564,303	$161,331.10	450,968	$126,544.03	113,335	$34,787.07
H-System:												
Domestic	19,914	$7,964.60	.....	.....	19,914	$7,964.60	.....	.....	.....	.....	19,914	$7,964.60
Industrial	3,871	756.83	.....	.....	3,871	756.83	.....	.....	.....	.....	3,871	756.83
Total	23,785	$8,721.43	.....	.....	23,785	$8,721.43	.....	.....	.....	.....	23,785	$8,721.43
Grand Total:												
Domestic	1,985,170	$794,068.00	507,440	$202,977.00	644,653	$257,860.20	833,077	$333,230.80	1,003,505	$401,403.00	981,665	$392,665.00
Industrial	1,217,081	196,885.24	483,465	77,174.80	75,822	15,989.46	657,794	103,720.98	944,559	149,904.35	272,522	46,980.89
Total	3,202,251	$990,953.24	990,905	$280,151.80	720,475	$273,849.66	1,490,871	$436,951.78	1,948,064	$551,307.35	1,254,187	$439,645.89
Gainesville Gas & Elec. Co.:												
G-F-System:												
Domestic	138,820	$55,528.00	.....	.....	.....	.....	138,820	$55,528.00	107,100	$42,840.00	31,720	$12,688.00
Industrial	85,348	13,553.68	.....	.....	.....	.....	85,348	13,553.68	70,668	11,222.50	14,680	2,331.18
Total	224,168	$69,081.68	.....	.....	.....	.....	224,168	$69,081.68	177,768	$54,062.50	46,400	$15,019.18
Southwestern Light & Power Co.:												
H-System:												
Domestic	19,591	$7,836.40	.....	.....	19,591	$7,836.40	.....	.....	.....	.....	19,591	$7,836.40
Industrial	2,486	532.13	.....	.....	2,486	532.13	.....	.....	.....	.....	2,486	532.13
Total	22,077	$8,368.53	.....	.....	22,077	$8,368.53	.....	.....	.....	.....	22,077	$8,368.53

[fol. 9741]

Texas Cities Gas Company:												
Southern Towns—Waco:												
Domestic	566,470	$226,588.44	566,470	$226,588.44	.....	.....	.....	.....	566,470	$226,588.44	.....	.....
Industrial	334,629	53,747.07	334,629	53,747.07	.....	.....	.....	.....	334,629	53,747.07	.....	.....
Total	901,099	$280,335.51	901,099	$280,335.51	.....	.....	.....	.....	901,099	$280,335.51	.....	.....
E-System—Paris:												
Domestic	173,866	$69,546.16	.....	.....	.....	.....	173,866	$69,546.16	103,763	$41,505.20	70,103	$28,040.96
Industrial	79,895	15,067.63	.....	.....	.....	.....	79,895	15,067.63	53,352	10,030.18	26,543	5,037.45
Total	253,761	$84,613.79	.....	.....	.....	.....	253,761	$84,613.79	157,115	$51,535.38	96,646	$33,078.41
Grand Total:												
Domestic	740,336	$296,134.60	566,470	$226,588.44	.....	.....	173,866	$69,546.16	670,233	$268,093.64	70,103	$28,040.96
Industrial	414,524	68,814.70	334,629	53,747.07	.....	.....	79,895	15,067.63	387,981	63,777.25	26,543	5,037.45
Total	1,154,860	$364,949.30	901,099	$280,335.51	.....	.....	253,761	$84,613.79	1,058,214	$331,870.89	96,646	$33,078.41
Waxahachie Gas Company:												
Southern Towns—Waxahachie:												
Domestic	61,431	$24,572.12	61,431	$24,572.12	.....	.....	.....	.....	61,431	$24,572.12	.....	.....
Industrial	8,191	1,995.75	8,191	1,995.75	.....	.....	.....	.....	8,191	1,995.75	.....	.....
Total	69,622	$26,567.87	69,622	$26,567.87	.....	.....	.....	.....	69,622	$26,567.87	.....	.....
Shasta Oil Company:												
A-System:												
Domestic	2,396	$958.40	.....	.....	2,396	$958.40	.....	.....	.....	.....	2,396	$958.40
Industrial	136,711	15,038.21	.....	.....	136,711	15,038.21	.....	.....	.....	.....	136,711	15,038.21

Waxahachie Gas Company:												
Southern Towns—Waxahachie:												
Domestic	61,431	$24,572.12	61,431	$24,572.12	.....	.....	.....	.....	61,431	$24,572.12	.....	.....
Industrial	8,191	1,995.75	8,191	1,995.75	.....	.....	.....	.....	8,191	1,995.75	.....	.....
Total	69,622	$26,567.87	69,622	$26,567.87	.....	.....	.....	.....	69,622	$26,567.87	.....	.....
Shasta Oil Company:												
A-System:												
Domestic	2,396	$958.40	.....	.....	2,396	$958.40	.....	.....	.....	.....	2,396	$958.40
Industrial	136,711	15,038.21	.....	.....	136,711	15,038.21	.....	.....	.....	.....	136,711	15,038.21
Total	139,107	$15,996.61	.....	.....	139,107	$15,996.61	.....	.....	.....	.....	139,107	$15,996.61
Miscellaneous Sales:												
Petrolia Field	144,587	$14,458.70	.....	.....	.....	.....	144,587	$14,458.70	86,752	$8,675.20	57,835	$5,783.50
Western, Southern, and Eastern Territory	3,103,944	343,677.18	3,103,944	$343,677.18	.....	.....	.....	.....	3,103,944	343,677.18	.....	.....
A-System	23,671	1,836.00	.....	.....	23,671	$1,836.00	.....	.....	.....	.....	23,671	1,836.00
B-System	236,308	25,981.66	.....	.....	.....	.....	236,308	25,981.66	125,045	13,834.39	111,263	12,147.27
C-System	186,205	22,483.92	.....	.....	.....	.....	186,205	22,483.92	157,448	18,420.90	28,757	4,063.02
G-System	9,074	2,385.39	.....	.....	9,074	2,385.39	.....	.....	.....	.....	9,074	2,385.39
H-System	12,090	1,995.67	.....	.....	12,090	1,995.67	.....	.....	.....	.....	12,090	1,995.67
Total	3,715,879	$412,818.52	3,103,944	$343,677.18	44,835	$6,217.06	567,100	$62,924.28	3,473,189	$384,607.67	242,690	$28,210.85
[fol. 9742]												
Compressors & Gas Driers:												
Hollis, Oklahoma	156,413	$9,384.78	.....	.....	156,413	$9,384.78	.....	.....	.....	.....	156,413	$9,384.78
Gas City, Oklahoma	27,764	2,776.40	.....	.....	27,764	2,776.40	.....	.....	.....	.....	27,764	2,776.40
Fox, Oklahoma	4,680	468.00	.....	.....	4,680	468.00	.....	.....	.....	.....	4,680	468.00
Loco, Oklahoma	760	76.00	.....	.....	760	76.00	.....	.....	.....	.....	760	76.00
Brazos, Texas	2,604	156.24	2,604	$156.24	.....	.....	.....	.....	2,604	$156.24	.....	.....
Cheaney, Texas	32,264	1,935.84	32,264	1,935.84	.....	.....	.....	.....	32,264	1,935.84	.....	.....
Desdemona, Texas	27,305	1,638.30	27,305	1,638.30	.....	.....	.....	.....	27,305	1,638.30	.....	.....
Gainesville, Texas	12,481	1,248.10	.....	.....	.....	.....	12,481	$1,248.10	10,447	1,044.70	2,034	203.40
Gordon, Texas	216,693	13,001.58	216,693	13,001.58	.....	.....	.....	.....	216,693	13,001.58	.....	.....
Petrolia, Texas	221,795	16,552.41	.....	.....	.....	.....	221,795	16,552.41	22,180	1,655.24	199,615	14,897.17
Pueblo, Texas	21,567	1,294.02	21,567	1,294.02	.....	.....	.....	.....	21,567	1,294.02	.....	.....
Sipe Springs, Texas	13,286	797.16	13,286	797.16	.....	.....	.....	.....	13,286	797.16	.....	.....
Ranger, Texas	179,580	10,774.80	179,580	10,774.80	.....	.....	.....	.....	179,580	10,774.80	.....	.....
Ibex, Texas	36,697	2,201.82	36,697	2,201.82	.....	.....	.....	.....	36,697	2,201.82	.....	.....
Joshua, Texas	386,242	23,174.52	386,242	23,174.52	.....	.....	.....	.....	386,242	23,174.52	.....	.....
X Ray, Texas	10	.60	10	.60	.....	.....	.....	.....	10	.60	.....	.....
Breckenridge, Texas	104,815	6,288.90	104,815	6,288.90	.....	.....	.....	.....	104,815	6,288.90	.....	.....
Caddo, Texas	28,830	1,729.80	28,830	1,729.80	.....	.....	.....	.....	28,830	1,729.80	.....	.....
Eastland, Texas	43,463	2,607.78	43,463	2,607.78	.....	.....	.....	.....	43,463	2,607.78	.....	.....
Total	1,517,249	$96,107.05	1,093,356	$65,601.36	189,617	$12,705.18	234,276	$17,800.51	1,125,983	$68,301.30	391,266	$27,805.75

BLANK

PAGE

[fol. 9743]

Statement of Gas Sales to Community Natural Gas Company

Twelve Months Ended December 31st, 1933

Location	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M. Cu. Ft.	Amount	M Cu. Ft.	Amount
A—System:						
Chillicothe	27,849	$7,203.74	12,256	$4,902.40	15,593	$2,301.34
Davidson	6,474	2,589.60	6,474	2,589.60	.....	.....
Electra	15,750	6,300.00	15,750	6,300.00	.....	.....
Frederick	75,756	26,137.10	55,250	22,100.00	20,506	4,037.10
Harold	3,753	1,501.20	3,753	1,501.20	.....	.....
Hollis	49,885	17,791.09	40,389	16,155.60	9,496	1,635.49
Manitou	2,977	1,115.87	2,444	977.60	533	138.27
Mountain Park	4,880	1,735.49	3,397	1,358.80	1,483	376.69
Oklaunion	4,498	1,551.37	3,046	1,218.40	1,452	332.97
Snyder	13,610	5,444.00	13,610	5,444.00	.....	.....
Tolbert	607	242.80	607	242.80	.....	.....
Tipton	24,060	7,549.01	13,532	5,412.80	10,528	2,136.21
Vernon	96,414	32,790.01	69,434	27,773.60	26,980	5,016.41
Total	326,513	$111,951.28	239,942	$95,976.80	86,571	$15,974.48
Right-of-Way	1,724,248	162,006.55	11,193	3,888.34	1,713,055	158,118.21
Total	2,050,761	$273,957.83	251,135	$99,865.14	1,799,626	$174,092.69

3289

6 8 N 3

Defendant's Exhibit No. 46—Continued

Statement of Gas Sales to Community Natural Gas Company

Twelve Months Ended December 31st, 1933

Location	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M. Cu. Ft.	Amount	M Cu. Ft.	Amount
B—System:						
Chico	3,096	$1,238.40	3,096	$1,238.40	.....	.....
Henrietta	31,783	12,292.01	29,313	11,725.20	2,470	$566.81
Newark	786	314.40	786	314.40	.....	.....
Rhome	4,314	1,725.60	4,314	1,725.60	.....	.....
Saginaw	1,771	708.40	1,771	708.40	.....	.....
Total	41,750	$16,278.81	39,280	$15,712.00	2,470	$566.81
Right-of-Way	4,843	1,830.70	4,843	1,830.70	.....	.....
Total	46,593	$18,109.51	44,123	$17,542.70	2,470	$566.81
C—System:						
Irving	10,358	$4,063.07	9,765	$3,906.00	593	$157.07
Right-of-Way	11,454	4,010.19	7,308	2,828.47	4,146	1,181.72
Total	21,812	$8,073.26	17,073	$6,734.47	4,739	$1,338.79
[fol. 9744] E—System:						
Bagwell	476	$190.40	476	$190.40	.....	.....
Bells	2,814	1,089.49	2,477	990.80	337	$98.69
Blossom	3,036	796.76	1,357	542.80	1,679	253.96

Bonham	71,821	27,098.97	62,864	25,145.60	8,957	1,953.37
Brookston	1,276	510.40	1,276	510.40	.....	.....
Clarksville	32,317	10,639.32	21,462	8,584.80	10,855	2,054.52
Collinsville	3,714	1,438.02	3,305	1,322.00	409	116.02
Deport	3,667	1,466.80	3,667	1,466.80	.....	.....
Detroit	1,650	660.00	1,650	660.00	.....	.....
Dodd City	2,708	1,083.20	2,708	1,083.20	.....	.....
Ector	2,513	870.04	1,664	665.60	849	204.44
Fulbright	452	180.80	452	180.80	.....	.....
Honey Grove	60,314	15,936.44	28,857	11,542.80	31,457	4,393.64
Howe	7,914	2,799.55	5,512	2,204.80	2,402	594.75
Leonard	11,911	4,764.40	11,911	4,764.40	.....	.....
Melissa	2,609	971.36	2,063	825.20	546	146.16
Petty	2,931	792.75	1,324	529.60	1,607	263.15
Revenna	3,724	921.99	1,342	536.80	2,382	385.19
Roxton	9,840	3,023.62	5,887	2,354.80	3,953	668.82
Savoy	1,786	714.40	1,786	714.40	.....	.....
Trenton	5,324	1,948.66	4,207	1,682.80	1,117	265.86
Van Alstyne	14,792	5,589.37	12,451	4,980.40	2,341	608.97
Westminster	1,474	500.44	733	293.20	741	207.24
Whitewright	13,802	5,508.27	13,664	5,465.60	138	42.67
Windom	2,259	903.60	2,259	903.60	.....	.....
Achille	3,682	982.67	1,571	628.40	2,111	354.27
Caddo	5,231	2,032.74	4,852	1,940.80	379	91.94
Durant	186,787	53,731.02	98,894	39,557.60	87,893	14,173.42
Hugo	40,590	15,948.33	37,808	15,123.20	2,782	825.13
Total	510,414	$163,093.81	338,479	$135,391.60	162,935	27,702.21
Right-of-Way	15,900	5,143.97	5,597	2,207.61	10,303	2,936.36
Total	517,314	$168,237.78	344,076	$137,599.21	173,238	$30,638.57

Defendant's Exhibit No. 46—Continued

[fol. 9745]

Statement of Gas Sales to Community Natural Gas Company

Twelve Months Ended December 31st, 1933

Location	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
F—System:						
Allen	2,728	$1,091.20	2,728	$1,091.20	.....	.....
Anna	3,398	1,359.20	3,398	1,359.20	.....	.....
Aubrey	3,170	1,190.53	2,619	1,047.60	551	142.93
Carrollton	8,886	3,462.52	8,189	3,275.60	697	186.92
Celina	14,092	5,524.83	13,339	5,335.60	753	189.23
Frisco	6,994	2,797.60	6,994	2,797.60	.....	.....
Grapevine	8,302	3,170.11	7,363	2,945.20	939	224.91
Lewisville	5,958	2,383.20	5,958	2,383.20	.....	.....
Pilot Point	10,753	4,078.64	9,197	3,678.80	1,556	399.84
Prosper	3,289	1,315.60	3,289	1,315.60	.....	.....
Sanger	20,418	7,130.55	13,302	5,320.80	7,116	1,809.75
Tioga	3,669	1,467.60	3,669	1,467.60	.....	.....
Valley View	8,517	2,705.90	5,563	2,225.20	2,954	480.70
Total	100,174	$37,677.48	85,608	$34,243.20	14,566	$3,434.28
Right-of-Way	8,440	3,342.98	8,440	3,342.98	.....	.....
Total	108,614	$41,020.46	94,048	$37,586.18	14,566	$3,434.28

G—System:						
Davis	15,198	$5,733.70	12,804	$5,121.60	2,394	$612.10
Elmore City	9,193	2,682.15	4,787	1,914.80	4,406	767.35
Loco	2,796	1,118.40	2,796	1,118.40	.....	.....
Marietta	26,635	9,146.16	19,526	7,810.40	7,109	1,335.76
Maysville	5,284	2,113.60	5,284	2,113.60	.....	.....
Paoli	2,615	979.66	2,074	829.60	541	150.06
Pauls Valley	58,026	20,920.75	45,833	18,333.20	12,193	2,587.55
Purcell	79,811	18,287.34	26,169	10,467.60	53,642	7,819.74
Sulphur	83,794	22,800.28	38,194	15,277.60	45,600	7,522.68
Wayne	3,964	1,494.17	3,317	1,326.80	647	167.37
Wynnewood	48,034	11,819.08	19,926	7,970.40	28,108	3,848.68
Total	335,350	$97,095.29	180,710	$72,284.00	154,640	$24,811.29
Right-of-Way	47,166	7,405.04	7,036	2,118.62	40,130	5,286.42
Total	382,516	$104,500.33	187,746	$74,402.62	194,770	$30,097.71

Defendant's Exhibit No. 46—Continued

[fol. 9746]

Statement of Gas Sales to Community Natural Gas Company

Twelve Months Ended December 31st, 1933

Location	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
G-3—System:						
Lindsay	453	$181.20	453	$181.20	.....	.....
Muenster	8,307	2,198.72	3,462	1,384.80	4,845	813.92
Myra	3,367	1,125.97	2,078	831.20	1,289	294.77
Saint Jo	6,825	2,730.00	6,825	2,730.00	.....	.....
Total	18,952	$6,235.89	12,818	$5,127.20	6,134	1,108.69
H—System:						
Ryan	32,120	$7,963.31	10,745	$4,298.00	21,375	$3,665.31
Hastings	3,974	1,447.03	3,057	1,222.80	917	224.23
Walters	36,177	13,520.28	29,731	11,892.40	6,446	1,627.88
Waurika	35,730	12,247.87	25,355	10,142.00	10,375	2,105.87
Total	108,001	$35,178.49	68,888	$27,555.20	39,113	$7,623.29
Right-of-Way	6,551	2,342.89	6,551	2,342.89	.....	.....
Total	114,552	$37,521.38	75,439	$29,898.09	39,113	$7,623.29

[fol. 9747]

196—3104

Statement of Gas Sales to Community Natural Gas Company

Twelve Months Ended December 31st, 1933

Western, Southern, and Eastern Towns

Town Plants	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Abbott	3,903	$1,435.77	3,107	$1,242.80	796	$192.97
Abilene	439,292	161,923.31	329,896	140,997.21	109,396	20,926.10
Abilene N. P.	4,290	1,716.00	4,290	1,716.00	.....	.....
Albany	32,665	12,792.92	31,159	12,463.60	1,506	329.32
Alvarado	31,224	8,350.46	14,076	5,630.40	17,148	2,720.06
Athens	138,434	30,742.63	44,573	17,829.20	93,861	12,913.43
Baird	27,369	10,240.16	24,236	9,694.40	3,133	545.76
Ballinger	53,238	18,312.13	38,843	15,537.20	14,395	2,774.93
Bardwell	3,081	1,232.40	3,081	1,232.40	.....	.....
Barry	1,567	626.80	1,567	626.80	.....	.....
Bartlett	12,705	5,078.20	12,663	5,065.20	42	13.00
Bellmeade	3,614	1,360.71	3,036	1,214.40	578	146.31
Belton	64,401	17,287.97	30,051	12,020.40	34,350	5,267.57
Birdville	9,186	3,674.40	9,186	3,674.40	.....	.....
Blooming Grove	6,407	2,562.80	6,407	2,562.80	.....	.....
Bremond	3,473	1,389.20	3,473	1,389.20	.....	.....
Britton	1,424	516.62	968	387.20	456	129.42
Bryan	89,947	32,372.46	70,358	28,143.20	19,589	4,229.26
Buckholts	1,341	536.40	1,341	536.40	.....	.....
Buffalo Gap	574	229.60	574	229.60	.....	.....
Burleson	6,402	2,560.80	6,402	2,560.80	.....	.....
Caddo Mills	5,189	2,075.60	5,189	2,075.60	.....	.....

3295

Defendant's Exhibit No. 46—Continued

Statement of Gas Sales to Community Natural Gas Company—(Con.)

Twelve Months Ended December 31st, 1933

Western, Southern, and Eastern Towns

Town Plants	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Calvert	47,264	10,363.21	14,060	5,624.00	33,204	4,739.21
Campbell	3,772	1,102.38	2,061	824.40	1,711	277.98
Cameron	36,013	13,447.32	30,312	12,124.80	5,701	1,322.52
Cedar Hill	1,930	772.00	1,930	772.00	.....	.....
Celeste	7,017	2,806.80	7,017	2,806.80	.....	.....
Chilton	7,047	1,760.16	2,652	1,060.80	4,395	699.36
Clifton	11,886	4,604.02	10,458	4,183.20	1,428	420.82
Clyde	9,777	3,910.80	9,777	3,910.80	.....	.....
College Station	26,695	9,827.94	20,913	8,365.20	5,782	1,462.74
Colorado	50,856	18,771.05	41,955	16,782.00	8,901	1,989.05
Commerce	129,969	34,368.59	58,996	23,598.40	70,973	10,770.19
Coolidge	12,611	4,431.21	9,285	3,714.00	3,326	717.21
Cooper	21,037	7,414.80	21,037	8,414.80	.....	.....
Covington	6,983	1,704.98	2,409	963.60	4,574	741.38
Crandall	2,606	1,042.40	2,606	1,042.40	.....	.....
Cumby	4,320	1,696.60	4,049	1,619.60	271	77.00
Dawson	6,732	2,692.80	6,732	2,692.80	.....	.....
Duncanville	2,498	999.20	2,498	999.20	.....	.....
Eastland	66,571	25,771.35	60,872	24,348.80	5,699	1,422.55
Eddy	3,072	1,228.80	3,072	1,228.80	.....	.....
Elm Mott	1,345	538.00	1,345	538.00	.....	.....
[fol. 9748] Emhouse	3,335	$1,245.03	2,745	$1,098.00	590	$147.03

Enloe	1,110	444.00	1,110	444.00	.....	.....
Everman	5,442	1,613.37	3,070	1,228.00	2,372	385.37
Fairlie	868	347.20	868	347.20	.....	.....
Farmersville	46,172	14,153.48	29,034	11,613.60	17,138	2,539.88
Fate	2,201	880.40	2,201	880.40	.....	.....
Ferris	12,596	4,835.29	11,388	4,555.20	1,208	280.09
Forney	14,468	5,559.91	12,843	5,137.20	1,625	422.71
Forreston	2,485	994.00	2,485	994.00	.....	.....
Frost	7,783	2,985.84	6,796	2,718.40	987	267.44
Garland	27,897	9,703.12	19,707	7,882.80	8,190	1,820.32
Gatesville	95,543	21,875.69	32,432	12,972.80	63,111	8,902.89
Georgetown	61,398	17,436.67	32,674	13,069.60	28,724	4,367.07
Glen Rose	6,931	2,647.35	6,066	2,426.40	865	220.95
Godley	6,754	2,124.73	3,068	1,227.20	3,686	897.53
Gordon	3,368	1,347.20	3,368	1,347.20	.....	.....
Granbury	7,620	3,048.00	7,620	3,048.00	.....	.....
Grandview	15,886	5,285.17	11,115	4,446.00	4,771	839.17
Granger	10,573	4,158.86	9,794	3,917.60	779	241.26
Greenville	187,207	69,584.97	159,153	63,661.20	28,054	5,923.77
Grosebeck	49,991	9,537.66	10,456	4,182.40	39,535	5,355.26
Hamilton	29,265	9,688.21	19,583	7,833.20	9,682	1,855.01
Handley	25,094	10,037.60	25,094	10,037.60	.....	.....
Hearne	20,076	7,583.85	17,061	6,824.40	3,015	759.45
Holland	5,745	2,298.00	5,745	2,298.00	.....	.....
Hubbard	65,613	14,788.13	21,601	8,640.40	44,012	6,147.73
Hutchins	3,043	1,117.26	2,373	949.20	670	168.06
Hutto	3,468	1,387.20	3,468	1,387.20	.....	.....
Iredell	6,520	1,585.23	2,269	907.60	4,251	677.63
Italy	32,371	8,420.77	13,085	5,234.00	19,286	3,186.77
Itasca	40,525	11,848.00	21,912	8,764.80	18,613	3,083.20
Josephine	3,187	1,230.59	2,823	1,129.20	364	101.39

Defendant's Exhibit No. 46—Continued

Statement of Gas Sales to Community Natural Gas Company—(Con.)

Twelve Months Ended December 31st, 1933

Western, Southern, and Eastern Towns

Town Plants	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Joshua	4,587	1,834.80	4,587	1,834.80	.....	.....
Kaufman	26,653	9,552.23	19,478	7,791.20	7,175	1,761.03
Keene	10,120	3,452.13	7,152	2,860.80	2,968	591.33
Kemp	6,167	2,466.80	6,167	2,466.80	.....	.....
Kerens	17,627	5,916.61	12,949	5,179.60	4,678	737.01
Ladonia	8,411	3,364.40	8,411	3,364.40	.....	.....
Lancaster	11,913	4,765.20	11,913	4,765.20	.....	.....
Lawn	1,965	786.00	1,965	786.00	.....	.....
Lewis Poultry Colony	1,084	433.60	1,084	433.60	.....	.....
[fol. 9749] Lillian	2,973	$764.46	1,225	$490.00	1,748	$274.46
Little River	900	328.45	655	262.00	245	66.45
Loraine	10,269	3,167.15	6,161	2,464.40	4,108	702.75
Lorena	2,990	1,196.00	2,990	1,196.00	.....	.....
Lott	4,934	1,794.54	3,892	1,556.80	1,042	237.74
Mabank	5,470	2,188.00	5,470	2,188.00	.....	.....
Malakoff	23,861	4,343.71	5,198	2,079.20	18,663	2,264.51
Malone	3,303	1,321.20	3,303	1,321.20	.....	.....
Mansfield	10,657	3,672.63	7,842	3,136.80	2,815	535.83
Marlin	157,748	36,320.23	48,213	19,285.20	109,535	17,035.03
Mart	51,799	15,944.57	32,040	12,816.00	19,759	3,128.57
Maypearl	10,796	2,815.31	4,480	1,792.00	6,316	1,023.31
McGregor	13,623	5,267.51	12,031	4,812.40	1,592	455.11

Meridian	6,397	2,558.80	6,397	2,558.80	.....	.....
Merkel	18,815	7,228.42	16,595	6,638.00	2,220	590.42
Mesquite	10,498	4,199.20	10,498	4,199.20	.....	.....
Mexia	138,541	36,206.79	63,924	25,569.60	74,617	10,637.19
Midlothian	14,946	5,210.50	11,578	4,631.20	3,368	579.30
Milford	6,000	2,319.85	5,421	2,168.40	579	151.45
Moody	7,719	3,083.64	7,675	3,070.00	44	13.64
Moran	11,312	4,521.23	11,298	4,519.20	14	2.03
Morgan	2,152	860.80	2,152	860.80	.....	.....
Nevada	5,803	2,105.95	4,418	1,767.20	1,385	338.75
Oak Lawn	16,328	6,531.20	16,328	6,531.20	.....	.....
Oglesby	6,570	1,715.91	2,831	1,132.40	3,739	583.51
Osceola	832	332.80	832	332.80	.....	.....
Ovalo	1,016	406.40	1,016	406.40	.....	.....
Palmer	6,532	2,612.80	6,532	2,612.80	.....	.....
Pecan Gap	2,962	1,184.80	2,962	1,184.80	.....	.....
Penelope	2,819	1,127.60	2,819	1,127.60	.....	.....
Peniel	1,610	644.00	1,610	644.00	.....	.....
Plano	16,342	6,455.49	15,745	6,298.00	597	157.49
Powell	915	366.00	915	366.00	.....	.....
Putnam	8,730	2,898.11	6,401	2,560.40	2,329	337.71
Regan	5,239	1,267.76	1,820	728.00	3,419	539.76
Reisel	2,106	842.40	2,106	842 40	.....	.....
Richardson	7,753	3,020.39	7,214	2,885.60	539	134.79
Richland	2,984	1,193.60	2,984	1,193.60	.....	.....
Rockdale	13,786	5,409.53	13,081	5,232.40	705	177.13
Rockwall	13,415	5,349.42	13,231	5,292.40	184	57.02
Rogers	12,796	3,956.02	7,875	3,150.00	4,921	806.02
Roscoe	10,252	4,100.80	10,252	4,100.80	.....	.....
Rosebud	26,996	6,602.89	10,518	4,207.20	16,478	2,395.69
Round Rock	8,941	3,047.59	6,028	2,411.20	2,913	636.39

Defendant's Exhibit No. 46—Continued

[fol. 9750]

Statement of Gas Sales to Community Natural Gas Company—Continued

Twelve Months Ended December 31st, 1933

Western, Southern, and Eastern Towns

	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Rowlett	1,805	$ 722.00	1,805	$ 722.00	.....	.....
Royce City	15,961	6,315.02	15,400	6,160.00	561	$ 155.02
Scurry	628	251.20	628	251.20	.....	.....
Seagoville	2,339	935.60	2,339	935.60	.....	.....
Snyder	32,681	12,369.60	28,535	11,414.00	4,146	955.60
Strawn	17,335	6,828.77	16,846	6,738.40	489	90.37
Streetman	1,327	530.80	1,327	530.80	.....	.....
Sulphur Springs	114,106	29,981.30	54,109	21,643.60	59,997	8,337.70
Sweetwater	116,542	44,060.02	102,053	40,821.20	14,489	3,247.82
Talpa	2,746	1,098.40	2,746	1,098.40	.....	.....
Taylor	70,478	25,985.46	58,155	23,262.00	12,323	2,723.46
Teague	39,362	11,783.03	22,806	9,122.40	16,556	2,660.63
Tahaucana	2,216	810.81	1,685	674.00	531	136.81
Temple	179,840	65,182.12	145,950	58,380.00	33,890	6,802.12
Terrell	170,729	41,451.44	65,020	26,008.00	105,709	15,443 44
Trent	2,614	1,045.60	2,614	1,045.60	.....	.....
Troy	3,739	1,495.60	3,739	1,495.60	.....	.....
Tuscola	2,484	993.60	2,484	993.60	.....	.....
Urbandale	4,606	1,842.40	4,606	1,842.40	.....	.....
Valera	1,747	698.80	1,747	698.80	.....	.....
Valley Mills	5,103	2,041.20	5,103	2,041.20	.....	.....

Venus	5,052	2,020.80	5,052	2,020.80	.....	.....
Walnut Springs	10,937	2,860.68	4,711	1,884.40	6,226	976.28
West	35,141	10,650.89	21,421	8,568.40	13,720	2,082.49
Whitney	7,373	2,870.20	6,743	2,697.20	630	173.00
Wilmer	3,315	1,326.00	3,315	1,326.00	.....	.....
Winters	32,590	11,415.96	25,201	10,080.40	7,389	1,335.56
Wolfe City	9,390	3,580.06	8,178	3,271.20	1,212	308.86
Wortham	10,381	4,152.40	10,381	4,152.40	.....	.....
Wylie	5,444	2,177.60	5,444	2,177.60	.....	.....
Cisco	78,869	29,614.95	69,470	27,230.31	9,399	2,384.64
Buckners	37,826	7,919.07	8,574	3,429.60	29,252	4,489.47
Total	4,007,925	$1,291,141.13	2,649,968	$1,068,468.32	1,357,957	$222,672.81
Right-of-Way:						
R—System	1,163	465.12	1,163	465.12	.....	.....
K—System	3,750	937.54	1,825	637.41	1,925	300.13
M—System	77,452	13,839.18	10,624	4,160.37	66,828	9,678.81
J—System	20,242	8,037.96	20,242	8,037.96	.....	.....
O—System	180,986	28,180.76	16,535	6,577.24	164,451	21,603.52
L—System	1,380	542.16	1,380	542.16	.....	.....
Gordon	5,892	1,893.86	5,892	1,893.86	.....	.....
Abilene	94,182	13,905.42	5,653	2,245.29	88,529	11,660.13
Waco	530,105	55,864.44	11,498	4,570.56	518,607	51,293.88
Ranger	12,301	4,192.53	12,301	4,192.53	.....	.....
Total R. of W.	927,453	$127,858.97	87,113	$33,322.50	840,340	$94,536.47
Grand Total	4,935,378	$1,419,000.10	2,737,081	$1,101,790.82	2,198,297	$317,209.28

Defendant's Exhibit No. 46—Continued

[fol. 9751]

Statement of Gas Sales to Municipal Gas Company

Twelve Months Ended December 31st, 1933

	Total		Domestic		Industrial	
A—System:	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Iowa Park	13,229	$ 4,739.02	10,313	$ 4,125.20	2,916	$ 613.82
Iowa Park Road	11,312	4,508.08	11,166	4,466.40	146	41.68
Wichita Falls	672,149	255,881.13	603,260	241,304.00	68,889	14,577.13
Total	696,690	$265,128.23	624,739	$249,895.60	71,951	$ 15,232.63
B—System:						
Bellevue	9,634	$ 3,439.06	7,912	$ 3,164.80	1,722	$ 274.26
Bowie	62,654	21,148.67	47,132	18,852.80	15,522	2,295.87
Sunset	3,112	1,244.80	3,112	1,244.80	.....	.....
Alvord	11,618	4,302.52	10,143	4,057.20	1,475	245.32
Decatur	60,182	17,463.67	33,736	13,494.40	26,446	3,969.27
Bridgeport	14,732	5,892.80	14,732	5,892.80	.....	.....
Total	161,932	$ 53,491.52	116,767	$ 46,706.80	45,165	$ 6,784.72
E—System:						
Denison	254,998	$ 84,848.35	178,461	$ 71,384.40	76,537	$ 13,463.95
Sherman	481,959	128,475.68	219,359	87,743.60	262,600	40,732.08
Whitesboro	27,679	8,805.13	16,457	6,582.80	11,222	2,222.33
Total	764,636	$222,129.16	414,277	$165,710.80	350,359	$ 56,418.36

F—System:						
Denton	401,783	$108,707.89	193,732	$ 77,492.80	208,051	$ 31,215.09
McKinney	162,520	52,623.21	108,301	43,320.40	54,219	9,302.81
Total	564,303	$161,331.10	302,033	$120,813.20	262,270	$ 40,517.90
H—System:						
Byers	12,181	$ 4,131.82	8,656	$ 3,462.40	3,525	$ 669.42
Petrolia	11,604	4,589.61	11,258	4,502.20	346	87.41
Total	23,785	$ 8,721.43	19,914	$ 7,964.60	3,871	$ 756.83
Southern Towns:						
Cleburne	230,474	$ 66,399.03	124,712	$ 49,885.80	105,762	$ 16,513.23
Corsicana	273,826	89,748.29	183,723	73,489.20	90,103	16,259.09
Ennis	208,559	49,943.67	78,034	31,213.60	130,525	18,730.07
Hillsboro	147,553	42,983.38	76,433	30,573.20	71,120	12,410.18
Waxahachie	130,493	31,077.43	44,538	17,815.20	85,955	13,262.23
Total	990,905	$280,151.80	507,440	$202,977.00	483,465	$ 77,174.80

Defendant's Exhibit No. 46—Continued

[fol. 9752]

Detailed Calculations Showing Allocation of Sales in Area "C" to "D" Operations and "E" Operations

	Total		Domestic		Industrial	
B—System—Distribution:	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Municipal Gas Company	161,932	$ 53,491.52	116,767	$ 46,706.80	45,165	$ 6,784.72
Community Natural Gas Company.	46,593	18,109.51	44,123	17,542.70	2,470	566.81
Total Sales	208,525	$ 71,601.03	160,890	$ 64,249.50	47,635	$ 7,351.53
Division as shown in Schmidt-Connor report,—Page 44:						
"D" Operations			14.70%		17.30%	
"E" Operations			85.30%		82.70%	
Total			100.00%		100.00%	
Allocation:						
Municipal Gas Company:						
"D" Operations	24,992	$ 8,047.88	17,165	$ 6,866.00	7,827	$ 1,181.88
"E" Operations	136,940	45,443.64	99,602	39,840.80	37,338	5,602.84
Total	161,932	$ 53,491.52	116,767	$ 46,706.80	45,165	$ 6,784.72
Community Natural Gas Co.:						
"D" Operations	6,913	$ 2,692.18	6,486	$ 2,594.40	427	$ 97.78
"E" Operations	39,680	15,417.33	37,637	14,948.30	2,043	469.03
Total	46,593	$ 18,109.51	44,123	$ 17,542.70	2,470	$ 566.81

C—System—Distribution:						
Community Natural Gas Company.	21,812	$ 8,073.26	17,073	$ 6,734.47	4,739	$ 1,338.79
Division shown in Schmidt-Connor report—Page 48:						
"D" Operations			76.70%		85.30%	
"E" Operations			23.30%		14.70%	
Total			100.00%		100.00%	
Allocation:						
Community Natural Gas Company:						
"D" Operations	17,137	$ 6,307.04	13,095	$ 5,165.15	4,042	$ 1,141.89
"E" Operations	4,675	1,766.22	3,978	1,569.32	697	196.90
Total	21,812	$ 8,073.26	17,073	$ 6,734.47	4,739	$ 1,338.79
[fol. 9753]						
E—System—Distribution:						
Community Natural Gas Company.	517,314	$168,237.78	344,076	$137,599.21	173,238	$ 30,638.57
Less—Oklahoma Sales	236,290	72,694.76	143,125	57,250.00	93,165	15,444.76
Balance—Texas Sales	281,024	$ 95,543.02	200,951	$ 80,349.21	80,073	$ 15,193.81
Texas Cities Gas Company	253,761	84,613.79	173,866	69,546.16	79,895	15,067.63
Municipal Gas Company	764,636	222,129.16	414,277	165,710.80	350,359	56,418.36
Total	1,299,421	$402,285.97	789,094	$315,606.17	510,327	$ 86,679.80

Defendant's Exhibit No. 46—Continued

Detailed Calculations Showing Allocation of Sales in Area "C" to "D" Operations and "E" Operations

Division shown in Schmidt-Connor Report—Page 44:	Total		Domestic		Industrial	
	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
"D" Operations			59.68%		66.75%	
"E" Operations			40.32%		33.25%	
Total			100.00%		100.00%	
Allocation:						
Community Natural Gas Co.:						
"D" Operations	173,396	$ 58,076.44	119,927	$ 47,970.80	53,469	$ 10,105.64
"E" Operations	107,628	37,466.58	81,024	32,378.41	26,604	5,088.17
Total	281,024	$ 95,543.02	200,951	$ 80,349.21	80,073	$ 15,193.81
Texas Cities Gas Company:						
"D" Operations	157,115	$ 51,535.38	103,763	$ 41,505.20	53,352	$ 10,030.18
"E" Operations	96,646	33,078.41	70,103	28,040.96	26,543	5,037.45
Total	253,761	$ 84,613.79	173,866	$ 69,546.16	79,895	$ 15,067.63
Municipal Gas Company:						
"D" Operations	481,199	$136,563.64	247,241	$ 98,896.40	233,958	$ 37,667.24
"E" Operations	283,437	85,565.52	167,036	66,814.40	116,401	18,751.12
Total	764,636	$222,129.16	414,277	$165,710.80	350,359	$ 56,418.36

[fol. 9754] F—System—Distribution:

Community Natural Gas Company.	108,614	$ 41,020.46	94,048	$ 37,586.18	14,566	$ 3,434.28
Municipal Gas Company.....	564,303	161,331.10	302,033	120,813.20	262,270	40,517.90
Total.....	672,917	$202,351.56	396,081	$158,399.38	276,836	$ 43,952.18

Division shown in Schmidt-Connor Report—Page 44:						
"D" Operations.....			76.70%		83.70%	
"E" Operations.....			23.30%		16.30%	
Total.....			100.00%		100.00%	
Allocation:						
Community Natural Gas Co.:						
"D" Operations.....	84,327	$ 31,690.25	72,135	$ 28,820.98	12,192	$ 2,869.27
"E" Operations.....	24,287	9,330.21	21,913	8,765.20	2,374	565.01
Total.....	108,614	$ 41,020.46	94,048	$ 37,586.18	14,566	$ 3,434.28
Municipal Gas Company:						
"D" Operations.....	450,968	$126,544.03	231,659	$ 92,663.60	219,309	$ 33,880.43
"E" Operations.....	113,335	34,787.07	70,374	28,149.60	42,961	6,637.47
Total.....	564,303	$161,331.10	302,033	$120,813.20	262,270	$ 40,517.90

Defendant's Exhibit No. 46—Continued

Detailed Calculations Showing Allocation of Sales in Area "C" to "D" Operations and "E" Operations

	Total		Domestic		Industrial	
Line G-3 System Including Gainesville:	M Cu. Ft.	Amount	M Cu. Ft.	Amount	M Cu. Ft.	Amount
Community Natural Gas Company.	18,952	$ 6,235.89	12,818	$ 5,127.20	6,134	$ 1,108.69
Gainesville Gas & Elec. Co.....	224,168	69,081.68	138,820	55,528.00	85,348	13,553.68
Total.....	243,120	$ 75,317.57	151,638	$ 60,655.20	91,482	$ 14,662.37
Division Shown in Schmidt-Connor Report—Page 51:						
"D" Operations.....			77.15%		82.80%	
"E" Operations.....			22.85%		17.20%	
Total.....			100.00%		100.00%	
Allocation:						
Community Natural Gas Co.:						
"D" Operations.....	14,968	$ 4,873.61	9,889	$ 3,955.60	5,079	$ 918.01
"E" Operations.....	3,984	1,362.28	2,929	1,171.60	1,055	190.68
Total.....	18,952	$ 6,235.89	12,818	$ 5,127.20	6,134	$ 1,108.69
Gainesville Gas & Elec. Co.:						
"D" Operations.....	177,768	$ 54,062.50	107,100	$ 42,840.00	70,668	$ 11,222.50
"E" Operations.....	46,400	15,019.18	31,720	12,688.00	14,680	2,331.18
Total.....	224,168	$ 69,081.68	138,820	$ 55,528.00	85,348	$ 13,553.68

Defendant's Exhibit No. 46—Continued

[fol. 9755] Gas Purchased, Operating Expenses

Cancelled and Surrendered Leases, and Taxes

[fol. 9756] Gas Purchased

Twelve Months Ended December 31st, 1933

Total Gas Purchased		$1,086,587.44
Gas Purchased — Petrolia Field	$1,161.72	
Gas Purchased—West Texas Field	969,079.16	
Total	$970,240.88	
Less:		
West Texas gas sold in Oklahoma through "E" System	8,212.20	
		962,028.68
Balance—Panhandle and Oklahoma Fields		$124,558.76
Applicable to "D" Operations		$962,028.68
Applicable to "E" Operations		124,558.76

(Here follows one paster, side folios 9757 to 9758.)

BLANK

PAGE

Defendant's Exhibit No. 46—Continued

[fol. 9757]

Statement of Operating Expenses

Twelve Months Ended December 31st, 1933

	Total	Applicable to Area "A"	Area "B"	Area "C"	Applicable to "D" Operations % of Area "C"	"D" Amount	Applicable to "E" Operations % of Area "C"	"E" Amount
Production System Expenses:								
Well Rentals & Royalties	$45,441.54	$30,590.81	$14,850.73			$30,590.81		$14,850.73
Other Prod. System Expenses:								
Petrolia District	19,576.05	19,576.05				19,576.05		
West Texas District	26,789.83	26,789.83				26,789.83		
Shamrock District	2,732.20		2,732.20					2,732.20
Oklahoma District	11,015.24		11,015.24					11,015.24
Total	$105,554.86	$76,956.69	$28,598.17			$76,956.69		$28,598.17
Gathering System Expense:								
Petrolia District	$6,291.78	$6,291.78				$6,291.78		
Oklahoma District	35,062.89		35,062.89					35,062.89
Gordon District	32,317.95	32,317.95				32,317.95		
Gainesville District	104.64	104.64				104.64		
Ranger District	29,922.90	29,922.90				29,922.90		
Shamrock District	26,195.16		26,195.16					26,195.16
Coleman District	1,390.95	1,390.95				1,390.95		
Waco District	40.02	40.02				40.02		
Total	$131,326.29	$70,068.24	$61,258.05			$70,068.24		$61,258.05
Transmission System Expense:								
Petrolia District	$22,585.04		$18,292.85	$4,292.19	22.17	$951.58	77.83	$18,292.85 3,340.61
Ft. Worth District	38,496.63	$2,073.54	21,919.68	14,503.41	30.45	2,073.54 4,416.29	69.55	21,919.68 10,087.12
Dallas District	49,790.37	33,408.86		16,381.51	81.69	33,408.86 13,382.05	18.31	2,999.46
Oklahoma District	47,189.29		47,189.29					47,189.29
Gordon District	26,255.37	26,255.37				26,255.37		
Gainesville District	38,701.53		7,244.99	31,456.54	74.01	23,280.99	25.99	7,244.99 8,175.55
Joshua District	45,716.64	45,716.64				45,716.64		
Richland District	23,726.33	23,726.33				23,726.33		
Ranger District	60,502.39	60,502.39				60,502.39		
Vernon District	22,721.04		22,721.04					22,721.04
Shamrock District	9,529.27		9,529.27					9,529.27
Abilene District	10,746.18	10,746.18				10,746.18		
Coleman District	4,196.49	4,196.49				4,196.49		
Waco District	31,363.99	31,363.99				31,363.99		
Total	$431,520.56	$237,989.79	$126,897.12	$66,633.65		$280,020.70		$151,499.86

[fol. 9758]

Compressor Station Expense:								
Petrolia	$70,585.91			$70,585.91	32.48	$22,926.30	67.52	$47,659.61
Gas City	17,851.75		$17,851.75					17,851.75
Sipe Springs	5,817.65	$5,817.65				5,817.65		
Fox	13,297.22		13,297.22					13,297.22
Loco	3,587.75		3,587.75					3,587.75
Gainesville	7,081.74			7,081.74	64.41	4,561.34	35.59	2,520.40
Brad	1,047.64	1,047.64				1,047.64		
Brazos	2,392.87	2,392.87				2,392.87		
Ranger	57,580.90	57,580.90				57,580.90		
Ibex	13,995.16	13,995.16				13,995.16		
Joshua	61,817.06	61,817.06				61,817.06		
X Ray	740.94	740.94				740.94		
Desdemona	7,832.15	7,832.15				7,832.15		
Breckenridge	27,358.44	27,358.44				27,358.44		
Caddo	13,309.85	13,309.85				13,309.85		
Eastland	13,603.58	13,603.58				13,603.58		
Cheaney	11,657.07	11,657.07				11,657.07		
Tiffin	7,569.06	7,569.06				7,569.06		
Alvord	192.17	192.17				192.17		
Pueblo	1,114.10	1,114.10				1,114.10		
Total	$338,433.01	$226,028.64	$34,736.72	$77,667.65		$253,516.28		$84,916.73
New Business Expense	$99,793.94			$99,793.94	64.22	$64,087.66	35.78	$35,706.28
General Expenses	$859,234.88			$859,234.88	64.22	$551,798.64	35.78	$307,436.24

Summary

Production System Expense	$105,554.86	$76,956.69	$28,598.17			$76,956.69		$28,598.17
Gathering System Expense	131,326.29	70,068.24	61,258.05			70,068.24		61,258.05
Transmission System Expense	431,520.56	237,989.79	126,897.12	$66,633.65		280,020.70		151,499.86
Compressor Station Expense	338,433.01	226,028.64	34,736.72	77,667.65		253,516.28		84,916.73
New Business Expense	99,793.94			99,793.94		64,087.66		35,706.28
General Expense	859,234.88			859,234.88		551,798.64		307,436.24
Total Gas Expense	$1,965,863.54	$611,043.36	$251,490.06	$1,103,330.12		$1,296,448.21		$669,415.33

BLANK

PAGE

Defendant's Exhibit No. 46—Continued

[fol. 9759] Statement of Cancelled and Surrendered Leases

Twelve Months Ended December 31st, 1933

		Applicable to	
Texas Counties:	Total	"D" Operations	"E" Operations
Eastland and Stephens	$ 16,978.50	$ 16,978.50	.....
Stephens	66,175.27	66,175.27	.....
Shackleford	908.88	908.88	.....
Erath	27.25†	27.25†	.....
Palo Pinto	9,137.01	9,137.01	.....
Gray	5,122.75	.....	$ 5,122.75
Wheeler	41,321.74	.....	41,321.74
Commanche	2,141.75	2,141.75	.....
Eastland	19,685.11	19,685.11	.....
Callahan	4,189.56	4,189.56	.....
Walker	13,416.55	13,416.55	.....
Total	$179,049.87	$132,605.38	$46,444.49
Oklahoma Counties:			
Grady	$ 1,980.24	.....	$ 1,980.24
Pittsburgh	1,996.87	.....	1,996.87
Jefferson	247.33	.....	247.33
Beckham	1,488.50	.....	1,488.50
Washita	763.70	.....	763.70
Stephens	3,103.41	.....	3,103.41
Total	$ 9,580.05	.....	$ 9,580.05
Grand Total	$188,629.92	$132,605.38	$56,024.54

Defendant's Exhibit No. 46—Continued

[fol. 9760]

Statement of Taxes—(Other than Federal)

For Year 1933

	Total	Applicable to Area "A"	Applicable to Area "B"	Applicable to Area "C"	Applicable to "D" Operations Percent	Applicable to "D" Operations Amount	Applicable to "E" Operations Percent	Applicable to "E" Operations Amount
Production System Property:								
Gas Producing Properties:								
Wheeler County, Texas	$7,040.47		$7,040.47					$7,040.47
Clay County, Texas	1,977.91	$1,977.91				$1,977.91		
Comanche County, Texas	81.41	81.41				81.41		
Eastland County, Texas	4,849.29	4,849.29				4,849.29		
Erath County, Texas	78.45	78.45				78.45		
Palo Pinto County, Texas	61.70	61.70				61.70		
Shackelford County, Texas	52.20	52.20				52.20		
Stephens County, Texas	805.94	805.94				805.94		
Total	$14,947.37	$7,906.90	$7,040.47			$7,906.90		$7,040.47
Undeveloped Leaseholds:								
Callahan County, Texas	$31.36	$31.36				$31.36		
Carson County, Texas	706.08		$706.08					$706.08
Comanche County, Texas	30.19	30.19				30.19		
Eastland County, Texas	482.56	482.56				482.56		
Gray County, Texas	475.57		475.57					475.57
Grimes County, Texas	5.44	5.44				5.44		
Limestone County, Texas	18.80	18.80				18.80		
Palo Pinto County, Texas	153.36	153.36				153.36		
Runnells County, Texas	14.34	14.34				14.34		
San Jacinto County, Texas	73.44	73.44				73.44		
Shackelford County, Texas	126.36	126.36				126.36		
Stephens County, Texas	306.70	306.70				306.70		
Walker County, Texas	101.61	101.61				101.61		
Wheeler County, Texas	536.61		536.61					536.61
Young County, Texas	8.61	8.61				8.61		
Total	$3,071.03	$1,352.77	$1,718.26			$1,352.77		$1,718.26
Total Production System	$18,018.40	$9,259.67	$8,758.73			$9,259.67		$8,758.73

[fol. 9761]

Gathering and Transmission:								
System Property:								
A—System	$19,416.14		$19,416.14					$19,416.14
B—System (Exc'l. of 20")	3,768.25			$3,768.25	22.17	$835.42	77.83	2,932.83
B—System (20")	12,632.43		12,632.43					12,632.43
C—System	3,229.36			3,229.36	75.21	2,428.80	24.79	800.56
E—System (Exc. of E-5 & E-16)	12,027.79			12,027.79	69.40	8,347.29	30.60	3,680.50
E—System (E-5 and E-16)	3,640.35		3,640.35					3,640.35
F—System	7,424.26			7,424.26	83.13	6,171.79	16.87	1,252.47
G—System (Exc. of G-3)	22,118.61		21,946.31	172.30	83.13	143.23	16.87	21,946.31 29.07
G-3—System	258.19			258.19	83.13	214.63	16.87	43.56
H—System	21,210.79		21,210.79					21,210.79
J—System (Exc. of J-2)	3,487.02	$3,487.02				3,487.02		
J-2—System	1,099.53			1,099.53	93.32	1,026.08	6.68	73.45
K—System	15,064.90	15,064.90				15,064.90		
L—System	22,313.65	22,313.65				22,313.65		
M—System	9,879.37	9,879.37				9,879.37		
O—System	21,706.53	21,706.53				21,706.53		
R—System	3,582.77	3,582.77				3,582.77		
West Texas Lines—Not Detailed	35,724.21	35,724.21				35,724.21		
Petrolia Field Lines	984.04	984.04				984.04		
Wheeler Co. Lines—Not Detailed	5,242.01		5,242.01					5,242.01
Total	$224,810.20	$112,742.49	$84,088.03	$27,979.68		$181,909.73		$92,900.47

[fol. 9762]

Compressor Stations:								
Fox	$1,900.86		$1,900.86					$1,900.86
Pernell	38.40		38.40					38.40
Loco	1,179.90		1,179.90					1,179.90
Gas City	2,306.38		2,306.38					2,306.38
Oil City	75.66		75.66					75.66
Petrolia	7,548.48			$7,548.48	32.48	$2,451.75	67.52	5,096.73
Sipe Springs	978.34	$978.34				978.34		
Joshua	4,574.25	4,574.25				4,574.25		
Desdemona	367.20	367.20				367.20		
Eastland	739.67	739.67				739.67		
Cheaney	867.82	867.82				867.82		
Ranger No. 1	1,042.06	1,042.06				1,042.06		
Ranger No. 2	745.14	745.14				745.14		
Ranger No. 3	2,379.27	2,379.27				2,379.27		
Ranger No. 4	1,228.90	1,228.90				1,228.90		
Pueblo	640.80	640.80				640.80		
Brazos	206.28	206.28				206.28		
Brad	604.67	604.67				604.67		
Moran	170.01	170.01				170.01		
Ibex	1,380.99	1,380.99				1,380.99		
X Ray	165.09	165.09				165.09		
Caddo	1,981.04	1,981.04				1,981.04		
Tiffin	198.90	198.90				198.90		
Breckenridge	3,149.93	3,149.93				3,149.93		
Gainesville	338.62			338.62	83.13	281.50	16.87	57.12
Alvord	26.70	26.70				26.70		
Total	$34,835.36	$21,447.06	$5,501.20	$7,887.10		$24,180.31		$10,655.05

Miscellaneous Property:

[fol. 9763]

Miscellaneous Taxes:								
Gross Production Tax—Okla.	$1,102.08	.....	$1,102.08	.....	.....	.....	.....	$1,102.08
Gross Production Tax—Texas	3,911.56	.....	.....	$3,911.56	.....	$2,872.91	.....	1,038.65
Foreign Corporation License—Okla.	3,279.57	.....	3,279.57	.....	.....	.....	.....	3,279.57
Oklahoma Sales Tax—Gas	.33	.....	.33	.....	.....	.....	.....	.33
Oklahoma Sales Tax—Electric	.08	.....	.08	.....	.....	.....	.....	.08
Gross Receipts Tax—Texas	19,408.10	.....	.....	19,408.10	78.20	15,177.13	21.80	4,230.97
Franchise Tax—Texas	17,179.05	.....	.....	17,179.05	78.20	13,434.02	21.80	3,745.03
Permit Fee—Texas	.97	.....	.....	.97	78.20	.77	21.80	.20
Federal Electric Tax	.35	.....	.....	.35	78.20	.27	21.80	.08
Automobile License Taxes	4,539.73	.....	.....	4,539.73	64.22	2,915.41	35.78	1,624.32
Federal Capital Stock Tax	20,226.49	.....	.....	20,226.49	64.22	12,989.35	35.78	7,237.14
Federal Tax on Checks	922.22	.....	.....	922.22	64.22	592.25	35.78	329.97
Total	$70,570.53	.....	$4,382.06	$66,188.47	.....	$47,982.11	.....	$22,588.42

Summary

Advalorem Taxes:								
Production System Property	$18,018.40	$9,259.67	$8,758.73	.....	.....	$9,259.67	.....	$8,758.73
Gathering and Transmission System Property	224,810.20	112,742.49	84,088.03	$27,979.68	.....	131,909.73	.....	92,900.47
Compressor Station Property	34,835.36	21,447.06	5,501.20	7,887.10	.....	24,180.31	.....	10,655.05
Miscellaneous Property	12,242.42	.....	.....	12,242.42	.....	7,861.08	.....	4,381.34
Total	$289,906.38	$143,449.22	$98,347.96	$48,109.20	.....	$173,210.79	.....	$116,695.59
Miscellaneous Taxes	70,570.53	.....	4,382.06	66,188.47	.....	47,982.11	.....	22,588.42
Grand Total	$360,476.91	$143,449.22	$102,730.02	$114,297.67	.....	$221,192.90	.....	$139,284.01

Defendant's Exhibit No. 46– Continued

[fols. 9764-9765]

Property Accounts

Statement of Property Account

Actual Cost as Reflected by Books at December 31st, 1933

Classification of Property	Total	Applicable to Area "A"	Applicable to Area "B"	Applicable to Area "C"	Applicable to "D" Operations % of Area "C"	Applicable to "D" Operations Amount	Applicable to "E" Operations % of Area "C"	Applicable to "E" Operations Amount
Production System Property:								
Undeveloped Leaseholds	$1,032,490.06	$479,758.70	$552,731.36	$.....	.....	$479,758.70	.....	$552,731.36
Gas Rights	22,436.48	8,934.48	13,502.00	.....	.....	8,934.48	.....	13,502.00
Mineral Rights	66,771.61	9,883.00	56,888.61	.....	.....	9,883.00	.....	56,888.61
Clay County Lands in Fee	38,010.70	38,010.70	.....	.....	.....	38,010.70	.....	.....
Limestone Co. Lands in Fee	3,003.00	3,003.00	.....	.....	.....	3,003.00	.....	.....
Brady Co., Okla. Lands in Fee	254.23	.....	254.23	.....	.....	.....	.....	254.23
Stephens Co. Okla. Lands in Fee	10,878.27	.....	10,878.27	.....	.....	.....	.....	10,878.27
Gas Producing Properties	4,234,436.50	2,417,110.53	1,817,325.97	.....	.....	2,417,110.53	.....	1,817,325.97
Total	$5,408,280.85	$2,956,700.41	$2,451,580.44	$.....	.....	$2,956,700.41	.....	$2,451,580.44
Gathering System Property:								
Mineral Wells Field	$920.57	$920.57	$.....	$.....	.....	$920.57	.....	$.....
Panhandle Field	171,743.71	.....	271,743.71	.....	.....	.....	.....	271,743.71
Petrolia Field	238,759.38	238,759.38	.....	.....	.....	238,759.38	.....	.....
Pottsboro Field	3,723.12	3,723.12	.....	.....	.....	3,723.12	.....	.....
South Texas Field	6,878.66	6,878.66	.....	.....	.....	6,878.66	.....	.....
West Texas Field	582,830.12	582,830.12	.....	.....	.....	582,830.12	.....	.....
Oklahoma Field	373,326.79	.....	373,326.79	.....	.....	.....	.....	373,326.79
Total	$1,478,182.35	$833,111.85	$645,070.50	$.....	.....	$833,111.85	.....	$645,070.50
Transmission System Property:								
A—System	$4,354,536.91	$.....	$4,354,536.91	$.....	.....	$.....	.....	$4,354,536.91
B—System	3,227,475.35	.....	1,979,476.54	1,247,998.81	22.17	276,681.34	77.83	1,979,476.54 971,317.47
C—System (Exc. of C-2)	533,872.58	.....	.....	533,872.58	75.21	401,525.57	24.79	132,347.01
C2—System	42,959.79	.....	.....	42,959.79	82.63	35,497.67	17.37	7,462.12
E—System	1,942,107.63	.....	357,705.22	1,584,402.41	69.40	1,099,575.27	30.60	357,705.22 484,827.14
F—System	839,715.21	.....	.....	839,715.21	83.13	698,055.25	16.87	141,659.96
G—System	2,213,803.07	.....	2,065,875.20	147,927.87	83.13	122,972.44	16.87	2,065,875.20 24,955.43
H—System	2,141,440.61	.....	2,141,440.61	.....	.....	.....	.....	2,141,440.61
J—System—(Exc. of J-2)	549,851.87	549,851.87	.....	.....	.....	549,851.87	.....	.....
J2—System	184,649.22	.....	.....	184,649.22	93.32	172,314.65	6.68	12,334.57
K—System	6,247,217.96	6,247,217.96	.....	.....	.....	6,247,217.96	.....	.....
L—System	3,649,833.33	3,649,833.33	.....	.....	.....	3,649,833.33	.....	.....
M—System	1,830,568.40	1,830,568.40	.....	.....	.....	1,830,568.40	.....	.....
O—System	5,770,250.76	5,770,250.76	.....	.....	.....	5,770,250.76	.....	.....
R—System	711,080.53	711,080.53	.....	.....	.....	711,080.53	.....	.....
Miscellaneous—West Texas	563,662.43	563,662.43	.....	.....	.....	563,662.43	.....	.....
Numbered System	1,432,526.26	1,432,526.26	.....	.....	.....	1,432,526.26	.....	.....
Total	$36,235,551.91	$20,754,991.54	$10,899,034.48	$4,581,525.89	.....	$23,561,613.73	.....	$12,673,938.18
[fol. 9766]								
Compressor Station Property:								
Petrolia	$826,223.21	$268,357.30	$557,865.91	$.....	.....	$268,357.30	.....	$557,865.91
Gas City	296,874.31	.....	296,874.31	.....	.....	.....	.....	296,874.31
Sipe Springs	175,928.07	175,928.07	.....	.....	.....	175,928.07	.....	.....
Fox	428,500.17	.....	428,500.17	.....	.....	.....	.....	428,500.17
Loco	173,079.37	.....	173,079.37	.....	.....	.....	.....	173,079.37
Gainesville	65,892.18	.....	.....	65,892.18	83.13	57,776.17	16.87	8,116.01
Brad	174,184.45	174,184.45	.....	.....	.....	174,184.45	.....	.....
Brazos	55,996.80	55,996.80	.....	.....	.....	55,996.80	.....	.....
Ibex	257,331.69	257,331.69	.....	.....	.....	257,331.69	.....	.....
Joshua	528,293.65	528,293.65	.....	.....	.....	528,293.65	.....	.....
X-Ray	78,018.84	78,018.84	.....	.....	.....	78,018.84	.....	.....
Desdemona	95,079.12	95,079.12	.....	.....	.....	95,079.12	.....	.....
Breckenridge	318,670.57	318,670.57	.....	.....	.....	318,670.57	.....	.....
Caddo	293,334.49	293,334.49	.....	.....	.....	293,334.49	.....	.....
Eastland	155,008.68	155,008.68	.....	.....	.....	155,008.68	.....	.....
Cheaney	132,827.83	132,827.83	.....	.....	.....	132,827.83	.....	.....
Tiffin	30,584.55	30,584.55	.....	.....	.....	30,584.55	.....	.....
Alvord	16,716.48	16,716.48	.....	.....	.....	16,716.48	.....	.....
Pueblo	76,684.49	76,684.49	.....	.....	.....	76,684.49	.....	.....
T. P. U.	4,317.56	4,317.56	.....	.....	.....	4,317.56	.....	.....
Moran	82,093.74	82,093.74	.....	.....	.....	82,093.74	.....	.....
Ranger No. 1	154,633.89	154,633.89	.....	.....	.....	154,633.89	.....	.....
Ranger No. 2	134,905.23	134,905.23	.....	.....	.....	134,905.23	.....	.....
Ranger No. 3	317,287.83	317,287.83	.....	.....	.....	317,287.83	.....	.....
Ranger No. 4	167,423.71	167,423.71	.....	.....	.....	167,423.71	.....	.....
Total	$5,039,890.91	$3,517,678.97	$1,456,319.76	$65,892.18	.....	$3,575,455.14	.....	$1,464,435.77
Gas Connections:								
Texas	$13,695.62	$12,638.76	$1,056.86	$.....	.....	$12,638.76	.....	$1,056.86
Oklahoma	1,394.37	.....	1,394.37	.....	.....	.....	.....	1,394.37
Total	$15,089.99	$12,638.76	$2,451.23	$.....	.....	$12,638.76	.....	$2,451.23
[fol. 9767]								
General Property:								
Undistributed Intangible Property	$200,000.00	$200,000.00	$.....	$.....	.....	$200,000.00	.....	$.....
Automotive Equip.—Net	92,301.16	.....	.....	92,301.16	64.22	59,275.80	35.78	33,025.36
Dallas Machine Shop	139,785.99	.....	.....	139,785.99	64.22	89,770.56	35.78	50,015.43
Drill Tools—Net	25,713.93	.....	.....	25,713.93	64.22	16,513.49	35.78	9,200.44
G. O. Bldg. & Equipment	497,218.24	.....	.....	497,218.24	64.22	319,313.56	35.78	177,904.68
G. O. Furniture & Fixtures	212,021.28	.....	.....	212,021.28	64.22	136,160.07	35.78	75,861.21
Real Estate	78,768.53	.....	.....	78,768.53	64.22	50,585.15	35.78	28,183.38
[illegible]	383,169.88	.....	.....	383,169.88	64.22	246,071.70	35.78	137,098.18

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	$15,089.99	$12,638.76	$2,451.23	$		$12,638.76		$2,451.23

[fol. 9767]

General Property:								
Undistributed Intangible Property	$200,000.00	$200,000.00	$	$		$200,000.00		$
Automotive Equip.—Net	92,301.16			92,301.16	64.22	59,275.80	35.78	33,025.36
Dallas Machine Shop	139,785.99			139,785.99	64.22	89,770.56	35.78	50,015.43
Drill Tools—Net	25,713.93			25,713.93	64.22	16,513.49	35.78	9,200.44
G. O. Bldg. & Equipment	497,218.24			497,218.24	64.22	319,313.56	35.78	177,904.68
G. O. Furniture & Fixtures	212,021.28			212,021.28	64.22	136,160.07	35.78	75,861.21
Real Estate	78,768.53			78,768.53	64.22	50,585.15	35.78	28,183.38
Telephone & Telegraph System	383,169.88			383,169.88	64.22	246,071.70	35.78	137,098.18
Tools & Construction Equip.	15,063.58			15,063.58	64.22	9,673.83	35.78	5,389.75
Completed Construction	15,987.46			15,987.46	83.00	13,262.27	17.00	2,725.19
Total:	$1,660,030.05	$200,000.00	$	$1,460,030.05		$1,140,626.43		$519,403.62

Summary

Production System Property	$5,408,280.85	$2,956,700.41	$2,451,580.44	$		$2,956,700.41		$2,451,580.44
Gathering System Property	1,478,182.35	833,111.85	645,070.50			833,111.85		645,070.50
Transmission System Property	36,235,551.91	20,754,991.54	10,899,034.48	4,581,525.89		23,561,613.73		12,673,933.18
Compressor Station Property	5,039,890.91	3,517,678.97	1,456,319.76	65,892.18		3,575,455.14		1,464,435.77
Gas Connections	15,089.99	12,638.76	2,451.23			12,638.76		2,451.23
General Property	1,660,030.05	200,000.00		1,460,030.05		1,140,626.43		519,403.62
Total	$49,837,026.06	$28,275,121.53	$15,454,456.41	$6,107,448.12		$32,080,146.32		$17,756,879.74

Defendant's Exhibit No. 46—Continued

fol. 9768]

Statement of Property Account

Reproduction Cost New—Less Observed Depreciation

January 1st, 1933

Classification of Property	Total	Applicable to			Applicable to "D" Operations		Applicable to "E" Operations	
		Area "A"	Area "B"	Area "C"	% of Area "C"	Amount	% of Area "C"	Amount
Production System Property:								
Leaseholds—Developed:								
Panhandle, Okla. Fields	$2,230,631.05	$	$2,230,631.05	$		$		$2,230,631.05
West Texas—Patrolia Fields	999,946.30	999,946.30				999,946.30		
Total	$3,230,577.35	$999,946.30	$2,230,631.05			$999,946.30		$2,230,631.05
Leaseholds—Undeveloped:								
Panhandle, Okla. Fields	$505,852.33	$	$505,852.33	$		$		$505,852.33
West Texas—Petrolia Fields	570,278.51	570,278.51				570,278.51		
Total	$1,076,130.84	$570,278.51	$505,852.33			$570,278.51		$505,852.33
Gas Wells & Other Equipment:								
Panhandle, Okla. Fields	$2,064,503.14	$	$2,064,503.14	$		$		$2,064,503.14
West Texas—Petrolia Fields	2,737,141.61	2,737,141.61				2,737,141.61		
Total	$4,801,644.75	$2,737,141.61	$2,064,503.14			$2,737,141.61		$2,064,503.14
Total	$9,108,352.94	$4,307,366.42	$4,800,986.52	$		$4,307,366.42		$4,800,986.52
Gathering System Property:								
Panhandle, Okla. Fields	$703,164.47	$	$703,164.47	$		$		$703,164.47
West Texas—Petrolia Field	894,815.40	894,815.40				894,815.40		
Total	$1,597,979.87	$894,815.40	$703,164.47			$894,815.40		$703,164.47
Transmission System Property:								
A—System	$4,494,757.93	$	$4,494,757.93	$		$		$4,494,757.93
B—System	3,802,989.52		2,149,186.07	1,653,803.45	22.17	366,648.22	77.83	2,149,186.07 1,287,155.23
C—System (Exec. of C-2)	612,788.74			612,788.74	75.21	460,878.41	24.79	151,910.33
C2—System	44,053.33			44,053.33	82.63	36,401.27	17.37	7,652.06
E—System	2,078,376.50		332,242.25	1,746,134.15	69.40	1,211,817.40	30.60	332,242.35 534,317.00
F—System	1,187,285.08			1,187,285.08	83.13	986,990.08	16.87	200,295.00
G—System	2,084,266.80		2,021,221.34	63,055.46	83.13	52,418.00	16.87	2,021,211.34 10,637.46
H—System	1,983,953.32		1,983,953.32					1,983,953.32
J—System (Exc. of J2 Sys.)	427,205.27	427,205.27				427,205.27		
J2—System	185,587.09			185,587.09	93.32	173,189.87	6.68	12,397.22
K—System	6,170,971.18	6,170,971.18				6,170,971.18		
L—System	3,513,397.26	3,513,397.26				3,513,397.26		
M—System	1,688,452.12	1,688,452.12				1,688,452.12		
O—System	5,919,147.91	5,919,147.91				5,919,147.91		
R—System	790,256.17	790,256.17				790,256.17		
Numbered System	1,595,426.09	1,595,426.09				1,595,426.09		
Miscellaneous—West Texas	740,577.99	740,577.99				740,577.99		
Government	1,200.53		1,200.53					1,200.53
Total	$37,320,692.83	$20,845,433.99	$10,982,551.54	$5,492,707.30		$24,133,776.94		$13,186,915.89

[fol. 9769]

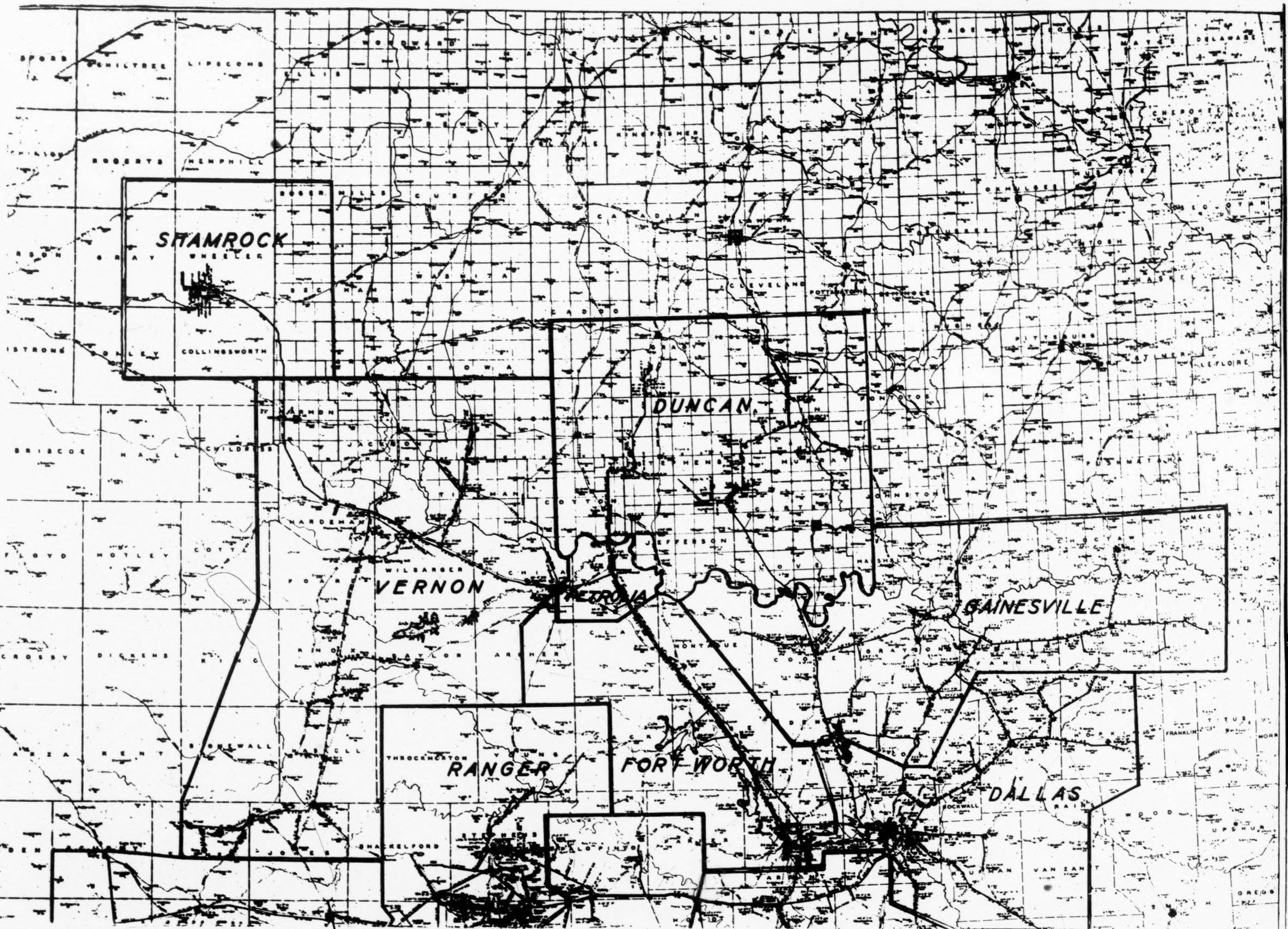
Compressor Station Property:								
Alvord	$15,648.17	$15,648.17	$	$		$15,648.17		$
Brad	173,577.99	173,577.99				173,577.99		
Breese	92,884.76	92,884.76				92,884.76		
Breckenridge	298,193.90	298,193.90				298,193.90		
Caddo	270,324.71	270,324.71				270,324.71		
Cheaney	145,134.15	145,134.15				145,134.15		
Desdemona	80,235.59	80,235.59				80,235.59		
Eastland	129,854.65	129,854.65				129,854.65		
Fox—Central	258,042.40		258,042.40					258,042.40
Fox—East	105,206.27		105,206.27					105,206.27
Gainesville	83,577.78			83,577.78	83.13	69,478.21	16.87	14,099.57
Gas City	302,594.56		302,594.56					302,594.56
Ibex	254,402.72	254,402.72				254,402.72		
Joshua No. 1	501,683.88	501,683.88				501,683.88		
Joshua No. 2	79,450.59	79,450.59				79,450.59		
Loco	140,961.05		140,961.05					140,961.05
Petrolia	1,119,786.52			1,119,786.52	32.48	363,706.66	67.52	756,079.86
Pueblo	84,460.53	84,460.53				84,460.53		
Ranger No. 1	136,266.06	136,266.06				136,266.06		
Ranger No. 2	119,077.38	119,077.38				119,077.38		
Ranger No. 3	310,934.58	310,934.58				310,934.58		
Ranger No. 4	172,287.21	172,287.21				172,287.21		
Sipe Springs	187,224.74	187,224.74				187,224.74		
Tiffin	49,277.83	49,277.83				49,277.83		
X Ray	74,543.14	74,543.14				74,543.14		
Total	$5,185,631.16	$3,175,462.58	$806,804.28	$1,203,364.30		$3,608,647.45		$1,576,983.71
Total Direct Property	$53,212,656.80	$29,223,078.39	$17,293,506.81	$6,696,071.60		$32,944,606.21		$20,268,050.59
Percent of Total						61.91		38.09

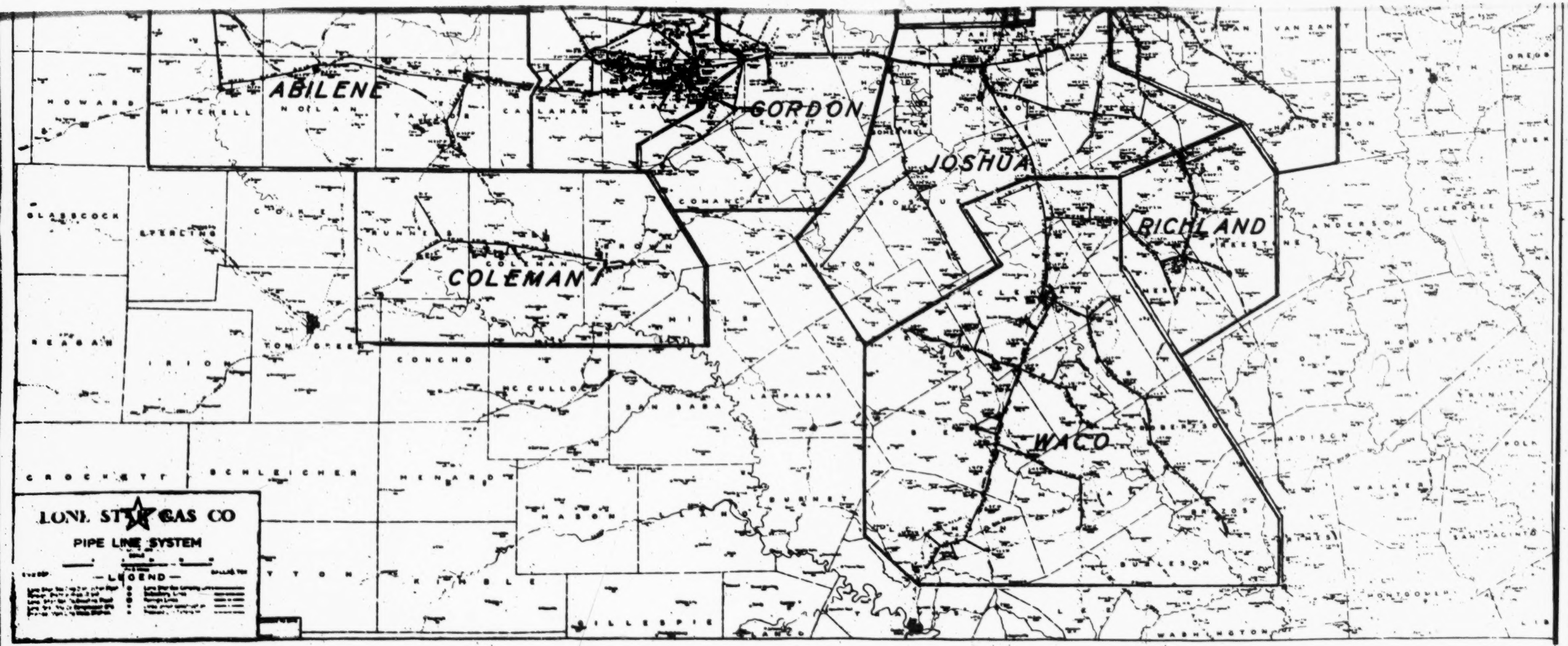
[fol. 9770]

General System Property:								
General Office Land	$52,687.48	$	$	$52,687.48	61.91	$32,618.82	38.09	$20,068.66
Other General Land	57,978.09			57,978.09	61.91	35,894.24	38.09	22,083.85
General Office Structures	353,581.81			353,581.81	61.91	218,902.50	38.09	134,679.31

Percent of Total						61.91		38.09
[fol. 9770]									
General System Property:									
General Office Land	$52,687.48	$	$	$52,687.48	61.91	$32,618.82	38.09	$20,068.66
Other General Land	57,978.09			57,978.09	61.91	35,894.24	38.09	22,083.85
General Office Structures	353,581.81			353,581.81	61.91	218,902.50	38.09	134,679.31
Other General Structures	53,615.15			53,615.15	61.91	33,193.14	38.09	20,422.01
General Office Furn. & Fixtures	208,719.80			208,719.80	61.91	129,218.43	38.09	79,501.37
Other General Furn. & Fixtures	9,272.06			9,272.06	61.91	5,740.33	38.09	3,531.73
General Shop Equipment	115,239.09			115,239.09	61.91	71,344.52	38.09	43,894.57
General Tools	121,647.47			121,647.47	61.91	75,311.95	38.09	46,335.52
Auto. & Construction Equip	325,757.05			325,757.05	61.91	201,676.19	38.09	124,080.86
General Telephone System	392,393.82			392,393.82	61.91	242,931.01	38.09	149,462.81
Final Engineering Records	905,656.54			905,656.54	61.91	560,691.96	38.09	344,964.58
Total	$2,596,548.36	$	$	$2,596,548.36	61.91	$1,607,523.09	38.09	$989,025.27
Non-Physical Values:								
Preliminary & Organization	$4,434,328.00	$	$	$4,434,328.00	61.91	$2,745,292.46	38.09	$1,689,035.54
Working Capital	1,701,600.00			1,701,600.00	61.91	1,053,460.56	38.09	648,139.44
Total	$6,135,928.00	$	$	$6,135,928.00	61.91	$3,798,753.02	38.09	$2,337,174.98
			Summary					
Production System Property	$9,108,352.94	$4,307,366.42	$4,800,986.52			$4,307,366.42		$4,800,986.52
Gathering System Property	1,597,979.87	894,815.40	703,164.47			894,815.40		703,164.47
Transmission System Property	37,320,692.83	20,845,433.99	10,982,551.54	$5,492,707.30		24,133,776.94		13,186,615.89
Compressor Station Property	5,185,631.16	3,175,462.58	806,804.28	1,203,364.30		3,608,647.45		1,576,983.71
General System Property	2,596,548.36			2,596,548.36		1,607,523.09		989,025.27
Non-Physical Values	6,135,928.00			6,135,928.00		3,798,753.02		2,337,174.98
Total	$61,945,133.16	$29,223,078.39	$17,293,506.81	$15,428,547.96		$38,350,882.32		$23,594,250.84

(Here follows 1 map side folio 9771-9772)


SHAMROCK
DUNCAN
VERNON
PETROLIA
GAINESVILLE
RANGER
FORT WORTH
DALLAS
ROBERTS
HEMPHILL
WHEELER
COLLINGSWORTH
BRISCOE
HALL
CHILDRESS
FLOYD
MOTLEY
COTTLE
CROSBY
DICKENS
KING
KNOX
BAYLOR
ARCHER
THROCKMORTON
YOUNG
JACK
WISE
MONTAGUE
CLAY
COOKE
GRAYSON
FANNIN
DELTA
HOPKINS
FRANKLIN
TITUS
MORRIS
CASS
HARRISON
UPSHUR
WOOD
VAN ZANDT
ROCKWALL
KAUFMAN
HENDERSON
ANDERSON
CHEROKEE
SMITH
GREGG
RUSK
PANOLA
SHELBY
NACOGDOCHES
SABINE
JASPER
NEWTON
TYLER
POLK
LIBERTY
HARDIN
ORANGE
JEFFERSON
CHAMBERS
GALVESTON
BRAZORIA
MATAGORDA
WHARTON
FORT BEND
HARRIS
MONTGOMERY
WALLER
AUSTIN
COLORADO
LAVACA
JACKSON
VICTORIA
CALHOUN
REFUGIO
ARANSAS
SAN PATRICIO
NUECES
KLEBERG
KENEDY
KARNES
GOLIAD
BEE
LIVE OAK
MCMULLEN
DUVAL
JIM WELLS
BROOKS
KENEDY
WILLACY
CAMERON
HIDALGO
STARR
ZAPATA
WEBB
LA SALLE
MCMULLEN
DIMMIT
MAVERICK
ZAVALA
FRIO
ATASCOSA
MCMULLEN
LIVE OAK
BEE
GOLIAD
REFUGIO
ARANSAS
SAN PATRICIO
NUECES
KLEBERG
KENEDY
KARNES
WILSON
GONZALES
DEWITT
VICTORIA
CALHOUN
JACKSON
MATAGORDA
WHARTON
FORT BEND
HARRIS
GALVESTON
BRAZORIA
COLORADO
LAVACA
AUSTIN
WALLER
MONTGOMERY
LIBERTY
CHAMBERS
JEFFERSON
ORANGE
HARDIN
POLK
TYLER
NEWTON
JASPER
SABINE
SHELBY
PANOLA
RUSK
GREGG
CHEROKEE
SMITH
NACOGDOCHES
HENDERSON
ANDERSON
KAUFMAN
ROCKWALL
VAN ZANDT
WOOD
UPSHUR
MORRIS
TITUS
FRANKLIN
DELTA
HOPKINS
RAINS
HUNT
COLLIN
GRAYSON
FANNIN
LAMAR
RED RIVER
BOWIE
CASS
MARION
HARRISON
PANOLA
SHELBY
NACOGDOCHES
SABINE
JASPER
NEWTON
TYLER
POLK
LIBERTY
HARDIN
ORANGE
JEFFERSON
CHAMBERS
GALVESTON
BRAZORIA
MATAGORDA
WHARTON
FORT BEND
HARRIS
MONTGOMERY
WALLER
AUSTIN
COLORADO
LAVACA
JACKSON
VICTORIA
CALHOUN
REFUGIO
ARANSAS
SAN PATRICIO
NUECES
KLEBERG
KENEDY
KARNES
WILSON
GONZALES
DEWITT
LIVE OAK
MCMULLEN
DUVAL
JIM WELLS
BROOKS
KENEDY
WILLACY
CAMERON
HIDALGO
STARR
ZAPATA
WEBB
LA SALLE
MCMULLEN
DIMMIT
MAVERICK
ZAVALA
FRIO
ATASCOSA
MCMULLEN
LIVE OAK
BEE
GOLIAD
REFUGIO
ARANSAS
SAN PATRICIO
NUECES
KLEBERG
KENEDY
KARNES
WILSON
GONZALES
DEWITT
VICTORIA
CALHOUN
JACKSON
MATAGORDA
WHARTON
FORT BEND
HARRIS
GALVESTON
BRAZORIA
COLORADO
LAVACA
AUSTIN
WALLER
MONTGOMERY
LIBERTY
CHAMBERS
JEFFERSON
ORANGE
HARDIN
POLK
TYLER
NEWTON
JASPER
SABINE
SHELBY
PANOLA
RUSK
GREGG
CHEROKEE
SMITH
NACOGDOCHES
HENDERSON
ANDERSON
KAUFMAN
ROCKWALL
VAN ZANDT
WOOD
UPSHUR
MORRIS
TITUS
FRANKLIN
DELTA
HOPKINS
RAINS
HUNT
COLLIN
GRAYSON
FANNIN
LAMAR
RED RIVER
BOWIE
CASS
MARION
HARRISON


ABILENE
GORDON
JOSHUA
RICHLAND
COLEMAN
WACO
LONE STAR GAS CO
PIPE LINE SYSTEM
LEGEND
HOWARD
MITCHELL
NOLAN
TAYLOR
CALLAHAN
EASTLAND
COMANCHE
BROWN
GLASSCOCK
STERLING
COKE
RUNNELS
COLEMAN
IRION
TOM GREEN
CONCHO
MCCULLOCH
SAN SABA
LAMPASAS
CROCKETT
SCHLEICHER
MENARD
MASON
BURNET
KIMBLE
GILLESPIE
VAN ZANDT
HUNT
HAMILTON
LAMAR
RED RIVER
BOWIE
CHEROKEE
ANDERSON
FREESTONE
LIMESTONE
HOUSTON
MADISON
GRIMES
WALKER
SAN JACINTO
POLK
MONTGOOMERY
WASHINGTON
BURLESON

BLANK

PAGE

198—3104

[fol. 9773] DEFENDANT'S EXHIBIT No. 47

Lone Star Gas Company

Comparison of Estimated Costs in Plaintiff's Exhibit 6 With Historical or Actual Costs

[fol. 9774]

Comparison of Excavation Cost Between Defendant's Exhibit 28, Plaintiff's Exhibit 6, and Actual Book Costs

Line	Lineal Feet	Cubic Yards	Defendant's Exhibit 28	Plaintiff's Exhibit 6	Book Cost	Plaintiff's Exhibit 6 Less than Book Cost	
						Amount	Per cent
2nd B.....	517,644	167,704.9	$124,512.12	$110,423.08	$156,650.41	$ 46,227.33	29.5
KB 16 In...	123,347	28,171.7	20,931.46	18,047.51	21,033.48	2,986.17	14.2
K-5.....	260,309	29,006.8	26,201.92	19,525.05	47,922.20	28,397.15	59.3
K-5-1.....	174,875	20,129.8	16,344.17	11,587.11	16,118.74	4,531.63	28.1
O-29.....	336,152	49,800.2	29,773.73	18,675.07	37,963.07	19,288.00	50.8
L-26.....	122,141	16,084.3	8,806.26	6,031.61	10,161.25	4,129.64	40.6
	1,534,468	310,897.7	$226,569.66	$184,289.43	$289,849.15	$105,559.92	36.4
	290.6 Miles						

3317

7333

Defendant's Exhibit No. 47—Continued

[fols. 9775-9776]

Comparison Between Plaintiff's Exhibit 6 and Actual Book Cost of Transmission System Property

System	Plaintiff's Exhibit 6	Book Cost	Difference
A	$ 3,626,169.02	$ 4,085,103.81	$ 458,934.79
B	1,462,159.49	1,249,278.90	214,880.59*
2nd B	1,840,895.86	1,979,458.56	138,562.70
C	629,696.67	574,579.44	55,117.23*
E	1,587,891.33	1,583,787.63	4,103.70*
F	1,109,024.31	839,532.93	269,491.38*
G	79,138.34	89,883.01	10,744.67
H	6,908.32	5,098.46	1,809.86*
J	578,265.99	738,010.16	159,744.17
K	5,210,179.82	6,243,631.44	1,033,451.62
L	3,130,564.13	3,651,235.99	520,671.86
M	1,548,424.22	1,829,030.82	280,606.60
O	5,094,241.68	5,812,337.05	718,095.37
R	653,209.14	710,519.98	57,310.84
No	1,401,762.28	1,425,279.08	23,516.80
T. P. U.	700,228.70	538,268.28	161,960.42*
U. S. Gov't	1,036.37	.....	1,036.37*
Total	$28,659,795.67	$31,353,035.54	$2,693,239.87

* Indicates Plaintiff's Exhibit 6 in Excess of Book Cost.

[fol. 9777] DEFENDANT'S EXHIBIT No. 48

Lone Star Gas Company

Historical Rate of Business Development

Major Transportation Lines

[fol. 9778] History of Line K

Completed 1919

Deliveries in M. C. F.

Year	KA Deliveries	Line K at Gordon	Total Line K
1920	475,083	.....	475,083
1921	1,673,510	.....	1,673,510
1922	1,236,920	.....	1,236,920
1923	1,762,233	429,209	2,191,442
1924	784,632	12,969,857	13,754,489
1925	1,337,715	14,841,418	16,179,133
1926*	582,541	11,809,086	12,391,627
1927	346,570	9,110,875	9,457,445
1928	400,889	10,018,664	10,419,553
1929	588,533	9,951,749	10,540,282
1930	598,799	9,921,893	10,520,692
1931	491,952	8,992,024	9,483,976

* Line O in Service.

Defendant's Exhibit No. 48—Continued

[fol. 9779]

Line "O" to Lisbon, Texas

Gas Purchased—Mcf.—Domestic and Unaccounted for

Town	Date	1926	1927	1928	1929	1930	1931	1932
Mansfield	4-30-26	3,850	9,059	9,987	11,758	10,982	9,997	10,728
Midlothian	3-15-26	733	14,617	18,215	18,928	17,105	14,746	14,444
Ferris	9- 3-26	3,675	11,992	15,079	17,093	16,649	14,695	15,040
Lancaster	9-27-26	3,245	11,197	14,219	15,563	15,688	15,990	16,040
Garland	3-19-27	.....	16,088	19,727	22,634	22,972	21,769	23,898
Terrell	10-29-26	5,459	44,993	66,561	78,106	74,845	75,389	93,624
Mesquite	11- 5-26	945	6,773	9,100	10,404	11,022	11,725	10,899
Forney	11-29-26	553	12,444	16,332	17,542	16,593	19,440	17,840
Kaufman	11-27-26	288	12,749	23,994	27,768	27,053	23,193	24,544
Greenville	10- 7-26	24,429	115,652	143,805	172,601	172,185	167,603	197,840
Rowlett	10- 4-26	522	1,582	1,931	2,415	2,422	2,253	2,491
Rockwall	10-14-26	3,206	13,257	17,471	19,064	16,199	14,577	14,649
Royse City	10-14-26	4,078	15,976	18,167	19,517	20,247	18,204	17,850
Caddo Mills	12-21-26	.....	3,385	5,080	5,680	5,476	1,670	5,397
Buckner's O. H.	11- 7-26	.....	1,861	3,592	4,346	3,317	5,185	6,159
Urbandale	12-15-26	18	1,826	3,128	3,718	4,451	5,549	6,045
Venus	5-19-27	.....	2,747	7,990	7,838	8,235	6,595	6,646
Cedar Hill	4- 1-27	.....	1,104	2,844	2,967	2,866	2,898	2,916
Hutchins	2- 3-27	.....	1,715	3,555	3,433	3,151	3,188	3,369
Plano	2-11-27	.....	8,649	17,274	18,980	18,316	17,752	19,260
Richardson	1-19-27	.....	3,196	6,533	7,608	7,886	8,242	8,735
Lewisville	1- 4-27	.....	9,641	11,015	9,747	9,096	8,435	8,380
Farmersville	4- 4-27	.....	8,376	20,374	22,583	21,880	29,002	25,202
Nevada	3-26-27	.....	1,787	5,162	5,787	5,206	4,603	4,163
Josephine	3-18-27	.....	1,908	4,668	4,476	4,188	3,740	4,014
Cooper	12-10-27	.....	68	19,378	27,641	27,138	27,058	26,347
Commerce	6- 2-27	.....	16,774	44,111	58,815	61,148	69,581	67,190
Wolfe City	10-14-27	.....	2,264	10,062	11,010	10,847	10,510	11,163
Ladonia	10-19-27	.....	2,140	9,515	10,750	10,794	10,476	11,510
Fairlie	10-29-27	.....	277	1,413	1,553	1,359	1,359	1,293
Cumby	6-20-27	.....	2,240	6,577	7,249	6,562	5,789	5,651
Sulphur Springs	7-15-27	.....	14,440	51,071	60,731	60,382	61,415	57,733
Celeste	10-26-27	.....	1,298	6,033	7,010	7,004	6,063	7,155

Defendant's Exhibit No. 48—Continued

Line "O" to Lisbon, Texas—Continued

Gas Purchased—Mcf.—Domestic and Unaccounted for

Town	Date	1926	1927	1928	1929	1930	1931	1932
Leonard	11-17-27	.....	1,701	12,144	15,210	15,189	14,333	14,899
Campbell	11- 3-27	.....	552	2,677	3,555	3,681	3,492	3,327
Lillian	3-13-28	.....	.....	592	1,564	1,473	1,655	1,619
Britton	4- 5-28	.....	.....	651	1,488	1,487	1,473	1,417
Duncanville	3- 5-28	.....	.....	1,276	2,919	3,066	2,982	3,227
Fate	3-10-28	.....	.....	1,038	2,809	2,727	2,917	2,715
Peniel	5-24-28	.....	.....	676	2,353	2,471	2,450	2,287
Palmer	9-29-28	.....	.....	2,459	9,153	9,559	8,890	8,327
Wilmer	5-24-28	.....	.....	1,350	3,957	3,900	3,804	4,400
Wylie	3-27-29	.....	.....	.....	2,895	6,601	6,462	6,343
Gordon	11-22-29	.....	.....	.....	318	3,309	3,611	3,911
Athens	12-14-29	.....	.....	.....	912	32,526	43,649	41,567
Malakoff	12-16-29	.....	.....	.....	135	4,428	7,103	8,590
[fol. 9780]								
Seagoville	12-10-29	.....	.....	.....	105	2,831	3,012	3,042
Crandall	12-10-29	.....	.....	.....	101	3,756	3,762	3,565
Kemp	12-16-29	.....	.....	.....	72	6,765	7,187	7,172
Mabank	12-19-29	.....	.....	.....	77	5,286	6,838	7,047
Enloe	4-25-30	.....	.....	.....	.....	726	1,652	1,482
Pecan Gap	.....	.....	.....	.....	.....	2,873	3,317	3,596
Scurry	2-14-30	.....	.....	.....	.....	495	764	801
Total	.....	51,001	374,328	636,826	762,938	816,413	828,584	977,549
Per Cent of Maximum Year	.....	5.81	42.66	72.57	86.94	93.03	94.42	100.00

(Here follows one paster, side folios 9781 and 9782)

BLANK

PAGE

Defendant's Exhibit No. 48—Continued

[fol. 9781]

Historical Idle Plant—L System

Annual Domestic Sales—M. Cubic Feet

Towns Served	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Waco*	64,173	416,822	448,606	480,390	512,174	543,958	575,742	607,526	661,520	755,322	805,506	701,107	734,660
Cleburne	8,323	45,051	72,128	95,640	123,768	138,251	164,656	148,022	168,472	183,323	183,324	165,664	152,156
Hillsboro	3,370	25,073	46,775	67,275	81,139	89,250	103,331	87,413	107,110	117,972	117,285	104,865	89,797
Kenne	.....	.....	961	569	638	6,389	6,134	6,399	6,638	8,362	8,435	8,094	8,587
Itasca	.....	.....	.....	2,816	2,853	27,016	24,978	27,595	30,379	29,950	27,085	28,624	24,012
West	.....	.....	.....	1,524	1,654	17,693	17,703	15,318	21,055	27,741	23,463	24,627	28,023
Elm Mott	.....	.....	.....	.....	.....	.....	.....	1,322	2,074	2,358	2,297	2,165	1,948
Covington	.....	.....	.....	.....	.....	.....	.....	1,784	4,191	4,124	3,191	3,488	3,679
Marlin	.....	.....	.....	.....	.....	.....	.....	9,874	44,212	54,570	67,447	63,628	57,529
Mart	.....	.....	.....	.....	.....	.....	.....	7,044	27,721	31,557	34,375	41,159	35,620
Temple	.....	.....	.....	.....	.....	.....	.....	19,823	124,392	167,904	182,506	182,323	168,234
Troy	.....	.....	.....	.....	.....	.....	.....	.....	2,533	4,045	4,705	4,871	5,013
Belton	.....	.....	.....	.....	.....	.....	.....	.....	16,323	29,309	30,946	37,449	43,511
Eddy	.....	.....	.....	.....	.....	.....	.....	.....	1,771	4,512	4,899	4,751	4,477
Little River	.....	.....	.....	.....	.....	.....	.....	.....	212	1,113	1,286	1,335	1,245
Bremond	.....	.....	.....	.....	.....	.....	.....	.....	1,927	5,185	5,173	4,858	4,783
Bryan	.....	.....	.....	.....	.....	.....	.....	.....	22,770	58,140	66,488	73,799	90,583
College Station	.....	.....	.....	.....	.....	.....	.....	.....	6,466	17,798	21,602	23,129	25,220
Lorena	.....	.....	.....	.....	.....	.....	.....	.....	1,412	3,685	3,780	4,068	3,972
Gatesville	.....	.....	.....	.....	.....	.....	.....	.....	8,901	28,881	31,993	37,121	43,716
Moody	.....	.....	.....	.....	.....	.....	.....	.....	1,316	7,288	12,668	9,793	10,252
McGregor	.....	.....	.....	.....	.....	.....	.....	.....	6,025	14,920	16,131	16,993	16,449
Oglesby	.....	.....	.....	.....	.....	.....	.....	.....	895	2,681	3,023	3,716	3,926
Calvert	.....	.....	.....	.....	.....	.....	.....	.....	5,436	23,571	17,637	20,281	22,398
Hearne	.....	.....	.....	.....	.....	.....	.....	.....	6,553	18,439	21,115	22,349	21,383
Regan	.....	.....	.....	.....	.....	.....	.....	.....	654	2,608	2,517	2,388	3,505
Riesel	.....	.....	.....	.....	.....	.....	.....	.....	633	2,295	2,943	3,183	2,872
Buckholts	.....	.....	.....	.....	.....	.....	.....	.....	531	1,773	1,787	1,862	1,956
Cameron	.....	.....	.....	.....	.....	.....	.....	.....	9,586	33,500	38,325	39,176	41,525
Rogers	.....	.....	.....	.....	.....	.....	.....	.....	2,728	9,089	9,528	10,193	11,145
Bartlett	.....	.....	.....	.....	.....	.....	.....	.....	4,644	15,806	16,598	18,803	16,121
Holland	.....	.....	.....	.....	.....	.....	.....	.....	2,229	7,250	8,221	8,690	8,146
Rockdale	.....	.....	.....	.....	.....	.....	.....	.....	3,695	14,211	16,618	15,966	16,802
Georgetown	.....	.....	.....	.....	.....	.....	.....	.....	7,548	28,860	33,434	39,909	36,777
Granger	.....	.....	.....	.....	.....	.....	.....	.....	2,991	11,168	13,065	14,526	13,052
Hutto	.....	.....	.....	.....	.....	.....	.....	.....	1,130	5,149	5,149	4,635	4,335
Round Rock	.....	.....	.....	.....	.....	.....	.....	.....	1,450	5,798	6,674	6,957	7,698
Taylor	.....	.....	.....	.....	.....	.....	.....	.....	13,700	53,494	65,012	71,869	64,643
Bell Meade	.....	.....	.....	.....	.....	.....	.....	.....	213	1,371	2,240	2,803	3,684
Whitney	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,905	8,920	8,079	8,038
Chilton	.....	.....	.....	.....	.....	.....	.....	.....	.....	55	2,856	4,624	4,408
Lott	.....	.....	.....	.....	.....	.....	.....	.....	.....	563	5,302	5,939	5,424
[fol. 9782]													
Rosebud	.....	.....	.....	.....	.....	.....	.....	.....	.....	760	11,419	14,920	14,473
Osceola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	932	1,133	1,273
Total Annual Domestic Sales	75,866	486,946	568,470	648,214	722,226	822,557	892,544	932,120	1,331,976	1,799,400	1,947,900	1,865,912	1,867,040
Per cent of Total of Maximum Sales to each town Served: (Maximum Deliveries 2,048,691 M. Cubic Feet)	3.7	23.7	27.7	31.6	35.2	40.1	43.5	45.5	65.02	87.85	95.08	91.08	91.13

* Waco, Domestic Sales—No record for the years 1920, 1921, 1922, 1923, 1924, 1925, and 1926. Volumes for these years estimated.

BLANK

PAGE

Line "E"—From Gainesville to Paris

Gas Purchased—Mcf.—Domestic and Unaccounted for

Town	Date	1925	1926	1927	1928	1929	1930	1931	1932
Durant	11-24-25	2,519	66,806	82,047	101,795	116,700	111,077	116,938	126,691
Paris	12-31-25	.....	121,027	167,987	211,380	248,640	249,078	207,851	228,089
Achille	6- 4-26	.....	568	1,001	1,389	2,143	1,929	1,768	1,585
Bonham	2-26-26	.....	26,441	54,908	68,434	81,914	81,887	77,019	77,068
Honey Grove	3- 8-26	.....	12,341	24,352	30,472	31,942	30,157	31,144	36,441
Dodd City	6- 3-27	.....	.....	1,363	4,133	5,019	4,301	3,808	3,852
Anna	9- 1-27	.....	.....	939	3,982	4,246	4,135	4,196	4,098
Ector	7-18-27	.....	.....	919	2,683	2,907	3,226	2,489	2,509
Whitewright	7-18-27	.....	.....	4,555	16,474	19,592	19,743	18,431	18,750
Trenton	8- 5-27	.....	.....	1,188	4,520	5,315	5,148	5,058	5,386
Westminster	6-30-27	.....	.....	364	1,164	1,219	1,331	1,170	1,624
Van Alstyne	8-19-27	.....	.....	3,410	13,766	16,034	17,463	14,642	16,863
Howe	8-28-29	.....	.....	.....	.....	2,112	6,699	6,365	7,084
Bells	3- 2-27	.....	.....	838	3,645	3,978	3,762	3,482	3,562
Savoy	11- 2-27	.....	.....	598	2,482	2,795	2,962	2,807	2,399
Windom	2-16-28	.....	.....	.....	1,542	2,972	2,950	3,012	3,109
Brookston	3-15-28	.....	.....	.....	983	2,283	2,228	1,943	1,846
Petty	3-30-28	.....	.....	.....	907	2,389	2,097	2,323	2,043
Roxton	5- 3-28	.....	.....	.....	2,532	8,048	7,322	6,599	7,420
Collinsville	6- 8-28	.....	.....	.....	1,884	5,684	5,380	4,687	4,845
Clarksville	10-24-29	.....	.....	.....	.....	6,485	23,981	24,707	25,675
Hugo	12-26-28	.....	.....	.....	.....	36,379	49,936	47,334	46,729
Ravenna	7-19-29	.....	.....	.....	.....	989	2,076	1,908	2,429
Detroit	9-11-29	.....	.....	.....	.....	732	3,227	2,765	2,383
Bagwell	10-23-29	.....	.....	.....	.....	215	709	653	609
Caddo	4- 3-30	.....	.....	.....	.....	.....	2,889	5,921	5,890
Melissa	2- 4-30	.....	.....	.....	.....	.....	1,462	2,452	3,027
Blossom	1- 5-30	.....	.....	.....	.....	.....	1,650	1,598	2,289
Deport	4-22-30	.....	.....	.....	.....	.....	2,290	4,917	4,586
Fulbright	4- 8-30	.....	.....	.....	.....	.....	274	436	525
Total	.....	2,519	227,183	344,469	474,167	610,012	651,369	608,360	649,405
Per Cent of Maximum Year	.....	.39	34.88	52.04	72.80	93.65	100.00	93.40	99.70

[fol. 9785] DEFENDANT'S EXHIBIT No. 49

Lone Star Gas Company

Comparison of Historical Replacements, Removals and Abandonments, Main, Tap and Field Lines, with Calculated Replacements, Removals and Abandonments

Plaintiff's Exhibit 7

[fol. 9786] Comparison of Calculated Mortalities of Steel Pipe, Main and Tap Lines, Based on Pages 4 and 5, Plaintiff's Exhibit 7, with Historical Mortalities, Main and Tap Lines

Lone Star Gas Company, 1910 to 1933

Calculated mortalities—Table I	337.75
Calculated mortalities—Table II	320.83
Calculated mortalities—Table III	19.48
Calculated mortalities—Table IV	7.41
Miles of Three Inch Equivalent Diameter Pipe	685.47
Feet of Three Inch Equivalent Diameter Pipe	3,619,287
Historical Replacements, Removals and Abandonments—Main and Tap Lines—1910 to 1933—Feet of Three inch Equivalent Diameter pipe	5,854,774
Ratio of Calculated to Historical Replacements, Removals and Abandonments	61.8%

Defendant's Exhibit No. 49—Continued

[fol. 9787]

Table I

Main and Tap Lines

Calculation of Pipe Mortalities from Physical Causes
Based upon Plaintiff's Exhibit 7—Page 4

Service Years	A	B	C
22	9.45	22.22	2.10
21	50.16	19.92	9.99
20	645.20	17.74	114.46
19	141.66	15.69	22.23
18	.....	13.78	.....
17	20.10	12.00	2.41
16	783.40	10.35	81.08
15	.....	8.82	.....
14	4.00	7.43	.30
13	441.31	6.16	27.18
12	614.08	5.02	30.83
11	31.68	4.01	1.27
10	124.41	3.13	3.89
9	259.50	2.38	6.18
8	197.95	1.75	3.46
7	130.86	1.24	1.62
6	1,900.07	.84	15.96
5	1,843.90	.53	9.77
4	851.98	.31	2.64
3	1,412.41	.16	2.26
2	152.26	.07	.11
1	44.91	.02	.01
Total	9,659.29		337.75

A—Miles of 3 inch equivalent diameter pipe installed by years exclusive of lines acquired by purchase 1927, and pipe removed prior to January 1, 1933.

B—Cumulative replacement rates for corresponding service years from Plaintiff's Exhibit 7, Page 4.

C—Calculated replacements in miles of 3 inch equivalent diameter pipe.

Defendant's Exhibit No. 49—Continued

[fol. 9788]

Table II

Main and Tap Lines

Calculation of Major Removals
Based upon Plaintiff's Exhibit 7—Page 4

Service Years	A	B	C
22	654.65	8.54	55.91
21	50.16	8.15	4.09
20	.....	7.76	.....
19	287.86	7.38	21.23
18	279.41	6.99	19.52
17	5.30	6.60	.34
16	372.59	6.21	23.14
15	....	5.82	.....
14	4.00	5.43	.22
13	441.31	5.05	22.27
12	614.08	4.66	28.61
11	44.31	4.27	1.89
10	124.41	3.88	4.83
9	259.50	3.49	9.07
8	197.95	3.11	6.15
7	167.86	2.72	4.56
6	1,900.07	2.33	44.26
5	2,163.58	1.94	42.00
4	945.54	1.55	14.68
3	1,412.41	1.16	16.45
2	157.36	.78	1.22
1	101.69	.39	.39
Total	10,184.04		320.83

A—Miles of 3 inch equivalent diameter pipe installed by years including pipe removed prior to January 1, 1933.

B—Cumulative percentages for service years. Major removals Plaintiff's Exhibit 7—Page 4. Annual rate =.3882% (.289% divided by .744).

C—Calculated major removals by service years in miles of three inch equivalent diameter pipe.

Defendant's Exhibit No. 49—Continued

[fol. 9789]

Table III

Main and Tap Lines

Lines Acquired by Purchase 1927

Calculation of Pipe Mortalities from Physical Causes

Based upon Plaintiff's Exhibit 7—Page 4

Year Installed	Service Years Inclusive	A	B	C
1912	20—15	16.65	10.31	1.72
1913	19—14	92.88	9.53	8.85
1918	14— 9	53.69	5.68	3.05
1919	13— 8	58.13	4.92	2.86
1920	12— 7	27.96	4.18	1.17
1921	11— 6	32.53	3.48	1.13
1922	10— 5	21.93	2.82	.62
1924	8— 3	5.02	1.68	.08
Total		308.79		19.48

A—Miles of 3 inch equivalent diameter pipe acquired by purchase 1927.

B—Cumulative replacement rates from Plaintiff's Exhibit 7—Page 4 giving effect to date of installation and years of service in the system of Lone Star Gas Company.

C—Calculated replacements in miles of 3 inch equivalent diameter pipe.

Defendant's Exhibit No. 49—Continued

[fol. 9790]

Table IV

Main and Tap Lines

Lines Removed Prior to January 1, 1933

Calculation of Pipe Mortalities from Physical Causes
Based upon Plaintiff's Exhibit 7—Page 4

Service Years Inclusive	A	B	C
3— 2	42.22	.14	.06
13— 2	12.63	6.14	.78
5— 0	10.01	.53	.05
6— 5	14.56	.53	.08
9— 5	3.03	2.07	.06
7— 0	11.78	1.24	.15
14— 7	25.22	6.59	1.66
14—10	41.92	5.05	2.12
2— 0	5.10	.07	.....
14—10	48.61	5.05	2.45
Total	215.08		7.41

A—Miles of 3 inch equivalent diameter pipe removed prior to January 1, 1933.

B—Cumulative replacement rates from Plaintiff's Exhibit 7, Page 4, giving effect to date of installation and date of removal from the system of Lone Star Gas Company.

C—Calculated replacements in miles of 3 inch equivalent diameter pipe.

Defendant's Exhibit No. 49—Continued

[fols. 9791-9792]

Table V

Tabulation Showing
Effect of Calculations Shown on Page 6—Plaintiff's Exhibit 7
When Applied to the Historical Experience
of the Field Lines of Lone Star Gas Company

Years	A	B	C	D	E	F
1913	21.72	114,682	.....	....	+2.77	3,177
1914	21.72	114,682	.....	....	+2.77	6,545
1915	21.77	114,682	.....	....	+2.77	10,115
1916	21.72	114,682	.....	....	+2.77	13,899
1917	21.72	114,682	.....	....	+2.77	17,910
1918	24.13	127,406	.....	....	+2.77	22,514
1919	82.43	435,230	.....	....	+2.77	35,920
1920	179.80	949,344	10,161	1.07	+1.70	48,233
1921	215.66	1,138,685	77,924	6.84	−4.07	4,783
1922	217.27	1,147,186	88,348	7.70	−4.93	− 51,486
1923	226.25	1,194,600	35,048	2.93	− .16	− 56,486
1924	322.71	1,703,909	48,582	2.85	− .08	− 61,238
1925	359.32	1,897,210	100,856	5.32	−2.55	−113,291
1926	441.05	2,328,744	179,760	7.72	−4.95	−235,362
1927	475.17	2,508,898	138,078	5.50	−2.73	−317,977
1928	624.28	3,296,198	51,748	1.57	+1.20	−297,501
1929	921.81	4,867,157	104,874	2.15	+ .62	−286,482
1930	1,121.21	5,919,989	100,990	1.71	+1.06	−239,534
1931	1,146.57	6,053,890	96,196	1.59	+1.18	−182,470
1932	1,206.88	6,372,326	272	....	+2.77	− 16,905

A—Cumulative miles of 3 inch equivalent diameter pipe in service in the Field Lines of Lone Star Gas Company to January 1, 1933.

B—Cumulative feet of 3 inch equivalent diameter pipe in service in the Field Lines of Lone Star Gas Company to January 1, 1933.

C—Feet of 3 inch equivalent diameter pipe replaced, removed or abandoned by years.

D—Per cent of mortalities by years to cumulative feet of pipe in service by years.

E—Net annual rate from Page 6—Plaintiff's Exhibit 7.

F—Net credit balance for amortization by years 6 per cent sinking fund basis In feet of 3 inch equivalent diameter pipe.

[fol. 9793] DEFENDANT'S EXHIBIT No. 50

(Here follows 1 map, side folios 9794-9795, and 1 paster, side folios 9796 to 9799.)

BLANK

PAGE

9794-9795

LONE STAR GAS COMPANY

RECEIPT AND DISPOSITION OF GAS
TRANSMISSION SYSTEMS A & H
YEAR 1933

SCALE OF MILES

SHAMROCK FIELD
PURCHASED & PRODUCED
6,448,138 M.C.F.

CHICKASHA FIELD
PURCHASED &
PRODUCED
734,629 M.C.F.

HOLLIS
206,298 M.C.F.

SNYDER
13,610 M.C.F.

MOUNTAIN PARK
4,880 M.C.F.

OKLAHOMA

TIPTON
24,060 M.C.F.

MANITOU
2,977 M.C.F.

GAS CITY COMP ST.
27,764 M.C.F.

DUNCAN FIELD
PURCHASED & PRODUCED
54,312 M.C.F.

FREDERICK
75,756 M.C.F.

WALTERS
36,177 M.C.F.

TEMPLE
22,077 M.C.F.

MISCELLANEOUS
18,641 M.C.F.

HASTINGS
3,974 M.C.F.

WAURIKA
35,730 M.C.F.

RYAN
32,120 M.C.F.

MISCELLANEOUS
34,864 M.C.F.

DAVIDSON
6,474 M.C.F.

WEST TEX. UTIL.
1,713,055 M.C.F.

CHILLICOTHE
27,849 M.C.F.

TOLBERT
607 M.C.F.

VERNON
96,414 M.C.F.

OKLAUNION
4,498 M.C.F.

HARROLD
3,753 M.C.F.

ELECTRA
15,750 M.C.F.

IOWA PARK
24,541 M.C.F.

SHASTA OIL CO.
139,107 M.C.F.

PETROLIA
11,604 M.C.F.

PETROLIA COMP. STA.

BYERS
12,181 M.C.F.

TEXAS

WICHITA FALLS
672,149 M.C.F.

NET DELIVERY AT PETROLIA
3,381,496 M.C.F.

NET DELIVERY AT PETROLIA
588,673 M.C.F.

[fol. 9796-9797]

DEFENDANT'S EXHIBIT No. 51

Lone Star Group Companies

Statement of Pipe Purchases—Through Pittsburgh Office

Plain End—Lap Weld

Consignee	Destination	Size	Weight	Length	Order No.	Invoice Date	Quantity Ordered	Voucher No.	Voucher Date	Purchase Price F. O. B. Mill Gross	Purchase Price F. O. B. Mill Net	As of Dec. 31, 1931 Quotation F. O. B. Mill Gross	As of Dec. 31, 1931 Quotation F. O. B. Mill Net	As of Dec. 31, 1931 Freese's Price F. O. B. Mill Gross	As of Dec. 31, 1931 Freese's Price F. O. B. Mill Net
Lone Star Gas Company	Dallas	2"	3.652#	S. L.	30008	3-30-31	6,000'	D-262	Apr. 1931	$12.78	$12.52	$11.35	$11.12	$9.89	$9.70
" " " "	Dallas	2"	"	S. L.	30602	5-14-31	8,000'	E-757	May 1931	12.50	12.25	(13.69)	(13.41)		
" " " "	Dallas	2"	"	S. L.	31640	8- 6-31	15,000'	H-1020	Aug. 1931	12.25	12.01				
" " " "	Dallas	2"	"	S. L.	31106	6-15-31	3,000'	G-180	July 1931	12.25	12.01				
" " " "	Dallas	2"	"	S. L.	31810	8- 7-31	15,000'	H-673	Aug. 1931	12.65	12.40				
Community Natural Gas Co.	Dallas	2"	"	S. L.	9629	3- 2-32	2,000'	C-185	Mar. 1932	13.69	13.41				
" " " "	Dallas	2"	"	S. L.	9631	2-29-32	2,000'	C-102	Mar. 1932	12.65	12.40				
Municipal Gas Company	Hillsboro	2"	"	S. L.	2964	5-29-31	5,000'	E-245	May 1931	12.50	12.25				
" " " "	Denison	2"	"	S. L.	7083	11-28-31	3,000'	L-255	Nov. 1931	13.30	13.03				
" " " "	McKinney	2"	"	S. L.	7488	12-16-31	5,000'	M-277	Dec. 1931	13.30	13.03				
Lone Star Gas Company	Dallas	3"	7.575#	S. L.	30602	5-14-31	3,000'	E-757	May 1931	18.00	17.64				
" " " "	Dallas	3"	"	S. L.	31640	7-25-31	9,000'	H-191	Aug. 1931	16,60	16,27	25.08	24.58	16.60	16.27
" " " "	Dallas	3"	"	S. L.	31640	7-31-31	6,000'	H-246	Aug. 1931	16.60	16.27				
" " " "	Dallas	3"	"	S. L.	30008	3-30-31	3,000'	D-262	Apr. 1931	18.00	17.64				
Community Natural Gas Co.	Cisco	3"	"	D. L.	8218	1- 6-32	5,000'	A-407	Jan. 1932	18.15	17.79				
Lone Star Gas Company	Dallas	4"	10.790#	S. L.	31640	7-27-31	6,000'	H-221	Aug. 1931	23.60	23.13	27.06	26.52	23.60	23.13
Community Natural Gas Co.	Brownwood	4"	"	S. L.	6643	10-27-31	6,500'	L-55	Nov. 1931	24.60	24.11				
" " " "	Dallas	4"	"	S. L.	9629	3- 2-32	3,000'	C-185	Mar. 1932	25.70	25.19				
" " " "	Dallas	4"	"	S. L.	9631	2-29-32	3,000'	C-102	Mar. 1932	24.60	24.11				
" " " "	Cisco	4"	"	D. L.	8218	1- 6-32	8,000'	A-407	Jan. 1932	25.50	24.99				
" " " "	Abilene	4"	"	S. L.	9484	2-29-32	4,000'	C-102	Mar. 1932	24.60	24.11				
Municipal Gas Company	Hillsboro	4"	"	S. L.	2964	5-29-31	10,000'	E-245	May 1931	24.50	24.01				
" " " "	Denton	4"	"	S. L.	3976	7-20-31	400'	G-253	July 1931	24.00	23.52				
" " " "	Hillsboro	4"	"	S. L.	4778	8-22-31	5,000'	H-205	Aug. 1931	27.06	26.52				
" " " "	McKinney	4"	"	S. L.	7488	12-16-31	5,000'	M-277	Dec. 1931	27.06	26.52				
" " " "	Denison	4"	"	S. L.	7083	11-28-31	1,500'	L-255	Nov. 1931	27.06	26.52				
Lone Star Gas Company	Ranger	6"	18.970#	D. L.	29526	3-10-31	5,000'	D-255	Apr. 1931	45.00	44.10				
" " " "	Dallas	6"	"	S. L.	31106	6-15-31	1,000'	G-180	July 1931	41.65	40.82	47.80	46.84	41.65	40.82
" " " "	Shamrock	6"	"	D. L.	33096	11-20-31	6,000'	M-164	Dec. 1931	45.00	44.10				
" " " "	Cisco	6"	"	D. L.	29526	3-11-31	4,000'	D-255	Apr. 1931	45.00	44.10				
" " " "	Dallas	6"	"	S. L.	30008	3-30-31	1,000'	D-262	Apr. 1931	43.37	42.50				
Municipal Gas Company	Denton	6"	"	S. L.	1693	3-19-31	5,000'	C-238	Mar. 1931	43.40	42.53				
" " " "	Hillsboro	6"	"	S. L.	2964	6- 5-31	6,000'	F-252	June 1931	43.75	42.88				
" " " "	Denton	6"	"	S. L.	3976	7-18-31	4,000'	G-253	July 1931	42.50	41.65				
" " " "	Denton	6"	"	S. L.	4837	8-29-31	6,500'	H-205	Aug. 1931	47.80	46.84				
" " " "	Sherman	6"	"	S. L.	5625	9-29-31	2,000'	J-256	Sept. 1931	47.80	46.84				
" " " "	Wichita Falls	6"	"	S. L.	5143	9-12-31	3,000'	J-256	Sept. 1931	47.80	46.84				
" " " "	Denison	6"	"	S. L.	5322	9-18-31	6,000'	J-185	Sept. 1931	48.55	47.58				
" " " "	Denison	6"	"	S. L.	7083	11-28-31	1,000'	L-255	Nov. 1931	47.80	46.84				

[fol. 9798-9799]

Lone Star Gas Company	Dallas	8"	25.062#	S. L.	31687	7-31-31	2,000'	H-251	Aug. 1931	$58.00	$56.84	$65.37	$64.06	$58.00	$56.84
" " " "	Dallas	8"	"	S. L.	31106	6-15-31	1,000'	G-180	July 1931	56.00	54.88				
Municipal Gas Company	Sherman	8"	"	D. L.											
Lone Star Gas Company	Petrolia	10"	31.44#	S. L.			31	70							
" " " "	Waco	10"	"	S. L.	2		-31	500							
" " " "	Waco	10"	"	S. L.	2		-31	500							
" " " "	Ft. Worth	10"	"	S. L.	31		-31	1,500							
" " " "	Ranger	10"	"	S. L.	29		-31	1,400							
" " " "	Shamrock	10"	"	S. L.	3		-31	400							
Municipal Gas Company	Wichita Falls	10"	"	S. L.			-31	1,00							
Lone Star Gas Company	Duncan, Okla.	12"	37.45#	S. L.			-31	1,25							
Lone Star Gas Company	Breckenridge	16"	47.1	S. L.											
" " " "	Ranger	16"	"	S. L.	29835	3-20-31	1,000'								
" " " "	Ft. Worth	16"	"	S. L.	30366	4-24-31	1,000'	E-54	May 1931	127.46	124.91	151.75	148.72	127.46	124.91
												171.05	167.62	143.65	140.78
Lone Star Gas Company		18"	53.223#	NO PURCHASES								190.50	186.69	160.00	156 80
Lone Star Gas Company		20"	59.231#	NO PURCHASES											

Plain End—Seamless

Lone Star Gas Company	Joshua	18"	53.223#	D. L.	32248	9-14-31	1,200'	J-734	Sept. 1931	146.35	143.42	183.58	179.91	146.35	143.42

* Plain End—Electric Weld—(Seamless)

Lone Star Gas Company	Burleson	16"	47.215#	D. L.	31822	8-14-31	18,400'	(H-1058 (H-956	Aug. 1931	146.32	143.39	164.83	161.53	144.47	141.58
" " " "	Joshua	16"	"	D. L.	31822	8-14-31	18,400'	(H-539	Aug. 1931	146.32	143.39				
												185.79	182.07	162.84	159.48
Lone Star Gas Company		18"	53.223#	NO PURCHASES								206.73	202.60	181.20	177.58
Lone Star Gas Company		20"	59.231#	NO PURCHASES											

* Inspected by R. W. Hunt & Co.—Voucher K-129, Oct. 1931.

Part Of This Page Is Missing

BLANK

PAGE

[fols. 1-8] IN COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT, AT AUSTIN, TEXAS

No. 8238

THE STATE OF TEXAS et al., Appellants,

vs.

LONE STAR GAS COMPANY, Appellee

Appealed from the District Court of Travis County, Texas, for the Fifty-Third Judicial District

BRIEF FOR APPELLEE

* * * * * *

[fol. 9] DEFENDANT'S CROSS-ASSIGNMENTS OF ERROR

1

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested. (Defendant's Cross Assignment of Error No. 14, Transcript 587.)

2

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the statement of the Railroad Commission of Texas attached to the opinion and order of the said Commission, marked Exhibit "A" and referred to in plaintiffs' Second Amended Original Petition, that defendant was engaged in the production and sale at wholesale of natural gas, engaging in both interstate and intrastate commerce in the sale of gas to some 300 cities and towns in the States of Oklahoma and Texas. The order [fol. 10] of the Railroad Commission undertook to fix a reasonable rate for all of the gas supplied by the defendant to the various distributing companies. A part of the gas being delivered by the defendant at the city gates of various towns and cities in Texas at the time of the investigation of

the Railroad Commission, and at all times in question was being transported uninterruptedly through defendant's high-pressure pipe lines from and through the State of Oklahoma into the State of Texas. The business of transporting natural gas uninterruptedly through defendant's high-pressure pipe lines from the State of Oklahoma into the State of Texas, and from the State of Texas through Oklahoma and back into the State of Texas is national in character and constitutes interstate commerce and transportation, and also constitutes a substantial portion of defendant's entire natural gas business. The order of the Railroad Commission was intended to and did, in fact, prescribe the rate to be charged for all gas sold by the defendant, including interstate gas, and thereby prevented the defendant from charging and receiving the price for interstate gas which it was charging and receiving, and, therefore, was a burden upon and a direct regulation of interstate commerce. The order of the Railroad Commission therefore was void insofar as it related to interstate commerce, and gas sold by the defendant moving in interstate commerce under the Commerce Clause of the Federal [fol. 11] Constitution, and, being void in part, and being indivisible in character, it was void in its entirety and could not be enforced in whole or in part by the plaintiffs in this suit.

Wherefore, defendant was entitled to an instructed verdict and judgment of the court entered thereon. (Defendant's Cross Assignment of Error No. 23, Transcript 595.)

3

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the Commission in its order of September 13, 1933, was unjust, unreasonable, and confiscatory in this, that if said rate had been in effect during the year 1931, and subsequent accounting periods, defendant would not have earned and would not have been able to earn the minimum net rate of return to which the Railroad Commission found it was en-

tified, upon the fair value of its public service property as determined by the Commission.

Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross Assignment of Error No. 15, Transcript 587.)

[fol. 12]

4

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the Commission in its order of September 13, 1933, was unjust, unreasonable and confiscatory in this, that said rate was based on a determination of the value of defendant's public service property as of December 31, 1931, considering labor and material prices substantially less than those prevailing on the date of the inquiry; and even though it be assumed that the Railroad Commission correctly valued such property as of December 31, 1931, nevertheless, if effect be given to such increased labor and material prices, the Railroad Commission's valuation would be materially increased as of the date of the inquiry; and if said rate of 32 cents had been in effect during 1931, and subsequent accounting periods, defendant would not have earned and would not have been able to earn anything like the minimum net rate of return to which the Commission found it was entitled upon the fair value of its public service property at the time of the inquiry.

Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross [fol. 13] Assignment of Error No. 16, Transcript 588.)

5

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the Commission in its order of September 13, 1933, was unjust,

unreasonable and confiscatory in this, that if said rate had been in effect during 1931, and subsequent accounting periods, defendant would not have earned and would not have been able to earn anything like the fair net annual rate to which it was entitled in law, or the minimum net rate of return to which the Commission found it was entitled upon the fair value, at the time of the inquiry, of all of its public service property, wherever located.

Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross Assignment of Error No. 17, Transcript 589.)

6

The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and [fols. 14-15] timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from plaintiffs' own testimony that the rate of 32 cents prescribed by the Commission in its order of September 13, 1933, was unjust, unreasonable and confiscatory in this, that even adopting plaintiffs' valuation of defendant's public service property located in Texas, and assuming that such valuation is of probative force and effect under the issues made in this case, nevertheless, if said rate had been in effect during 1933 and 1934, defendant would not have earned as much as the minimum net rate of return to which the Railroad Commission found it was entitled. Hence, on the basis of plaintiffs' own testimony, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross Assignment of Error No. 20, Transcript 591.)

* * * * * * *

[fol. 16] IN COURT OF CIVIL APPEALS OF TEXAS

No. 8238

THE STATE OF TEXAS et al. Appellants,

vs.

LONE STAR GAS COMPANY, Appellee.

Appeal From District Court of Travis County

OPINION OF COURT—Filed July 10, 1935

Acting under the power conferred by Article 6050, et seq., R. S. 1925, and after a hearing which continued for more than seven months, the Railroad Commission of Texas promulgated its order requiring appellee Lone Star Gas Company to "charge, bill and receive for domestic gas at the city gate from all distributing companies served by it, a rate not to exceed $0.32 per thousand cubic feet", in lieu of the $0.40 rate theretofore charged. Immediately appellee filed a bill of complaint in the Federal District Court, seeking to restrain the enforcement of the rate order on several constitutinal grounds, and particularly as being confiscatory of its property. Thereafter, the Commission, Attorney General, and others, herein called Commission, instituted this proceeding in the District Court of Travis County, Texas, in order to bring appellee within the jurisdiction of the state court under the provisions of Sec. 266 of the Judicial Code of the United States (28 U. S. C. A., Sec. 380). The Commission asserted the validity of the order in every particular, and sought to restrain appellee from violating it. In conformity with what was regarded as proper procedure under Sec. 266 of the Judicial [fol. 17] Code, both the state and the federal courts temporarily restrained the enforcement of the rate order, and later the federal court ordered all proceedings therein stayed until the final disposition of this cause. Appellee's answer herein, seeking to set aside the rate and restrain its enforcement, was in effect an appeal by it under Article 6059,

which provides that any gas utility dissatisfied with any rate may petition a court of competent jurisdiction in Travis County and have same set aside, upon showing by "clear and satisfactory evidence that such rate is unreasonable and unjust as to it." Appellee alledged that the rate order was violative of the commerce, the due process, the equal protection, and the freedom of contract clauses of the Federal Constitution; and was confiscatory and unreasonable and unjust, because it would not afford a reasonable return on the fair value of its property used in the public service. In reply, the Commission asserted the validity of the order in every particular, denied that any gas moved in interstate commerce; but that if so, it was negligible in amount and was not affected by the rate; and that in absence of legislation by Congress on the subject, the Commission had the authority under the statutes and in the exercise of the police power of the state to regulate and control public gas utilities, and to fix reasonable rates for gas sold and delivered to its citizens, even though interstate commerce was indirectly or incidentally affected thereby.

The trial court concluded the commerce and all constitutional questions against appellee; but the jury found in answer to the one special issue submitted, that "the order [fol. 18] for a rate not to exceed 32 cents per thousand cubic feet of gas sold to the distributing companies at the gates of the points served, is unreasonable and unjust as to the Lone Star Gas Company". Judgment was accordingly rendered setting aside the 32-cent rate order, and perpetually restraining its enforcement.

The special issue submitted, with the definition and instructions given in connection therewith, was in the nature of a general charge, and required the jury to determine all questions of law and fact of the entire case. Under the pleadings of appellee the ultimate question of fact was whether the 32¢ rate would yield a reasonable return on the fair value of the property used in the public service of delivering and selling natural gas to the distributing companies at the city gates of the various Texas cities and towns. Appellee attempted to prove that the 32¢ rate would not yield a reasonable return, for two reasons, as follows:

1. Because the 32¢ rate would not yield the minimum return of 6% declared to be reasonable by the Commission; and

2. Because if so, a return of 6% was so low as to be confiscatory and unreasonable and unjust.

The burden was heavily upon appellee to show by clear and satisfactory evidence that the 32¢ rate would not afford a reasonable rate of return on the property used in the Texas public service. Appellee did not meet this burden and quantum of proof; and the trial court erred in overruling the Commission's motions for an instructed verdict and for judgment declaring the rate to be valid. In view of this conclusion, the appeal presents two main divisions, as follows:

[fol. 19] 1. Three constitutional objections are urged against the 32¢ rate order, as follows:

(a) Interference with interstate commerce.
(b) Interference with the right to contract.
(c) Confiscation of property.

2. The legal sufficiency of the evidence adduced by appellee to show that the rate order was confiscatory or unreasonable and unjust as to it.

The Texas statutes, particularly Articles 6050, 6051 and 6053, classify the various kinds of business engaged in producing, transporting, delivering and selling natural gas to the public for domestic or other use, and declare each to be a public gas utility, affected with the public interest and subject to the regulation and control of the Commission. Gas pipe lines engaged in producing, buying, transporting, delivering, or otherwise dealing in natural gas are each declared to be a public utility, affected with the public interest, and in nature and according to the established method of conducting same a monopoly, and subject in respect to all their holdings pertaining to the Gas business and in all relations to the public, and in respect to their producing, transporting, receiving and distributing facilities, to the full and complete control and supervision of the Commission. Authority is also given the Commission to fix, establish and enforce a reasonable rate which pipe line may charge for gas delivered at the city gate to another distributing company or municipality; to fix a reasonable rate for gas sold and delivered by pipe lines or other distributing companies to the public for domestic or other use; [fol. 20] and to fix and establish a fair and equitable divi-

sion of the proceeds of the sale of natural gas between the producing or transporting companies and the companies distributing or selling it to the ultimate consumer. In the exercise of the power so conferred, the Commission is authorized to act upon its own motion, or upon the petition of any person, corporation, municipality, etc., showing a substantial interest in the subject.

Accordingly the Commission of its own motion, ordered a hearing to investigate the 40¢ city gate rate which appellee uniformly charged the various distributing companies throughout the State for gas. Appellee and each of the approximately 270 cities and towns served by it were given notice of the hearing, after which the Commission made its order fixing the 32¢ gate rate, found to be "fair, just and reasonable", in lieu of the 40¢ rate theretofore charged, found to be "unfair, unjust and unreasonable."

Interstate Commerce Issue

Appellee obtains its natural gas from two states, which under its system of accounting is allocated to three sources. The first source is gas produced or purchased in Texas and transported and delivered entirely within Texas. As to this gas, appellee admits the authority of the Commission to regulate and fix the price for which it shall be sold at the city gates to the affiliated distributing companies in a proper proceedings; but contends that since the rate order in question also attempts to fix the price of gas transported in interstate commerce, the order is invalid in [fol. 21] toto because invalid in part. From this source appellee accounts for about 79% of its total gas supply.

The second source of gas is produced or purchased by appellee in Oklahoma, and transported through its pipe lines from points of production into Texas. All of this gas is processed and treated in gasoline plants located near Gainesville, Texas, and Petrolia, Texas. At these plants the heating value of this gas is lowered by extracting the gasoline therefrom, and practically all of it is recompressed. When this gas leaves Oklahoma for Texas its exact ultimate destination is not known, and a considerable amount of it is run through and stored in wells at the extraction plants in Texas for future use as needed. Each pipe line transporting this gas has a meter at the State line, for the purpose of measuring the amount thereof. From

this source, over the 1927-1933 period considered, appellee accounts for about 4% of its total gas supply. However, the amount of this gas has shown a marked decline until during the last year of the accounting period it amounted to about one-half of 1% of appellee's total gas supply. All of this gas is commingled in storage or pipe lines with appellee's Texas gas before delivery at the city gates. Appellee contends that this gas moved in interstate commerce to the city gates, and is, therefore, not subject to the jurisdiction of the Commission.

The third source of gas is produced or purchased in the Panhandle field in Wheeler county, Texas, and transported by appellee's private pipe line through a corner of Oklahoma (less the amount of deliveries at Hollis, Oklahoma) [fol. 22] and back into Texas, uninterruptedly. The Commission alleged and indisputably proved that this pipe line was built through a sparsely settled, rough, rocky region, just within and paralleling the bound-ry line of Oklahoma, for about 40 miles, recrossing the Texas line at a point on the Prairie-Dog Town Fork of Red River, where an exceedingly expensive crossing was necessary, which would not have been necessary if the pipe line had been constructed by a more direct route within Texas; and that as compared to the Oklahoma route, the Texas route would have been much less expensive, through sandy and less corrosive soil, more direct, and through a more populous region. The Commission contends that the construction of this pipe line was, therefore, fraudulently done for the purpose of attempting to deprive it of jurisdiction over appellee. From this source of gas appellee accounts for about 17% of the total supply subject to the rate order in question.

The gas reserve of appellee in Oklahoma as compared to those in Texas amounted to about one-fourth of one per cent. The gas reserves in Texas are more than sufficient to supply all Texas needs, and the gas supply of Oklahoma will likewise supply all its needs. The Texas gas used in Oklahoma and the Oklahoma gas used in Texas about strike a balance, and in any event, if the excess should be in favor of Oklahoma, it is negligible. Texas gas is less expensive to produce than Oklahoma gas. Approximately 85% of appellee's property is situated in Texas; and approximately 99% of its gas reserves are in Texas. Gas

coming from Oklahoma is so mixed and commingled with [fol. 23] Texas gas that it cannot be definitely traced by volume to any particular city gate, because it is divided and redivided into the network of appellee's pipe lines, in amounts which are negligible in comparison with the amount of the Texas gas. Oklahoma produced gas is not served south of Fort Worth or Dallas, nor west of Fort Worth. A very small amount of Oklahoma gas is delivered to independent distributors at Gainesville and Waxahachie. The order does not in any manner interfere with the sale of the Oklahoma gas at the same rate as the Texas gas.

In view of these facts, appellee contends that the order was an attempt to regulate and burden interstate commerce, because a part of the gas affected by the 32¢ rate is produced or purchased in the State of Texas, and transported by the pipe lines of appellee through a corner of the State of Oklahoma and back into Texas, where it is sold and delivered wholesale at the gates of the various Texas cities and towns; and because a part of the gas is produced or purchased in the State of Oklahoma and transported by the pipe lines of appellee uninterruptedly and at high pressure into Texas, where it is sold wholesale at the city gates.

As preliminary and as bearing upon the issues of interstate commerce, the interference with the right to contract, operating expenses, and other issues relating to the jurisdiction of the Commission to regulate and control appellee, it was the theory of the Commission that by reason of an intercorporate setup and affiliation between appellee and the distributing companies to which it delivered gas at the [fol. 24] city gates, an integrated but single business enterprise was established in which appellee and the distributing companies were merely the departments or instrumentalities through which the single business enterprise sold and delivered natural gas to the ultimate consumer or burner tip user. The Commission asserted that the fixing of the gas rate at the city gate under such business setup effectually fixed the rate from the city gate to the burner tip, which was intrastate commerce and subject to the control and regulation of the Commission. It was alleged that the unity or oneness of the business enterprise was accomplished by the combination of property and effort, and through a holding corporation, the Lone Star Gas Corporation, a Delaware chartered corporation, with its principal offices in Pitts-

burgh, Pennsylvania. The facts sustaining this allegation are as follows:

Appellee, Lone Star Gas Company, is in corporate theory a Texas gas pipe line corporation, classified by Article 6050 as a "public utility", and "declared to be affected with a public interest and subject to the jurisdiction, control and regulation of the Commission." By Article 6051, appellee's business is declared to be "a business which in its nature and according to the established method of conducting the business is a monopoly and shall not be conducted unless • • • such business be subject to the jurisdiction herein conferred upon the Commission." In excess of 99% of appellee's common, voting or controlling stock is owned by the Lone Star Gas Corporation, the Delaware chartered corporation, which does not have a permit to do business in Texas.

The affiliated distributing companies material to this [fol. 25] case are the Community Natural Gas Company, County Gas Company, Dallas Gas Company, Municipal Gas Company, and Texas Cities Gas Company. Each of these companies is a Texas Corporation, and in corporate theory and as classified by Article 6050, each is a "public utility", engaged "in distributing or selling natural gas to the public for domestic or other use," serving one or more of some 270 cities and towns in Texas. The Delaware holding corporation owns in excess of 99% of the common or voting stock of the affiliated Community Gas Company, County Gas Company, Municipal Gas Company, Texas Cities Gas Company, and, through a sub-holding corporation, the Dallas Gas Company.

Appellee and all of its affiliated distributing companies have connected offices in Dallas, Texas, and all of these Texas corporations and the Delaware holding corporation have officers and directors common to each corporation, although there is not a majority by number in any instance. Voting by proxy or as attorney in fact is practiced by the interlocking directors and officials of all corporations involved in the intercorporate setup. All Texas corporations confer with and are subject to the management of the Lone Star Gas Corporation, the holding corporation. For these services it exacts a "management fee" of one per cent of the gross annual revenue of appellee, and a "management fee" is also exacted by the holding corporation from each

affiliated distributing company. The holding corporation has loaned appellee $17,600,000 on its unsecured note; and loans have been made to each affiliated distributing company either on open account or on unsecured notes. In- [fol. 26] terest at six per cent, is charged on the $17,600,000 indebtedness of appellee, although the holding corporation borrowed the money at five per cent, and a similar condition exists as to the affiliated distributing companies, notwithstanding some of them are able to borrow large sums from local banks at from four to four and one-half per cent interest.

All books of all corporations, except the holding corporation, are kept in the offices at Dallas, Texas, and a general or supervising auditor has authority and direction over all books. Accounting services, engineering, financing, purchasing and operating supervision are furnished all Texas corporations by the Delaware holding corporation, and a general counsel represents all the corporations involved in the intercorporate setup.

In its department of the integrated business enterprise, appellee is engaged in producing and purchasing natural gas and in transporting same by its 4000-mile pipe line system from the point of production to the city gates of some 270 cities and towns in Texas, where the gas is delivered to one and the other affiliated distributing companies. A uniform rate of 40¢ at the city gate is made by appellee, which rate it filed with the Commission, and has charged and collected for several years. Appellee has long-term contracts with its affiliated distributing companies for the 40¢ city gate rate.

In their department of the integrated business enterprise, the affiliated distributing companies are engaged in selling and delivering the gas to the burner tips of the consumers, and for which service they charge a fixed rate.

[fol. 27] Appellee also furnishes gas at the city gates of Waxahachie and Gainesville, Texas, to two independent distributing companies,—the Waxahachie Gas Company and the Gainesville Gas and Electrical Company; and in Waxahachie, a small amount to its affiliated Municipal Gas Company. The amount of this gas is negligible, in comparison with appellee's total gas business. Each independent distributing company pays the 40¢ city gate rate under long-term contracts with appellee.

The cases are legion which deal with the relationship of two or more corporations from the standpoint of ownership of the capital stock in one by another, and from the standpoint of association together for the purpose of carrying on a single or common business enterprise. The rule is well settled that courts will look through the forms to the realities of the relationship between two or more corporations in order to determine whether each is a separate entity or corporation; or whether their commingled affairs are such as to constitute them one integrated and single business enterprise; or whether through intercorporate setup, affiliation or stock ownership, the purpose is to control the subsidiary corporation or corporations so that they are used as the mere instrumentalities or agents of the owning corporation or corporations. In discussing the rule, it has been held that while "ownership alone of capital stock in one corporation by another does not create an identity of corporate interest * * * or create the relation of principal and agent or representative between the two;" still it has been repeatedly held that such rule is not applicable "where stock ownership has been [fol. 28] resorted to, not for the purpose of participating in the affairs of a corporation in the normal and usual manner, but for the purpose * * * of controlling a subsidiary company so that it may be used as a mere agency or instrumentality of the owning company or companies." Chicago Ry. v. Minn. Civic Ass'n., 247 U. S., 490, 62 L. Ed. 1229; United States vs. Lehigh Valley R. R. Co., 220 U. S. 257, 55 L. Ed., 458; United States v. Reading Co., 253 U. S., 26, 64 L. Ed., 760; United States v. Delaware L. & W. R. Co., 238 U. S. 516; 59 L. Ed., 1438. Also in discussing the rule the fact that the same persons are directors and managers of two corporations has been given consideration (McCaskill Co. v. United States, 216 U. S., 504) and "a growing tendency is therefore exhibited in the courts to look beyond the corporate form to the purpose of it and to the officers who are identified with that purpose." See also Gallatin Gas Co. v. Public Service Co., 256 Pac., 373. Where one corporation owns or dominates another it has been often held that "the independent entity of the two companies is so far disregarded that each is considered a part of the invisible whole." Kimberly Coal Co. v. Douglas, 45 Fed. (2d) 25; In re Kentucky Wagon Mfg. Co., 3 F. S. 958; Law v. McLaughlin, 2 F. S., 601. And "the rule which appears to be established by these cases is that,

where the corporate organization and affairs of one railroad company are controlled and dominated by another railroad company through ownership of stock or lease, the roads must be regarded as identical for the purpose of rate making." Pontiac Ry. Co. v. R. R. Com., 168 N. W., 927.

[fol. 29] A somewhat analogous question was decided by this court in A. T. & S. F. Ry. Co. v. R. R. Com., 77 S. W. (2d), 773, (writ refused), wherein it was held that subsidiary corporations, owned, controlled and operated by railroads to carry on pickup and delivery service, did not possess separate legal individuality from the parent corporations, as regards the jurisdiction of the Railroad Commission; and wherein it was held as follows:

"To permit railroads to perform such steps in the process of transportation through other separate legal entities created and owned by them would enable them to defeat the jurisdiction of the Commission over such transportation. And in such case where the stock of such separate corporation is owned by the railroad company, and its sole function is merely to help conduct the business of the parent corporation under whose complete control it operates, and in the instant case largely, if not wholly, through the same employees, the subsidiary corporation will be treated as if it were a mere department of the railroad itself."

When viewed in the light of the facts and the aforesaid rule, it becomes apparent that appellee and its affiliated distributing companies were engaged in an integrated but single business enterprise of producing, purchasing, transporting, delivering and selling natural gas for domestic or other use to the ultimate consumer. This was accomplished by combination of property and effort, and through ownership of more than 99% of the capital stock of appellee and all affiliated distributing companies by the holding corporation. All corporations are under the common management of the holding corporation, for which service it is paid management fees. The Texas corporations and the holding corporation have officers and directors common to each, who actually [fol. 30] manage, supervise and control the entire business enterprise through the intercorporate setup. By permitting or organizing such intercorporate setup, the Texas corporations have, considering their entire operations as a whole,

created a single and integrated business enterprise, and with respect to the jurisdiction of the Commission, to regulate and control such business, and particularly for the purpose of fixing the rates for which it might sell gas to the public in Texas, the corporation must be regarded as being engaged in the single business enterprise of producing, purchasing, transporting, delivering, and selling natural gas to the ultimate consumer or user in Texas. The fact that separate corporate entities were formed which represent different departments of the integrated but single business enterprise, does not affect the question, because the court must look beyond the corporate form to the purpose of the unified organization, and to the officials who are identified with that purpose. To otherwise hold, and to permit the Texas Corporations to so dispose of their capital stock and to so form a separate entity of their own, and to surrender the management and control of their business to the holding corporation, which has no permit to do business in Texas, would enable them to defeat the jurisdiction of the Commission over them as Texas public utilities, for which purpose the State of Texas granted them life and the privilege of doing business.

The fact that appellee and the affiliated distributing companies may be engaged in the integrated but single business enterprise of producing, purchasing, transporting and sell-[fol. 31] ing natural gas to the ultimate consumer or burner tip user, is not of controlling importance on the commerce issue; because the Commission did not fix the burner tip rate, nor did it require the distributing companies to pay appellee not in excess of the 32¢ city gate rate, and to pass the 8¢ reduction on to the ultimate consumer or burner tip user.

Just why the Commission fixed the 32¢ city gate rate for gas without also requiring the distributing companies to pay not in excess of such rate, and to pass the 8¢ reduction on to the ultimate consumer or burner tip user, is not clear from the order or record. It is conceded that the business of distributing gas from the city gate to the burner tip user was intrastate commerce over which the Commission had jurisdiction; and that it could have, after a hearing at which the reasonableness of the City gate rate charged by appellee for gas was inquired into, required the various distributing com-

panies to pay appellee at each city gate a rate not in excess of the 32¢ rate, even though the gas sold and delivered by appellee moved in interstate commerce to the city gate. Article 1119, R. S. 1925, authorizes cities and towns of over 2000 population to fix local rates for gas sold by a public utility. Texas-Louisiana Power Co. v. City of Farmersville (Com. App.), 67 S. W. (2d), 235. The Commission is authorized to originate rates for cities and towns of less than 2000 population; and Article 6053 authorizes it to fix city gate and other rates for natural gas for all cities and towns without regard to population. The order recited that there were then pending some 125 appeals from rates fixed by cities [fol. 32] and towns under the provisions of Articles 1119 and 6058, and that there were also pending before the Commission numerous cases in which the rates to be reviewed or fixed necessarily involved the determination of the reasonableness of the city gate rate charged the distributing companies by appellee, as a step preliminary to the disposition of such appeals and cases, and in order to determine or fix reasonable local or burner tip rates therein. All of these cities and towns were given notice of the hearing before the Commission. It would seem from these recitations of facts and circumstances, that the Commission consolidated all the appeals and cases pending before it in which the determination of the city gate rate charged by appellee for gas was necessarily involved as a step preliminary to reviewing or fixing the local or burner tip rates for gas. The wisdom of the method of procedure adopted cannot be successfully attacked. A separate hearing in the case of each city or town would have presented an insurmountable task; and if the expenses of this hearing are a criterion, no city or town could bear such expense. Separate hearings would not afford appellee any relief to which it is not entitled to receive here. Nor is it "essential that the Commission dispose of the matter pending before it in a single order, but that it may in a proper case make a preliminary disposition of the matter, and reserve for further consideration, and dispose of by subsequent order, other questions or issues involved in the main issue without further notice or hearing." Houston Chamber of Commerce v. R. R. Com., 19 S. W. (2d), 586, affirmed 78 S. W. (2d), 591; Magnolia Pet. Co. v. Edgar, 62 S. W. (2d), 359, (writ ref.). Moreover, all parties have by court pro- [fol. 33] ceedings and otherwise treated the order as a final

order fixing the 32¢ city gate rate. Certainly appellee has so treated the order, and if declared valid herein, appellee has no further interest in any order the Commission may make with regard to requiring the various distributing companies to pay not in excess of the 32¢ city gate rate, and to pass the 8¢ reduction on to the ultimate consumer or burner tip user. Furthermore, in its department of the intercorporate setup and affiliation appellee was a gas pipe line utility, engaged in the integrated business of producing, purchasing, transporting by pipe line, and selling natural gas to the distributing companies at the city gates of some 300 cities and towns in Texas and Oklahoma. Appellee's charter and the books kept under the direction of the auditor of the intercorporate business setup established that it was so engaged. On the hearing before the Commission, all parties proceeded upon the theory that appellee was so engaged. It had contracts with the affiliated as well as the two independent distributing companies for the 40¢ city gate rate uniformly charged throughout the State of Texas by appellee. The Texas statutes authorize the Commission to fix reasonable city gate as well as local or burner tip rates for gas, and appellee states in its brief that "the Railroad Commission of Texas has power and authority to fix and prescribe the charges which defendant may make for gas produced or purchased by it and moving throughout its entire transit, up to the point of delivery at the city gates, wholly within the State of Texas, subject to defendant's rights under the 14th Amendment of the Constitution of the United States, and the Bill of Rights [fol. 34] of the Texas Constitution; and it has power and authority to determine the rates and charges to be received for the sale of gas to domestic customers in towns and cities in Texas (i. e. local rates), even though a part of the gas so sold has moved continuously in interstate commerce from the points of origin to the points of delivery at the city gates, subject to a similar qualification. But it may not regulate the gate rate to be charged by defendant for the sale of interstate gas." In view of these facts, admissions and proceedings, we will consider the rate order in question as a final appealable order, and pass to a further consideration of the interstate commerce issue.

Whether the conduct of appellee, in constructing and transporting by its private pipe line gas from the Texas Panhandle field through Oklahoma and back into Texas, where

it is intended at all times to be delivered, sold and used, constitutes a fraudulent attempt to make such gas move in interstate commerce, and thereby deprive the Commission of the power to regulate the price for which it may be sold, does not appear to be material, because such transportation of the gas is not interstate commerce as a matter of fact. Except for the right to authorize the construction of the pipe line within its boundary, the State of Oklahoma has no concern whatever with the transaction. Only one town, Hollis, in Oklahoma, is served by the pipe line. It could have been as well served by a direct pipe line from Texas to it, and such service is in no manner affected by the rate order in suit. The mere fact that such town is served with gas delivered from [fol. 35] the pipe line does not stop, hinder, affect, or in any manner interrupt or interfere with the continuous flow of the gas from Texas through Oklahoma and back into Texas, where it is intended at all times to be delivered, sold and used.

In 1 Supreme Court Law, 347, the following rule is stated:

"Interstate commerce is a practical conception drawn from the course of business upon a broad consideration of the substance of the whole transaction. Substance, and not form controls. The actual fact, not technical considerations, governs."

The text cites many cases supporting the rule, holding in substance that what is or is not interstate commerce is to be determined upon broad consideration of the substance of the whole transaction. See Federal Trade Com. v. Pacific, etc. Ass'n., 273 U. S., 52, 71 L. Ed. 534; Eureka Pipeline Co. v. Hallahan, 257 U. S., 265, 66 L. Ed., 227; R. R. Co. v. United States, 196 U. S., 398; 28 L. R. A. (N. S.) 264.

Cases cited by appellee and many others hold that gas produced in one state and transported by pipe line to another state for sale and use is interstate commerce. 1 Supreme Court Law, 367. But no case is cited and none is found by us which would support a holding that the transportation by its private pipe line of gas produced or purchased by appellee in Texas through a corner of Oklahoma and back into Texas, uninterrupted, and with the intention at all times that such gas would be delivered, sold and used in Texas, is interstate commerce. Appellee is a Texas public gas utility corporation. Its primary duty is to serve Texas citizens with gas

[fol. 36] produced from Texas soil. Its corporate life and being was granted in consideration of these premises. With this in view, but one practical conception can be drawn from the whole transaction involved, that is, the gas produced in Texas and intended to be delivered, sold and used in Texas is intrastate commerce. The mere fact that appellee has selected a route through Oklahoma as an aid to the transaction of its Texas business can not work a change in the nature of the business, nor does it affect the character of the business. The transportation of gas through Oklahoma is merely a method of delivery and is a negligible circumstance in determining the interstate commerce issue. Heyman v. Hays, 236 U. S., 178, 59 L. Ed., 527.

If, however, the delivery of the gas by appellee from Texas through Oklahoma and back into Texas, intended at all times for Texas consumption, be regarded as interstate commerce, such transaction only affects transportation of the gas and as to which only appellee and the Texas consumers are interested. The Interstate Commerce Act, as now amended, expressly excepts from the jurisdiction of the Interstate Commerce Commission the regulation of interstate transportation of "natural or artificial gas by pipe.line, or partly by pipe line and partly by railroad or by water." 28 U. S. C. A., Title 49, Chap..1, Sec. 1, Subdiv. (b). And since the regulation of the transportation of gas is expressly excluded from the scope of the interstate Commerce statute, it is within the police power of the state to fix reasonable rates for which gas may be sold to its citizens, even though such rates may indirectly or incidentally affect the interstate [fol. 37] transportation of such gas, or may so affect interstate commerce in the same. Simpson v. Shepard, 230 U. S., 352, 57 L. Ed., 1511, 48 L. R. A. (N. S.) 1151. West v. Kansas Gas Co., 221 U. S., 229, 55 L. Ed., 716, 35 L. R. A. (N. S.), 1193; Pennsylvania Gas Co. v. Public Service Com., 252 U. S., 23, 64 L. Ed., 434; Manufacturers Light & Heat Co. v. Ott, 215 Fed., 944.

Neither the Texas statutes nor the rate order interfere in any manner with the transportation of gas from Texas through Oklahoma and back into Texas. The order only attempts to regulate and fix the price for which such gas may be sold in Texas by appellee to its various distributing companies. Manifestly, this circuitous route of delivery of gas through Oklahoma can not and does not affect the

exercise of the police power of Texas to make or fix reasonable rates for such gas sold to its citizens.

Appellee contends, however, that there can be no question but that the gas produced or purchased by it in Oklahoma and transported to and sold in Texas, is gas moving in interstate commerce up to the time it reaches the city gates of delivery; and that the fact that the amount of this gas is small does not affect its interstate commerce character, nor its interstate transportation. We do not sustain the contention.

The facts show that the gas produced or purchased by appellee in Oklahoma and transported by its pipe lines to Texas, does not move in interstate commerce, when it reaches the city gates of delivery. All gas coming from Oklahoma is run through extraction plants in Texas, where the heavier hydro-carbons and volatile gasoline are extracted, leaving the residue gas changed in its composition, and with its [fol. 38] heating value lowered and changed. Large amounts of it are run through and stored in wells on the Miller farm near the extraction plant in Texas, continuously, and for use later as needed. The Oklahoma gas has no particular Texas city gate destination, but it is first transported to the extraction plants, and after its composition is changed, it is passed into the pipe line system of appellee, mixed and commingled with Texas gas, divided and redivided in the pipe line system until it is impossible to trace or identify it by volume at any city gate of delivery. At various points before delivery its pressure is reduced and the gas allowed to expand. The amount of Oklahoma gas as a whole is small and as divided and redivided before delivery to the various city gates, its amount is negligible in comparison with the amount of the Texas gas with which it is mixed or commingled.

Doubt has been expressed by several courts as to whether gas produced in several states and commingled in pipe lines from which it is sold, is interstate commerce. This conclusion seems to have been reached on the "original package" doctrine, the courts holding that after the bulk of the imported gas is broken up for indiscriminate distribution to individual purchasers at retail sale, the interstate commerce is at an end. Contrary conclusions seem to have been reached where merely transmission for immediate or practically immediate use, direct from the seller to the consumer,

is involved. But a different question arises where the gas transmitted from one state is stored and then distributed as its needs might afterwards develop; and where, as in this [fol. 39] case, the composition of the gas is and must be changed by extracting hydro-carbons and volatile gasoline before it is ready for delivery and use by the consumer. As to such transmission of gas, the "original package" theory or doctrine is applicable and should be invoked, even though the transporting company, as did appellee and the affiliated distributing companies through stock ownership and inter-corporate setup, actually sells the Oklahoma produced gas as changed to the ultimate consumers in Texas. These questions have been either passed upon or anticipated and discussed in the following cases. Pennsylvania Gas Co. v. Public Service Com., 252 U. S., 23, 64 L. Ed., 434, 225 N. Y. 399, 122 N. E., 260; West v. Kansas Natural Gas Co., 221 U. S. 229, 55 L. Ed., 716, 35 L. R. A. (N. S.) 1193; Public Utilities Com. v. Landon, 249 U. S., 236, 590, 63 L. Ed., 577, 791; State v. Flannelly, 96 Kansas, 372, 152 Pac., 22; West Virginia, etc. Co. v. Towers (Md.), 106 Atl. 265.

In other cases it has been held that in the exercise of the police power of the state, the state commission has authority to fix the local burner tip rates, even though the gas moved in interstate commerce to the city gate, and particularly so where, as in the instant case, an affiliation exists between the transporting and the distributing companies. Thus the state commission may validly, by the indirect process of prescribing reasonable rates for local distributing companies, control and fix the city gate rate for gas moved in interstate commerce.

The Commission did not expressly require the distributing companies to pay not in excess of the 32¢ city gate rate, [fol. 40] but since this hearing was necessary as a preliminary step to the disposition of the appeals and cases pending, it was not essential that the Commission dispose of the matter before it in a single order; but it may, if the rate herein complained of be held not confiscatory or unreasonable and unjust, subsequently make its order requiring the distributing companies to pay not in excess of such rate, without further notice or hearing. Houston Chamber of Commerce v. R. R. Com., supra. Manifestly, if the 32¢ rate is declared valid herein, appellee can have no further in-

terest in any order the Commission may make with regard to requiring the various distributing companies to pay not in excess of such rate, and to pass the 8¢ reduction on to the ultimate consumer. Missouri v. Kansas Gas Co., 265 U. S. 298; Public Utilities Com. v. Landon, supra; East Ohio Gas Co. v. Tax Com., 283 U. S., 465; Pennsylvania Gas Co. v. Public Service Com., supra; State Cor. Com. v. Wichita Gas Co., 290 U. S., 561, 78 L. Ed. 500; Dayton P. & L. Co. v. Public Utilities Com., 292 U. S. 290, 78 L. Ed., 1267; Gallatin Gas Co. v. Public Service Com., 256 Pac., 373.

Final decision, however, in most cases is rested upon the principle that the State may regulate interstate commerce of the character of natural gas in the absence of action by Congress. As hereinabove stated, the Interstate Commerce Act expressly excludes from the scope of the interstate commerce statute the transportation of natural gas. The amount of the rate or price to be charged for gas is primarily for the determination of the state in which the gas [fol. 41] is consumed, and it is within the police power of the state to make or fix reasonable rates for gas furnished by a public utility to its citizens. Where the rates are reasonable and are fixed according to some uniform, fair and practical standard, they constitute no burden on interstate commerce. So, if the delivery of the gas by appellee from Texas through Oklahoma and back into Texas, intended at all times for Texas consumption; and if the production and transportation of the small amount of gas from Oklahoma to Texas, where it is sold, be regarded as interstate commerce, still appellee's business is predominantly a Texas business; and it is within the police power of the state to fix reasonable rates for which gas may be sold to its citizens, even though such rates may indirectly or incidentally affect the interstate transportation of such gas, or may so affect interstate commerce in the same. Simpson v. Shepard, 230 U. S., 352, 57 L. Ed., 1511, 48 L. R. A. (N. S.), 1151, wherein it is held as follows:

"Where the subject is peculiarly one of local concern, and from its nature belongs to the class with which the state appropriately deals in making reasonable provision for local needs, it cannot be regarded as left to the unrestrained will of individuals because Congress has not acted, although it may have such a relation to interstate commerce as to be within the reach of the federal power."

This doctrine has been carefully restated in the recent case of Schechter Poultry Cor. v. United States, 55 S. Ct. Rep., 850, as follows:

"But where the effect of intrastate transactions upon interstate commerce is merely indirect, such transactions remain within the domain of state power. If the commerce clause were construed to reach all enterprises and transactions which could be said to have an indirect effect upon interstate commerce, the federal authority would embrace [fol. 42] practically all the activities of the people; and the authority of the state over its domestic concerns would exist only by sufferance of the federal government. Indeed, on such a theory, even the development of the state's commercial facilities would be subject to federal control. As we said in Simpson v. Shepard (Minnesota Rate Case), 230 U. S. 352, 410, 33 S. Ct. 729, 745, 57 L. Ed. 1511, 48 L. R. A. (N. S.) 1151, Ann. Cas. 1916 A, 18: 'In the intimacy of commercial relations, much that is done in the superintendence of local matters may have an indirect bearing upon interstate commerce. The development of local resources and the extension of local facilities may have a very important effect upon communities less favored, and to an appreciable degree alter the course of trade. The freedom of local trade may stimulate interstate commerce, while restrictive measures within the police power of the state, enacted exclusively with respect to internal business, as distinguished from interstate traffic, may in their reflex or indirect influence diminish the latter and reduce the volume of articles transported into or out of the state.' See, also, Kidd v. Pearson, 128 U. S. 1, 21, (9 S. Ct. 6, 32 L. Ed. 346; Heisler v. Thomas Colliery Co., 260 U. S. 245, 259, 260, 43 S. Ct. 83, 67 L. Ed. 237."

It has also been held that, "if it be assumed that interstate commerce will be incidentally affected, yet the regulation of the local charges of the Natural Gas Company as a public service corporation is within the police power of the state until Congress sees fit to act." Manufacturers Light & Heat Co. v. Ott, supra. And certainly the state's regulatory power is not denied where it does not interfere with or burden the free interstate flow of gas. Peoples Natural Gas Co. v. Public Service Com., 270 U. S., 550, 70 L. Ed., 726. The rate order in this suit does not in any manner

interfere, restrain or burden the free transportation of gas between Texas and Oklahoma. Oklahoma gas may be freely transported to Texas and sold in the open market at the same reasonable rate fixed for Texas gas. We therefore, conclude that, absent legislation by Congress, and since [fol. 43] the Interstate Commerce Act as now amended, expressly excepted the regulation of transporation of "natural or artificial gas by pipe lines" from the jurisdiction of the Interstate Commerce Commission, the State Commission, in the exercise of the police power of the State to regulate and control public gas utilities, had the power to fix reasonable rates for gas delivered by appellee to distributing companies at the city gate, although interstate commerce may be indirectly or incidentally affected thereby.

We further conclude that since the amount of gas produced or purchased by Appellee in Okalhoma and transported to and sold in Texas, is negligible; and, if interstate commerce, the 32¢ rate fixed by the Commission in no manner interfered with, impeded, or burdened the flow of gas from Oklahoma, but such gas may be sold in competition with Texas gas and at the same reasonable price fixed by the Commission.

Freedom of Contract Issue

The contracts of appellee with the distributing companies for the 40¢ city gate rate were made in the light of the Constitution and laws, and of the jurisdiction of the Commission to regulate such rates. The order changing such rate is therefore not violative of the freedom of contract, or impairment of obligation clauses of either the State or Federal Constitutions.

The right of the State to regulate the rates and practices of a public utility is referable to the police power of the State, and is a legislative function which cannot be alienated or contracted away by the State or any agency or political [fol. 44] subdivision of the State. The Constitution and laws of a state are a part and parcel of the terms of A corporate franchise, and the right of the state in the exercise of its police power to change franchise or contract rates in the protection of the inalienable rights and general welfare of its citizens is settled. Nunn v. Illinois, 94 U. S. 113; Milwaukee Electric Ry., etc. Co. v. R. R. Com., 153 Wis. 592, affirmed in 238 U. S. 174; the State v. Public Serv. Com., 275 Mo., 201. The one exception to the rule is with regard

to ordinances or contracts fixing rates for a limited period of time. Southern Iowa Electric Co. v. Chariton, 255 U. S. 539. Appellee's contracts are all for long periods of time, and do not come within the exception. And where, as in the instant case, there is an intimate alliance between the buyer and seller, and they are not dealing at arm's length because of intercorporate affiliation and transactions, the prices they fix are of no concern to the public, unless they are not within the bounds of reason. Houston v. Swr. Bell Tel. Co., 259 U. S. 318, 323; Missouri ex. rel Swr. Bell Tel. Co. v. Public Service Com., 262 U. S. 276, 288; United Fuel Gas Co. v. Railroad Com. of Kentucky, 278 U. S. 300, 320, 49 S. Ct. 150, 156, 73 L. Ed. 390, citing and quoting from Chicago Grand Trunk Railway v. Wellman, 143 U. S. 339, 345, with approval; Smith v. Illinois Bell Tel. Co., 282 U. S. 133, 51 S. Ct. 65, 75 L. Ed. 255; Western Distributing Co. v. Public Service Com. of Kansas, 285 U. S. 119, 52 S. Ct. 283, 76 L. Ed. 655; Dayton Power & Light Co. v. Public Utility Com., 78 L. Ed. 832, 836, 54 S. Ct. 647, 650.

[fol. 45] Confiscation of Property

The constitutionality of a rate depends upon whether it will yield a fair return for the present and immediate future, on the value of the property used in the public service. In absence of an actual test under a new rate, the question of whether it will afford a reasonable return is one of fact. The burden rests heavily upon one seeking to set aside a state-made rate to plead and prove the invalidating facts. Ætna Ins. Co. v. Hyde, 275 U. S. 440, 72 L. Ed. 357; Beaumont S. L. & W. Ry. Co. v. United States, 282 U. S. 74, 75 L. Ed. 221; Brush Electric Co. v. Galveston, 262 U. S. 443, 67 L. Ed. 1076. Appellee failed as a matter of law to plead and prove any invalidating fact as to the rate in suit; to which question we now pass.

[fol. 46] Legal Sufficiency of Evidence to Show Rate Confiscatory or Unreasonable and Unjust

The remaining question concerns the legal sufficiency of the evidence adduced by appellee to show that the 32¢ city gate rate was confiscatory and unreasonable and unjust. The rate was alleged to be so because it would not afford a reasonable return on the fair value of the property used in the public service of delivering gas to the various city

gates, and amounted to taking the property without just compensation or due process of law, in violation of the 14th amendment to the Federal Constitution. When viewed in the light of the presumption in favor of the validity of the rate order, and the quantum and character of the evidence required to overcome such presumption, the evidence adduced by appelle was clearly insufficient to show the rate confiscatory or unreasonable and unjust on the ground alleged.

The rate fixed by the Commission is presumed to be valid, reasonable and just until it is declared otherwise by a court of competent jurisdiction. R. R. Com. v. Uvalde Construction Co., 49 S. W. (2d), 1113. In order to overcome this presumption in favor of the validity of the rate on the constitutional ground of confiscation, the burden of proof rests heavily upon appellee. Dayton P. & L. Co. v. Pub. Com., 292 U. S. 290, 78 L. Ed. 1267. And in order to set aside the rate as being unreasonable and unjust, Article 6059 requires that appellee show by "clear and satisfactory evidence that such rate is unreasonable and unjust as to it." A controversy immediately arises as to the proper [fol. 47] interpretation to be given these rules and statutory requirements as to the burden and quantum of proof. The Commission contends that the rate must be sustained against the attack that it is confiscatory and unreasonable and unjust, because it does not allow a reasonable return on the fair value of the property, when it is shown to be based upon substantial evidence adduced before the Commission, and that only the evidence adduced before the Commission on the rate hearing may be considered on appeal to the court. On the other hand, appellee contends that the hearing on appeal to the court of such issuance is de novo, and that "due process of law requires submission to a judicial tribunal for determination upon its own independent judgment as to both law and facts according to the settled rules governing judicial action and decision." Otis Elevator Co. v. Com., 302 Ill. 90; Ben Avon Burough v. Ohio Valley Water Co., 253 U. S. 287; Regan v. Farmers Loan & Trust Co., 154 U. S. 363, 38 L. Ed. 1014. As regards the rate making power of the Commission, the Texas courts have adopted this wider scope of review. Com. v. H. & T. C. R. R. Co. 90 Texas, 352, 38 S. W. 750; Com. v. Weld et al, 96 Texas, 403, 73 S. W. 529; G. C. & S. F. Ry. v. Com., 113 S. W. 741; Com. v. S. A. Compress Co., 264 S. W. 214, (writ

refused); Houston Chamber of Commerce v. Com. 19 S. W. (2d), 583, affirmed 78 S. W. (2d), 591; and M. K. & T. Ry. Co. v. Com., 3 S. W. (2d) 489 (494), affirmed 13 S. W. (2d), 679, wherein this court said:

"Rate making is essentially a legislative function, and operates prospectively. Railroad Com. vs. Weld & Neville, above; Prentis vs. Atlantic Coast Line Co., 211 U. S. 226, 29 S. Ct. 67, 63 L. Ed. 158, 159, and authorities there cited. And the same is true of many rules and regulations within [fol. 48] the delegated powers of the commission. Rate making has been delegated to the Railroad Commission alone, and its acts in that regard have the force and effect of statutes, and are subject to review to the extent only that statutes of the same import are so subject, with the additional power which articles 6657 and 6658 confer upon the courts to determine whether a rate, etc., is unreasonable or unjust to the party complaining."

The case of Crowell v. Benson, 285 U. S. 22, 76 L. Ed. 598, in determining the scope of review and whether new evidence will be heard on appeal from a state commission's rate order, held as follows:

"In cases brought to enforce constitutional rights the judicial power of the United States necessarily extends to the independent determination of all questions, both of fact and law, necessary to the performance of that supreme function. The case of confiscation is illustrative, the ultimate conclusion almost invariably depending upon the decisions of questions of fact. This court has held the owner to be entitled to 'a fair opportunity for submitting that issue to a judicial tribunal for determination upon its own independent judgment as to both law and facts.'" • • •

"Assuming that the Federal court may determine for itself the existence of these fundamental or jurisdictional facts, we come to the question—Upon what record is the determination to be made? There is no provision of the statute which seeks to confine the court in such a case to the record before the deputy commissioner or to the evidence which he has taken. • • •

"We think that the essential independence of the exercise of the judicial power of the United States in the enforcement of constitutional rights requires that the Federal

court should determine such an issue upon its own record and the facts elicited before it."

See also State Com. v. Wichita Gas Co., 290 U. S. 561, 78 L. Ed. 500; Lehigh Valley R. Co. v. Com., 278 U. S. 24, 73 L. Ed. 161; Prendergast v. N. Y. Tel. Co., 262 U. S. 43, 67 L. Ed. 853.

As regards the statutory appeal authorized by Article [fol. 49] 6059, to determine whether a rate order is unreasonable and unjust, it is manifest that the legislature intended for the trial on appeal to be de novo and upon new or additional evidence pertinent to the issue, because the complainant is required to show by "clear and satisfactory evidence that such rate is unreasonable and unjust as to it." Similar statutes regarding railroad rates have been so construed by the above cited Texas cases, and in other states. The scope of judicial appellate review of orders of administrative boards or commissions is usually controlled by legislative enactment. This may be either by a hearing de novo or it may mean merely the correction of non-permissible error. Freund on Administrative Powers over Persons and Property, 278. Statutes which authorize appeals from matters of purely administrative decision or discretion are usually construed to authorize only the correction of non-permissible error, or to favor the merely corrective scope of review. Illustrative of these matters is the question of issuing a license, or the granting of a permit, or determining whether a public necessity or convenience exists for bus or truck operation. In such cases the legislature does not vest in courts the administrative function of determining whether a license, permit, or certificate of convenience or necessity should issue, but merely gives the courts authority to determine whether the action of the administrative board or commission is (a) beyond the power it could constitutionaly exercise, or (b) beyond its statutory power, or (c) based upon substantial evidence.

As to such administrative matters the legal effect of the [fol. 50] findings of fact by the administrative body approximates a question of law, and a finding without evidence is, of course, beyond the power of the administrative body. Nor will courts in such cases review conclusions of the administrative body based upon conflicting evidence; but will sustain its order if based upon substantial evidence. Such is the holding in the case of R. R. Com. v. Shupee, 57 S. W.

(2d), 295, affirmed 73 S. W. (2d), 505, and R. R. Com. v. Lamb, 81 S. W. (2d), 161. But the questions of whether a rate is confiscatory or unreasonable and unjust have been held to be legal or justiciable questions of fact, and as to which the wider scope of judicial appellate review seems to have been adopted by the legislature and courts of this state. The limited scope of judicial review of rates fixed by an administrative commission was first enforced (Pick v. Chicago, etc. Ry. Co., 94 U. S. 178) by the courts; but was soon abandoned, and through a process of trial and argument of several cases, the present rule that the 14th Amendment to the Constitution protects the property of citizens from confiscation by an act of the Legislature or by a commission to which legislative regulatory power has been delegated, was developed. State v. Swr. Bell Tel. Co. (Mo.) 233 S. W., 425.

But whether the scope of judicial review is a hearing de novo or the correction of non-permissible error, the appeal is still merely corrective. The question is not whether the court, if the order were originally before it, would make the same order as was made by the Commission, but only whether the commission has acted reasonably upon sufficient evidence, and whether any substantial right of the com- [fol. 51] plaining party has been infringed. In determining the sufficiency of the evidence under the wider scope of judicial review, the question is not whether there is a scintilla of evidence to support the order, but whether the order is fairly and substantially supported by the evidence, when viewed in the light of the presumption in favor of the order, and the quantum and character of the evidence required to overcome such presumption. Particularly is this so with regard to making rates or division of rates, which are legislative and not judicial in character, and necessarily imply a range of legislative discretion, which the courts must recognize, and with which they cannot interfere except where constitutional or statutory rights are violated. The reason for the court appeal being corrective only is well stated in the Bell Telephone case, supra, as follows:

"The statutes declaring rates fixed by the Commission to be prima facie reasonable until that presumption is removed by one seeking their annulment are but a proper recognition of the power and purpose of the Commission,

without which its acts would be mere empty declarations, whose effective operation would, in each instance, have to await judicial approval. Such a conception of the nature and powers of the Commission is wholly unauthorized. Organized, as the Statute creating the Commission clearly declares, for the purpose of supervising and regulating public service corporations, the courts, in reviewing its actions, proceed upon the assumption that the experience of the members of the Commission has especially fitted them for dealing with questions concerning the powers and activities of such corporations; and, despite the fact that the entire evidence will be reviewed, much consideration is to be given to the findings of the Commission, which, if reasonable, and neither arbitrary nor capricious, will be deferred to. N. Y. & G. Gas Co. v. McCall, 245 U. S. loc. Cit. 347, 38 Sup. Ct. 122, 62 L. Ed. 337."

In the case of R. R. Commission v. Galveston C. of C., 105 Texas, 101, 145 S. W., 573, which construed the similar [fol. 52] statutes authorizing appeals from railroad rates fixed by the Commission, and the statutory requirement that complainant show "by clear and satisfactory evidence that the rates are unreasonable and unjust," the scope of judicial appellate review was held to be as follows:

"The foregoing statute so guards the Commission from improper interference that the courts must regard its actions, when within the limits of its delegated powers, as being the result of a purpose to do justice between all parties, and as having resulted in just and correct action until it be shown by clear and satisfactory evidence to be otherwise. R. R. Commission v. Weld & Neville, 96 Texas 409. The language, "clear and satisfactory evidence," limits the power of courts in setting aside rates, etc., to cases in which it may be established by evidence which leaves no reasonable doubt in the judicial mind that the rate or rule is unjust and unreasonable. Willis v. Chowning, 90 Texas, 617. It is true that this attributes to the work of the Commission a high degree of verity, but it is the plain language of the law, and is no doubt a wise provision."

"It is not within the language nor the spirit of the law which authorizes the courts to review the action of the Railroad Commission that any court should investigate the methods adopted by the Commission in fixing its rates

nor the motives or purposes which prompted such action. The result and its effect upon the rights of railroads and shippers mark the limit of judicial inquiry."

The rules and statutory requirements are general in nature and their applicability necessarily depends upon the facts in each case. No rule can be laid down as to rates which will apply uniformly to all sorts of utilities. In determining whether a rate is confiscatory or unreasonable and unjust because it may not in the future yield a proper return, the basis of calculation is the fair value of the property used in the public service. What may be a fair return for one may be inadequate for another, depending upon circumstances, competition or monopoly, public necessity, speculative and highly profitable enterprises, hazards, locality [fol. 53] and risk. And where as in the instant case the evidence is conflicting and the conclusion to be drawn therefrom in respect of this or that item uncertain or speculative, the court should not interfere with gas rates in advance of any actual experience of the practical result of such new rates. Wilcox v. Consolidated Gas Co., 212 U. S. 19, 53 L. Ed. 382; Brush Elc. Co. v. Galveston, 262 U. S. 443, 67 L. Ed. 1076. N. P. Ry. Co. v. North Dakota, 216 U. S. 579, 54 L. Ed. 624; Cedar Rapids Gas Light Co. v. Cedar Rapids, 223 U. S. 655, 56 L. Ed. 594; Louisville v. Telephone Co., 225 U. S., 430, 56 L. Ed. 1151; Knoxville v. Knoxville Water Co. 212 U. S. 1, 53 L. Ed. 371. Especially is this true where our statutes and the rate order here complained of provide that "this proceeding shall be kept open for such orders as may be proper." Immediately upon the rate in question being fixed, appellee applied to the courts to restrain its enforcement before an actual test was had under the reduced rate.

On the hearing before the Commission as well as on appeal to the court, five primary factors were considered as essential to the correct determination of whether the rate was confiscatory or unreasonable and unjust because it did not allow a reasonable return on the fair value of the property of appellee used in the public service of delivering natural gas to the various city gates, as follows:

1. What was the present fair value of the property of appellee used in the public service?

2. What was a reasonable annual allowance for depreci- [fol. 54] ation of such property?

3. What were the reasonably necessary operating expenses?

4. What were the reasonable operating revenues?

5. What was a reasonable rate of return on the property used?

The fair value of the property used by appellee in the public service was determined by deducting from the reproduction cost new the accrued depreciation of such property. Since appellee was engaged in the integrated business of producing, purchasing, transporting and selling natural gas to the distributing companies at the city gates of some 300 cities and towns in Texas and Oklahoma, it became necessary to allocate or segregate the property used in Texas as well as that used conjointly in both states, in order to determine the fair value of the property used in the Texas public service, the annual depreciation thereof, and the Texas operating expenses and revenue. In making the segregation and proof of fair value of the property, both the Commission and appellee used calculations, estimates and opinions of expert accountants and engineers. However, different methods of segregation were adopted by the parties. The method of segregation adopted by the Commission provided for allocation to Texas operations, or to intrastate commerce the value of all property located within the physical boundary of Texas. The short section of pipe line from Texas Panhandle field across the corner of Oklahoma and back into Texas was also allocated to Texas operations. Gas sales adjustment was made wherein Texas or intrastate operations were charged with the net amount of Oklahoma produced gas for the six-year [fol. 55] (1929-1934) accounting period adopted by the Commission. No charge against Oklahoma or interstate operations was made for the use of the transmission lines and for equipment within Texas; the effect of which was to give free transportation in Texas of all Oklahoma produced gas. Texas and Oklahoma expenses and revenues were allocated in general accord with the segregation of the physical properties. Under this method the fair value of the property undepreciated used in Texas public service was $40,256,862.39, according to the calculations and opinions of the Commission's experts. After deducting the operating expenses and annual depreciation there re-

mained for the last two years of the accounting period, being the two lowest revenue years of the period, Texas net revenue which would yield a return of 6.74% and 6.76%, respectively. The method of segregation used by appellee was materially different. Under its method of segregation all of the gas produced or purchased by appellee in Texas Panhandle field and transported by its private pipe lines across the corner of Oklahoma and back into Texas for sale and use, and all Oklahoma produced gas were allocated to interstate commerce. The allocation was made by a determination of the specific gravity of the Oklahoma and Texas Panhandle gas on the one hand, and West Texas gas with which it was commingled in pipe lines on the other hand. It seems that the Oklahoma and Panhandle gas had about the same specific gravity. Appellee claimed that by determining the specific gravity of the gas in any particular pipe line, the percentage of Oklahoma-Texas Panhandle gas could be determined and [fol. 56] allocated to that line. Appellee allocated operating expenses and revenue between the two states upon substantially the same basis as used for the property. An expert employed by appellee found the fair value of property used in Texas public service, based upon reproduction cost new, less depreciation, to be $38,350,882.32. He excluded from this calculation all property and equipment used in handling the Texas Panhandle field gas. If he had allocated such property to Texas and considered the fair value of the property as undepreciated, there would have been very little difference between his finding of fair value and that found by the Commission's experts. However, in all their elaborate calculations, estimates and opinions, the experts employed by the appellee allocated the Texas Panhandle gas to interstate commerce. We have held that this gas did not move in interstate commerce, and it necessarily follows that the testimony of the experts based upon the erroneous assumption that such gas did move in interstate commerce proved nothing material to this case. Appellee offered no other proof upon a correct segregation or allocation of the property, and the trial court erred in refusing the Commission's motion for an instructed verdict and for judgment declaring the rate order appealed from to be valid in every respect. The burden was upon appellee to show by clear and satisfactory evidence a proper segregation of interstate and intrastate properties and busi-

ness, and to show the value of the property employed in intrastate business or commerce and the compensation it would receive under the rate complained of upon such valuation. Having failed to make a proper segregation of [fol. 57] interstate and intrastate properties, appellee did not adduce the quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory, or unreasonable and unjust. Simpson v. Shepard, 230 U. S. 352, 57 L. Ed. 1511; Allen v. St. Louis, I. & M. S. R. Co., 230 U. S. 553, 57 L. Ed. 1625; Smith vs. Illinois Bell Tel. Co., 282 U. S. 133, 75 L. Ed. 255.

Clearly the difference in theory as to whether the gas produced or purchased by appellee in the Texas Panhandle field and transported by its private pipe line across a corner of Oklahoma and back into Texas, where it was intended at all times to be sold and used, accounts for most of the important difference with respect to the fair value of the property used in Texas public service, the annual depreciation thereof, and particularly as to the operating expenses and revenues. For instance, the Texas Panhandle gas cost appellee 2¢ per thousand cubic feet at the well; whereas, the gas from all other sources or fields cost from 6 to 10¢ per thousand cubic feet. The advantage in favor of appellee in excluding this gas from intrastate commerce is apparent. The cost of the 2¢ gas would add only about $125,000 annually to Texas operating expenses, according to appellee's Exhibit No. 46; whereas, according to the same exhibit, which shows the percentage of the total cost of gas transported from the Panhandle field and sold in Texas, the Texas revenue would have been increased for the 1929-1933 period more than $1,500,000 annually; and calculations show that if other proper operating expenses were included and charged against the Panhandle gas, still [fol. 58] the profit in such gas was more than in other gas handled by appellee either in Oklahoma or Texas. Thus the double advantage to appellee in freeing this gas from intrastate commerce and from state regulation is shown.

The appraisals also differ as to various units of transmission construction costs, due in a large measure to the difference in theory of segregation. Where they relate to the same property the appraisals are in every way comparable. Appellee used actual cost experiences and arbitrarily added 20% as possible contingencies. The Com-

mission allowed only actual cost experiences, which were substantiated by the testimony of contractors engaged in excavation and general construction work. At most the evidence merely presented the difference of opinions of equally well qualified experts. Manifestly this evidence in absence of actual experience under the rate, does not meet the quantum and character of proof necessary to set aside the rate order as being confiscatory or unreasonable and unjust as to appellee.

The greatest difference between the parties relates to a proper allowance for depreciation and amortization. Appellee estimated that for both Texas and Oklahoma properties, exclusive of gas leasehold depletions, the annual requirement for depreciation and amortization was $3,465,-123.36. The Commission estimated that appellee should be allowed for annual depreciation and amortization of its Texas properties exclusive of leaseholds, the sum of $831,946.08. The actual experience of the appellee for the seven-year period as shown by its books, is as follows:

[fol. 59] "Jan. 1, 1927, to Dec. 31, 1933, Inclusive

Jan. 1st	Balance	Accrual	Net Charges
1927	$8,294,762.08	$1,280,856.10	$245,097.73
1928	9,330,520.45	1,198,192.50	260,768.59
1929	10,267,944.36	1,190,062.06	450,335.00
1930	11,007,671.42	580,022.80	464,875.93
1931	11,122,818.29	1,841,779.61	720,014.28
1932	12,244,583.68	1,841,508.16	(Credit 62,725.18
1933	14,148,817.02	1,882,333.41	335,736.55
1934	15,695,413.88	Total	$2,414,102.90"

Thus it is shown that the depreciation allowance of appellee's experts is speculative, at war with the actual experience, and plainly excessive. Against $2,414,102.90 for the seven-year period as evidenced by appellee's books, its experts estimate annual depreciation and amortization at approximately $1,000,000.00 per year more. With respect to such proof it was held in the case of Lindeheimer v. Ill. Bell Tel. Co., 292 U. S., 151, 78 L. Ed. 1182, that:

"The company has had abundant opportunity to establish its contentions. In seeking to do so the company has submitted elaborate estimates and computations, but these have overshot the mark. Proving too much, they fail of the intended effect." • • • •

"Elaborate calculations which are at war with realities are of no avail."

3363

The Commission adopted the sinking fund method for determining annual depreciation, which provides for an annual return on an undepreciated rate base; and which in addition to the annual depreciation of $831,946.08, also allowed 6% per annum on the accumulated depreciation reserve. The calculations and estimates of appellee applied to both Texas and Oklahoma properties, and since such calculations and estimates are so contrary to the experiences of the company, they do not meet the quantum [fol. 60] and character of proof required with respect to judicial appellate review of utility rates fixed by an administrative commission or board. Dayton P. & L. Co. v. Pub. Com., supra.

With respect to operating expenses, except as to a few controverted items, and with respect to revenues, there is no substantial difference in the testimony as to totals of both Texas and Oklahoma for the years of the accounting period. However, the same controversy arises as to a proper segregation of such expenses and revenues to each state. This difference has already been pointed out, and since appellee failed to make proper segregation of the expenses and revenues, it failed to prove its case.

Many items of operating expense are so contrary to the actual experiences of appellee, or are so large as to be excessive on their face. A few of these will be adverted to as showing that in proving too much appellee's experts proved nothing.

Federal Taxes

An item of between three and four hundred thousand dollars a year is set aside by the experts as federal income and other taxes. The company has never paid an income tax, and its liability therefor is now in litigation. The only testimony in the record with regard to the amount that should be paid for taxes by appellee in its department of the corporate hook-up was around $50,000 per annum. The testimony indicates that the Lone Star Gas Corporation, the holding company, has paid all of the income taxes for all of its affiliated companies; but if it be assumed that such payment is chargeable back to appellee company, a [fol. 61] proper amount would not be more than $50,000 per year, instead of the three or four hundred thousand dollars charged against it by the experts. Galveston Electric Co. v. Galveston, 258 U. S., 388.

Management Fees

The evidence shows that the holding corporation has charged appellee management fees ranging from $78,000 to around $100,000 per year. These fees appellee claims were earned by four persons, Crawford, Mitchell, Gregory and Simpson. They are directors of one or the other corporations constituting the corporate set-up above referred to. Simpson seems to have rendered service as a purchaser of pipes for appellee. The item of pipes was the greatest of appellee's expenses. The evidence shows that if Simpson rendered any service in purchasing pipes at a discount, that no such discount would be any longer allowed, and that appellee would have to pay the quoted prices like anyone else. Manifestly this service is not worth anything in the future. Besides, he rendered the services prior to 1929, when the management fee was originated, and no compensation was required before that time. Other management fees were charged, as legal fees, accounting fees, and engineering and supervision fees. Appellee was organized in 1909, with a capital stock of $2,500,000, half of which was paid for with gas leases owned by the incorporators. Since then its capital stock has been increased to $12,500,000. It borrowed on its unsecured note or open account $17,600,000 from the holding corporation, which debt with others amounting to $19,000,000, have been gradually reduced. The holding [fol. 62] corporation borrowed this money from one-half to two per cent less than it charged appellee. This ought to be sufficient management fees, if any should be demanded by the holding corporation. The holding corporation has been paid fair to large dividends annually on the stock of appellee owned by it. In addition, some of the holding company officers are paid salaries by appellee and the affiliated distributing companies. The proof as to the reasonableness of the management fee was not clear and satisfactory, as required to be under the aforementioned rule.

New Business Expenses

These advertising or new business expenses vary from $81,000 to $126,000 per annum. Appellee does business with the affiliated corporations. Besides sale of the industrial gas, the affiliated corporations sell to the domestic

and local burner tip consumers. Appellee proved only a small amount of advertising, nothing in proportion to the charges made by the experts in their account. Except for a few items, it made no showing how much advertising it did for the affiliated distributing companies; and certainly this $100,000 annual expense for advertising is not supported by the quantum and character of evidence required.

Cancelled and Surrendered Leases

The undisputed evidence shows that appellee has gas reserves which are adequate for forty years to come. It has gas reserves in the largest gas fields in the world. Beginning in 1929, appellee began to charge off around $200,000 per annum for cancelled and surrendered leases. In view of its admitted large gas reserves, which will last for forty [fol. 63] years, and in view of the fact that it is a matter of judicial knowledge that gas by the multiplied millions in cubic feet is being wasted daily because of the lack of a market, we think these large charges are unjustified. The Commission allowed the company for its gas produced from company owned wells the full prevailing price. They eliminated production expenses, drilling and tool expenses, dry holes, and cancelled and surrendered leases, because the method adopted of allowing the full prevailing field price concurrently paid to other gas owners necessarily eliminated such items. The owners of other gas wells bear all of these expenses, and it would seem that the price paid other owners includes all of these items of expense. West Ohio Gas Co. v. Public Utilities Com., 191 N. E., 105. At any event, if appellee was entitled to some charge for leasehold depletions, the amount claimed was clearly too large and excessive. The burden was upon appellee to show that the charge was reasonable.

Regulatory Commission and General Expenses

The experts employed by appellee charged in excess of $400,000 per annum for regulatory commission and general expenses. The proof did not show the reasonableness of any item of such expense. There was some character of litigation in Oklahoma and this present litigation. If the entire expense should be spread over a period of years since 1909, when the appellee began to do business, it would amount to some $16,000 per year. A witness for appellee

testified that such annual amount would be reasonable. It is, therefore, manifest that $50,000 per year or better for [fol. 64] such expenses is too much. This defendant began business in 1909, with a comparatively small capital stock. It has now a capital stock of $12,500,000, which is fully paid up. It owes approximately $17,600,000; it has properties in Oklahoma and Texas of the aggregate value of $75,000,000. Allocated to Texas public service is property valued at $40,000,000. Appellee offered evidence covering only about 3½ years next preceding the fixing of the rate as to its operating expenses. These calculations covered the depression years, which, of course, are the worst in its history; and even at that the last year shows an upward trend in its business. It is not shown to have lost money at any time, nor to have failed to earn a fair return upon the property allocated to Texas, not even for the year 1933, which was the most abnormal one from the standpoint of temperature and financial depression. Its experts testified that its property is almost 85% perfect. From the very beginning appellee has been favored, enjoying a clear monopoly with all the rights of eminent domain. There is nothing in the history of appellee's business experience which would justify the exorbitant and large account sought to be charged in this item of expense.

Going Value

In arriving at its rate base appellee included an item of more than $7,000,000 as "going value". Appellee has not experienced any losses on account of inception costs, which are usually included in going value. With the exception of a few small items, inception costs of all kinds have been included in reproduction cost new calculations. Appellee's [fol. 65] business was valued as an assembled and going business. The business has always been profitable, and all inception costs have no doubt been long since paid out of rates heretofore charged and collected. The reproduction cost new value, as determined in the instant case, allows for all overhead expense, which, together with the reasonable operating expenses allowed, fully compensate appellee for all development costs which have been incurred, and are ample to cover items entering into and forming a part of what is referred to as "going concern value". The following authorities show clearly the impropriety of allow-

ing going concern value under the facts of the instant case. Los Angeles Gas & Electric Corp. v. R. R. Com., 289 U. S., 287, 77 L. Ed. 1180; Columbus Gas & Fuel Co. v. Pub. U. Com., 78 L. Ed. 1327; Dayton Power & Light Co. v. Utility Com. 292 U. S. 290, 78 L. Ed. 1267; Galveston Electric Co. v. Galveston, 258 U. S., 388, 272 Fed. 147.

Rate of Return

It is the contention of appellee that the jury may have found that a 6% rate of return was confiscatory or unreasonable and unjust. The issue of confiscation was not submitted to the jury, and we are clear in the view that the evidence adduced by appellee did not raise a jury question as to whether a 6% rate of return was either confiscatory or unreasonable and unjust. The Commission found that a 6% rate of return on the fair value of the property used in the public service, after allowing for all reasonable operating expenses and for depreciation and amortization, was sufficient. The burden was heavily upon appellee to show by clear and satisfactory evidence that such rate of return [fol. 66] was confiscatory or unreasonable and unjust. To meet this test appellee was required to "establish by evidence which leaves no reasonable doubt in the judicial mind that the rate or rule is unjust and unreasonable." R. R. Com. v. Galveston, etc., supra. This appellee did not do. It offered the testimony of an interested witness and the testimony of experts employed by it to the effect that in their opinion an 8% or 10% rate of return would be reasonable. A disinterested expert testified that under present business conditions a 6% rate of return was entirely fair and reasonable. This evidence merely presented the difference of opinion of experts, and manifestly their opinion or opinions cannot be substituted for the finding of the Commission that a 6% rate of return was fair and reasonable, which finding was based upon substantial evidence. In fact, six per cent per annum is the legal or statutory rate of interest in this State, and appellee offered no evidence which even tended to show that a 6% rate of return would confiscate its property, or was unreasonable or unjust. And since the rate order was calculated upon the fair value of the property used in the public service, after allowing very reasonable operating expenses and depreciation

and amortization allowances, no reason exists why the 6% rate of return should be declared confiscatory; but to the contrary, it should be held to allow a fair and reasonable rate of return on the property dedicated to the public service by appellee.

A 6% rate of return has been held not confiscatory in the following cases: Wilcox v. Consolidated Gas Co., 212 U. S. [fol. 67] 19, 48, 50, 29 S. Ct. 192, 53 L. Ed. 382, 15 Ann. Cas. 1034, 48 A. L. R. (N. S.) 1134; Cedar Rapids Gas & Light Co. v. Cedar Rapids, 223 U. S. 655, 670, 32 S. Ct. 389, 56 L. Ed. 594; Des Moines Gas Co. v. Des Moines, 238 U. S. 153, 172, 35 S. Ct. 811, 59 L. Ed. 1244. See also Stanislaus County v. San Joaquin C. & I. Co., 192 U. S. 201, 216; West Ohio Gas Co. v. Public Utilities Com., 191 N. E. 105, 115; State ex rel Capital City Water Co. v. Public Service Com. of Missouri, Sup. Ct. of Mo. in Banc, 252 S. W. 446, 454-459.

We are also clear in the view that where a state commission fixes a utility rate so as to allow a 6% rate of return on the property used in the public service, the courts will not, prior to a fair test of such rate, declare same void, unless the evidence establishes that it is confiscatory or invalid as a matter of law. Denver Union Stock Yard Co. v. United States, 57 Fed. (2) 735, 752, 753; State v. Public Service Com., 252 S. W. 446, 458 (Mo. in Banc); Knoxville v. Water Co., 212 U. S. 1, 15; West Ohio Gas Co. v. Public Utilities Com., 191 N. E. 105, 110; Cedar Rapids Gas Co. v. Cedar Rapids, 223, U. S. 655, 666, 670; Wilcox v. Consolidated Gas Co., 212 U. S. 19, 51; Railroad Com. of Louisiana v. Cumberland Tel. & Tel. Co., 212 U. S. 414, 426.

The calculations, estimates and opinion of its experts show a studied effort on the part of appellee to charge large items as operating expenses and depreciation, at war with the actual experience of the company, and we find no proof which would authorize the trial court to submit any issue to the jury, but find that appellee wholly failed to meet the [fol. 68] burden of proof placed upon it, and to show by clear and satisfactory evidence that the rate was confiscatory, unjust, and unreasonable as to it. Especially is this true in view of the rule that absence actual experience under the rate fixed, the courts will not disturb a rate where the evidence is so conflicting, and the conclusions to be drawn therefrom in respect to this or that item uncertain

and speculative; and particularly is this true where, as in the instant case, if it be shown in actual experience that the rate would not afford a reasonable return and was confiscatory, appellee is free to make another application for relief before the Commission.

Judgment of the trial court declaring the rate to be unjust and unreasonable is reversed. The injunction granted by the trial court is dissolved, and the city gate rate of 32¢ fixed by the Commission is declared to be just, reasonable and valid in every particular.

M. B. Blair, Associate Justice.

Judgment trial Court Reversed; Injunction Dissolved.

[File endorsement omitted.]

[fol. 69] In Court of Civil Appeals of Texas

8238

State of Texas et al. vs. Lone Star Gas Company

Appeal from District Court of Travis County

Opinion by Associate Justice Blair

Judgment—July 10, 1935

This cause came on to be heard on the transcript of the record and same being inspected, because it is the opinion of the Court that there was error in the judgment; It is therefore considered, adjudged and ordered that the judgment of the trial court be, and same is hereby reversed, and that judgment be, and is hereby rendered for appellants decreeing that the order of the Railroad Commission of Texas, appealed from, is valid in every particular; and it is further ordered, adjudged and decreed that the injunction granted by the trial court be, and same is hereby dissolved; that the appellee, Lone Star Gas Company, pay all costs in this behalf expended, both in this Court and in the trial court, and that this decision, with a copy of the opinion herein delivered, be certified below for observance.

[fol. 70] IN COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF TEXAS

[Title omitted]

APPELLEE'S MOTION FOR REHEARING—Filed July 24, 1935

Comes now Lone Star Gas Company, appellee in the above styled and numbered cause and moves the court to set aside its judgment reversing the judgment of the District Court and rendering judgment for appellants, rendered on the 10th day of July, A. D. 1935, and to grant appellee a rehearing, and as grounds for its motion appellee respectfully shows:

1

The Honorable Court of Civil Appeals having held that [fol. 71] the scope of judicial review of the Railroad Commission's order by the district court under the Texas statutes, on appellee's claim that said order is unjust, unreasonable and confiscatory, is merely corrective and that such review is limited to a determination of whether the commission's order is supported by substantial evidence, erred in failing to declare said order void as being in conflict with the due process requirements of the 14th Amendment to the Federal Constitution, which entitles appellee to a judicial review of said order before a court with power to exercise an independent judgment as to both the facts and law involved.

2

The Honorable Court of Civil Appeals having held that under the statutes and procedure of Texas the district court was without power to exercise an independent judgment as to the probative force of the facts involved and the law applicable thereto on the issue of confiscation, unjustness and unreasonableness of the Railroad Commission's order as raised in appellee's answer and by appellee's evidence, the Honorable Court of Civil Appeals erred in failing to hold said order invalid and void as being in conflict with the due process clause of the 14th Amendment to the Constitution of the United States.

3

The court having held in effect that in suits filed pur- [fol. 72] suant to the provisions of Article 6059 R. S. 1925

the courts may not exercise an independent judgment in determining whether rate orders of the Railroad Commission are unjust and unreasonable or confiscatory, but that the courts must affirm such orders if there is substantial evidence to support them notwithstanding the evidence is conflicting, erred in holding the Railroad Commission's order valid for the reason that such holding denies to appellee a judicial review of the rate order in question on the constitutional issue of confiscation to which appellee is entitled under the 14th Amendment to the Constitution of the United States.

4

The court having construed Article 6059 R. S. 1925 as withholding from the district court the power to determine the question of confiscation, unjustness and reasonableness of the rate order of the Railroad Commission according to its own independent judgment, the court erred in sustaining the commission's order and in not holding the same invalid and repugnant to the 14th Amendment to the Federal Constitution for want of due process of law in the State procedure for testing the validity of said order.

5

The court erred in holding that in determining the question of whether the order of the Railroad Commission was confiscatory of appellee's property used in the public service the district court was confined to a determination of [fol. 73] whether or not there was substantial evidence to support the order of the commission, and that if there was such evidence the order of the commission must be upheld, because such holding operates to deny to appellee the right to the independent judgment of the court on both the facts and law and to deny to appellee the right to a determination of the reasonableness of the order based upon the weight to be given to conflicting testimony, in violation of appellee's rights under the due process clause of the 14th Amendment to the Constitution of the United States.

6

The judgment of the Honorable Court of Civil Appeals is erroneous in that the court in effect has denied to the district court the power to pass upon the facts which underlie the

question of whether or not appellee's property is being confiscated, and inasmuch as neither this court nor the Supreme Court of Texas has any statutory power to pass upon such facts, appellee has been denied the opportunity of having the independent judgment of a Texas court on questions of fact involved in a determination of the issue of confiscation and thus has been denied due process of law in violation of its rights under the 14th Amendment to the Constitution of the United States.

7

The judgment of the Honorable Court of Civil Appeals is erroneous in that the court has construed Article 6059 Re- [fol. 74] vised Statutes of 1925, as withholding from the district court the power to pass upon the facts which underlie the question of whether or not appellee's property is being confiscated.

8

Inasmuch as the Honorable Court of Civil Appeals holds that this suit, or appellee's answer herein, is in effect an appeal from the order of the Railroad Commission pursuant to the provisions of Article 6059 Revised Civil Statutes of Texas, and inasmuch as the court has construed that statute as withholding from and denying to the district court the right and power to exercise an independent judgment on the facts underlying the issue of the unreasonableness, unjustness and confiscatory character of the order of the commission and has held that the order of the commission must be sustained if there is any substantial evidence offered upon the trial de novo supporting it, and inasmuch as the statutes and Constitution of Texas as construed deny to this court and the Supreme Court of Texas such power and authority, and inasmuch as appellee has been compelled to follow the procedure which has been followed against its wishes and over its objection, appellee has not obtained that due process of law to which it is entitled under the 14th Amendment to the Constitution of the United States. Accordingly, the order of the commission was void and the court erred in failing to so hold.

9

Appellee having filed its bill of complaint in the United States District Court for the Western District of Texas al-

[fol. 75] leging that the order of the Railroad Commission was unjust, unreasonable and confiscatory and praying for an injunction enjoining and restraining the enforcement of said order, and said proceeding having been stayed and suspended after the filing of this suit and until its final determination pursuant to Section 266 of the Judicial Code, and appellee having been forced to defend itself in this proceeding brought to enforce the commission's order, and having alleged as a defense to this suit that said order of the Railroad Commission was unjust, unreasonable and confiscatory, and having produced competent evidence showing that under said order it would not receive an annual return of six (6%) per cent on the fair value of its public service property, which the commission held was the minimum return to which appellee is entitled, the Honorable Court of Civil Appeals erred in reversing the judgment of the district court that said order was unjust and unreasonable and invalid, and in holding that the district court in this case was without power to exercise an independent judgment as to the law and facts involved on the conflicting evidence but was required as a matter of law to instruct a verdict in favor of appellants sustaining the validity of the commission's order.

10

The court erred in holding that appellee obtained a trial de novo on the question of confiscation or on the question [fol. 76] of the reasonableness and justness of the order of the commission in view of its holding that the order of the commission must be upheld as a matter of law if there is any substantial evidence to support it, the latter holding denying in substance the right recognized by the former holding.

* * * * * * *

[fol. 77] 12

The court erred in rendering judgment for appellants, because not only does Article 6059 of the Revised Civil Statutes of Texas as construed deny to appellee due process of law in violation of its rights under the 14th Amendment to the Constitution of the United States, and not only does the court treat this case and answer of appellee as an appeal thereunder, but appellee has been compelled to follow the procedure outlined thereunder upon representations by ap-

pellants that every constitutional and legal right to which it might be entitled would be fully safeguarded and that it would be entitled to the same sort of trial to which it would have been entitled in its suit in the Federal Court upon the basis of which representations the Federal Court stayed proceedings therein, with the result that not only does appellee fail to get the kind of trial to which it would have been entitled in the Federal Court but is denied the opportunity of ever obtaining the same.

* * * * * * *

[fol. 78] 14

The Honorable Court of Civil Appeals erred in holding in effect that in order to overcome the prima facie presumption of the validity of the Railroad Commission's order, appellee was required, as a matter of law, to show by undisputed and indisputable evidence that the order of the Railroad Commission was unjust, unreasonable and confiscatory.

* * * * * * *

16

The appellee having alleged that the order of the Rail-
[fols. 79-80] road Commission was unjust and unreasonable as to it and confiscatory of its property, and appellee's evidence being clear and satisfactory and having clearly shown that the rate prescribed in the commission's order would not afford appellee a net return of six (6%) per cent per annum on the fair value of its public service property which the commission found was the minimum return to which appellee is entitled, the Honorable Court of Civil Appeals erred in holding that because there was a conflict in the evidence and the appellants' evidence sustained the commission's order, the trial court was required as a matter of law to sustain appellants' motion for an instructed verdict.

* * * * * * *

[fol. 81] 22

The court erred in holding that "when viewed in the light of the presumption in favor of the validity of the rate or-

der, and the quantum and character of the evidence required to overcome such presumption, the evidence adduced by appellee was clearly insufficient to show the rate confiscatory or unreasonable and unjust on the ground alleged."

* * * * * * *

[fol. 82] 25

The court erred in holding in substance and effect that Article 6059 of the Revised Statutes of 1925, denies to the district court on the trial de novo the right to determine that the order of the commission is unjust and unreasonable if there is any substantial evidence to support the order of the commission, because the statute as thus construed denies to appellee in this case the right to the independent judgment of the court on both the facts and law and is a denial to appellee of due process of law.

26

The court erred in holding that "we are clear in the view that the evidence adduced by appellee did not raise a jury question as to whether a six (6%) per cent rate of return was either confiscatory or unreasonable and unjust," because such holding denies appellee due process of law and the right to a judicial review of the order of the Railroad Commission, based upon the independent judgment of the court on the facts and law, inasmuch as the trial court and the jury are deprived of the right to make such independent determination based upon the credibility of witnesses and the weight to be given to their testimony.

* * * * * * *

[fol. 83] 29

The court erred in holding that appellee did not meet the burden of showing by clear and satisfactory evidence that the 32¢ rate would not afford a reasonable return on the property used in the Texas public service, and that "the trial court erred in overruling the commission's motions for an instructed verdict and for judgment declaring the rate to be valid," because appellants' evidence, if believed (and the credibility of the witnesses and the weight to be given to

their tsetimony were matters to be determined by the jury) proved clearly and satisfactorily that the rate was unjust, unreasonable and confiscatory, and such testimony, if it did not prove as a matter of law that the rate fixed by the com-
[fol. 84] mission was confiscatory, unjust and unreasonable, at least raised an issue of fact which should have been submitted to the jury.

30

The court erred in failing and refusing to sustain appellee's Third Cross-Assignment of Error as follows:

"The court erred in overruling and refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the commission in its order of September 13, 1933, was unjust, unreasonable, and confiscatory in this, that if said rate had been in effect during the year 1931, and subsequent accounting periods, defendant would not have earned and would not have been able to earn the minimum net rate of return to which the Railroad Commission found it was entitled, upon the fair value of its public service property, as determined by the commission.

"Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross-Assignment of Error No. 15 (Transcript 587)."

31

The court erred in holding that the fair value of the property undepreciated used in Texas public service was $40,256,862.39, because such evaluation includes only a part of the property physically located in Texas and none of the property situated in Oklahoma and used in Texas public service.

* * * * * * *

[fol. 85] 33

The court erred in failing and refusing to sustain appellee's Fifth Cross-Assignment of Error, as follows:

"The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and

timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the commission in its order of September 13, 1933, was unjust, unreasonable and confiscatory in this, that if said rate had been in effect during 1931, and subsequent accounting periods, defendant would not have earned and would not have been able to earn anything like the fair net annual rate to which it was entitled in law, or the minimum net rate of return to which the commission found it was entitled upon the fair value, at the time of the inquiry, of all of its public service property, wherever located.

"Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross-Assignment of Error No. 17, Transcript 589.)"

34

The court erred in failing and refusing to sustain appellee's Sixth Cross-Assignment of Error, as follows:

"The court erred in overruling and in refusing to give [fol. 86] defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from plaintiff's own testimony that the rate of 32 cents prescribed by the commission in its order of September 13, 1933, was unjust, unreasonable and confiscatory in this, that even adopting plaintiffs' valuation of defendant's public service property located in Texas, and assuming that such a valuation is of probative force and effect under the issues made in this case, nevertheless, if said rate had been in effect during 1933 and 1934, defendant would not have earned as much as the minimum net rate of return to which the Railroad Commission found it was entitled. Hence, on the basis of plaintiffs' own testimony, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross-Assignment of Error No. 20, Transcript 591)."

35

It appearing from the undisputed evidence in this case that the rate prescribed in and by the order of the Rail-

road Commission would not permit appellee to earn a reasonable return on the fair value of its property used and useful in the public service, the judgment of the Honorable Court of Civil Appeals affirming the validity of said order operates to take appellee's said property for public use without just compensation or due process of law in violation of appellee's rights under the 14th Amendment to the Constitution of the United States and said Honorable Court of Civil Appeals erred in rendering said judgment and in not affirming the judgment of the district court holding said order invalid.

36

It appearing from the undisputed evidence in this case [fol. 87] that the rate prescribed in and by the order of the Railroad Commission would not permit appellee to earn a reasonable return on the fair value of its property used and useful in the public service, the judgment of the Honorable Court of Civil Appeals affirming the validity of said order operates to take appellee's said property for public use without just compensation or due process of law in violation of appellee's rights under Section 17, Article I, of the Constitution of the State of Texas, and said Honorable Court erred in rendering said judgment and in not affirming the judgment of the district court holding said order invalid.

37

The Railroad Commission and the Honorable Court of Civil Appeals having found and held that appellee's pipe line system in both Texas and Oklahoma is an integrated system, and the Honorable Court of Civil Appeals having further held that the gas produced by appellee in Oklahoma and transported and delivered at points in Texas is not interstate commerce, and the undisputed evidence showing that appellee's property in Oklahoma having a value of several millions of dollars is used in producing gas which is transported by pipe lines and sold in Texas, it was error for the Honorable Court of Civil Appeals to approve appellants' estimate of the fair value of appellee's property which admittedly excluded all of appellee's prop- [fol. 88] erty in Oklahoma and upon which estimate the order of the Railroad Commission is held to be fair, reasonable and valid, appellee being denied an opportunity

under the court's holding of earning a reasonable return on the fair value of such property and thereby being denied due process of law and just compensation for the use of its property in the public service in violation of the Texas and National Constitutions.

* * * * * * *

39

The witnesses for appellants having eliminated from their computation of the value of appellee's property in Texas, natural gas reserves, including producing as well as non-producing, gas wells and gas well equipment, having an actual book cost of approximately $4,500,000.00 and pipe lines of the value of many thousands of dollars, all of which the undisputed evidence in this case shows were used and useful in the public service, in order to show that the rate prescribed in the commission's order permitted appellee to earn approximately the six (6%) per cent return which the commission held was the minimum return to which appellee was entitled, the Honorable Court of Civil Appeals erred in holding that appellants' computation of value represented the fair value of appellee's property in Texas and [fol. 89] that the trial court should have instructed a verdict for appellants because there was substantial evidence to support the commission's order allowing appellee a return of 6% per annum, the effect of which holding was to deny to appellee just compensation for the use of its property in the public service in violation of appellee's rights under the Texas and Federal Constitutions.

40

The witnesses for appellants having included in their computation of appellee's operating revenues $334,000.00, which indisputably appellee never received, on the ground that appellee would have sold more gas and thereby increased its revenues if the weather had been colder, in order to show a return to appellee of approximately six (6%) per cent per annum on a part of its property located in Texas, the Honorable Court of Civil Appeals erred in holding that there was substantial evidence to support the Railroad Commission's order.

41

The Honorable Court of Civil Appeals erred in holding in effect that after allowing appellee the well head price paid by appellee to independent producers for all gas produced by appellee from its own gas reserves, the elimination from the rate base of gas reserves, gas wells and equipment which cost appellee approximately four million, five hundred thousand ($4,500,000.00) Dollars, and of appellee's actual expenses of operation for cancelled and surrendered [fol. 90] leases, dry hole expense, gas production expense and drilling and tool expense was justified, inasmuch as the uncontradicted evidence shows that said allowance would be insufficient to provide for the depletion of said gas reserves, allow for the aforesaid expenses of operation and provide any return to appellee on the fair value of its gas reserves, gas wells and gas well equipment.

42

The undisputed evidence showing that appellants' witnesses eliminated from their evaluation of appellee's production system property producing and non-producing gas reserves, gas wells and gas well equipment which cost appellee approximately $4,500,000.00 and in lieu thereof allowed appellee as an expense of operation the well head price paid by appellee for gas produced from independent gas operators, the court erred in adopting and approving such method of evaluation in affirming the validity of the commission's order, for the reason that such method of evaluation, as well as the court's holding, denies to appellee an opportunity of earning a reasonable return upon the fair value of its property used in the public service.

43

It appearing from the record and evidence herein that after allowing the sum advocated by appellants for an- [fol. 91] nual depreciation, depletion and amortization reserve accruals, and after giving effect to the actual revenues received and operating expenses incurred by appellee, but excluding any fees paid to the holding company, appellee would receive under the rate prescribed in the order of the Railroad Commission, less than a six (6%) per cent

annual return on the property value contended for by appellants under the theory of allocation adopted by appellants and approved by the Honorable Court of Civil Appeals, it was error for the Honorable Court of Civil Appeals to reverse the judgment of the trial court and render judgment for appellants on the grounds that the evidence was insufficient as a matter of law to show that the order of the Railroad Commission was unjust and unreasonable as to appellee.

44

The evidence introduced by appellee having clearly shown that under the rate prescribed in the Railroad Commission's order appellee would receive less than the six (6%) per cent annual return which the Railroad Commission found and held was the minimum return to which appellee is entitled on the fair value of its public service property, the Honorable Court of Civil Appeals erred in reversing the judgment of the trial court and rendering judgment for appellants sustaining the validity of the said order on the grounds that appellee failed, as a matter of law, to offer evidence of such probative force as to overcome the [fol. 92] presumption that said order was valid, just and reasonable.

* * * * * * *

47

The Honorable Court of Civil Appeals having held in effect that the Railroad Commission made out a prima facie case by introducing the order of the Railroad Commission in evidence, which order was based on an evaluation and consideration of appellee's system as a whole and the income from and the expenses on said system, erred [fol. 93] in holding that appellee did not make out a prima facie case of the unjustness and unreasonableness of said order by showing that if said order had been in effect for the years in question appellee would not have earned a six (6%) per cent annual return even on the commission's rate base, and after giving effect to the commission's depreciation allowance and operating expenses.

48

The court erred in holding that the evidence with respect to the question of rate of return merely presented the dif-

ference of opinion of experts and that their opinion or opinions could not be substituted for the finding of the commission that a 6% rate of return was fair and reasonable.

49

The Honorable Court of Civil Appeals erred in holding that the testimony and evidence of appellee as to the proper annual sum to be allowed for credit to a reserve to provide for depreciation, depletion and amortization was speculative, at war with actual experience and plainly excessive, because the undisputed evidence shows that such calculations and estimates were based upon a study of the appellee's history, its past experience and its probable future requirements for depreciation, depletion and amortization.

[fol. 94]

50

The evidence showing that the calculations of appellee's witnesses as to the annual sum which should be accrued for depreciation, depletion and amortization were based upon the history of appellee, its past experience and future requirements, it was error for the Honorable Court of Civil Appeals to hold that such evidence was contrary to the experience of the company and of no probative force as a matter of law.

51

The evidence showing that the appellants' estimates for reserve accruals to provide for depreciation and amortization did not include any allowance for the depletion of gas reserves, or the depreciation and amortization of appellee's property in Oklahoma that is used in the production and transmission of gas to points in Texas and certain pipe lines located in Texas, and that same was inadequate to meet the future requirements of the appellee for removals, abandonments, replacements, depletion and amortization, the Honorable Court of Civil Appeals erred in holding that appellants' estimates were adequate and that the commission's order was shown thereby to be just, reasonable and valid.

52

The evidence showing that the commission's allowance for annual reserve accruals to provide for depreciation and [fol. 95] amortization was computed on a sinking fund basis

which required the existence and use of a sum in excess of $5,000,000.00 in said reserve account at the date of inquiry, and which allowance was admittedly insufficient for the future requirements of appellee without the use of said credit balance in the reserve account, the Honorable Court of Civil Appeals erred in holding that said allowance would be adequate for future requirements and that the order of the commission based thereon was just, reasonable and valid, such holding denying to appellee the right to earn a reasonable return on the fair value of its property used in the public service, in violation of appellee's rights under the Texas and National Constitutions.

53

The court erred in holding that the depreciation allowance of appellee's experts was speculative, at war with the actual experience of the company and plainly excessive, because said finding of fact is a finding based on conflicting testimony and on the weight to be given to the testimony of the witnesses and the credibility of the witnesses, all of which matters are matters for the determination of the jury and not for the determination of this court, and which this court has no power or authority to determine.

* * * * * * *

[fol. 96]

56

There being no evidence establishing or showing that $50,000.00 per annum would be a sufficient sum to allow appellee for Federal Income taxes, the Honorable Court of Civil Appeals erred in so finding.

57

The undisputed evidence showing that appellee actually expended in acquiring or attempting to acquire new busi-
[fol. 97] ness by way of advertising, solicitation and otherwise, the following sums, to-wit: $126,125.98 in 1931, $87,528.94 in 1932, $99,793.94 in 1933, and $101,308.68 during the twelve months' period ending March 31, 1934, and the undisputed evidence further showing that such expense was incurred in the exercise of the best judgment of appellee, and there being no evidence of inefficiency or improvidence

on the part of the appellee's management, the Honorable Court of Civil Appeals erred in holding that said expense was not supported by the quantum and character of evidence required in order for it to be allowed as an expense of operation in fixing appellee's rates.

58

The undisputed evidence showing that the amount charged by appellee as an expense of operation for gas leases acquired but cancelled and surrendered was the actual amount paid for such leases as reflected on the books of appellee, and the undisputed evidence further showing that such expenditures were made by appellee in the exercise of the best judgment of its management, and there being no evidence of inefficiency or improvidence on the part of appellee's management, the Honorable Court of Civil Appeals erred in holding that said expense was not supported by the quantum and character of evidence required in order for it to be allowed as an expense of operation in fixing appellee's rates, such holding denying to appellee [fol. 98] its rights under the 14th Amendment to the Federal Constitution.

59

There being no evidence of inefficiency or improvidence on the part of appellee's management, the Honorable Court of Civil Appeals erred in holding that it was proper to eliminate as an expense of operation in the computation of appellee's rates, the sums actually expended by appellee annually in the due course of its business for gas production expense, drilling and tool expense, and dry hole expense, such holding denying to appellee its rights under the 14th Amendment to the Federal Constitution.

60

The Honorable Court of Civil Appeals erred in holding that, "The reproduction cost new value, as determined in the instant case, allows for all overhead expense, which together with the reasonable operating expenses allowed, fully compensate appellee for all development costs which have been incurred, and are ample to cover items entering into and forming a part of what is referred to as 'going concern value'."

61

The undisputed facts showing that appellee began operations in 1909 as a small concern with comparatively few consumers, and that as of the date of this inquiry it was [fol. 99] rendering an efficient and dependable natural gas service to distributing companies who in turn serve 202,882 customers who are well educated in the use of natural gas, that appellee's said business has been gradually built up over a long period of years and is adequate to give appellee a reasonable return on the fair value of its property under rates which are reasonable to the public, the Honorable Court of Civil Appeals erred in holding that it was improper to allow for going concern value under the facts of the instant case, such holding denying to appellee its rights under the 14th Amendment to the Federal Constitution.

62

The Honorable Court of Civil Appeals erred in finding and holding that appellee offered no evidence which even tended to show that a six (6%) per cent rate of return would confiscate its property, or was unreasonable or unjust.

63

There being ample evidence showing that a return of from eight to ten per cent would be just, fair and reasonable for appellee to earn, the court erred in holding that as a matter of law the trial court and jury were without power to say that a six (6%) per cent return is unjust and unreasonable as to appellee.

[fol. 100]

64

The court having found that there was evidence that an eight or ten per cent per annum net return would be fair and reasonable for appellee to earn and that there was a difference of opinion among the witnesses who testified on that point, erred in holding that, "This evidence merely presented the difference of opinion of experts * * * and their opinions cannot be substituted for the finding of the commission that a six (6%) per cent rate of return was fair and reasonable."

65

The appellee having alleged that the order of the Railroad Commission was unjust and unreasonable as to it and

confiscatory of its property, and appellee's evidence having clearly shown that the rate prescribed in the commission's order would not afford appellee the net return of 6% per annum on the fair value of its public service property which the commission found was the minimum return to which appellee is entitled, the court erred in holding that because there was a conflict in the evidence and that the appellants' evidence sustained the commission's order the trial court was required as a matter of law to sustain appellants' motion for an instructed verdict and that he erred in not doing so.

66

The appellants having eliminated from their estimates of the fair value of appellee's property, property actually used [fol. 101] and useful in supplying natural gas to the points served by appellee in Texas, and having eliminated large sums from appellee's expenses of operation and having added to appellee's operating revenues more than $300,000.00 for temperature adjustments and which money appellee never received, the Honorable Court of Civil Appeals in holding that appellants' evidence was sufficient, as a matter of law, to establish the validity of the commission's said order deprived appellee of the right to earn a reasonable return on the fair value of its property used and useful in the public service, and the right to manage its property and business in violation of appellee's rights under the 14th Amendment to the Constitution of the United States and said holding is therefore erroneous.

67

The court erred in approving the segregation of property testified to by appellants' witnesses, such segregation being based upon the value of property located in Texas only, excepting appellee's production system properties and certain pipe lines, because such evaluation failed to give any consideration to or value appellee's properties located in Oklahoma and actually and necessarily used and useful in transporting to Texas gas purchased or produced in Oklahoma, and to the extent that appellee's properties located in Oklahoma are used in the Texas public service, appellee, under [fol. 102] the holding of the court, is denied just compensation for such use, in violation of its rights under Section 17,

Article I of the Texas Constitution and the 14th Amendment to the Federal Constitution.

* * * * * * *

[fol. 103] 72

The trial court having instructed the jury that before it could find that the order of the Railroad Commission was unreasonable and unjust to defendant, it must so appear by clear and satisfactory evidence, and the jury having found that such order was unjust and unreasonable to defendant, and said jury finding, as well as the judgment of the trial [fol. 104] court rendered thereon, being supported by competent evidence, the Honorable Court of Civil Appeals erred in reversing the cause and rendering judgment for appellants.

* * * * * * *

74

The court erred in holding that "where, as in the instant case, the evidence is conflicting and the conclusion to be drawn therefrom in respect of this or that item uncertain or speculative the court should not interfere with gas rates in advance of any actual experience of the practical result of such new rates."

75

The court erred in holding that "Manifestly this evidence in absence of actual experience under the rate, does not meet the quantum and character of proof necessary to set aside the rate order as being confiscatory or unreasonable and unjust as to appellee."

[fol. 105] 76

The court erred in holding that "we are clear in the view that where a state commission fixes a utility rate so as to allow a 6% rate of return on the property used in the public service, the courts will not, prior to a fair test of such rate, declare same void unless the evidence establishes that it is confiscatory or invalid as a matter of law."

77

The Honorable Court of Civil Appeals erred in holding that the reduction of eight cents per thousand cubic feet in

the city gate pipe line charge ordered by the Railroad Commission could and should be passed on to the ultimate consumers for the reason that the several distributing companies to whom appellee supplies gas are not parties to this suit and there is no evidence in this case upon which such issue can be considered and determined, there being no evidence in this case of the property values and earnings of any of the distributing companies, either under the existing rates or any lesser rates, and this is true even though appellee and its distributing companies be regarded as one common concern, for as much as a utility such as appellee is entitled to a reasonable return on every branch and part of its property, whether it be a transmission or distribution system.

78

The court erred in holding that the Railroad Commission [fol. 106] of Texas may without further notice or hearing require the distributing companies purchasing gas from appellee to cease paying appellee a rate for gas purchased by them in excess of 32¢.

79

The court erred in holding that "If the 32¢ rate is declared valid herein appellee can have no further interest in any order the commission may make with regard to requiring the various distributing companies to pay in excess of such rate and to pass the eight (8¢) cent reduction on to the ultimate consumer," because under the holding of the court that corporate entities are to be ignored and that appellee is to be deemed to be engaged in the business of distributing gas locally to domestic consumers, appellee has a most vital interest in law and in fact, in the burner tip rates.

80

The Railroad Commission having found and held that appellee's property and business used and useful in the public service, is an integrated system, and the Honorable Court of Civil Appeals having found and held that appellee is not engaged in interstate commerce in transporting and supplying natural gas at any of the cities and towns served by it in the State of Texas, and appellee having introduced evidence showing that the order of the Commission would not permit it to receive, in any of the years involved or in

[fol. 107] the future, as much as a six (6%) per cent return on the fair value of its public service property, and such evidence being uncontradicted and undisputed by any evidence offered by appellants, the Honorable Court of Civil Appeals erred in holding that the evidence was insufficient as a matter of law to make a jury issue as to the unjustness and unreasonableness of the commission's order and that the trial court erred in not granting appellants' motion for an instructed verdict.

81

The Honorable Court of Civil Appeals having held that appellee is not engaged in the transportation of gas in interstate commerce and that the gas which appellee produces in Oklahoma and transports and delivers at the city gates of cities and towns in Texas is intrastate commerce, and appellee having introduced uncontradicted, competent evidence showing that the rate prescribed in the order of the Railroad Commission would not permit it to receive an annual return of six (6%) per cent but a much lesser return on the fair value of appellee's public service property, the Honorable Court of Civil Appeals erred in holding that appellee had failed as a matter of law in showing that the order of the Railroad Commission was unjust and unreasonable as to it because appellee failed to make a [fol. 108] proper segregation between its intrastate and interstate property and business.

82

The Honorable Court of Civil Appeals having held that the order of the Railroad Commission was prima facie valid and said order being based on an evaluation of appellee's system as a whole and the income from and expenses of the entire property, erred in holding that appellee did not make out a case for the jury by showing that if said order had been in effect for the years in question appellee would not have earned a six (6%) per cent return on the property as a whole even on the commission's rate base, depreciation allowance and operating expenses, appellee's evidence being the only evidence as to said property and business as a whole.

83

The court having held that because of appellee's failure to make a proper segregation of interstate and intrastate

properties, appellee did not adduce the quantum and character of proof necessary to establish the invalidity of the rate complained of, erred in not affirming the judgment of the trial court inasmuch as the record conclusively shows that the commission based its said order upon a consideration of appellee's interstate property and business.

[fol. 109]

84

The court erred in reversing and rendering this case, because the issue raised by appellants in their second amended original petition was the reasonableness of the rate promulgated by the commission for gas delivered at the city gates of the various towns and cities served by appellee in intrastate commerce and this court's holding that appellee was not engaged in interstate commerce in Texas has deprived appellee of an opportunity to develop facts in the case under the law as it has been announced for the first time by this decision.

85

The court erred in holding that it was necessary to allocate or segregate the property used in Texas in order to determine the fair value of the property used in the Texas public service because if appellee was not engaged in interstate commerce there was no occasion or necessity for any segregation of property.

86

The court erred in holding that the testimony of appellee's witnesses based upon a segregation as between property used in interstate and intrastate commerce proved nothing material in this case.

87

The court erred in holding "that appellee offered no other proof upon a correct segregation or allocation of the [fols. 110-111] property and the trial court erred in refusing the commission's motion for an instructed verdict and for judgment declaring the rate order appealed from to be valid in every respect."

88

The court erred in holding that "the burden was upon appellee to show by clear and satisfactory evidence a proper segregation of interstate and intrastate properties and

business, and to show the value of the property employed in intrastate business or commerce and the compensation it would receive under the rate complained of upon such valuation."

89

The court erred in holding that "having failed to make a proper segregation of interstate and intrastate properties, appellee did not adduce the quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory, or unreasonable and unjust."

* * * * * * *

[fol. 112] 93

The court erred in reversing and rendering this case in favor of appellants and against the appellee in view of its holding that the issue of confiscation was not submitted to the jury inasmuch as appellee plead that its property would be confiscated through the order of the commission and proved such confiscation if its testimony were accepted as the more credible and entitled to the most weight, and requested that the issue be submitted by the trial court, and excepted and objected to the failure and refusal of the trial court to submit the same; and if it be true as held by this court that the issue was not submitted, then by reversing and rendering the case this court has deprived appellee of the right to a judicial determination of the question of confiscation inasmuch as this court has no power or authority under the Texas laws as an appellate court to determine that issue.

94

The court erred in giving any consideration to the cor-
[fol. 113] porate relation between Lone Star Gas Company, appel-ee, and various affiliated distributing companies in connection with its determination of the issue of interstate commerce.

95

Inasmuch as the commission treated appellee and the affiliated distributing companies as separate and distinct corporations engaged in different kinds of business and predicated its opinion and order on a recognition of those

facts, the court erred in holding and in basing its judgment in whole or in part on the holding that "when viewed in the light of the facts and the aforesaid rule it becomes apparent that appellee and its affiliated distributing companies were engaged in an integrated but single business enterprise of producing, purchasing, transporting, selling and delivering natural gas for domestic or other use to the ultimate consumer", thus deciding this case on an entirely different theory from that upon which the opinion and order of the commission was based.

96

The court erred in its holding stated in the preceding paragraph of this motion because irrespective of the theory upon which the commission proceeded in its hearing, the facts and circumstances appearing of record and relied [fol. 114] upon by the court, if true, are not sufficient in law to justify disregarding the corporate existence of the various companies which are in law separate, distinct corporations, one of which is engaged in the transportation and sale of gas at wholesale and others of which are engaged in the business of selling and distributing gas at retail.

97

The court erred in holding that "by permitting or recognizing such intercorporate set-up the Texas corporations have, considering their entire operations as a whole, created a single and integrated business enterprise."

98

The court erred in holding that with respect to the jurisdiction of the commission to regulate and control appellee's business and particularly for the purpose of fixing the rates for which it might sell gas to the public in Texas, the corporation must be regarded as being engaged in the single business enterprise of producing, purchasing, transporting, delivering and selling natural gas to the ultimate consumer or user in Texas, because there is no legal justification for ignoring the actual corporate existence of the corporations in question and because recognition of the existence of the corporations as separate and distinct entities in no way operates to impair or defeat the jurisdiction of the Railroad Commission.

[fol. 115] 99

The court erred in holding "the fact that separate corporate entities were formed which represent different departments of the integrated but single business enterprise does not affect the question, because the court must look beyond the corporate form to the purpose of the unified organization and to the officials who are identified with that purpose" because there is no lawful justification for ignoring the separate corporate existence of the various companies.

101

The court erred in holding that to permit Texas corporations to dispose of their capital stock and form a separate entity of their own and to surrender the management and control of their business to the holding corporation which has no permit to do business in Texas, would enable them to defeat the jurisdiction of the commission over them as Texas public utilities, because as a matter of law the Railroad Commission has the same power and jurisdiction over the business now carried on by appellee and the separate, though affiliated corporations purchasing gas from it, considering the corporations as separate and distinct entities, as it would have if the corporate entities be ignored and the distributing companies and the pipe line companies treated as simply departments of one corporation.

102

The court erred in holding that "it is conceded that the [fol. 116] commission after a hearing at which the reasonableness of the city gate rate charged by the appellee for gas was inquired into could have required the various distributing companies to pay appellee a rate not in excess of 32¢ even though the gas sold and delivered by appellee moved in interstate commerce to the city gate."

103

The court erred in holding that "it would seem from these recitations of facts and circumstances that the commission consolidated all the appeals and cases pending before it in which the determination of the city gate rate charged by the appellee for gas was necessarily involved

as a step preliminary to reviewing or fixing the local or burner tip rates for gas", because such conclusion is not substantiated by the record in this case, it appearing that the investigation in question was a separate, distinct investigation of appellee which the commission throughout the investigation treated as a separate and distinct corporate entity engaged in a different kind and character of business from that engaged in by the distributing companies.

104

The court erred in holding that the transportation of gas from Wheeler County through the State of Oklahoma [fol. 117] and through Texas under the facts and circumstances shown in the record is not interstate commerce as a matter of fact.

105

The court erred in holding that "except for the right to authorize the construction of the pipe line within its boundary the State of Oklahoma has no concern whatever with the transaction", and in basing its judgment in whole or in part thereon.

106

The court erred in holding and in giving any consideration to the holding that "it (the town of Hollis, Oklahoma) could have been as well served by a direct pipe line from Texas to it and such service is in no manner affected by the rate order in suit."

107

The court erred in holding and in basing its judgment in whole or in part thereon that "but one practical conception can be drawn from the whole transaction involved; that is, the gas produced in Texas and intended to be delivered, sold and used in Texas is intrastate commerce."

108

The court erred in holding that "the mere fact that [fol. 118] appellee has selected a route through Oklahoma as an aid to the transportation of its Texas business cannot work a change in the nature of the business, nor does it affect the character of the business."

109

The court erred in holding that the transportation of gas through Oklahoma is merely a method of delivery and is a negligible circumstance in determining the interstate commerce issue.

110

The court erred in holding that "neither the Texas Statutes nor the rate order interfere in any manner with the transportation of gas from Texas through Oklahoma and back into Texas."

• • • • • • •

112

The court erred in holding that "this circuitous route of delivery of gas through Oklahoma cannot and does not affect the exercise of the police power of Texas to make or [fol. 119] fix reasonable rates for such gas sold to its citizens."

113

The court erred in holding that the facts show that the gas produced or purchased by appellee in Oklahoma and transported by its pipe lines to Texas does not move in interstate commerce when it reaches the city gates for delivery.

114

The court erred in holding that the interstate transportation of gas purchased or produced by appellee in Oklahoma ceased when such gas passed through appellee's gasoline plant in Gainesville, Texas.

115

The court erred in holding and in giving any consideration to the holding that "the amount of Oklahoma gas as a whole is small, and as divided and redivided before delivery to the various city gates, its amount is negligible in comparison with the amount of the Texas gas with which it is mixed or commingled.

116

The court erred in holding that the composition of appellee's gas purchased or produced in Oklahoma and trans-

[fol. 120] ported into Texas is and must be changed by extracting hydrocarbons and volatile gasoline before it is ready for delivery and use by the consumer, and in giving such consideration to such holding.

117

The court erred in holding that "thus the state commission may validly, by the indirect process of prescribing reasonable rates for local distributing companies, control and fix the city gate rate for gas moved in interstate commerce.

118

The court erred in holding that under the circumstances in this case, the amount of the rate or price to be charged for gas is primarily for the determination of the state in which the gas is consumed, and in giving any consideration to such holding.

119

The court erred in failing to hold that appellee was engaged in interstate commerce in transporting and selling gas purchased or produced by it in Wheeler County, Texas, and transported through Oklahoma and thence back into the State of Texas up to the city gates where delivery is made.

120

The court erred in holding that "where the rates are [fol. 121] reasonable and are fixed according to some uniform, fair and practical standard, they constitute no burden on interstate commerce" and in giving any consideration to such holding as applied to gate rates under the facts and circumstances in this case.

121

The court erred in holding that "it is within the police power of the state to fix reasonable rates for which gas may be sold to its citizens, even though such rates may indirectly or incidentally affect the interstate transportation of such gas, or may so affect interstate commerce in the same", and in giving any consideration to such holding.

122

The court erred in holding that the rate order in this suit does not in any manner interfere with, restrain or burden the free transportation of gas between Texas and Oklahoma.

123

The court erred in holding that "absent legislation by Congress, and since the Interstate Commerce Act expressly excepted the regulation of transportation of 'natural or artificial gas by pipe lines' from the jurisdiction of the Interstate Commerce Commission, the State Commission in the exercise of the police power of the State to regulate [fol. 122] and control public gas utilities had the power to fix reasonable rates for gas delivered by appellee to distributing companies at the city gate, although interstate commerce may be indirectly or incidentally affected thereby."

124

The court erred in holding that because the 32¢ gate rate was reasonable it did not operate to obstruct or interfere with interstate commerce because the question of whether or not the Railroad Commission of Texas can regulate the gate rate to be charged for interstate gas is a question of power and not of the reasonableness of the particular rate.

125

The Honorable Court of Civil Appeals erred in failing to hold that appellee is engaged in interstate commerce at the city gates of various towns and cities in Texas and that the order of the Railroad Commission prohibiting appellee from collecting in excess of 32¢ for all gas sold and delivered by it to various distributing companies at the city gates including gas transported and delivered in interstate commerce directly interfered with and constituted a burden upon interstate commerce and appellee's right to engage therein in violation of the commerce clause of the Constitution of the United States and in not holding the order of the Railroad Commission void and unenforceable [fol. 123] insofar as appellant sought to enforce the same as against such gas transported and sold by appellee in interstate commerce.

The court erred in failing and refusing to sustain appellee's cross-assignment of error No. 2 as follows:

"The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the statement of the Railroad Commission of Texas attached to the opinion and order of the said commission, marked Exhibit "a" and referred to in plaintiffs' Second Amended Original Petition, that defendant was engaged in the production and sale at wholesale of natural gas, engaging in both interstate and intrastate commerce in the sale of gas to some 300 cities and towns in the State of Oklahoma and Texas. The order of the Railroad Commission undertook to fix a reasonable rate for all the gas supplied by the defendant to the various distributing companies. A part of the gas being delivered by the defendant at the city gates of various towns and cities in Texas at the time of the investigation of the Railroad Commission, and at all times in question was being transported uninterruptedly through defendant's high-pressure pipe lines from and through the State of Oklahoma into the State of Texas. The business of transporting natural gas uninterruptedly through defendant's high-pressure pipe lines from the State of Oklahoma into the State of Texas, and from the State of Texas through Oklahoma and back into the State of Texas is national in character and constitutes interstate commerce and transportation, and also constitutes a substantial portion of defendant's entire natural gas business. The order of the Railroad Commission was intended to and did, in fact, prescribe the rate to be charged for all gas sold by the defendant, including interstate gas, and thereby prevented the defendant from charging and receiving the price for interstate gas which it was charging and receiving, and, therefore, [fols. 124-125] was a burden upon and a direct regulation of interstate commerce. The order of the Railroad Commission therefore was void in so far as it related to interstate commerce, and gas sold by the defendant moving in interstate commerce under the Commerce Clause of the Federal Constitution, and, being void in part, and being

indivisible in character, it was void in its entirety and could not be enforced in whole or in part by the plaintiffs in this suit."

127

The Honorable Court of Civil Appeals erred in finding as a fact that all of the gas transported by appellee in interstate commerce is commingled with intrastate gas before delivery at the city gates.

* * * * * * *

[fol. 126] 133

The court erred in holding that a considerable amount of gas purchased or produced in Oklahoma and transported into Texas is run through and stored in appellee's wells at the extraction plants in Texas for future use as needed.

* * * * * * *

[fol. 127] 136-A

The court erred in holding that about 17% of the total amount of gas supplied by appellee is purchased or pro-
[fol.128] duced by it in Wheeler County, Texas.

137

The court erred in holding that the gas reserves in Texas are more than sufficient to supply all Texas' needs and that the gas supply of Oklahoma would likewise supply all of its needs.

* * * * * * *

[fol. 129] 143

The court erred in failing and refusing to sustain appellee's first cross-assignment of error as follows:

"The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested. (Defendant's Cross-Assignment of Error No. 14, Transcript 587)."

144

The court erred in failing and refusing to sustain appellee's Fourth Cross-Assignment of Error as follows:

"The court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the undisputed evidence, as a matter of law, that the rate of 32 cents prescribed by the commission in its order of September 13, 1933, was unjust, unreasonable and confiscatory in this, that said rate was based on a determination of the value of defendant's public service property as of December 31, 1931, considering labor and material prices substantially less than those prevailing on the date of the inquiry; and [fol. 130] even though it be assumed that the Railroad Commission correctly valued such property as of December 31, 1931, nevertheless, if effect be given to such increased labor and material prices, the Railroad Commission's valuation would be materially increased as of the date of the inquiry; and if said rate of 32 cents had been in effect during 1931 and subsequent accounting periods, defendant would not have earned and would not have been able to earn anything like the minimum net rate of return to which the commission found it was entitled upon the fair value of its public service property at the time of the inquiry.

"Wherefore, defendant was entitled to an instructed verdict and to judgment based thereon. (Defendant's Cross-Assignment of Error No. 16, Transcript 588.)"

145

The court erred in holding that the rate fixed by the Commission was presumptively just and reasonable and non-confiscatory as applied to appellee's so-called Texas or intra-state business inasmuch as no presumption of validity attends the rate order not supported by any evidence and inasmuch as it appeared from the undisputed evidence that the rate fixed by the commission was based upon an evaluation of appellee's properties both in Texas and in Oklahoma and a determination of gross revenues, expenses, etc. in connection with the operation of appellee's entire pipe

line properties both in Oklahoma and in Texas, and not upon an evaluation of the appellee's properties physically located in the State of Texas and a determination of grass revenues, expenses, etc. applicable to the sale of gas in Texas.

[fols. 131-132] 146

The court erred in giving any effect or consideration to the order of the commission and in predicating its judgment in whole or in part on the presumptive validity of such order in so far as the order is applied to the so-called Texas business of the defendant inasmuch as the order is void as so applied, because it is not supported by any evidence before the commission based upon a segregation of defendant's properties as between that situated in Oklahoma and Texas, and a segregation of revenues and expenses allocable to appellee's business in the respective states.

* * * * * * *

[fol. 133] 153

The court erred in eliminating as an expense of operation the expenses actually charged by appellee for cancelled and surrendered leases and in finding and holding in respect thereto that "in view of its admitted large gas reserves, which will last for 40 years, and in view of the fact that it is a matter of judicial knowledge that gas by the multiplied millions of cubic feet is being wasted daily because of the lack of a market, we think these large charges are unjustified."

154

The court erred in holding in effect that appellants' estimates for depreciation and amortization reserve accruals [fol. 134] were sufficient to show that the commission's order was just, reasonable and valid in view of the undisputed evidence showing that appellants' estimates made no allowance for the depletion of appellee's wasting assets (gas reserves) and made no allowance for depreciation and amortization on a part of appellee's pipe line situated in Texas, nor on any of appellee's property in Oklahoma that is used and useful in producing and transporting gas to points in Texas for the reason that such holding takes appellee's property for public use without just compensa-

tion in violation of its rights under the 14th Amendment to the Constitution of the United States.

* * * * * * *

156

The Honorable Court of Civil Appeals erred in failing to give any consideration to appellee's testimony respecting the value of its public service property located both in Texas and in Oklahoma and its income and expenses allocable thereto.

* * * * * * *

[fol. 135] 158

The judgment of the Honorable Court of Civil Appeals herein in affirming the order of the Railroad Commission which was declared to be unjust, unreasonable and invalid by the District Court, takes appellee's property without due process of law and without affording to appellee an opportunity to earn a reasonable return upon the fair value of its property used in the public service contrary to appellee's right under the 14th Amendment to the Federal Constitution in so far as said judgment approves and adopts the estimates of appellants' witnesses as to the fair value of appellee's property used in the public service.

159

The judgment of the Honorable Court of Civil Appeals herein affirming the order of the Railroad Commission which was declared to be unjust, unreasonable and invalid by the District Court, takes appellee's property without due process of law and without affording to appellee an opportunity to earn a reasonable return upon the fair value of its property used in the public service and denies to [fol. 136] appellee the equal protection of the law in violation of appellee's rights under the 14th Amendment to the Federal Constitution in so far as said judgment fixes the operating expenses of appellee or approves the method of fixing such operating expenses by the witnesses for appellants.

160

The judgment of the Honorable Court of Civil Appeals herein in affirming the order of the Railroad Commission

which was declared to be unjust, unreasonable and invalid by the District Court, takes appellee's property without due process of law and without affording to appellee an opportunity to earn a reasonable return upon the fair value of its property used in the public service and denies to appellee the equal protection of the law in violation of appellee's rights under the 14th Amendment to the Federal Constitution in so far as said judgment holds that 6% per annum is a reasonable rate of return to be allowed appellee.

161

The judgment of the Honorable Court of Civil Appeals in disapproving appellee's present gate rate and in approving and holding as valid the rate prescribed in the order of the Railroad Commission takes appellee's property without due process of law and denies to appellee the equal [fol. 137] protection of the law and denies to appellee the opportunity of earning a reasonable return upon the fair value of its public service property all in violation of appellee's right under the 14th Amendment to the Federal Constitution.

162

The judgment of the Honorable Court of Civil Appeals herein in affirming the order of the Railroad Commission which was declared to be unjust, unreasonable and invalid by the District Court, takes appellee's property without due process of law and without affording to appellee an opportunity to earn a reasonable return upon the fair value of its property used in the public service and denies to appellee the equal protection of the law in violation of appellee's rights under the 14th Amendment to the Federal Constitution in so far as said judgment approves the allowance made by the appellants' witnesses for annual accruals to a reserve for depreciation and amortization.

163

The judgment of the Honorable Court of Civil Appeals herein in affirming the order of the Railroad Commission which was declared to be unjust, unreasonable and invalid by the District Court, takes appellee's property without due process of law and without affording to appellee an [fol. 138] opportunity to earn a reasonable return upon the

fair value of its property used in the public service and denies to appellee the equal protection of the law in violation of appellee's rights under the 14th Amendment to the Federal Constitution in so far as said judgment approves the inclusion of approximately $334,000.00 per annum as operating income on account of temperature adjustments which appellee is shown by the evidence in this case never to have received.

The residences and names of counsels for appellants are as follows: William McCraw, Attorney General of Texas, Austin, Texas; Alfred M. Scott, Assistant Attorney General of Texas, Austin, Texas; A. R. Stout, Houston, Texas; F. L. Kuykendall, Chief Examiner, Gas Utilities Division, Railroad Commission of Texas, Austin, Texas.

[fol. 139] IN COURT OF CIVIL APPEALS OF TEXAS

[Title omitted]

OPINION ON APPELLEE'S MOTION FOR REHEARING—Filed September 25, 1935

On motion for a rehearing appellee makes the claim that the record does not sustain some of our findings of fact. Most of the asserted discrepancies relate to the valuation of the property used in the public service, or to alleged necessary operating expenses. We held that as a matter of law appellee failed to establish by clear and satisfactory evidence the ultimate fact issue, to-wit: Whether the rate fixed by the Commission was so low as not to afford a reasonable return on the fair value of the property used in the Texas public service. Appellee was afforded a seven months hearing before the Commission and a three months trial on appeal to the Court. It made no segregation as between its Texas and Oklahoma properties and opera-
[fol. 140] tions; and did not prove the fair value of the property used in the Texas public service. The question of the value of such property determines the reasonableness of the rate and probably, in the ultimate analysis, adequacy of service and principles of financing. Valuation of such public service property is in the main a matter of estimate or opinion, and closely resembles discretion as regards the finding of value by an administrative commission. In

any event, a scientific or statutory standard of absolute value is unattainable; and because of this uncertainty of value, except where the evidence clearly shows gross over or under valuation, or mistake, inequality or fraud in the appraisal, the finding of value by an administrative commission is generally given finality. Especially is this the rule in absence of an actual test under the new rate. In addition to the authorities cited in the original opinion, see the following: People v. Board of Assessors, 39 N. Y. 81 Taylor v. L. & N. R. Co., 88 Fed. 350; Chicago v. Burtice, 24 Ill., 489; State Railroad Tax Case, 92 U. S. 575; Hilton v. Meritt, 110 U. S. 97; People v. State Board of Tax Com., 196 N. Y. 39.

Motion overruled.

(Signed) M. B. Blair, Associate Justice.

Overruled.

[File endorsement omitted.]

[fol. 141] In Court of Civil Appeals of Texas

[Title omitted]

Order Overruling Appellee's Motion for Rehearing—September 25, 1935

Motion of Appellee for Rehearing

Motion is overruled.

(Opinion by Associate Justice Blair).

[fol. 142] In Supreme Court of Texas

On Application for Writ of Error

Application No. 21,600

Lone Star Gas Company, Plaintiff in Error,

vs.

The State of Texas et al., Defendants in Error

Entry on the Application Docket: Travis County, Third District. Application No. 21,600, Lone Star Gas Company vs. The State of Texas, et al.

Filed November 2, 1935. Refused October 7, 1936.
(Names of attorneys omitted.)

[fol. 143] IN SUPREME COURT OF TEXAS

[Title omitted]

APPLICATION FOR WRIT OF ERROR—Filed November 2, 1935

To The Honorable The Supreme Court of Texas:

Lone Star Gas Company, a corporation, being the appellee in a certain cause pending in the Court of Civil Appeals in and for the Third Supreme Judicial District of Texas, at Austin, Texas, Number 8238 on the docket of said Court and entitled thereon State of Texas, et al., Appellants, vs. Lone Star Gas Company, Appellee, comes now and complaining of the State of Texas, the Railroad Commission of Texas and the members thereof, Ernest O. Thompson, Lon A. Smith and C. V. Terrell, and of James V. Allred, former Attorney General of Texas, a party to this cause, all being appellants in said cause, and of William McCraw, now Attorney General of Texas; and said Lone Star Gas Company respectfully applies to this Honorable Court to issue its writ of error in this cause directed to the Court of Civil Appeals in and for the Third Supreme Judicial District of Texas, at Austin, Texas, to the end that [fol. 144] this case may be removed from said Court of Civil Appeals to this Court and the record and proceedings herein may be fully reviewed by this Court and the judgment of the said Court of Civil Appeals rendered herein may be reversed and that of the District Court affirmed; and so that this plaintiff in error may be accorded any and all other relief to which it may be entitled under the law.

The errors hereinafter assigned were all duly assigned and presented in a motion for rehearing filed by plaintiff in error in said Court of Civil Appeals within the time required by law and overruled by that Court on, to-wit, the 25th day of September, 1935.

For convenience and to prevent confusion the parties hereto will be referred to as they appeared and were designated in the district court; the defendants in error as plaintiffs and the plaintiff in error as defendant.

I

Introductory Statement of the Nature and Result of the Suit

This suit involves the validity of an order of the Railroad Commission of Texas prescribing maximum rates to

be charged and collected by Lone Star Gas Company for gas sold by it wholesale to distributing companies operating in various towns and cities in the State of Texas and the power of the Commission and the State to enforce same. The order of the Railroad Commission in question reduced Lone Star Gas Company's prevailing city gate rate 20%, and, if enforced, will result in a loss in its net earnings, on the basis of the Company's past experience, [fol. 145] exceeding $1,000,000.00 annually.

Upon a trial of the case in the District Court of Travis County, 53rd Judicial District, a jury found that the order of the Railroad Commission under attack was unjust and unreasonable, and a judgment in favor of the Company enjoining the enforcement of the order was entered on the verdict. The Court of Civil Appeals reversed and rendered the judgment of the District Court.

A historical statement of the progress of the litigation is essential. In giving it we will be as brief as the nature of the suit permits.

Various phases of the controversy have been considered by the Railroad Commission of Texas, by the United States District Court for the Western District of Texas, Austin Division, by the 53rd Judicial District Court of Travis County, Texas, and by the Court of Civil Appeals for the Third Supreme Judicial District of Texas. It will be convenient to trace the development of the case from the time of the initiation of the investigation of Lone Star Gas Company's rates by the Railroad Commission of Texas, through the various courts.

1. Proceedings Before the Railroad Commission of Texas:

The defendant Lone Star Gas Company was incorporated under the laws of the State of Texas on June 4, 1909. Pursuant to its corporate powers, defendant acquired and now owns, holds and operates not only pipe lines, compressor stations and other equipment necessary for the transportation and sale of natural gas, but also owns and operates gas leases, gas wells, well and drilling equipment and other property used and useful as a part of its gas production system.

[fol. 146] Since the date of its incorporation defendant has been continuously engaged in carrying out its corporate purposes, and now operates approximately four thousand

miles of high pressure pipe lines, through and by means of which it transports natural gas to the city gates of some 300 cities and towns situated in the States of Oklahoma and Texas where it sells such gas in wholesale quantities to various natural gas distributing companies. The distributing companies then deliver the gas to the ultimate consumers through low pressure systems. The only exception to the above mentioned practice is the City of Fort Worth, wherein defendant also owns and operates the distributing system and delivers the gas to the ultimate consumer through low pressure mains.

The delivery and sale of the gas at the city gates to the distributing companies, as aforesaid, is governed by long term contracts between defendant and the distributing companies and the price is uniformly $0.40 per thousand cubic feet, with negligible exceptions.

The defendant's pipe line system crosses the State line between Oklahoma and Texas eight times. Three of these lines transport gas from Oklahoma to Texas. Three of them transport gas from Texas to Oklahoma. Another line extends from the Shamrock Gas Field in Wheeler County, Texas, into Oklahoma and then runs south approximately parallel to the west line of Oklahoma, and then again crosses the State line, coming into Texas near Quanah, Texas. After this line reaches Texas it is tapped by a branch line running north into Oklahoma and serving various Oklahoma towns. The line carries, therefore, gas de-
[fol. 147] livered both at Texas and Oklahoma towns.

On October 14, 1932, the Railroad Commission of Texas, in exercise of the power delegated to it by Title 102, and particularly Article 6050, et seq., of the Revised Civil Statutes of Texas for 1925, began an investigation of defendant's rates and charges for the purpose of determining a reasonable rate or price for the gas delivered by defendant at the city gates of the cities and towns served by it.

This investigation encompassed all of defendant's properties and business except the distributing business in the City of Fort Worth, Texas, and certain other non-public service operations which defendant was carrying on. After an extended hearing the Railroad Commission prepared certain findings of fact and an elaborate written opinion upon which it based and issued the following order dated September 13, 1933. (Book of Exhibits 7, page 3926).

2. Order of the Commission:

The Railroad Commission having instituted a proceeding upon its own motion inquiring into the rates charged by the Lone Star Gas Company for domestic gas sold to distributing companies at the city gate station, hereby finds as a fact that the rate of $0.40 per thousand cubic feet as now charged by Lone Star Gas Company is unfair, unjust and unreasonable.

Basing its order on the foregoing finding of fact and on such other findings and statements of facts as are set out in the opinion next preceding this order, or in this order.

It is Ordered, Adjudged and Decreed that effective as of the next billing date the Lone Star Gas Company shall charge, bill and receive for domestic gas at the city gate from all distributing companies served by it, a rate not to exceed $0.32 per thousand cubic feet.

It is Further Ordered, Adjudged and Decreed that a [fol. 148] rate not to exceed $0.32 per thousand cubic feet at the city gate is hereby fixed, approved and promulgated and found and declared to be fair, just and reasonable and shall remain in force and effect until the Commission shall have otherwise determined, pursuant to other proceedings in respect to the fixing of city gate rates for domestic gas on said Lone Star Gas Company's lines.

It is Further Ordered, Adjudged and Decreed that this proceeding shall be kept open for such further orders as may be proper.

The foregoing opinion and order are hereby approved and ordered filed as the opinion and order of the Railroad Commission of Texas.

Dated at Austin, Texas, this 13th day of September, A. D., 1933.

It will be noted that the above order states that it is based upon the findings of fact contained in the order "and on such other findings and statements of fact as are set out in the opinion next preceding this order". The opinion "next preceding this order", and made a part of the order, contains elaborate findings of fact stating in detail how the Commission valued the defendant's property, what property was included in the valuation, what operating revenues were considered, and what expense items were allowed as proper deductions from the operating revenues.

The findings referred to include the following:

"The Lone Star Gas Company, a Texas corporation, is engaged in the production, transportation and sale at wholesale of natural gas, it operates an integrated pipe line system of approximately 4,000 miles and engages in both interstate and intrastate commerce in the selling of gas to some 300 cities and towns within the States of Oklahoma and Texas.

"The company's Texas properties and its Oklahoma properties constitute parts of an integrated operating system. For that reason we have considered the Oklahoma properties and operations and the effect thereof on the revenues and the expenditures within Texas. On this basis we have fixed a rate for application within the jurisdiction of Texas". (Book of Exhibits 7, page 3844). (Our italics.)

[fol. 149] Having made this finding, the Commission then proceeded to value the defendant's property as a whole and to consider its operating revenues and operating expenses as a whole.

The findings referred to also contain the following:

"We find 6 per cent to be the minimum fair rate of return and we find this rate to be applicable to the year 1931." (Book of Exhibits 7, page 3915).

3. Proceedings in the United States District Court:

On the 22nd day of September, 1933, defendant filed its bill of complaint in the United States District Court for the Western District of Texas at Austin and sought to temporarily and permanently enjoin the Railroad Commission, the individual members thereof, and the Attorney General of Texas, from enforcing the above mentioned order. It was alleged in the bill of complaint that said order would operate to confiscate the properties of defendant; would impair the obligations of defendant's contracts; and that it was unjust to defendant and otherwise offended against defendant's rights under the Constitution of the United States. (S. F. 24, Book of Exhibits 7, p. 3712).

On September 22, 1933, the said United States District Court issued a temporary restraining order as prayed for in defendant's said bill of complaint. (S. F. 25, Book of Exhibits 7, p. 3838).

After the issuance of the aforesaid restraining order, this suit was filed by the plaintiffs in the 53rd District Court of Travis County, Texas, in order to cast jurisdiction in that court under the provisions of Section 266 of the Judicial Code of the United States. (28 U. S. C. A., Sec. 380).

The 53rd District Court of Travis County, Texas, after the filing of plaintiffs' suit and pursuant to plaintiffs' [fol. 150] prayer and motion, made an order staying all proceedings having for their object the enforcement of the Railroad Commission's order against defendant. The plaintiffs were restrained and enjoined from instituting or prosecuting any proceedings against defendant under said order, or from attempting to enforce the duties, obligations, and requirements imposed upon defendant by said order, pending final determination of the issues in this suit. (Tr. 20-22.)

Thereafter, to-wit, on the 11th day of November, 1933, the said United States District Court, in conformity with what it deemed to be the proper procedure under Section 266 of the Judicial Code, entered an order staying the proceedings in that court until final determination of this cause. The Federal Court's decree in this connection recited in detail the provisions of the stay order issued by the State Court and referred to statements made in open court by plaintiffs' attorneys to the effect that the State of Texas, the Railroad Commission of Texas, and the Attorney General did not desire to, and would not enforce said order of the Railroad Commission, or collect penalties for violation thereof, at any times before the final determination of the suit in the 53rd District Court of Travis County, Texas; and the Railroad Commission of Texas and the individual members thereof and the Attorney General of the State of Texas and their successors in office, were restrained and enjoined from enforcing, or attempting to enforce, or from giving any effect to said order, at any time prior to final judgment in this suit, then pending in the 53rd District Court. (S. F. 21, Book of Exhibits 6, p. 3584; Tr. 20-25.)

[fol. 151] 4. Proceedings in the State District Court:

Plaintiffs' original petition herein sought to restrain defendant from charging and collecting for gas sold by it to the various distributing companies in excess of $0.32 per thousand cubic feet. It will be seen from the order of the

Commission (page 5, supra) that the rate fixed therein by the Commission was made applicable to all gas sold and delivered at the various city gates; and plaintiffs sought to enforce the order as to all gas.

In the opinion of the Railroad Commission, upon which its order was based, it was recited that Lone Star Gas Company was engaged "in the production, transportation and sale, at wholesale, of natural gas, * * *" operating— "an integrated pipe line system of approximately 4,000 miles, * * *" and engaging "in both interstate and intrastate commerce in the selling of gas to some 300 cities and towns in the States of Oklahoma and Texas." (Tr. 19.) It was defendant's theory that the order of the Railroad Commission could not be enforced as against that part of its business which it contended was interstate in character, and the general demurrer contained in its original answer was, upon a hearing, sustained. (S. F. 341.)

Thereafter, plaintiffs in their first and second amended original petitions sought the enforcement of the Commission's order to prevent defendant from charging or collecting any rates at the city gates of the various towns and cities served by it in intrastate commerce in Texas, except those prescribed by the order of the Railroad Commission. (Tr. 15.) The case went to trial in the District Court on plaintiffs' second amended original petition, (Tr. 2, et seq.), and second supplemental petition, (Tr. 146, et seq.), and [fol. 152] on defendant's second amended original answer (Tr. 31, et seq.), and second supplemental answer, (Tr. 162, et seq.)

Defendant's pleadings raised issues as to whether or not the order of the Railroad Commission was unjust and unreasonable and confiscatory of its property in violation of its rights under the Fourteenth Amendment to the Constitution of the United States; as to the present fair value of its public service property; as to the proper amount of money which it was entitled to set aside annually in its depreciation reserve; as to what constituted a fair and reasonable rate of return, and other matters of fact going into the ultimate question at issue, to-wit: Would the enforcement of the order of the Railroad Commission operate unjustly and unreasonably on defendant and confiscate its property without due process of law? (Tr. 125.)

The pleadings of the parties raised the issue of whether defendant was engaged in interstate commerce in Texas, and, if so, whether the order of the Railroad Commission, if enforced, would result in a direct burden upon and interference with interstate commerce.

Upon the trial of the case before a jury, plaintiffs offered in evidence the order of the Railroad Commission, the stay order granted by the Federal Court, and after an agreed stipulation that defendant was charging $0.40 per thousand cubic feet for gas instead of $0.32 per thousand cubic feet, as required by the Railroad Commission's order, the plaintiffs rested their case. (S. F. 22.) The Commission's order, it will be noted, states that the order is based upon the findings contained in it and also on such "other findings and [fol. 153] statements of fact as are set out in the opinion next preceding this order." The opinion of the Commission thus referred to in the order contains a finding that the defendant is engaged in the "production, transportation and sale at wholesale of natural gas" and that it operates "an integrated pipe line system of approximately 4,000 miles and engages in both interstate and intrastate commerce in the selling of gas to some 300 cities and towns in the States of Oklahoma and Texas," and also that "the Company's Texas properties and its Oklahoma properties constitute parts of an integrated operating system." (Commission Opinion, p. 2.) The Commission's opinion also shows that as a basis for its order it undertook to make an over-all valuation of defendant's pipe line system as a unit.

Defendant's motion for an instructed verdict was duly and timely presented and overruled, and defendant then introduced evidence showing the actual cost of its public service properties in Texas and Oklahoma as reflected by its books, treating its properties as an "integrated system" as they had been dealt with by the Railroad Commission.

In this connection the defendant offered evidence to prove the reproduction cost new and present value of such properties; the annual sum which should be credited to a reserve for depreciation, depletion and/or amortization; the gross revenues, operating expenses and the amounts available for return during several accounting periods beginning with the twelve months ending December 31, 1931, and extending through the twelve months period ending April 30, 1934. Defendant also showed by proper accounting testimony the

amount available to it for return under the forty cent gate [fol. 154] rate and the amount that would have been available to it during each of the several accounting periods mentioned if the order of the Commission had been in effect. The testimony offered by defendant in that connection appears on pages 24 to 2356 of the Statement of Facts, and the documentary evidence in defendant's Exhibits 1 to 44.

After the introduction of the above mentioned evidence, defendant proceeded to show that it was engaged in both interstate and intrastate business in Texas, and in that connection it offered evidence to establish the value of its public service property used and useful in the conduct of its intrastate business and the revenues and expenses properly allocable thereto. (S. F. 2356-2542; Defendant's Exhibits 45 and 46.)

Plaintiffs then proceeded with their rebuttal testimony and offered evidence for the purpose of showing the value of defendant's public service property located in Texas and the revenues and expenses which they thought should be allocated to its Texas business, adopting in general simply a georgraphical division of its property and business as between Texas and Oklahoma. (S. F. 2542-3195; Plaintiffs' Exhibit 4 to 10.)

Plaintiffs' evidence disclosed the cost of defendant's public service properties located both in Texas and Oklahoma, but plaintiffs offered no evidence of the reproduction cost new of defendant's properties located both in Texas and Oklahoma (upon which basis the Railroad Commission of Texas had determined the present fair value of defendant's public service properties in fixing the rate promulgated by it). Plaintiffs in their evidence undertook to make a geographical segregation of the property and business of [fol. 155] the defendant between Oklahoma and Texas, treating all sales of gas made in Oklahoma as Oklahoma gas, regardless of the origin of the gas or gas supply; and applying the same treatment to the gas sold in Texas. (S. F. 2686-2688.) Abandoning, or at least disregarding, the manner in which the Railroad Commission had proceeded in valuing the property, and the findings of the Railroad Commission made the basis of its order, the plaintiffs in their testimony undertook to fix the value of the property located in Texas and, with the minor exceptions hereinafter pointed out, refused to give any consideration to the pro-

ducing and transporting properties located in Oklahoma and used by defendant in producing and transporting gas to Texas.

At the conclusion of all the evidence, both plaintiffs and defendant moved for an instructed verdict. These motions were overruled by the court, and the case having been submitted to the jury, a verdict was returned by the jury to the effect that the rate prescribed by the Railroad Commission was unjust and unreasonable as to the defendant Lone Star Gas Company. The judgment followed as a matter of course, decreeing that the order of the Commission fixing the rate hereinbefore mentioned was unjust, unreasonable, invalid and unenforceable. Plaintiffs were also denied relief in their suit against the defendant; and were permanently enjoined from enforcing the order in suit.

An appeal from the judgment was duly taken by plaintiffs. Defendant filed various cross-assignments of error in the trial court, which, in connection with plaintiffs' assignments of error, were presented to the Court of Civil Appeals.

[fol. 156] Upon a consideration of the case the Court of Civil Appeals reversed the judgment of the District Court and rendered judgment declaring that the order was in all respects valid and directing its enforcement. A motion for rehearing was duly filed and overruled. Hence this application for writ of error.

(Statement of Grounds of Jurisdiction and Questions Decided omitted.)

First Assignment of Error

The Honorable Court of Civil Appeals erred in holding that the transportation of gas from Wheeler County through the State of Oklahoma into Texas, under the facts and circumstances shown in the record, did not constitute interstate commerce. (104th ground of Motion for Rehearing.)

Second Assignment of Error

The Honorable Court of Civil Appeals erred in failing to hold that defendant was engaged in interstate commerce in transporting and selling gas produced or purchased by it in Wheeler County, Texas, and transported in its high pressure line through Oklahoma and thence back into the State

of Texas up to the city gates in Texas, where delivery is made. (119th ground of Motion for Rehearing.)

Third Assignment of Error

The Honorable Court of Civil Appeals erred in holding (having reference to the transportation of the gas from Wheeler County through the State of Oklahoma back into Texas for delivery at city gates in Texas) that "but one practical conception can be drawn from the whole transaction involved; that is, that the gas produced in Texas and intended to be delivered, sold and used in Texas is in-
[fols. 157-160] trastate commerce". (107th ground of Motion for Rehearing.)

Fourth Assignment of Error

The Honorable Court of Civil Appeals erred in holding that the rate order in question, fixing the sale price of the Wheeler County gas when sold and delivered at wholesale at the city gates in Texas after it had been transported from the State of Oklahoma, did not interfere in any manner with the transportation of gas from Texas through Oklahoma and back into Texas and did not burden or amount to a regulation of interstate commerce. (110th ground of Motion for Rehearing; also 105th and 108th grounds of Motion for Rehearing.)

Fifth Assignment of Error

The Honorable Court of Civil Appeals erred in holding that the transportation of gas through the State of Oklahoma amounted to merely a method of delivering the gas in Texas and was a negligible circumstance in determining the interstate commerce issue. (109th ground of Motion for Rehearing.)

* * * * * * *

[fol. 161] Sixth Assignment of Error

The Honorable Court of Civil Appeals erred in holding that the facts show that the gas produced or purchased by defendant in Oklahoma and transported by its pipe lines to Texas does not move in interstate commerce when it reaches the city gates in Texas for delivery. (113th ground of Motion for Rehearing.)

[fols. 162-163] Seventh Assignment of Error

The Honorable Court of Civil Appeals erred in holding that the interstate transportation of gas purchased or produced by appellee in Oklahoma ceased when such gas passed through appellee's gasoline plant at Gainesville, Texas. (114th ground of Motion for Rehearing.)

Eighth Assignment of Error

The Honorable Court of Civil Appeals erred in holding and in giving any consideration to its holding that "the amount of Oklahoma gas as a whole is small and after dividing and re-dividing before delivery to the various city gates its amount is negligible in comparison with the amount of the Texas gas with which it is mixed or commingled." (115th ground of Motion for Rehearing.)

* * * * * * *

[fol. 164] Ninth Assignment of Error

The Court of Civil Appeals erred in holding that defendant did not meet the burden of showing by clear and satisfactory evidence that the thirty-two cent rate would [fol. 165] not afford a reasonable return on its property used in Texas public service, and that the trial court erred in overruling the plaintiffs' motions for an instructed verdict because plaintiffs' own evidence, if believed (and the credibility of the witnesses and the weight to be given their testimony were matters to be determined by the jury), proved clearly and satisfactorily that the rate was unjust, unreasonable and confiscatory; and such testimony if it did not prove as a matter of law that the rate fixed by the Railroad Commission was unjust, unreasonable and confiscatory, at least raised an issue of fact to be submitted to the jury. (29th ground of Motion for Rehearing.)

Tenth Assignment of Error

The Honorable Court of Civil Appeals erred in holding in effect that after allowing defendant the well head price, paid by it to independent producers, for all gas produced by defendant from its own gas reserves, it was proper to eliminate from the rate base the value of gas reserves, gas wells and all production equipment, and also to eliminate

from consideration all of defendant's actual production expenses, including expenses of cancelled and surrendered leases, dry hole expense, drilling and tool expense, depreciation and depletion and the amount required to yield defendant a fair return on the fair value of its production system properties. (39th, 41st and 42nd grounds of Motion for Rehearing.)

Eleventh Assignment of Error

The Honorable Court of Civil Appeals erred in holding [fols. 166-171] that the fair value of defendant's property, undepreciated, used in public service was $40,256,862.39. (31st ground of Motion for Rehearing.)

* * * * * * *

Fourteenth Assignment of Error

[fols. 172-176] The Honorable Court of Civil Appeals erred in holding, in substance and effect, that under Article 6059, R. C. S. 1925, the order of the Railroad Commission fixing a rate should be sustained, upon a de novo trial in the District Court, if the evidence is merely conflicting and there is substantial evidence supporting the order of the Commission, because the statute, as thus construed and applied, denies to the defendant in this case the right to a judicial review of the rate order wherein the reviewing court may exercise its independent judgment in respect to both the facts and the law, a right that is guaranteed to the defendant by the Due Process Clause of the Fourteenth Amendment to the Constitution of the United States. (1st, 2nd, 3rd, 5th, 6th, and 25th grounds of Motion for Rehearing.)

* * * * * * *

Fifteenth Assignment of Error

[fol. 177] The Honorable Court of Civil Appeals, having held in effect that the Railroad Commission made out a prima facie case by introducing the order of the Railroad Commission in evidence, which order was based on an evaluation and consideration of defendant's system as a whole and the income from and the expenses of said system, erred in holding that defendant did not make out a

prima facie case of the unjustness and unreasonableness of said order by showing that if said order had been in effect for the years in question defendant would not have earned a six (6%) per cent annual return even on the Commission's rate base, and after giving effect to the Commission's depreciation allowance and operating expenses. (47th ground of Motion for Rehearing.)

* * * * * * *

Sixteenth Assignment of Error

[fol. 178] The Railroad Commission having found and held that defendant's property and business used and useful in the public service, is an integrated system, and the Honorable Court of Civil Appeals having found and held that defendant is not engaged in interstate commerce in transporting and supplying natural gas at any of the cities [fol. 179] and towns served by it in the State of Texas, and defendant having introduced evidence showing that the order of the Commission would not permit it to receive, in any of the years involved or in the future, as much as a six (6%) per cent return on the fair value of its public service property, and such evidence being uncontradicted and undisputed by any evidence offered by plaintiffs the Honorable Court of Civil Appeals erred in holding that the evidence was insufficient as a matter of law to make a jury issue as to the unjustness and unreasonableness of the Commission's order and that the trial court erred in not granting plaintiffs' motion for an instructed verdict. (80th ground of Motion for Rehearing.)

Seventeenth Assignment or Error

The judgment of the Honorable Court of Civil Appeals in disapproving defendant's present gate rate and in approving and holding as valid the rate prescribed in the order of the Railroad Commission takes defendant's property without due process of law and denies to defendant the equal protection of the law and denies to defendant the opportunity of earning a reasonable return upon the fair value of its public service property, all in violation of defendant's right under the Fourteenth Amendment to the Federal Constitution. (161st ground of Motion for Rehearing.)

* * * * * * *

[fol. 180] Eighteenth Assignment of Error

The witnesses for plaintiffs having eliminated from their computation of the value of defendant's property in Texas, natural gas reserves, including producing as well as non-producing, gas wells and gas well equipment, having an actual book cost of approximately $4,500,000.00 and pipe lines of the value of many thousands of dollars, all of which the undisputed evidence in this case shows were used and useful in the public service, in order to show that the rate prescribed in the Commission's order permitted defendant to earn approximately the six (6%) per cent return which [fol. 181] the Commission held was the minimum return to which defendant was entitled, the Honorable Court of Civil Appeals erred in holding that plaintiffs' computation of value represented the fair value of Defendant's property in Texas and that the trial court should have instructed a verdict for plaintiffs because there was substantial evidence to support the Commission's order allowing defendant a return of 6% per annum, the effect of which holding was to deny to defendant just compensation for the use of its property in the public service in violation of defendant's rights under the Texas and Federal Constitutions. (39th ground of Motion for Rehearing.)

Nineteenth Assignment or Error

The Honorable Court of Civil Appeals erred in holding in effect that after allowing defendant the wellhead price paid by defendant to independent producers for all gas produced by defendant from its own gas reserves, the elimination from the rate base of gas reserves, gas wells and equipment which cost defendant approximately four million, five hundred thousand ($4,500,000.00) dollars, and of defendant's actual expenses of operation for cancelled and surrendered leases, dry hole expense, gas production expense and drilling tool expense was justified, inasmuch as the uncontradicted evidence shows that said allowance would be insufficient to provide for the depletion of said gas reserves, allow for the aforesaid expenses of operation and provide any return to defendant on the fair value of its gas reserves, gas wells and gas well equipment. (41st ground of Motion for Rehearing.)

• • • • • • •

[fol. 182] Twentieth Assignment of Error

The Court erred in approving the segregation of property testified by plaintiffs' witnesses, such segregation being based upon the value of property located in Texas only, [fol. 183] excepting defendant's production system properties and certain pipe lines, because such evaluation failed to give any consideration to or value defendant's properties located in Oklahoma and actually and necessarily used and useful in transporting to Texas gas purchased or produced in Oklahoma, and to the extent that defendant's properties located in Oklahoma are used in the Texas public service, defendant, under the holding of the court, is denied just compensation for such use, in violation of its rights under Section 17, Article I of the Texas Constitution and the Fourteenth Amendment to the Federal Constitution. (67th ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

* * * * * * *

[fol. 184] Twenty-First Assignment of Error

The Honorable Court of Civil Appeals erred in eliminating as an expense of operation the expense actually paid and charged by defendant for cancelled and surrendered leases, and in finding and holding in respect thereto that: "In view of its admitted large gas reserves, which will last for 40 years, and in view of the fact that it is a matter of judicial knowledge that gas by the multiplied millions of cubic feet is being wasted daily because of the lack of a market, we think these large charges are unjustified." (153rd ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

Twenty-Second Assignment of Error

The undisputed evidence showing that the amount charged by defendant as an expense of operation for gas leases acquired but cancelled and surrendered was the actual amount paid for such leases as reflected on the books of the defendant, and the undisputed evidence further showing that such expenditures were made by defendant in the exercise of the best judgment of its management, and there

[fol. 185] being no evidence of inefficiency or improvidence on the part of defendant's management, the Honorable Court of Civil Appeals erred in holding that said expense was not supported by the quantum and character of evidence required in order for it to be allowed as an expense of operation in fixing defendant's rates, such holding denying to defendant its rights under the Fourteenth Amendment to the Federal Constitution. (58th ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

* * * * * * *

[fol. 186] Twenty-Third Assignment of Error

The undisputed evidence showing that defendant actually expended in acquiring or attempting to acquire new business by way of advertising, solicitation and otherwise, the following sums, to-wit: $126,125.98 in 1931, $87,528.94 in 1932, $99,793.94 in 1933, and $101,308.68 during the twelve months' period ending March 31, 1934, and the undisputed evidence further showing that such expense was incurred in the exercise of the best judgment of defendant, and there being no evidence of inefficiency or improvidence on the part of defendant's management, the Honorable Court of Civil Appeals erred in holding that said expense was not supported by the quantum and character of evidence required in order for it to be allowed as an expense of opera-
[fol. 187] tion in fixing defendant's rates. (57th ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

* * * * * * *

[fol. 188] Twenty-Fourth Assignment of Error

There being no evidence establishing or showing that $50,000.00 per annum would be a sufficient sum to allow defendant for Federal Income Taxes, the Honorable Court of Civil Appeals erred in so finding. (56th ground of Motion for Rehearing.)

* * * * * * *

[fols. 189-190] Twenty-Fifth Assignment of Error

The Honorable Court of Civil Appeals erred in holding that the testimony and evidence of defendant as to the proper annual sum to be allowed for credit to a reserve to provide for depreciation, depletion and amortization was speculative, at war with actual experience and plainly excessive, because the undisputed evidence shows that such calculations and estimates were based upon a study of the defendant's history, its past experience and its probable future requirements for depreciation, depletion and amortization. (49th ground of Motion for Rehearing.)

Twenty-Sixth Assignment of Error

The court erred in holding that the depreciation allowance of defendant's experts was speculative, at war with the actual experience of the company and plainly excessive, because said finding of fact is a finding based on conflicting testimony and on the weight to be given to the testimony of the witnesses and the credibility of the witnesses, all of which matters are matters for the determination of the jury and not for the determination of this court, and which this court has no power or authority to determine. (53rd ground of Motion for Rehearing.)

* * * * * * *

[fol. 191] Twenty-Seventh Assignment of Error

The Honorable Court of Civil Appeals erred in finding and holding that defendant offered no evidence which even tended to show that a six (6%) per cent rate of return would confiscate its property, or was unreasonable or unjust. (62nd ground of Motion for Rehearing.)

Twenty-Eighth Assignment of Error

There being ample evidence showing that a return of from eight to ten per cent would be just, fair and reasonable for defendant to earn, the Court erred in holding that as a matter of law the trial court and jury were without power to say that a six (6%) per cent return is unjust and unreasonable as to defendant. (63rd ground of Motion for Rehearing.)

Twenty-Ninth Assignment of Error

The Court having found that there was evidence that an eight or ten per cent per annum net return would be fair and

reasonable for defendant to earn and that there was a difference of opinion among the witnesses who testified on that point, erred in holding that, "This evidence merely presented the difference of opinion of experts * * * and their [fol. 192] opinions cannot be substituted for the finding of the Commission that a six (6%) per cent rate of return was fair and reasonable." (64th ground of Motion for Rehearing.)

* * * * * * *

[fol. 193-194] Thirtieth Assignment of Error

The Honorable Court of Civil Appeals erred in holding that, "The reproduction cost new value, as determined in the instant case, allows for all overhead expense, which together with the reasonable operating expenses allowed, fully compensate defendant for all development costs which have been incurred, and are ample to cover items entering into and forming a part of what is referred to as 'going concern value.'" (60th ground of Motion for Rehearing.)

Thirty-First Assignment of Error

The undisputed facts showing that defendant began operations in 1909 as a small concern with compar-tively few consumers, and that as of the date of this inquiry it was rendering an efficient and dependable natural gas service to distributing companies who in turn serve 202,882 customers who are well educated in the use of natural gas, that defendant's said business has been gradually built up over a long period of years and is adequate to give defendant a reasonable return on the fair value of its property under rates which are reasonable to the public, the Honorable Court of Civil Appeals erred in holding that it was improper to allow for going concern value under the facts of the instant case, such holding denying to defendant its rights under the Fourteenth Amendment to the Federal Constitution. (61st ground of Motion for Rehearing.)

* * * * * * *

[fols. 195-196]

Thirty-Second Assignment of Error

The Court erred in holding that the testimony of appellee's (defendant's) witnesses based upon a segregation as

between property used in interstate and intrastate commerce proved nothing material in this case. (86th ground of Motion for Rehearing.)

Thirty-Third Assignment of Error

The Court erred in holding "that appellee offered no other proof upon a correct segregation or allocation of the property, and the Trial Court erred in refusing the Commission's order for an instructed verdict and for judgment declaring the rate order appealed from to be valid in every respect." (87th ground of Motion for Rehearing.)

Thirty-Fourth Assignment of Error

The Court erred in holding that "having failed to make a proper segregation of interstate and intrastate properties, defendant did not adduce the quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory, or unreasonable and unjust." (89th ground of Motion for Rehearing.)

* * * * * * *

[fol. 197] Thirty-Fifth Assignment of Error

The evidence showing that the Commission's allowance for annual reserve accruals to provide for depreciation and amortization was computed on a sinking fund basis which required the existence and use of a sum in excess of $5,000,000.00 in said reserve account at the date of inquiry, and which allowance was admittedly insufficient for the future requirements of defendant without the use of said credit balance in the reserve account, the Honorable Court of Civil Appeals erred in holding that said allowance would be adequate for future requirements and that the order of the Commission based thereon was just, reasonable and valid, such holding denying to defendant the right to earn a reasonable return on the fair value of its property used in the public service, in violation of defendant's rights under the Texas and National Constitutions. (52nd Ground of Motion for Rehearing.)

Thirty-Sixth Assignment of Error

The judgment of the Honorable Court of Civil Appeals herein in affirming the order of the Railroad Commission

which was declared to be unjust, unreasonable and invalid by the District Court, takes defendant's property without due process of law and without affording to defendant an opportunity to earn a reasonable return upon the fair value of its property used in the public service and denies to de-
[fols. 198-201] fendant the equal protection of the law in violation of defendant's rights under the 14th Amendment to the Federal Constitution in so far as said judgment approves the allowance made by the plaintiff's witnesses for annual accruals to a reserve for depreciation and amortization. (162nd Ground of Motion for Rehearing.)

* * * * * * *

[fol. 202] Forty-Third Assignment of Error

The Honorable Court of Civil Appeals having held that the scope of judicial review of the Railroad Commission's order by the district court under the Texas statutes, on defendant's claim that said order is unjust, unreasonable and confiscatory, is merely corrective and that such review is limited to a determination of whether the Commission's order is supported by substantial evidence, erred in failing to declare said order void as being in conflict with the due process requirements of the Fourteenth Amendment to the Federal Constitution, which entitles defendant to a judicial review of said order before a court with power to exercise an independent judgment as to both the facts and law involved. (1st ground of Motion for Rehearing.)

Forty-Fourth Assignment of Error

The court having held in effect that in suits filed pursuant to the provisions of Article 6059, R. S., 1925, the courts may not exercise an independent judgment in determining whether rate orders of the Railroad Commission are unjust and unreasonable or confiscatory, but that the courts must affirm such orders if there is substantial evidence to support them notwithstanding the evidence is conflicting, erred in holding the Railroad Commission's order valid for the reason that such holding denies to defendant a judicial review of the rate order in question on the constitutional issue of
[fols. 203-205] confiscation to which defendant is entitled under the Fourteenth Amendment to the Constitution of the United States. (3rd ground of Motion for Rehearing.)

Forty-Fifth Assignment of Error

Inasmuch as the Honorable Court of Civil Appeals holds that this suit, or defendant's answer herein, is in effect an appeal from the order of the Railroad Commission pursuant to the provisions of Article 6059 Revised Civil Statutes of Texas, and inasmuch as the court has construed that statute as withholding from and denying to the district court the right and power to exercise an independent judgment on the facts underlying the issue of the unreasonableness, unjustness and confiscatory character of the order of the Commission and has held that the order of the Commission must be sustained if there is any substantial evidence offered upon the trial de novo supporting it, and inasmuch as the statutes and constitution of Texas as construed deny to this court and the Supreme Court of Texas such power and authority, and inasmuch as defendant has been compelled to follow the procedure which has been followed against its wishes and over its objection, defendant has not obtained that due process of law to which it is entitled under the Fourteenth Amendment to the Constitution of the United States. Accordingly, the order of the Commission was void and the court erred in failing to so hold. (8th ground of Motion for Rehearing.)

* * * * * * *

[fols. 206-207]

Forty-Seventh Assignment of Error

The Court of Civil Appeals erred in holding that defendant obtained a trial de novo on the question of confiscation, or on the question of the reasonableness and justness of the order of the Commission, in view of its holding that the order of the Commission must be upheld as a matter of law, if there is any substantial evidence to support it, the latter holding denying, in substance, the right recognized by the former holding. (10th ground of Motion for Rehearing.)

* * * * * * *

[fol. 208] Fiftieth Assignment of Error

The Court erred in holding that "where, as in the instant case, the evidence is conflicting, and the conclusion to be

drawn therefrom in respect of this or that item uncertain or speculative, the Court should not interfere with gas rates in advance of any actual experience of the practical result of such new rates." (74th ground of Motion for Rehearing.)

Fifty-First Assignment of Error

The Court erred in holding that "'We are clear in the view that where a State Commission fixes a utility rate so as to allow a 6% rate of return on the property used in the public service, the Courts will not, prior to a fair test of such rate, declare same void, unless the evidence establishes that it is confiscatory or invalid as a matter of law." (76th ground of Motion for Rehearing.)

* * * * * * *

[fol. 209] Fifty-Second Assignment of Error

The Court erred in reversing and rendering this case, because the issue raised by plaintiffs in their Second Amended Original Petition was the reasonableness of the rate promulgated by the Commission for gas delivered at the city gates of the various towns and cities served by defendant in intrastate commerce and this Court's holding that defendant was not engaged in interstate commerce in Texas has deprived defendant of an opportunity to develop facts in the case under the law as it has been announced for the first time by this decision. (84th ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

* * * * * * *

[fol. 210] Fifty-Third Assignment of Error

The Court erred in holding that with respect to the jurisdiction of the Commission to regulate and control defendant's business and particularly for the purpose of fixing the rates for which it might sell gas to the public in Texas, the corporation must be regarded as being engaged in the single business enterprise of producing, purchasing, transporting, delivering and selling natural gas to the ultimate consumer or user in Texas, because there is no legal justification for ignoring the actual corporate existence of the

corporations in question, and because recognition of the existence of the corporations as separate and distinct entities in no way operates to impair or defeat the jurisdiction of the Railroad Commission. (98th ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

Fifty-Fourth Assignment of Error

The Court erred in holding that to permit Texas corporations to dispose of their capital stock and form a separate entity of their own and to surrender the management and [fol. 211] control of their business to the holding corporation, which has no permit to do business in Texas, would enable them to defeat the jurisdiction of the Commission over them as Texas Public Utilities, because as a matter of law the Railroad Commission has the same power and jurisdiction over the business now carried on by the defendant, and the separate though affiliated corporations purchasing gas from it, considering the corporations as separate and distinct entities, as it would have if the corporate entities be ignored and the distributing companies and the pipe line companies treated as simply departments of different corporations. (101st ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

(Supporting Statement, Authorities and Argument omitted.)

Fifty-Fifth Assignment of Error

The Honorable Court of Civil Appeals erred in holding that the reduction of 8 cents per thousand cubic feet in the city gate pipe line charge ordered by the Railroad Commission, could and should be passed on to the ultimate consumers, for the reason that the several distributing companies to whom defendant supplies gas are not parties to this suit and there is no evidence in this case upon which such issue can be considered and determined, there being no evidence in this case of the property values and earnings of any of the distributing companies, either under the existing rates or any lesser rates, and this is true, even though appellee and its distributing companies be regarded as one common concern, for as much as a utility such as [fol. 212] defendant is entitled to a reasonable return on

every branch and part of its property, whether it be a transmission or a distribution system. (77th ground of Motion for Rehearing.)

Fifty-Sixth Assignment of Error

The Court erred in holding that the Railroad Commission of Texas may, without further notice or hearing, require the distributing companies purchasing gas from appellee to cease paying appellee a rate for gas purchased by them in excess of 32 cents. (78th ground of Motion for Rehearing.)

Fifty-Seventh Assignment of Error

The Court erred in holding that "if the 32 cent rate is declared valid herein, defendant can have no further interest in any order the Commission may make with regard to requiring the various distributing companies to pay in excess of such rate and to pass the 8 cent reduction on to the ultimate consumers," because under the holding of the Court that corporate entities are to be ignored and that defendant is to be deemed to be engaged in the business of distributing gas legally to domestic consumers, defendant has a most vital interest in law and in fact in the burner tip rates. (79th ground of Motion for Rehearing.)

The above Assignments of Error are submitted as Propositions.

* * * * * * *

[fol. 213] Fifty-Eighth Assignment of Error

The Court of Civil Appeals erred in failing to hold that defendant is engaged in interstate commerce at the city gates of various towns and cities in Texas, and that the order of the Railroad Commission prohibiting defendant from collecting in excess of thirty-two cents for all gas sold and delivered by it to various distributing companies at the city gates including gas transported and delivered in inter-
[fol. 214] state commerce, directly interfered with and constituted a burden upon interstate commerce and defendant's right to engage therein in violation of the Commerce Clause of the Constitution of the United States, and in not holding the order of the Railroad Commission void and unenforceable insofar as plaintiffs sought to enforce the same

as against such gas transported and sold by defendant in interstate commerce. (125th ground of Motion for Rehearing.)

* * * * * * *

Fifty-Ninth Assignment of Error

The Court erred in failing and refusing to sustain defendant's Cross-Assignment of Error No. 2, as follows:

"The Court erred in overruling and in refusing to give defendant's request for a peremptory instruction duly and [fol. 215] timely presented at the conclusion of all the evidence in the case, and after both plaintiffs and defendant had rested, because it appeared from the statement of the Railroad Commission of Texas attached to the opinion and order of the said Commission, marked Exhibit "a" and referred to in Plaintiffs' Second Amended Original Petition, that defendant was engaged in the production and sale at wholesale of natural gas, engaging in both interstate and intrastate commerce in the sale of gas to some 300 cities and towns in the States of Oklahoma and Texas. The order of the Railroad Commission undertook to fix a reasonable rate for all of the gas supplied by the defendant to the various distributing companies. A part of the gas being delivered by the defendant at the city gates of various towns and cities in Texas at the time of the investigation of the Railroad Commission, and at all times in question was being transported uninterruptedly through defendant's high pressure pipe lines from and through the State of Oklahoma into the State of Texas. The business of transporting natural gas uninterruptedly through defendant's high pressure pipe lines from the State of Oklahoma into the State of Texas, and from the State of Texas through Oklahoma and back into the State of Texas is national in character and constitutes interstate commerce and transportation, and also constitutes a substantial portion of defendant's entire natural gas business. The order of the Railroad Commission was intended to and did, in fact, prescribe the rate to be charged for all gas sold by the defendant, including interstate gas, and thereby prevented the defendant from charging and receiving the price for interstate gas which it was charging and receiving, and, therefore, was a burden upon and a direct regulation of

interstate commerce. The order of the Railroad Commis-
[fol. 216] sion therefore was void insofar as it related to interstate commerce, and gas sold by the defendant moving in interstate commerce under the Commerce Clause of the Federal Constitution, and, being void in part, and being indivisible in character, it was void in its entirety and could not be enforced in whole or in part by the plaintiffs in this suit." (126th ground of Motion for Rehearing.)

* * * * * * *

Sixtieth Assignment of Error

The Court erred in rendering judgment for plaintiffs because not only does Article 6059 of the Revised Civil Statutes of Texas, as construed, deny to defendant due process of law in violation of its rights under the Fourteenth Amendment to the Constitution of the United States, and not only does the Court treat this case and answer of defendant as an appeal thereunder, but defendant has been compelled to follow the procedure outlined thereunder upon
[fol. 217] representations by plaintiffs that every constitutional and legal right to which it might be entitled would be fully safeguarded, and that it would be entitled to the same sort of trial to which it would have been entitled in its suit in the Federal Court upon the basis of which representations the Federal Court stayed proceedings therein with the result that not only does defendant fail to get the kind of trial to which it would have been entitled in the Federal Court but is denied the opportunity of ever obtaining the same. (12th ground of Motion for Rehearing.)

* * * * * * *

Sixty-First Assignment of Error

The judgment of the Honorable Court of Civil Appeals herein in affirming the order of the Railroad Commission which was declared to be unjust, unreasonable and invalid by the District Court, takes appellee's property without due process of law and without affording to appellee an opportunity to earn a reasonable return upon the fair value of its property used in the public service and denies to appellee the equal protection of the law in violation of appellee's rights under the Fourteenth Amendment to the
[fol. 218] Federal Constitution in so far as said judgment

approves the inclusion of approximately $334,000.00 per annum as operating income on account of temperature adjustments which appellee is shown by the evidence in this case never to have received. (163rd ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

(Supporting Statement, Authorities and Argument omitted.)

Sixty-Second Assignment of Error

The Court erred in reversing and rendering this case in favor of the plaintiffs and against the defendant, in view of it holding that the issue of confiscation was not submitted to the jury, inasmuch as defendant plead that its property would be confiscated through the order of the Commission and proved such confiscation if its testimony were accepted as the more credible and entitled to the most weight, and requested that the issue be submitted to the trial court, and excepted and objected to the failure and refusal of the trial court to submit the same; and if it be true, as held by this Court, that the issue was not submitted, then by reversing and rendering the case this Court has deprived defendant of the right of a judicial determination of the question of confiscation inasmuch as this Court has no power or authority under the Texas laws as an appellate court to determine that issue. (93rd ground of Motion for Rehearing.)

The foregoing assignment of error is adopted as a proposition.

(Supporting Statement, Authorities and Argument omitted.)

* * * * * * *

[fol. 219] The defendants in error (hereinbefore designated as plaintiffs) are represented herein by their attorneys of record Honorable William McCraw, Attorney General of Texas, Honorable Scott Gaines, First Assistant Attorney General, Hon. Alfred M. Scott, Assistant Attorney General, and Honorable F. L. Kuykendall, all of whom reside at Austin, Texas, and by Honorable A. R. Stout, a former Assistant Attorney General, now residing at Houston, Texas. They have been notified in writing of the filing

of this Application for Writ of Error and a duplicate copy of same has been deposited with the Clerk for their use on demand.

* * * * * * *

[fol. 220] (The above Application for Writ of Error bears endorsements showing that same was filed in the Court of Civil Appeals on October 25, 1935, and in the Supreme Court of Texas on November 2, 1935.)

[fol. 221] IN SUPREME COURT OF TEXAS

App. No. 21600

LONE STAR GAS CO.

vs.

STATE OF TEXAS et al.

From Travis County, 3rd District

ORDER DENYING APPLICATION FOR WRIT OF ERROR—October 7, 1936

This day came on to be heard the application of plaintiff in error for a writ of error to the Court of Civil Appeals for the Third District, and the same having been duly considered, it is ordered that the application be refused; that applicant, Lone Star Gas Company, pay all costs incurred on this application.

(No opinion filed.)

[fol. 222] IN SUPREME COURT OF TEXAS

[Title omitted]

ENTRY ON MOTION DOCKET SHOWING FILING OF MOTION FOR REHEARING OF THE APPLICATION FOR WRIT OF ERROR

Motion for Rehearing of Application No. 21,600.
Filed October 22, 1936.

[fol. 223] IN SUPREME COURT OF TEXAS

[Title omitted]

MOTION FOR REHEARING OF APPLICATION FOR WRIT OF ERROR —Filed October 22, 1936

To the Honorable the Supreme Court of Texas:

Comes now Lone Star Gas Company, a corporation, being plaintiff in error in the above styled and numbered cause, and files this its Motion for Rehearing of its Application for Writ of Error, and in this behalf prays that the order of the Court refusing said Application be set aside and that the Application be granted on rehearing, and that plaintiff in error be accorded the relief prayed for in the Application.

To prevent confusion, the parties to this cause will be referred t as they appeared and were designated in the district court and in the Application for Writ of Error; the defendants in error as plaintiffs and the plaintiff in error as defendant.

[fol. 224] We shall not enter upon a reargument of all of the questions presented in the Application. Instead, we shall select a few of the more important questions and discuss these briefly, citing additional authorities and presenting additional and new points of argument, in an effort to demonstrate that the Court erred in refusing the Application for Writ of Error.

Some of these questions are so important and have such intrinsic merit that we feel that we must have failed to present them as clearly in the Application for Writ of Error as they should have been presented; only in that way are we able ot explain the refusal of the writ of error.

First Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the First Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the transportation of gas from Wheeler County through the State of Oklahoma back into Texas did not constitute interstate commerce.

Second Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Second Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in failing to hold that de-
fols. 225-226] fendant was engaged in interstate commerce in transporting and selling gas produced or purchased by it in Wheeler County, Texas, and transported by it in its high pressure line through the State of Oklahoma and thence back into the State of Texas up to the city gates in Texas, where sale and delivery are made.

Third Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Fourth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the rate order in question fixing the sales price of the Wheeler County gas when sold and delivered at wholesale at the various city gates in Texas after it had been transported through the State of Oklahoma, did not interfere in any manner with the transportation of gas from Texas through Oklahoma and back into Texas, and did not burden or amount to a regulation of interstate commerce, in violation of the Commerce Clause of the Constitution of the United States.

* * * * * * *

fol. 227] Fourth Assignment of Error

This Honorable Court erred in holding, in effect, that the prescribing of the price that might be charged and collected in the first sale and delivery in Texas of this Wheeler County gas, transported in interstate commerce into Texas, does not constitute a direct regulation of said commerce, in violation of Article I, Sec. 8, Cl. 3, of the Federal Constitution.

Fifth Assignment of Error

This Honorable Court erred in approving, in effect, by fol. 228] refusing the writ of error, the holding of the Court of Civil Appeals that the prescribing of the alleged reasonable city gate rates to be charged for sale and delivery of this gas transported in interstate commerce did

not amount to a direct regulation of interstate commerce, in violation of the Commerce Clause of the National Constitution, but only to an indirect or incidental burden upon such commerce.

Sixth Assignment of Error

This Honorable Court erred in approving, in effect, the holding of the Court of Civil Appeals that defendant's segregation of its properties and business, as between intrastate and interstate commerce, which treated this Wheeler County gas as interstate gas, was improper. The Wheeler County gas was plainly interstate gas and defendant therefore correctly allocated to its interstate business the properties used in producing and transporting it, as well as the revenues and expenses received and incurred in handling it.

(Statement, Authorities, and Argument omitted.)

Seventh Assignment of Error

This Honorable Court erred in failing to grant the writ of error on account of the Sixth Assignment of Error presented in the Application for Writ of Error, which asserts that the Court of Civil Appeals erred in holding that the [fol. 229] gas produced or purchased by defendant in the State of Oklahoma and transported by its pipe lines to Texas does not move in interstate commerce when it reaches the city gates in Texas for delivery.

Eighth Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on account of the Seventh Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the interstate transportation of gas purchased or produced by the defendant in the State of Oklahoma ceased when such gas passed through defendant's gasoline plant at Gainesville, Texas, such holding involving an erroneous construction of the Commerce Clause of the Constitution of the United States. (Art. I, Sec. 8, Cl. 3.)

Ninth Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Eighth Assignment of

Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding, and in giving effect to such holding, that "the amount of Oklahoma gas as a whole is small and after dividing and redividing before delivery to the various city gates its amount is negligible in comparison with the amount of the Texas gas with which it is mixed or commingled."

Tenth Assignment of Error

[fols. 230-231] This Honorable Court erred in refusing the Application for Writ of Error and thereby holding, in effect, that the Application of the prescribed city gates rate to the first sales in Texas of the gas produced or purchased by the defendant in the State of Oklahoma and transported to Texas did not involve a direct regulation of interstate commerce, in violation of the Commerce Clause of the Constitution of the United States (Art. I, Sec. 8, Cl. 3), but only an indirect regulation or incidental regulation of such commerce.

* * * * * * *

[fol. 232] Eleventh Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Ninth Assignment of Error in the Application, which asserted that the Court of Civil Appeals erred in holding that defendant did not meet the burden of showing by clear and satisfactory evidence that the thirty-two cent rate would not afford a reasonable re-[fol. 233] turn on its properties used in the public service in Texas, and in further holding that the evidence offered by the plaintiffs themselves did not prove clearly and satisfactorily that the prescribed rate was unjust, unreasonable and confiscatory, and violative of defendant's property rights under the State Constitution and under the Fourteenth Amendment to the Federal Constitution.

Twelfth Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Tenth Assignment of Error presented in the Application for Writ of Error, which asserted, in effect, that the Court of Civil Appeals erred in holding that after allowing the defendant, for all gas

produced by defendant from its own gas reserves, the well head price paid by defendant for gas sold to it by independent producers, it was proper to eliminate from the rate base the value of defendant's gas reserves, its gas wells, and all of its production equipment property, and also to eliminate from consideration all of defendant's actual expenses incurred in the handling and operating of its producing property, including expenses of canceled and surrendered leases, dry hole expense, drilling and tool expense, operating expense, depreciation and depletion, as well as the amount required to yield defendant a fair return on the fair value of its production system properties; such ruling depriving the defendant of its property without due process of law, in violation of the Due Process Clause of the Four-
[fol. 234] teenth Amendment to the Constitution of the United States.

Thirteenth Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Eleventh Assignment of Error presented in the Application, which asserted that the Court of Civil Appeals erred in holding that the fair value of defendant's property, undepreciated, used in the public service, was $40,256,862.39.

Fourteenth Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Nineteenth Assignment of Error presented in the Application, which asserted that the Court of Civil Appeals erred in holding that after allowing to defendant, on account of all gas produced by defendant from its own gas reserves, the well head price paid by defendant to independent producers, it was proper to then eliminate from the rate base the value of all gas reserves, the value of gas wells and equipment costing the defendant approximately $4,500,000.00, and valued by the Commission at $4,674,285.91, and to also eliminate from consideration defendant's actual expenses of operating its said production system properties, aggregating, under the Commission's findings, the sum of $247,732.86; such holding denying to the defendant due process of law and depriving it of its property without due process of law, in violation of the Due Process Clause (Sec. 1) of the Fourteenth

[fols. 235-237] Amendment to the Constitution of the United States.

Fifteenth Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Eighteenth Assignment of Error presented in the Application, which assignment complains of the error of the Court of Civil Appeals in holding that it was proper to eliminate from the rate base and from consideration the entire value of defendant's production system properties, as well as all operating expenses incurred and paid by the defendant in the handling and operating of said properties, and to substitute therefor the application of an arbitrary formula under which defendant was allowed for the gas produced by it the well head price per thousand cubic feet paid by it to other producers. The effect of the substitution of said arbitrary formula was to deprive the defendant of its property without due process of law, in violation of the Fourteenth Amendment to the Constitution of the United States.

* * * * * * *

[fol. 238] Seventeenth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Fourteenth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding, in substance and effect, that under Article 6059, Revised Civil Statutes of 1925, the order of the Railroad Commission fixing a rate should be sustained, upon a de novo trial in the district court, if the evidence is merely conflicting and there is substantial evidence supporting the [fol. 239] order, because this statute, as thus construed and applied, denies to the defendant in this case the right to a judicial review of the rate order, wherein the reviewing court may exercise its independent judgment in respect to the facts as well as the law, a right guaranteed to the defendant by the Due Process Clause (Sec. 1) of the Fourteenth Amendment to the Constitution of the United States.

Eighteenth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Forty-

third Assignment of Error presented in the Application, the same being as follows:

"The Honorable Court of Civil Appeals having held that the scope of judicial review of the Railroad Commission's order by the district court under the Texas statutes, on defendant's claim that said order is unjust, unreasonable and confiscatory, is merely corrective and that such review is limited to a determination of whether the Commission's order is supported by substantial evidence, erred in failing to declare said order void as being in conflict with the due process requirements of the Fourteenth Amendment to the Federal Constitution, which entitles defendant to a judicial review of said order before a court with power to exercise an independent judgment as to both the facts and law involved."

Nineteenth Assignment of Error

This Honorable Court erred in overruling and in failing [fols. 240-241] to grant the Application for Writ of Error on the Forty-fourth Assignment of Error presented in the Application and in thereby holding that under the provisions of Article 6059 the courts may not exercise an independent judgment in determining whether rate orders are confiscatory, but must affirm and approve such orders if there is any substantial evidence to support them, such holding denying to the defendant an independent judicial review of the rate order in question on the constitutional issue of confiscation, to which the defendant is entitled under the Due Process Clause of the Fourteenth Amendment to the Constitution of the United States.

* * * * * * *

[fol. 242] Twentieth Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Eighth Proposition submitted under the Ninth, Tenth and Eleventh Assignments of Error presented in the Application (p. 89), said proposition being as follows:

"The Railroad Commission having refused to segregate defendant's properties and operations in fixing this rate and having expressly found that in determining a fair rate it was necessary to consider all of defendant's properties

and all of its operations, the holding of the Court of Civil Appeals, to the effect that defendant in assailing the rate was required to segregate its properties and operations, contrary to the express finding of the Railroad Commission, [fols. 243-244] and to establish, under Article 6059, by 'clear and satisfactory' evidence that the segregation was proper and that the rate was confiscatory as applied to such segregated properties, deprives the defendant of due process of law, in violation of the Fourteenth Amendment to the Constitution of the United States because said holding, as applied to the facts of this case, deprives the defendant of a fair opportunity to test in a judicial proceeding the validity and reasonableness of the rate as it was fixed by the Commission, and deprives the defendant of the kind of judicial review to which it is entitled under the Due Process Clause of the Fourteenth Amendment."

* * * * * * *

[fol. 245] Twenty-First Assignment of Error

This Honorable Court erred in failing to grant the Application for Writ of Error on the Fifteenth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that defendant did not make out a prima facie case against the validity of the prescribed rate by showing that if said rate had been in effect for the years in question defendant would not have earned a six per cent annual return even on the Commission's rate base, and after giving effect to the Commission's [fol. 246] depreciation allowance and allowance for operating expenses.

Twenty-Second Assignment of Error

This Honorable Court erred in overruling, in effect, the First Proposition under the Fifteenth Assignment of Error presented in the Application, (Application, p. 105), which asserts that the Court of Civil Appeals erred in holding that defendant failed as a matter of law to prove any invalidating fact against the Commission's rate order because it failed to make a proper segregation as between the property employed and the business done in intrastate and interstate commerce, which segregation the Railroad Commission had held to be unnecessary.

* * * * * * *

[fol. 247] Twenty-Third Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Sixteenth Assignment of Error presented in the Application for Writ of Error. (Application, p. 11.)

Twenty-Fourth Assignment of Error

This Honorable Court erred in overruling the Seventeenth Assignment of Error presented in the Application for Writ of Error and in thereby holding that the judgment of the Court of Civil Appeals approving and holding valid the rate prescribed in the order of the Railroad Commission did not take defendant's property without due process of law, and did not deny to the defendant the equal protection of the laws, and did not deny [fol. 248] to it the opportunity of earning a reasonable return on the fair value of its property used in the public service, all in violation of Section 1 of the Fourteenth Amendment to the Constitution of the United States.

(Statement, Authorities, and Argument omitted.)

Twenty-Fifth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Twentieth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in approving the segregation of property sponsored by plaintiffs' witnesses, such segregation being based upon the value of the property located in Texas only (excepting, however, defendant's production system properties and certain pipe lines which were not included) because such valuation failed to give any consideration to or value to defendant's properties located in Oklahoma and actually used and useful in transporting to Texas gas purchased or produced in Oklahoma, and to the extent that defendant's properties located in Oklahoma are used in rendering public service in Texas, defendant, under the holding of the Court is denied just compensation for such use, in violation of Section 17, Article I, of the Texas Constitution, and in violation of the Due Process Clause of the Fourteenth Amendment to the Federal Constitution.

[fol. 249] Twenty-Sixth Assignment of Error

This Honorable Court erred in overruling the Second Proposition under the Twentieth Assignment of Error presented in the Application, reading as follows:

"What plaintiffs' witnesses called the 'Texas-Oklahoma Gas Sales Adjustment' was a purely arbitrary bookkeeping allowance created by these witnesses (and not referred to in the findings of the Railroad Commission) as a substitute for actual values and actual outlays greatly exceeding the allowance. The practical effect of this 'adjustment' was to deny defendant's right to a fair return on its Oklahoma properties used and useful in producing and bringing gas to Texas; the allowance did not even amount to operating expenses,"

and in thereby approving the holding of the Court of Civil Appeals in respect to said Texas-Oklahoma Gas Sales Adjustment.

Twenty-Seventh Assignment of Error

This Honorable Court erred in holding, in effect, that it was proper to substitute the arbitrary book-keeping allowance called the "Texas-Oklahoma Gas Sales Adjustment" for an actual valuation of defendant's Oklahoma properties used and useful in the rendering of service in Texas, as well as for the actual revenues and expenses received and incurred by defendant in the use of its Oklahoma properties for the rendering of public service in Texas. This holding deprived the defendant of due process of law and deprived it of its property without due process of law, in [fol. 250] violation of the Due Process Clause of the Fourteenth Amendment to the Federal Constitution.

* * * * * * *

[fol. 251] Twenty-Eighth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Thirty-fourth Assignment of Error as presented in the Application for Writ of Error, and in thereby holding that the Court of Civil Appeals did not err in holding that defend-

ant failed to make a proper segregation of its interstate and intrastate properties and therefore failed to adduce the quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory or unreasonable and unjust.

Twenty-Ninth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Thirty-third Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the trial court erred in refusing the Commission's motion for an instructed verdict and for judgment declaring the rate order appealed from to be valid in every respect, because defendant offered no proof showing a correct segregation or allocation of its property as between interstate and intrastate commerce.

Thirtieth Assignment of Error

This Honorable Court erred in overruling the Thirty-second Assignment of Error presented in the Application and in holding that the testimony of defendant's witnesses showing a segregation as between defendant's property [fol. 252] used in interstate commerce and its property used in intrastate commerce proved nothing that was material in this case.

* * * * * * *

Thirty-First Assignment of Error

This Honorable Court erred in overruling the Second Proposition under Assignments of Error Thirty-second to Thirty-fourth, inclusive, presented in the Application, which is as follows:

"Plaintiffs were not entitled to an instructed verdict even if defendant's segregation was improper, in this: The segregation made by the plaintiffs was obviously improper, being based in main upon an arbitrary geographical standard giving no effect to the manner in which the defendant's [fol. 253] property was used and its business conducted. The Railroad Commission found that in the fixing of a reasonable rate the property and business were to be consid-

ered as a unit; in other words that no segregation was required in fixing a fair and reasonable rate. If the defendant's segregation was wrong and the plaintiffs' segregation was also wrong, then the case stood upon the finding of the Railroad Commission to the effect that no segregation was required in fixing a reasonable rate, and with the Commission's valuation of defendant's property on that basis rebutted by nothing except the evidence offered by the defendant dealing with its property and business as a whole."

(Statement, Authorities, and Argument omitted.)

Thirty Second Assignment of Error

If a segregation of defendant's property and business as between interstate and intrastate commerce was required, then the rate order here in question was void because promulgated by the Commission upon a fundamentally wrong theory, in fact and in law, and this Honorable Court erred in holding, in effect, the contrary by refusing the writ of error.

(Statement, Authorities, and Argument omitted.)

[fol. 254] Thirty-Third Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error upon the Twenty-first Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in eliminating as an expense of operation the expense actually paid and charged by the defendant for canceled and surrendered leases, and further erred in making the finding referred to in the assignment.

Thirty-Fourth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Twenty-second Assignment of Error presented therein, which complains of the ruling of the Court of Civil Appeals in holding that the expense charged by defendant for canceled and surrendered leases was not sustained by the quantum and character of evidence required in order for it to be allowed as an expense of operation in fixing defendant's rates—

such holding denying to defendant its rights secured to it under the Due Process Clause of the Fourteenth Amendment to the Federal Constitution.

[fol. 255] (Statement, Authorities, and Argument omitted.)

Thirty-Fifth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Twenty-third Assignment of Error presented in the Application for Writ of Error, which complains of the ruling of the Court of Civil Appeals in respect to defendant's right to deduct as part of its operating expense outlays on account of advertising and soliciting of business.

(Statement, Authorities, and Argument omitted.)

Thirty-Sixth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Twenty-fourth Assignment of Error presented therein, which asserts that the Court of Civil Appeals erred in holding that $50,000.00 per annum would be a sufficient sum to allow defendant for Federal income taxes.

(Statement, Authorities, and Argument omitted.)

[fol. 256] Thirty-Seventh Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Thirty-fifth Assignment of Error presented in the Application, said assignment being as follows:

"The evidence showing that the plaintiffs' allowance for annual reserve accruals to provide for depreciation and amortization was computed on a sinking fund basis which required the existence and use of a sum in excess of $5,000,000.00 in said reserve account at the date of inquiry, and which allowance was admittedly insufficient for the future requirements of defendant without the use of said credit balance in the reserve account, the Honorable Court of Civil Appeals erred in holding that said allowance would be adequate for future requirements and that the order of the Commission based thereon was just, reasonable and valid, such holding denying to defendant the right to earn a rea-

sonable return on the fair value of its property used in the public service, in violation of defendant's rights under the Texas and National Constitutions."

Thirty-Eight Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Thirty-[fol. 257] sixth Assignment of Error presented in the Application, said assignment reading as follows:

"The judgment of the Honorable Court of Civil Appeals herein in affirming the order of the Railroad Commission which was declared to be unjust, unreasonable and invalid by the District Court, takes defendant's property without due process of law and without affording to defendant an opportunity to earn a reasonable return upon the fair value of its property used in the public service and denies to defendant the equal protection of the laws in violation of defendant's rights under the 14th Amendment to the Federal Constitution in so far as said judgment approves the allowance made by the plaintiffs' witnesses for annual accruals to a reserve for depreciation and amortization."

* * * * * * *

[fol. 258] Thirty-Ninth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Twenty-fifth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the evidence offered by defendant relating to the proper sum to be annually allowed for credit to a reserve to provide for depreciation, depletion and amortization was speculative and at war with actual experience, and plainly excessive because the undisputed evidence shows that such estimates were based upon a study of defendant's history and experience and a consideration of its probable future [fol. 259] requirements for depreciation, depletion and amortization.

Fortieth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Twenty-

sixth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the depreciation allowance sponsored by defendant was at war with actual experience and plainly excessive, this ruling being erroneous because it amounts to a fact finding by the Court of Civil Appeals, based on conflicting testimony and on the weight to be attached to the testimony of witnesses and other matters properly determinable by the jury and not by the Court of Civil Appeals.

Forty-First Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Thirtieth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the reproduction cost new value, as determined in this case, allows for all overhead expense, which together with the reasonable operating expense allowed fully compensated [fol. 260] the defendant for all development costs which have been incurred, and are ample to cover items entering into and forming a part of what is referred to as "going concern value."

Forty-Second Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Thirty-first Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that it was improper to allow anything for "going concern value" under the facts of the instant case, such holding denying to defendant its constitutional rights under the Fourteenth Amendment to the Federal Constitution.

Forty-Third Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Twenty-seventh Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that defendant offered no evidence which even tended to show that a six per cent rate of return would confiscate its property, or was unreasonable or unjust.

[fol. 261] Forty Fourth Assignment of Error

This Honorable Court erred in overruling and in failing to grant the Application for Writ of Error on the Twenty-eighth Assignment of Error presented in the Application, which asserts that since there was evidence showing that a return of from eight to ten per cent would be just, fair and reasonable, the Court of Civil Appeals erred in holding as a matter of law that the finding of the Commission was conclusive.

In this connection, the defendant submits that the rulings here complained of deprived the defendant of the exercise of the independent judgment of the trial court and jury as to what would constitute a reasonable return on the fair value of its property and denied to it the independent judicial review to which it was entitled under the Fourteenth Amendment to the Federal Constitution.

(Statement, Authorities, and Argument omitted.)

Forty-Fifth Assignment of Error

This Honorable Court erred in overruling the Twenty-ninth Assignment of Error presented in the Application, reading as follows:

"The Court having found that there was evidence that an eight or ten per cent per annum net return would be fair and reasonable for defendant to earn and that there was a difference of opinion among the witnesses who testified on [fol. 262] that point, erred in holding that, 'This evidence merely presented the difference of opinion of experts • • • and their opinions cannot be substituted for the finding of the Commission that a six (6%) per cent rate of return was fair and reasonable.'"

(Statement, Authorities, and Argument omitted.)

• • • • • • •

[fol. 263] Forty-Ninth Assignment of Error

This Honorable Court erred in overruling the Forty-fourth Assignment of Error presented in the Application, reading as follows:

[fol. 264] "The court having held in effect that in suits filed pursuant to the provisions of Article 6059, R. S., 1925,

the courts may not exercise an independent judgment in determining whether rate orders of the Railroad Commission are unjust and unreasonable or confiscatory, but that the courts must affirm such orders if there is substantial evidence to support them notwithstanding the evidence is conflicting, erred in holding the Railroad Commission's order valid, for the reason that such holding denied to defendant a judicial review of the rate order in question on the constitutional issue of confiscation to which defendant is entitled under the Fourteenth Amendment to the Constitution of the United States."

Fiftieth Assignment of Error

This Honorable Court erred in overruling the Forty-fifth Assignment of Error presented in the Application, reading as follows:

"Inasmuch as the Honorable Court of Civil Appeals holds that this suit, or defendant's answer herein, is in effect an appeal from the order of the Railroad Commission pursuant to the provisions of Article 6059, Revised Civil Statutes of Texas, and inasmuch as the court has construed that statute as withholding from and denying to the district court the right and power to exercise an independent judgment on the facts underlying the issue of the unreasonableness, unjustness and confiscatory character of the order of the Commission and has held that the order of the Commis- [fol. 265] sion must be sustained if there is any substantial evidence offered upon the trial de novo supporting it, and inasmuch as the statutes and Constitution of Texas as construed deny to this court and the Supreme Court of Texas such power and authority, and inasmuch as defendant has been compelled to follow the procedure which has been followed against its wishes and over its objection, defendant has not obtained that due process of law to which it is entitled under the Fourteenth Amendment to the Constitution of the United States. Accordingly, the order of the Commission was void and the court erred in failing to so hold."

(Statement, Authorities, and Argument omitted.)

Fifty-First Assignment of Error

This Honorable Court erred in holding, in effect, that in determining the question of whether the order of the Rail-

road Commission was confiscatory of defendant's property used in the public service the district court was confined to a determination of whether or not there was substantial evidence to support the order of the commission, and that if there was such evidence the order of the Commission must be upheld, because such holding operates to deny to defendant the right to the independent judgment of the court on both the facts and law and to deny to defendant the right to a determination of the reasonableness of the order based [fol. 266] upon the weight to be given to conflicting testimony, in violation of defendant's rights under the due process clause of the Fourteenth Amendment to the Constitution of the United States."

Fifty-Second Assignment of Error

This Honorable Court erred in overruling the Fiftieth Assignment of Error presented in the Application and in holding that the Court of Civil Appeals did not err in holding that "where, as in the instant case, the evidence is conflicting, and the conclusion to be drawn therefrom in respect of this or that item uncertain or speculative, the Court should not interfere with gas rates in advance of any actual experience of the practical result of such new rates."

Fifty-Third Assignment of Error

This Honorable Court erred in overruling the Fifty-first Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that "We are clear in the view that where a State Commission fixes a utility rate so as to allow a 6% rate of return on the property used in the public service, the Court will not, prior to a fair test of such rate, declare same void, unless the evidence establishes that it is confiscatory or invalid as a matter of law."

(Statement omitted.)

[fol. 267] Fifty-Fourth Assignment of Error

This Honorable Court erred in overruling the Fifty-second Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in reversing and rendering this case, because the issue raised by plaintiffs in their Second Amended Original Petition

was the reasonableness of the rate promulgated by the Commission for gas delivered at the city gates of the various towns and cities served by defendant in intrastate commerce, and this Court's holding that defendant was not engaged in interstate commerce in Texas has deprived defendant of an opportunity to develop facts in the case under the law as it has been announced for the first time by this decision.

(Statement omitted).

Fifty Fifth Assignment of Error

This Honorable Court erred in overruling the Fifty fifth Assignment of Error presented in the Application which asserts that the Court of Civil Appeals erred in holding that the reduction of 8 cents per thousand cubic feet in the city gate pipe line charge ordered by the Railroad Commission, could and should be passed on to the ultimate consumers, for the reason that the several distributing companies to whom defendant supplies gas are not parties to this suit and there is no evidence in this case upon which such issue can be considered and determined, there being no evidence in this case of the property values and earnings [fol. 268] of any of the distributing companies, either under the existing rates or any lesser rates, and this is true, even though defendant and its distributing companies be regarded as one common concern, for as much as a utility such as defendant is entitled to a reasonable return on every branch and part of its property, whether it be a transmission or a distribution system.

Fifty-Sixth Assignment of Error

This Honorable Court erred in overruling the Fifty-sixth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in holding that the Railroad Commission of Texas may, without further notice or hearing, require the distributing companies purchasing gas from defendant to cease paying defendant a rate for gas purchased by them in excess of 32 cents.

Fifty-Seventh Assignment of Error

This Honorable Court erred in overruling the Fifty-seventh Assignment of Error presented in the Application,

which asserts that the Court of Civil Appeals erred in holding that "if the 32 cent rate is declared valid herein, defendant can have no further interest in any order the Commission may make with regard to requiring the various distributing companies to pay in excess of such rate and to pass the 8 cent reduction on to the ultimate consumers," because under the holding of the Court that corporate entities are to be ignored and that defendant is to be deemed [fol. 269] to be engaged in the business of distributing gas locally to domestic consumers, defendant has a most vital interest in law and in fact in the burner tip rates.

(Statement omitted).

Fifty-Eighth Assignment of Error

This Honorable Court erred in overruling the Fifty-ninth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in failing and refusing to sustain defendant's Cross-Assignment of Error No. 2 presented in the Court of Civil Appeals, and copied in full in the Fifty-ninth Assignment of Error in the Application. (Application, pp. 303-304.)

(Statement omitted).

Fifty-Ninth Assignment of Error

This Honorable Court erred in overruling the Sixtieth Assignment of Error presented in the Application, which asserts that the Court of Civil Appeals erred in rendering judgment for plaintiffs because not only does Article 6059 of the Revised Civil Statutes of Texas, as construed, deny to defendant due process of law in violation of its rights under the Fourteenth Amendment to the Constitution of the United States, and not only does the Court treat this [fol. 270] case and answer of defendant as an appeal thereunder, but defendant has been compelled to follow the procedure outlined thereunder upon representations by plaintiffs that every constitutional and legal right to which it might be entitled would be fully safeguarded and that it would be entitled to the same sort of trial to which it would have been entitled in its suit in the Federal Court upon the basis of which representations the Federal Court stayed proceedings therein with the result that not only does defendant fail to get the kind of trial to which it would have been en-

titled in the Federal Court but is denied the opportunity of ever obtaining the same.

(Statement omitted).

Sixtieth Assignment of Error

This Honorable Court erred in overruling the Sixty-first Assignment of Error presented in the Application, which complains of the action of the Court of Civil Appeals in approving the exclusion of approximately $334,000.00 per annum as operating income on account of temperature adjustments which the evidence in this case shows that the defendant never received.

[fol. 271] Sixty First Assignment of Error

This Honorable Court erred in overruling the Sixty-second Assignment of Error presented in the Application. (Application, p. 307.)

* * * * * * *

[fol. 272] The above Motion for Rehearing of Application for Writ of Error bears endorsement showing that same was filed in the Supreme Court of Texas on October 22, 1936.

[fol. 273] In Supreme Court of Texas

[Title omitted]

Order Overruling Motion for Rehearing—December 30, 1936

The motion for rehearing herein by the plaintiff in error having heretofore been presented to the Court, and after due consideration of same, it is ordered that said motion be and it is hereby in all things overruled.

(No opinion filed.)

[fol. 274] In Supreme Court of Texas

Certificate of Clerk

I, S. A. Philquist, Clerk of the Supreme Court of Texas, do hereby certify that the 132 pages immediately preceding

this page contain true and correct copies of entries on the Application Docket of the Supreme Court of Texas and on the Motion Docket of said Court, and of orders of said Court showing the refusal of the Application for Writ of Error, Number 21,600, styled Lone Star Gas Company, Plaintiff in Error, vs. The State of Texas, et al., Defendants in Error, from Travis County, Third District, and the overruling of the Motion for Rehearing filed by plaintiff in error. I further certify that the portions of the Application for Writ of Error and the Motion for Rehearing hereinbefore copied have been correctly copied from the originals thereof.

I further certify that on the 30th day of December, 1936, the entire record in said cause, excepting only the Application for Writ of Error, the reply thereto, and the Motion for Rehearing and copies of the orders of the Court of Civil Appeals, was by me returned to R. E. Moore, Clerk of the Court of Civil Appeals for the Third Supreme Judicial District of Texas.

In Testimony Whereof, witness my hand and the seal of the Supreme Court of Texas, this 30th day of April, A. D. 1937.

S. A. Philquist, Clerk, Supreme Court of Texas.
(Seal Supreme Court of the State of Texas.)

[fol. 275] In Court of Civil Appeals for the Third Supreme Judicial District of Texas

[Title omitted]

Order of the Chief Justice Denying Petition for Appeal to the Supreme Court of the United States—Filed February 10, 1937

On this the 9th day of February, A. D. 1937, came the Lone Star Gas Company, appellee in the above styled and numbered cause, through its counsel, and presented to me its Petition for Appeal to the Supreme Court of the United States, its Assignments of Error, its Prayer for Reversal, its Statement as to the Jurisdiction of the Supreme Court on Appeal, and forms of an Order Allowing the Appeal, Citation and Cost Bond on Appeal; all being presented in connection with said Petition for Appeal; and said Petition

for Appeal and other papers presented therewith being duly considered, I, James W. McClendon, Chief Justice of the Court of Civil Appeals for the Third Supreme Judicial [fol. 276] District of Texas, hereby decline to allow said appeal.

Dated at Austin, Texas, this the 10th day of February, A. D. 1937.

(Signed) James W. McClendon, Chief Justice, Court of Civil Appeals for the Third Supreme Judicial District of Texas. (Seal.)

[File endorsement omitted.]

[fols. 277-278] [File endorsement omitted]

IN SUPREME COURT OF THE UNITED STATES

[Title omitted]

PETITION FOR APPEAL, ASSIGNMENT OF ERRORS, AND PRAYER FOR REVERSAL—Filed February 17, 1937

Submitted February 12, 1937, Benjamin N. Cardozo, Justice

[fol. 279] PETITION FOR APPEAL

Considering itself aggrieved by the final judgment entered in the above entitled cause on July 10, 1935, by the Court of Civil Appeals for the Third Supreme Judicial District of Texas, wherein the Supreme Court of Texas on October 6, 1936, denied appellant's Petition for a Writ of Error and on December 30, 1916, overruled appellant's Motion for Rehearing of said Petition, and wherein the Chief Justice of said Court of Civil Appeals on February 10, 1937, declined to allow an appeal to the Supreme Court of the United States, Lone Star Gas Company, appellee in said Court of Civil Appeals, plaintiff in error in seeking a review of said cause by the Supreme Court of Texas, and now appellant in this appeal from said judgment, prays that an appeal be allowed to the Supreme Court of the United States herein to the end that the case may be reviewed by that Court, and for an order fixing the amount of the bond on such appeal.

The case is one wherein appellant challenges on grounds arising under the Constitution of the United States the validity of a rate order, of a legislative nature, of the Railroad Commission of Texas, dated September 13, 1933, as-applied and sought to be enforced against appellant, reducing appellant's rates from 40¢ to 32¢ per thousand cubic feet applicable to appellant's trunk line transportation of natural gas and its sale and delivery at wholesale to distributing companies at city gates in Texas.

The grounds of attack duly pleaded in the court of first instance are: First, that the transportation and delivery [fol. 280] through high pressure lines to distributing companies at city gates in Texas of gas originating on appellant's lines in the State of Oklahoma as well as of gas produced or purchased by appellant in Wheeler County, Texas, and brought into and across the State of Oklahoma into Texas constitutes interstate commerce and that the attempted regulating and fixing of appellant's rates of charges for gas thus transported and delivered violates the Interstate Commerce Clause of the United States Constitution; and, second, that the prescribed rate is confiscatory and repugnant to the Due Process Clause of the Fourteenth Amendment to the United States Constitution.

The litigation originated in a suit filed September 22, 1933, by appellant, in the United States District Court for the Western District of Texas, seeking to enjoin the enforcement of the rate order upon the grounds before mentioned arising under the Constitution of the United States. The Commission, joined by the State of Texas and the Attorney General thereof, then filed this suit against the appellant in the State court in an effort to bring appellant within the jurisdiction of the State court, as provided in Section 266 of the Judicial Code (28 U. S. C. A., Sec. 380), alleging in their Second Amended Original Petition, upon which the trial was had, that they desired to have the constitutional questions raised by appellant in its attack on the rate order determined in the courts of the State.

In the State court suit appellees sought an injunction upon final hearing restraining appellant from violating the rate order and further asked that the enforcement of said [fol. 281] order be stayed pending final judgment. The stay order was entered in the State court and subsequently the Federal Court, conforming to what it deemed proper procedure under Section 266, entered an order staying all

proceedings in that Court and restraining the enforcement of the rate until final determination of this cause.

Appellant, after unsuccessfully resisting this procedure and reserving its exceptions, answered in the State court setting up its defenses before mentioned grounded on the Federal Constitution, and the trial was there had. On jury findings favorable to appellant judgment was entered in its favor permanently enjoining the enforcement of the rate order.

On appeal the Court of Civil Appeals, after stating that appellant's defenses based on the Commerce and Due Process Clauses had been pleaded and after considering same, held that appellant was not engaged in interstate commerce in transporting, delivering and selling gas at wholesale at city gates of cities and towns in Texas, that the rate order was not void as a direct burden on interstate commerce, and that its enforcement would not confiscate appellant's property and that it was valid in every particular.

Thereupon, in due time, appellant filed its Motion for Rehearing assigning therein as error the holding and judgment of the Court of Civil Appeals enforcing the rate order as against its charges of conflict with the Commerce and Due Process Clauses of the Federal Constitution, and other rulings made initially by the Court of Civil Appeals which were claimed to result in a denial of due process in violation of the Fourteenth Amendment to the Federal Constitution.

[fol. 282] Said Motion being overruled, it then, in due time, as permitted by the State law, filed its Petition for Writ of Error asking the Supreme Court of Texas to review the judgment of the Court of Civil Appeals. This Petition having been refused on October 6, 1936, appellant then, in due time, as permitted by law, filed its Motion for Rehearing of said Petition, which Motion was entertained and overruled by the Supreme Court of Texas on December 30, 1936. Whereupon the judgment of the Court of Civil Appeals here sought to be reviewed became final.

It therefore appears that this is a suit wherein there has been drawn in question an Act of the State of Texas, legislative in character, upon the ground that the same is repugnant to the Constitution of the United States and in which the decision of the highest court of the State, in which a decision in the suit could be had, has been in favor

of the validity thereof. The case is clearly one falling within the jurisdiction of this Court.

Appellant submits herewith its statement, in accordance with Rule 12 of the rules of this Court, more particularly disclosing the basis upon which it is contended that the Supreme Court of the United States has jurisdiction to review this cause on appeal.

Assignment of Errors

Appellant Lone Star Gas Company assigns the following errors committed by the Court of Civil Appeals in entering its judgment, affirming and sustaining the validity of said rate order, as against appellant's attack thereon based on [fol. 283] the Commerce Clause of the Federal Constitution and the Due Process Clause of the Fourteenth Amendment to the Federal Constitution; and it shows that in making each of the rulings complained of in sections I to VI of this Assignment of Errors the Court of Civil Appeals denied to appellant rights secured to it by the Commerce Clause of the Federal Constitution; and that each of the rulings complained of in sections VII to XV of this Assignment of Errors deprives appellant of its property without due process of law in violation of the Due Process Clause of the Fourteenth Amendment to the Constitution of the United States.

I

The Court of Civil Appeals erred in holding that appellant pipe line company was not engaged in interstate commerce in transporting and selling gas produced or purchased by it in Wheeler County, Texas, and transported in its high pressure line through Oklahoma and thence back into the State of Texas to the city gates in Texas where delivery is made to local distributing companies.

II

The Court of Civil Appeals erred in holding that the rate order did not interfere with and constitute a direct burden upon interstate commerce and appellant's right to engage therein, in violation of Article I, Section 8, Paragraph 3 of the Constitution of the United States, and was not void and unenforceable in so far as it was sought to be enforced

as to gas produced or purchased in Wheeler County, Texas, transported in appellant's high pressure pipe line A [fol. 284] through Oklahoma and ultimately delivered in wholesale quantities at city gates in Texas.

III

The Court of Civil Appeals erred in holding that the gas produced or purchased by appellant in Oklahoma and transported by its pipe lines to Texas does not move in interstate commerce when it reaches the Texas city gates for delivery.

IV

The Court of Civil Appeals erred in holding that the rate order did not interfere with and constitute a direct burden upon interstate commerce and appellant's right to engage therein, in violation of Article I, Section 8, Paragraph 3 of the Constitution of the United States, and was not void and uneforceable in so far as it was sought to be enforced as to gas purchased and produced in Oklahoma, transported in appellant's high pressure pipe lines from Oklahoma and ultimately delivered in wholesale quantities at city gates in Texas.

V

The Court of Civil Appeals erred in upholding the rate order in question as against appellant's attack thereon grounded upon the claim that it operated as a direct regulation of interstate commerce, in which appellant was engaged, in violation of the Commerce Clause of the Constitution of the United States.

[fol. 285]

VI

The Court of Civil Appeals erred in failing to hold that the order of the Railroad Commission was void and the rate therein prescribed unenforceable as to all gas sold by appellant pipe line company in Texas inasmuch as the same was void and unenforceable in part (as to gas sold and delivered in interstate commerce) and inasmuch as the same was indivisible.

VII

The Court of Civil Appeals having held that the courts of this State, in this suit involving the validity of the rate

rder in question, challenged as being confiscatory and for at reason violative of the Due Process Clause of the ourteenth Amendment, are without power to weigh the idence and settle the conflicts in the evidence and pass eir independent judgment on the facts as well as the law, lating to the tendered issue of confiscation, erred in hold- g that the rate order was valid. This ruling of the Court enied to appellant that adequate judicial review granted it by the Due Process Clause of the Fourteenth Amend- ent to the Federal Constitution, and the enforcement of e rate order against appellant under such circumstances ill deprive it of its property without due process of law, violation of the Fourteenth Amendment to the Federal onstitution.

ol. 286] VIII

The Court of Civil Appeals erred in refusing to consider, d in holding to be immaterial, appellant's evidence as the value of its integrated pipe line properties, located th in Texas and in Oklahoma, and its revenues and ex- nses incident to the operation of such properties ap- llant thereby being deprived of its right to attack the te and the findings of the Commission upon which it was sed on the same theory and by the same character of idence underlying the promulgation of the rate, and us being denied an adequate judicial review of the rate der and deprived of due process of law, contrary to the ovisions of the Fourteenth Amendment to the Constitu- on of the United States.

IX

The Commission, having found that appellant's property d business was an integrated system and having valued e same as such and the Court of Civil Appeals having und that appellant was not engaged in interstate com- erce in transporting and supplying gas at the city gates of ies and towns in Texas, and appellant having introduced idence showing that the order of the Commission would t permit it to receive in any of the years involved as uch as a six per cent (6%) return on the fair value of integrated public service properties, the Court of Civil ppeals erred in holding that the evidence was insufficient a matter of law to raise an issue of fact as to the con- catory character of the rate.

[fol. 287] X

The Court of Civil Appeals, having held that appellant is not engaged in interstate commerce in the transportation and delivery of gas at the city gates in Texas, erred in holding that it was necessary to segregate appellant's integrated pipe line property and business as between interstate and intrastate commerce in order to test the validity of the rate.

XI

The Court of Civil Appeals erred in holding that appellant failed to make a proper segregation of its properties and operations as between interstate and intrastate commerce.

XII

The Court of Civil Appeals erred in holding that the evidence introduced by appellant based upon a segregation of its properties and operations as between interstate and intrastate commerce proved nothing material to the case.

XIII

The Court of Civil Appeals erred in holding that, since appellant failed to make a proper segregation of its properties as between interstate and intrastate commerce, it did not adduce the quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory.

[fol. 288] XIV

The Court of Civil Appeals erred in approving a segregation of appellant's properties and operations as between interstate and intrastate commerce that was based merely on geographical location of the property and not upon the way in which the property was used and the business conducted.

XV

The Court of Civil Appeals erred in upholding the validity of the rate order as against appellant's claim that same was confiscatory in its operation and was violative of appellant's rights under the Due Process Clause of the Fourteenth Amendment to the Constitution of the United

States in the following particulars, and in each of said particulars appellant was deprived of its property without due process of law, in violation of the Fourteenth Amendment to the Constitution of the United States:

(a) In adopting a rate base of $40,256,862.39 which did not include the value of appellant's production system property consisting of natural gas reserves, both producing and non-producing, gas wells, gas well equipment, drilling tools and equipment used and useful in the public service in Texas, all of such property costing approximately $5,200,000.00.

(b) In approving the elimination of all operating expenses actually incurred in good faith in the operation of appellant's production system property amounting to the [fol. 289] sum of $232,759.70 for 1933, and $222,752.66 for the twelve months period ended March 31, 1934.

(c) In adopting appellees' estimate of $831,946.08 per annum for depreciation, depletion and amortization reserve accruals, which did not embrace any sum for depreciation, depletion or amortization on appellant's production system property, gas wells, gas well equipment, drilling tools and equipment used and useful in the Texas public service.

(d) In adopting a formula in lieu of actual operating expenses and an allowance for annual accruals to reserve for depreciation, depletion and amortization and a fair return on appellant's gas reserves, gas wells, gas well equipment and other production system property, consisting of an addition to operating expenses of a sum of money arrived at by applying the average well head price paid by appellant to independent producers to the volume of gas produced by appellant from its own Texas gas reserves, such substituted sum being insufficient by approximately $426,000.00 to provide for operating expenses, the necessary annual reserve accrual for depreciation, depletion and amortization (as estimated by appellees' witnesses) and a 6% return which the Commission held was the minimum to which appellant was entitled) on the actual cost of such property.

(e) In adopting a rate base of $40,256,867.39, which did not include the value of appellant's property located in

Oklahoma actually and necessarily used and useful in transporting to Texas for sale and delivery therein gas purchased and produced in Oklahoma.

[fol. 290] (f) In approving the elimination from operating expenses of all expenses actually and in good faith incurred in the operation of appellant's properties located in Oklahoma, actually and necessarily used and useful in transporting to Texas for sale and delivery therein, gas purchased and produced in Oklahoma and the disallowance of any depletion or amortization of such properties.

(g) In adopting an arbitrary addition to appellant's actual revenues of $441,240.12 for the year 1933, and $268,829.64 for the twelve months ended March 31, 1934, to compensate for assumed deficiencies in actual gas sales due to abnormally warm weather.

(h) In adopting an annual allowance for depreciation, depletion and amortization reserve accruals of $831,946.08, which amount was insufficient for current and future requirements without being supplemented by an assumed credit balance in the reserve account of $5,000,000. at the date of inquiry.

(i) In adopting a rate base containing no allowance to cover the item of going concern value.

(j) In failing to hold that a six per cent return was confiscatory.

(k) In approving a rate which would not permit appellant to earn the six per cent return which the Railroad Commission held was the minimum to which it was entitled on the fair value of its Texas public service pro-[fol. 291] perties as determined by appellees' witnesses upon the trial if appellant's production system property be included in said evaluation and actual operating expenses and revenues be allowed, and if effect be given to a 2% per annum reserve accrual for depreciation, depletion and amortization allowed by the Commission.

(l) In approving a rate which appellant's unrebutted evidence showed would not permit it to earn the minimum

pon the fair value of its integrated properties as deter-
ined by the Commission after computing accruals to the
eserve for depreciation, depletion and amortization at the
ate approved by the Commission.

(m) In approving a rate which appellant's uncontra-
icted evidence clearly showed would not permit it to earn
n excess of 3.78% on its fair value, and 4.65% on the
ctual cost of its properties used and useful in intrastate
ommerce in Texas as determined by appellant's segrega-
ion between interstate and intrastate commerce, based upon
se, after allowing for annual accruals to the reserve for
epreciation, depletion and amortization at the rate of
%, being the rate adopted by the Commission.

(n) In holding immaterial and refusing to consider or
ermit the trial court to consider appellant's evidence show-
ng that the depreciated fair value of its integrated pro-
erties was $69,738,021.16, whereas the Commission found
he undepreciated value of such property to be $46,246,617.-
3.

(o) In holding that appellant's evidence showing that
fair annual allowance for accruals to the depreciation,
fols. 292-293] depletion and amortization reserve was not
ess than $3,465,123.36, as compared with the Commission's
llowance of only $983,697.98, for its entire integrated pro-
erty and business, was of no probative force.

PRAYER FOR REVERSAL

For which errors appellant Lone Star Gas Company
rays that said judgment entered in the above entitled
ause by said Court of Civil Appeals on July 10, 1935, be
eversed.

Dated this the 10th day of February, 1937.

Lone Star Gas Company, by Roy C. Coffee, Marshall Newcomb, Ogden K. Shannon, Jr., Ben H. Powell, Charles L. Black, Its Attorneys.

[fol. 294] IN SUPREME COURT OF THE UNITED STATES

[Title omitted]

ORDER ALLOWING APPEAL AND FIXING SECURITY FOR COSTS—
Filed February 17, 1937

[fol. 295] Lone Star Gas Company, appellant in the above entitled cause, having prayed for the allowance of an appeal in this cause to the Supreme Court of the United States from the judgment made and entered in the above entitled suit by the Court of Civil Appeals for the Third Supreme Judicial District of Texas, on July 10, 1935, and from each and every part thereof, and having presented and filed its petition for appeal, assignment of errors, prayer for reversal and statement as to jurisdiction, pursuant to the statutes and rules of the Supreme Court of the United States in such case made and provided;

It Is Now Here Ordered that an appeal be and the same is hereby allowed to the Supreme Court of the United States from the Court of Civil Appeals for the Third Supreme Judicial District of Texas in the above entitled cause, as provided by law, and it is further ordered that the clerk of said Court of Civil Appeals shall prepare and certify a transcript of the record, proceedings and judgment in this cause and transmit the same to the Supreme Court of the United States, so that he shall have the same in said Court within forty days from this date;

And it is Further Ordered that security for costs on appeal be fixed in the sum of Five hundred ($500) Dollars. [fols. 296-307] Dated this 12th day of February, 1937.

Benjamin N. Cardozo, Associate Justice of the Supreme Court of the United States.

[fol. 308] [File endorsement omitted]

[fol. 309] IN SUPREME COURT OF THE UNITED STATES

[Title omitted]

PRÆCIPE FOR TRANSCRIPT—Filed March 11, 1937

To the Clerk of the Court of Civil Appeals for the Third Supreme Judicial District of Texas:

You are hereby requested to make a transcript of record to be filed in the Supreme Court of the United States pursuant to an order of appeal allowed on February 12, 1937, in the above entitled cause by Mr. Justice Cardozo, and heretofore filed with you in this case, and to include in such transcript of record the following from the record on file in this cause:

A

From the Transcript certified on September 6th, 1934, by Geo. H. Templin, District Clerk, Travis County, Texas, setting forth proceedings in Cause No. 53,033 on the docket of [fol. 310] the Fifty-third District Court of Travis County, Texas, and filed in this Court of Civil Appeals on September 12, 1934, the following:

	Page of Transcript
1. Plaintiff's Second Amended Original Petition, eliminating the following: Paragraph 11 (page 13 through first paragraph page 15); third paragraph page 16; Exhibits A and B.	2- 25
2. Order of Court Staying Proceedings	26- 28
3. Second Amended Answer of Lone Star Gas Company, eliminating the following: Paragraphs 1, 2, and 5, down to the last paragraph on page 43 under Subdivision A. Paragraphs 1, 2, 3, 4, 5, 7, 9, and 10, under Subdivision B. Paragraphs 1, 2, 3, 4, 5, 6, 7, 8, and 10, under Subdivision C. Paragraphs 1 to 27, inclusive, and 29 and 30 under Subdivision D; The sentence beginning fourteen lines from the top of page 120 with the words "the said City gate rate price."	31-144

Page of Transcript

The sentence beginning the third line from the top on page 131, continuing to the end of the paragraph.

Section (d) page 136.

[fol. 311]

The clause beginning with the words "and operates" in the fourth from the last line on page 139, Section (i).

First paragraph of page 140 except first six lines, Section (11).

The clause "will deny to defendant freedom of contract and will impair the obligation of contract" lines 11 and 12 of paragraph 12, page 141.

4. Plaintiffs' Second Supplemental Petition, eliminating the following: 146-161

Paragraphs 1 to 5, inclusive.

Next to the last paragraph page 151.

Paragraph 9 page 152.

The sentence beginning twelve lines from the bottom of page 153.

The last eight lines beginning with the words "Which would have made" of the first paragraph page 154.

The clause beginning with the word "that" in the seventh line page 158, and ending with the word "and" in the eleventh line of the same page.

The clause beginning with the words "one-half" and ending with the word "Texas" in the twelfth and thirteenth lines page 159.

The clause beginning with the words "and during" and ending with the words "twenty per cent" in the sixteenth, seventeenth and

[fol. 312]

eighteenth lines from the top of page 159.

The clause beginning with the words "and upon" and ending with the words "through it" in the twentieth, twenty-first, and twenty-second lines from the top of page 159.

Page of Transcript

5. Defendant's Second Supplemental Answer, eliminating the following: 162-196
   Paragraphs 1, 2, 5, 6, 8, 9 (a, b, c, and e), 10, 11, 13, 16, 17, 18, 19, 21, 22, and 23.
6. Order Overruling Defendant's Pleas to the Jurisdiction and Pleas in Abatement 200-201
7. Order Overruling Exceptions and Demurrers of Defendant Lone Star Gas Co., eliminating the following: 203-206
   Paragraph 2 page 203 down to last paragraph page 206.
8. Defendant's request for a peremptory instruction 215-216
9. Plaintiffs' Motion for an Instructed Verdict filed July 5, 1934 217-218
10. Plaintiffs' motion for Instructed Verdict filed July 16, 1934 220-221
11. Defendant's Motion to Strike Plaintiffs' Exhibit No. 8, eliminating the following: 223-228
    Paragraphs 1, 6, and 10.

[fol. 313]

12. Defendant's Request for a Peremptory Instruction at the close of testimony 229-230
13. Defendant's Exceptions to the Court's Charge, including only the following: 238-274
    Paragraphs 1, 2, 3, 4, 15 (f, k, n, o, and q), 16a, 16b (a, c, and d), 17, and 18.
14. Charge of the court 515-518
15. Verdict of the Jury 519
16. Plaintiffs' First Amended Motion for New Trial, including only the following: 535-554
    Paragraphs 4, 5, 15, 16, 17, 18, 19, and 20.
17. Judgment, eliminating portions setting out court's charge 526-531
18. Order Overruling Plaintiffs' First Amended Motion for New Trial 560-
19. Defendant's Cross Assignments of Error, including only the following:
    Paragraphs 5, 15, 16, 17, 18, 19, 20, 21, 23 and 24.

[fol. 314] B

From the Statement of Facts setting forth the testimony given and the exhibits offered and received in evidence at the trial of said Cause No. 53,033 in the 53rd District Court of Travis County, Texas, such Statement of Facts consisting of five separately bound volumes of question and answer testimony, numbered 1 to 5, inclusive, eight separately bound volumes of exhibits, numbered 6 to 12, inclusive, exhibit No. 28, consisting of eight unbound volumes, exhibit No. 30, consisting of one unbound volume, and exhibit No. 42, consisting of one unbound volume, which Statement of Facts was filed, after final approval, by Geo. H. Templin, District Clerk, on September 7, 1934, and was filed in this Court of Civil Appeals on the 12th day of September, 1934, the following:

(1) The entire question and answer testimony contained in bound volumes Nos. 1 to 5, inclusive.

	Book of Exhibits	Pages
(2) Plaintiff's Exhibits:		
Exhibit No. 4	6	3577-3592
Exhibit No. 5	6	3593-3619
Including only the following pages: 3596, 3610, 3611, 3617, and 3618.		
Exhibit No. 6	6	3620-3663
Including only the following pages: 3623, 3624, 3643 to 3645, inclusive.		

[fol. 315]

Exhibit No. 7	6	3664-3679
Including only the following pages: 3667 to 3674, inclusive.		
Exhibit No. 8	6	3680-3697
Including only the following pages: 3683 to 3686, inclusive; 3692; 3694 to 3696, inclusive.		
(3) Defendant's Exhibits:		
Exhibit No. 1	7	3712-3835
Including only the following pages: 3713 to 3749, inclusive.		
Exhibit No. 3	7	3842-3930

	Book of Exhibits	Pages
Exhibit No. 4	7	3931-3932
Exhibit No. 5	7	3934-3937
Exhibit No. 6	7	3939-3942
Exhibit No. 8	7	3949-3952
Exhibit No. 9	7	3954-3957
Exhibit No. 10	7	3959-3962
Exhibit No. 11	7	3964-3966
Exhibit No. 12	7	3968-3970
Exhibit No. 13	7	3972-4038
Including only the following pages: 3976 to 3979, inclusive; 3985; 3989 to 3993, inclusive; 3999; 4001 to 4006, in-		
[fol. 316] clusive; 4012 to 4016, inclusive; 4022 to 4037, inclusive.		
Exhibit No. 14	7	4039-4041
Exhibit No. 15	7	4043-4047
Exhibit No. 16	7	4048-4053
Exhibit No. 17	7	4054-4058
Exhibit No. 18	7	4059-4063
Exhibit No. 19	7	4064-4068
Exhibit No. 21	7	4071-4072
Exhibit No. 22	7	4073-4078
Exhibit No. 23	7	4079-4084
Exhibit No. 24	7	4085-4090
Exhibit No. 26	7	4095-4096
Exhibit No. 27	7	4097-4102
Exhibit No. 28, Eight unbound volumes		4104-8608
Including only the following pages:		
(Note: The individual pages of Exhibit 28 were not numbered in the record and therefore the pages hereinafter referred to are to the page number of the Exhibit.)		
Volume I: 1 to 10, inclusive, 272, 276, 296, 300 to 302, inclusive, 348 to 350, inclusive, 403.		
Volume II: 969, 1050, 1085 to 1086, inclusive, 1097, 1100, 1112 to 1113, inclusive.		
[fol. 317] Volume III: 1311, 1384 to 1385, inclusive.		

	Book of Exhibits	Pages
Volume IV: 1983. Volume V: 2475. Volume VI: 3515; 3516 to 3517, inclusive; 3518 to 3519, inclusive; 3520 to 3521, inclusive; 3560; 3566; 3567; 3582; 3583; 3604 to 3605, inclusive; 3644. Volume VII: 1, 8, 71, 79, 225, 233, 532. Volume VIII: 52, 61, 71, 141.		
Exhibit No. 30, one unbound volume. Including only the following pages: 36 to 37, inclusive, 142 to 145, inclusive.		8612-8856
Exhibit No. 31. Including only the following pages: 8860.	10	8858-8865
Exhibit No. 32. Including only the following pages: 8891, 8895 (Giving totals only).	10	8866-8896
[fol. 318] Exhibit No. 37. Including only the following pages: 8975 to 8978, inclusive.	10	8974-9227
Exhibit No. 39	10	9232-9239
Exhibit No. 40. Including only the following pages: 9240 to 9248, inclusive.	10	9240-9251
Exhibit No. 41	10	9252-9257
Exhibit No. 42, One unbound volume. Including only the following pages: 2 to 5, inclusive; 16 to 18, inclusive; 19 to 23, inclusive; 28; 37; 38; 39; 41; 43; 45; 79; 132 (last paragraph only); 136; 142 to 160, inclusive; 171 to 178, inclusive; 187; 198 to 208, inclusive; 217 to 224, inclusive; 236 to 244, inclusive; 246 to 255, inclusive; 276 to 280, inclusive; 285; 287; 288; 290; 293 to 301, inclusive; 307 to 312, inclusive.		9259-9582
Exhibit No. 43	12	9585-9590
Exhibit No. 44	12	9591-9599
Exhibit No. 45	12	9600-9722

	Book of Exhibits	Pages
Including only the following pages: 1 to 52, inclusive.		
[fol. 319] Exhibit No. 46	12	9723-9772
Including only the following pages: 9724 to 9726; 9729 to 9735, inclusive; 9756; 9765 to 9771, inclusive.		
Exhibit No. 47	12	9773-9776
Exhibit No. 48	12	9777-9784
Including only the following pages: 9778; 9779-9780, (totals and percentages only); 9781-9783 (totals and percentages only).		
Exhibit No. 49	12	9785-9792
Exhibit No. 50	12	9793-9795
Exhibit No. 51	12	9796-9798

C.

Miscellaneous matters:

1. Appellee's counter propositions, cross assignments of error and propositions based thereon contained in appellee's original brief filed in the Court of Civil Appeals.

2. Opinion, order and judgment of the Court of Civil Appeals, showing the date of its rendition.

3. Appellee's motion for rehearing filed in the Court of Civil Appeals showing the date on which it was filed.

[fol. 320] 4. Opinion, order and judgment of the Court of Civil Appeals overruling appellee's motion for rehearing showing the date of its rendition.

5. Docket entry and any other entries and orders of the Court of Civil Appeals showing the filing of appellee's application for writ of error to the Supreme Court of Texas, showing the date of its filing and that the same together with the certified record in this cause were duly transmitted to the Supreme Court of Texas and show the date on which such transmittal occurred.

6. All orders certified to the Supreme Court of Texas by and from the Court of Civil Appeals in connection with the application for writ of error except those hereinabove specifically designated.

7. Transcript of all proceedings had and done in the Supreme Court of Texas in this cause, which transcript ap-

pellee has requested from the Clerk of said Supreme Court and which has been or will be filed with you. Such transcript shall include, inter alia, the following:

(a) All orders and docket entries of the Supreme Court of Texas showing that the application for writ of error and record certified from this court were received and filed therein, giving the date of such filing.

[fol. 321] (b) The following parts of said Application for Writ of Error: (1) Beginning with the title of the cause (page 1) and extending to the end of the "Introductory Statement of the Nature and Result of the Suit," near the bottom of page 11 (printed copy); (2) all assignments of error and propositions thereunder contained in said Application; and (3) the prayer with signatures of counsel, appearing on page 309 (printed copy).

(c) Order and judgment of the Supreme Court of Texas overruling the application for writ of error showing the date thereof.

(d) Docket entries and notations showing the filing by plaintiff in error of a motion for rehearing of the application for writ of error showing the date thereof.

(e) The following parts of said motion for rehearing: (1) Beginning with the title of the cause (page 1) and extending to the heading "Part I" on page 2 (printed copy); (2) all assignments of error and propositions thereunder contained in said motion for rehearing; and (3) the prayer of said motion and signatures of counsel (page 111, printed copy).

(f) Order and docket entries of the Supreme Court of Texas showing that said motion for rehearing was entertained and overruled by the Supreme Court of Texas, showing the date thereof.

8. Docket entries and any other orders or notations of the Court of Civil Appeals showing receipt by the Court of Civil Appeals from the Supreme Court of Texas of the record in this cause. In this connection showing that the entire record in this cause is now in the possession of the Court of Civil Appeals and yourself.

9. Order of the Chief Justice of the Court of Civil Appeals refusing appellant's request for the allowance of an appeal to the Supreme Court of the United States, showing the date of its filing in this court.

[fol. 322] 10. This præcipe and acknowledgment of service thereof by appellees' counsel, showing the date same was filed in this court.

D

Appeal papers:

1. The original of appellant's petition for appeal, assignments of errors and prayer for reversal with all endorsements appearing thereon and showing the date same was filed in this court.

2. Statement as to jurisdiction on appeal with all endorsements appearing thereon and showing the date same was filed in this court.

3. Order allowing appeal and fixing security for cost with all endorsements appearing thereon and showing the date same was filed in this court.

4. Citation signed by Mr. Justice Cardozo on February 12, 1937, directed to appellees herein with all endorsements appearing thereon and showing the date same was filed in this court.

5. Bond for cost executed February 9th, 1937, and approved by Mr. Justice Cardozo with all endorsements appearing thereon and showing the date same was filed in this court.

6. Notice and statement required by paragraph 2, Rule 12, of the Rules of the Supreme Court of the United States with all endorsements appearing thereon and showing the date same was filed in this court.

[fol. 323] 7. Acknowledgment of service of appeal papers required to be served on appellees' counsel by paragraph 2, Rule 12 of the Rules of the Supreme Court of the United States signed by counsel for appellees on February 17, 1937, showing the date of such acknowledgment and with all endorsements appearing thereon and showing the date same was filed in this court.

E

Clerk's certificates:

1. Your separate certificate as to the papers designated in Section D, Nos. 1 to 7, inclusive, thereof.

2. Your general certificate as to the record, papers and documents designated by this entire præcipe.

Witness the execution hereof on this the 8th day of March, A. D. 1937.

Roy C. Coffee, Marshall Newcomb, Ogden K. Shannon, Ben H. Powell, Charles L. Black, Attorneys for Appellant, Lone Star Gas Company.

[fol. 324] Service of a copy of this præcipe is hereby acknowledged on this, the 11th day of March, 1937.

Scott Gaines, First Assistant Attorney General and Acting Attorney General and Attorney for the Appellees.

[fol. 325] IN SUPREME COURT OF THE UNITED STATES

[Title omitted]

ORDER ENLARGING TIME FOR APPELLEES' FILING OF PRÆCIPE FOR CONTENTS OF RECORD—Filed March 16, 1937

This 13th day of March, 1937, good cause for this order having been shown by Appellees, it is ordered that Appellees be and they are hereby granted an enlargement of sixty days from and after the expiration of the original ten day period allowed by Rule 10 of the Supreme Court of the United States, within which to file in the Court of Civil Appeals their præcipe designating the additional portions of the record desired by Appellees to be incorporated in the transcript on appeal to the Supreme Court of the United States.

(Signed) Benjamin N. Cardozo, Associate Justice of the Supreme Court of the United States.

[File endorsement omitted.]

(Orders enlarging time to file record and docket cause omitted, originals being on file with the Clerk of the Supreme Court of the United States.)

[fol. 326] IN SUPREME COURT OF THE UNITED STATES

[Title omitted]

APPELLEES' COUNTER PRÆCIPE FOR TRANSCRIPT—Filed May 17, 1937

In accordance with Section 2 of Rule 10 of the Supreme Court of the United States, Appellees hereby request you

to include in the transcript of record to be filed in the Supreme Court of the United States pursuant to an order of appeal allowed on February 12, 1937 in the above entitled cause by Mr. Justice Cardozo, the following portions from the record on file in your Court in this cause:

[fol. 327] A. Appeal Papers:

1. The order signed by Mr. Justice Cardozo on March 13, 1937, and filed in your Court on March 16, 1937 extending for a period of sixty days the time provided by rule within which Appellees may file their counter præcipe designating additional matters to be included in the transcript.

2. Copy of this counter præcipe.

B. The Record from the District Court:

Include all portions of the record, proceedings, oral testimony, exhibits, and documentary evidence not already designated by Appellant in its præcipe served upon Appellees herein on March 11, 1937, contained in the Volumes and parts hereinafter described or referred to in Cause No. 53,033 in the 53rd District Court of Travis County, Texas, and the same Cause on appeal, being No. 8,238 in your Court and Application No. 21,600 in the Supreme Court of Texas; so that the portions of such record heretofore designated by Appellant, plus the portions hereby designated, shall make the transcript embrace the whole of such record herein below referred to in this subdivision (B), and in subdivision "C" hereof:

I. The statement of facts made in the hearing on pleas in abatement and pleas to the jurisdiction in the District Court; such statement of facts consisting of one Volume of 160 pages, plus three pages of certificates and agreement, including all exhibits therein, to-wit:

Plaintiff's Exhibits Nos. 1 to 6, inclusive; and Defendant's Exhibits Nos. 1 to 5, inclusive; and the index, covers, and file marks.

II. The transcript of pleadings and proceedings in the District Court consisting of one Volume, index, and pages numbered 1 to 600, inclusive, together with Exhibits therein included and thereto attached.

III. The oral testimony taken and transcribed in the trial in the District Court, consisting of Books 1, 2, 3, 4, and

5, and indexes; containing besides the indexes, pages 1 to 3560, inclusive; plus the six pages of final certificates, agreements, etc. at the conclusion of Book 5, and the certificates at the end of each Volume.

[fol. 328] IV. All Exhibits admitted in evidence and excluded from evidence in the trial in the District Court, and consisting of:

1. Book 6, Plaintiff's Exhibits 1 to 11, inclusive, the pages of which are numbered in red serially from 3561 to 3710, inclusive, together with indices, certificates, etc.

2. Book 7, Defendant's Exhibits 1 to 27, inclusive, the pages thereof being numbered in red serially from 3711 to 4102, inclusive, together with indices, certificates, etc.

3. Defendant's Exhibit No. 28 consisting of Books 8-A, 8-B, 8-C, 8-D, 8-E, 8-F, 8-G, and 8-H, the pages thereof being numbered in red serially from 4103 to 8608, inclusive; said Volumes being likewise numbered Volumes I to VIII, inclusive, the pages thereof being likewise numbered in black serially in each volume.

V. Book 9-A, being Defendant's Exhibit 29, the pages thereof being numbered in red serially 8609 to 8610-A, inclusive.

VI. Book 9-B, being Defendant's Exhibit 30, the pages thereof being numbered in red serially 8611 to 8856, inclusive.

VII. Book 10, being Defendant's Exhibits Nos. 31 to 41, inclusive, the pages thereof being numbered in red serially 8857 to 9257, inclusive.

VIII. Book 11, being Defendant's Exhibit No. 42, the pages thereof being numbered in red serially from 9258 to 9583, inclusive.

IX. Book 12, being Defendant's Exhibits 43 to 51, inclusive, the pages thereof being numbered in red serially 9584 to 9798-A, inclusive, plus other certificates.

C. The Record Made Before the Railroad Commission of Texas, and Excluded from Evidence by the Judge of the District Court, and Consisting of the Following Volumes of Oral Testimony and Exhibits:

I. Oral Testimony:

Index consisting of one Volume, the pages being num-
[fol. 329] bered serially 1 to 32, inclusive; also Volumes 1

to 89, inclusive, the pages of said Volumes 1 to 89, inclusive being numbered serially 1 to 11,232, inclusive.

II. Exhibits:

Exhibit 1—Sponsored by D. A. Hulcy, entitled "Public Service Property and Amount Available for Depreciation and Return—Twelve Months ended December 31st, 1931."

Exhibit 2—Sponsored by D. A. Hulcy, entitled "Public Service Property and Amount Available for Depreciation and Return—Twelve Months ended April 30th, 1932."

Exhibit 3—Sponsored by D. A. Hulcy, entitled "Public Service Property and Amount Available for Depreciation and Return—Twelve Months ended June 30th, 1932."

Exhibit 4—Sponsored by D. A. Hulcy, entitled "Public Service Property and Amount Available for Depreciation and Return—Twelve Months ended July 31st, 1932."

Exhibit 5—Sponsored by D. A. Hulcy, entitled "Public Service Property and Amount Available for Depreciation and Return—Twelve Months ended August 31st, 1932."

Exhibit 6—Consisting of nine Volumes, each bound in black Morocco, numbered Volumes I to IX, inclusive, sponsored by E. A. Steinberger and Ed C. Connor, and being entitled "Lone Star Gas Company—Appraisal—Cost of Reproduction New and Present Value—January 1st, 1932—Public Service Plant, Property and Business";

Volume I thereof containing pages numbered serially from 1 to 554, inclusive;

Volume II thereof containing pages numbered serially from 555 to 1129, inclusive;

Volume III thereof containing pages numbered serially from 1130 to 1710, inclusive;

Volume IV thereof containing pages numbered serially from 1711 to 2266, inclusive;

[fol. 330] Volume V thereof containing pages numbered serially from 2267 to 2739, inclusive;

Volume VI thereof containing pages numbered serially from 2740 to 3381, inclusive;

Volume VII thereof containing pages numbered serially from 3382 to 4031, inclusive;

Volume VIII thereof containing pages numbered serially from 1 to 544, inclusive; and

Volume IX thereof containing pages numbered serially from 545 to 682, inclusive.

Exhibit 7—Sponsored by E. A. Steinberger, pages 1 to 27, inclusive, entitled "Lone Star Gas Company—Leaseholds—Undeveloped—Determination of Present Value as of January 1, 1932."

Exhibit 8—Sponsored by F. E. Kendrick and J. H. Dunn, being list of gas reserves as of January 1, 1932. (It is our understanding that this Exhibit has become lost in some way; if you are unable to locate it, let the transcript go without including it.)

Exhibit 9—Sponsored by D. A. Hulcy, pages 1 to 36, inclusive, entitled "Lone Star Gas Company—Appraisal of Gas Reserves—January 1st, 1932."

Exhibit 10—Sponsored by Ed C. Connor, one page chart, entitled "Chart showing growth of Properties and Business under Basis of Reproduction."

Exhibt 11—Sponsored by Witness Smith of Sanderson & Porter, consisting of five Volumes bound in brown Morocco, designated parts I to V, inclusive, entitled "Lone Star Gas Company—Exclusive of Fort Worth Division," and being a finding of Reproduction Cost New as of January 1st, 1932, the pages thereof being numbered serially from 1 to 2244, inclusive.

Exhibit 12—Sponsored by Witness Smith of Sanderson & Porter, pages 1 to 16, inclusive, entitled "General Costs".

Exhibit 13—Sponsored by Witness Smith of Sanderson & Porter, pages 1 to 23, inclusive, entitled "Going Value".

Exhibit 14—Sponsored by Witness Smith of Sanderson & Porter, pages 1 to 206, inclusive, entitled "Inspection of Condition of Physical Property, as of January 1, 1932".

[fol. 331] Exhibit 15—Sponsored by Witness Smith of Sanderson & Porter, being a map showing location of test holes for observing the Physical Deterioration of pipe lines. (It is our understanding that this Exhibit was lost in some way before the record was transmitted to Court of Civil Appeals; if you are unable to locate it, then let the transcript go without including it.)

Exhibit 16—Sponsored by Witness Smith of Sanderson & Porter, one page, entitled "Summaries—Reproduction Cost, Reproduction Cost less Depreciation, as of January 1, 1932".

Exhibit 17—Sponsored by P. McDonald Biddison, pages 1 to 224, inclusive, and map, entitled "Report on Condition of Property, as of January 1, 1932".

Exhibit 18—Sponsored by Ed C. Connor, pages 1 to 175, inclusive, entitled "Depreciation Analysis—Determination of Annual Reserve Accruals for Various Items of Depreciable Property".

Exhibit 19—Sponsored by Ed C. Connor, pages 1 to 53, inclusive, entitled "Depreciation Analysis—Replacements, Removals and Abandonments—Steel Pipe, December 31, 1931".

Exhibit 20—Sponsored by Ed C. Connor, pages 1 to 6, inclusive, entitled "Depreciation Analysis—Relati-n of Failures of Original Units, and Replacements of Original Units, and Replacements of Replacements".

Exhibit 21—Sponsored by Ed C. Connor, pages 1-2, inclusive, entitled "Depreciation Analysis—Application of Annual Reserve Rates to Reproduction Cost New of the Public Service Property—Exclusive of Fort Worth Division".

Exhibit 22—Sponsored by Ed C. Connor, pages 1 to 17, inclusive, entitled "Current Quotations on Bonds and Other Senior Securities Natural Gas, Manufactured Gas, and Electric Utilities".

Exhibit 23—Sponsored by D. A. Hulcy, one page entitled "Calculation of Depreciation on Autos and Drill Tools—Charged to Expenses—Twelve Months ended December 31, 1931".

Exhibit 24—Sponsored by D. A. Hulcy, one page entitled "Public Service Property—Statement showing Property Account and Net Additions to Property Account by Years". [fol. 332] Exhibit 25—Sponsored by D. A. Hulcy, pages 1 to 3, inclusive, entitled "Public Service Property and Amount Available for Depreciation and Return—Twelve Months ended December 31st, 1932".

Exhibit 26—Sponsored by J. A. Phillips, entitled "Report on Special Investigation of Records of Lone Star Gas Company, December 31, 1932—Volume I", and containing pages numbered serially 1 to 95, inclusive.

Exhibit 27—Sponsored by S. W. Freese, entitled "Report on Gas Leaseholds of Lone Star Gas Company, December 31, 1931—Volume II", and containing pages numbered serially 1 to 37, inclusive.

Exhibit 28—Sponsored by S. W. Freese, entitled "Report on Reproduction Cost New Appraisal of Physical Properties of Lone Star Gas Company, December 31, 1931—Volume III", and containing pages numbered serially 1 to 111, inclusive.

Exhibit 29—Sponsored by S. W. Freese, entitled "Report on Properties, Business, Rate Base, and Annual Requirement for Depreciation, Obsolescence, Replacements, and Amortization of Lone Star Gas Company, December 31, 1931—Volume IV", and containing pages numbered serially 1 to 48, inclusive.

Exhibit 30—Sponsored by S. W. Freese, pages 1 to 8, inclusive, entitled "Miscellaneous Studies Lone Star Gas Company—Investigation".

Exhibit 31—Sponsored by Edgar G. Hill of Ford, Bacon and Davis Construction Corporation, pages 1 to 19, inclusive, containing data on Excavation and Backfilling Cost.

Exhibit 32—Sponsored by Ed C. Connor, containing two pages of charts of Graphic Mortality Curves.

Exhibit 33—Sponsored by D. A. Hulcy, one page containing Degree Day Deficiency Data, Dallas, Texas, 1931 and 1932.

Exhibit 34—Sponsored by D. A. Hulcy, pages 1-3, entitled "Public Service Property and Amount Available for Depreciation and Return—Twelve Months ended April 30th, 1933".

[fol. 333] Exhibit 35—Sponsored by D. A. Hulcy, two pages, entitled "Statement of Pipe Purchases—Through Pittsburgh Office".

Exhibit 36—Sponsored by S. W. Freese, pages 1 to 23, inclusive, entitled "Corrections to Exhibits 27, 28, and 29—Lone Star Gas Company Investigation".

D. From the Record in the Court of Civil Appeals and in the Supreme Court of Texas:

1. Original brief filed in the Court of Civil Appeals by State of Texas, et al., appellants in that Court.

2. Original brief filed in the Court of Civil Appeals by Lone Star Gas Company, appellee in that Court.

3. Printed copy of Application for Writ of Error filed by Lone Star Gas Company in the Court of Civil Appeals and later transmitted to and filed in the Supreme Court of Texas in this cause.

Dated at Austin, Texas, this 17th day of May, A. D., 1937.

Wm. McCraw, Attorney General of Texas; Alfred M. Scott, Assistant Attorney General, Counsel for Appellees.

Service of a copy of the above counter præcipe is hereby acknowledged on this the 17th day of May, 1937.

Roy C. Coffee, Marshall Newcomb, O. K. Shannon, Jr., Ben H. Powell, Charles L. Black, Attorneys for Appellant Lone Star Gas Company.

[File endorsement omitted.]

[fol. 334] [File endorsement omitted.]

[fol. 335] IN SUPREME COURT OF THE UNITED STATES

[Title omitted]

STIPULATION AS TO RECORD—Filed June 17, 1937

[fol. 336] Whereas, on February 17, 1937, appellant Lone Star Gas Company obtained acknowledgment of service of and duly filed its præcipe with the Clerk of the Court of Civil Appeals for the Third Supreme Judicial District of Texas, designating certain portions of the record to be typed and incorporated into a transcript of the record to be certified by the Clerk of the Court of Civil Appeals to the Supreme Court of the United States, and practically all of the portions thus designated have been typed by said Clerk; and,

Whereas, on March 13, 1937, appellees applied for and secured sixty days' extension of time within which to file their counter præcipe and have duly filed said counter præcipe on May 17, 1937; and,

Whereas, in their said counter præcipe appellees have designated the entire State Court record, including all of the record made before the Railroad Commission of Texas, to be included in the record certified to the Supreme Court of the United States; and,

Whereas, the record thus designated by the appellees is very lengthy, consisting of thousands of pages, and must be filed with the Clerk of the Supreme Court of the United [fol. 337] States at Washington not later than July 5, 1937, and it is impossible for the Clerk of the Court of Civil Appeals, with the force he has available, to complete the typing of said record and have the same in Washington within the time mentioned;

Therefore it is stipulated:

1. That the parties hereto will attempt to secure an order from the Court of Civil Appeals permitting its Clerk to duly certify and forward to the Clerk of the Supreme Court of the United States for filing in said Court the original record in this cause, consisting of the Transcript and the Statement of Facts and also the Railroad Commission Record as filed in the Court of Civil Appeals.

2. That if said order is obtained the Clerk of the Court of Civil Appeals may duly certify to the Supreme Court of the United States as being the transcript of the record on this appeal the following:

(a) The original record above described together with the Railroad Commission Record as filed in the Court of Civil Appeals;

(b) All matters, orders, opinions, judgments and proceedings in the Court of Civil Appeals as designated in section C of appellant's præcipe. Also all orders and proceedings in the Supreme Court of Texas on appellant's [fol. 338] Application for Writ of Error and Motion for Rehearing thereof as designated in section C of appellant's præcipe. Certified copy of the orders and proceedings in the Supreme Court of Texas has been filed with the Clerk of the Court of Civil Appeals. The intent is to include under this heading all of the matters, orders, opinions, judgments and proceedings designated in section C of appellant's præcipe;

(c) All appeal papers filed with the Clerk of the Court of Civil Appeals and designated in section D of appellant's præcipe;

(d) Appellant's præcipe and appellees' counter præcipe together with copy of order extending time to file counter præcipe; and copy of orders extending time to file record and docket cause;

(e) The following documents called for in appellees' counter præcipe:

(1) Brief filed in the Court of Civil Appeals by State of Texas, et al., appellants in that Court;

(2) Copy of brief filed in the Court of Civil Appeals by Lone Star Gas Company, appellee in said Court;

(3) Copy of Application for Writ of Error filed by Lone Star Gas Company in the Supreme Court of Texas.

[fols. 339-342] (f) This stipulation.

(g) Copy of order of the Court of Civil Appeals permitting original record to be forwarded to the Supreme Court of the United States in lieu of transcript thereof.

3. This stipulation is not intended as a waiver either by appellant or appellees of the right to seek a finding and order as to the costs incurred in supervising and printing the record in case either party causes unnecessary parts of the record to be printed.

Dated 17th day of June, 1937.

Roy C. Coffee, Marshall Newcomb, O. K. Shannon, Jr., Ben H. Powell, Charles L. Black, Attorneys for Appellant. Wm. McCraw, Attorney General of Texas, Alfred M. Scott, Assistant Attorney General, Attorneys for Appellees.

[fol. 343] In Court of Civil Appeals of Texas

Clerk's Certificate

I, R. E. Moore, Clerk of the Court of Civil Appeals for the Third Supreme Judicial District of Texas, at Austin, do hereby certify as follows:

That the following described volumes and documents, transmitted by me to the Clerk of the Supreme Court of the United States on the appeal prosecuted by the Lone Star Gas Company from the judgment of said Court of Civil Appeals in cause No. 8238, entitled the State of Texas, et al, Appellants, vs. Lone Star Gas Company, Appellee, comprise the entire record on appeal designated by the præcipe of appellant and counter præcipe of appellees and by the stipulation of the parties dated May 17, 1937, said stipulation appearing on pages 334-339 of the volume entitled "Final Volume containing Proceedings in the Court of Civil Appeals and in the Supreme Court of Texas and on Appeal to the Supreme Court of the United States:"

1. Transcript certified by the clerk of the District Court of Travis County, Texas, on September 6, 1934, and filed in the Court of Civil Appeals on September 12, 1934, consisting of 600 pages;

2. Statement of Facts consisting (a) of 5 volumes of oral testimony, Numbered 1 to 5, inclusive, and containing 3560 pages; and (b) of 15 books of exhibits, Numbered 6, [fol. 344] 7, 8-A, 8-B, 8-C, 8-D, 8-E, 8-F, 8-G, 8-H, 9-A, 9-B, 10, 11 and 12, all of said 20 volumes of oral testimony and exhibits having been filed in the District Court of Travis County, on September 7, 1934, and in the Court of Civil Appeals on September 12, 1934.

3. Statement of facts on hearing of plea in abatement and pleas to jurisdiction, September 7, 1934, in the District Court, and September 12, 1934, in the Court of Civil Appeals.

4. The following documents called for in the appellees' counter præcipe and in the stipulation of the parties: (a) Brief of Appellants, State of Texas, et al, filed in the Court of Civil Appeals; (b) Brief of Appellee Lone Star Gas Company filed in the Court of Civil Appeals; and (c) Application for Writ of Error filed by the Lone Star Gas Company in the Supreme Court of Texas; these being identified by the file marks of the Clerk of the Court of Civil Appeals and the Clerk of the Supreme Court, respectively.

5. Railroad Commission Record, consisting of 89 volumes, containing Transcript of Testimony before the Railroad Commission of Texas, filed in the Court of Civil Appeals on September 12, 1934; also 41 books and documents constituting exhibits used in hearing before the Railroad Commission, and filed in the Court of Civil Appeals on September 12, 1934.

[fol. 345] 6. Volume entitled "Final Volume Containing Proceedings in the Court of Civil Appeals and the Supreme Court of Texas, and on Appeal to the Supreme Court of the United States," containing 342 pages immediately preceding this certificate, and containing record of all proceedings had and done in said Court of Civil Appeals in said cause and all proceedings had and done in the Supreme Court of Texas on the Application for Writ of Error filed in said Court and on motion for rehearing thereof as certified to me by the Clerk of the Supreme Court of Texas; and all appeal papers filed in my office on the appeal of appellant Lone Star Gas Company to the Supreme Court of the United States, except the "Statement as to Jurisdiction on Appeal."

The original "Statement as to Jurisdiction on Appeal," filed in the Court of Civil Appeals on February 17, 1937, is transmitted by me with the record aforesaid to the Clerk of the Supreme Court of the United States. No opposing statement was filed in my office.

7. I further certify that after this Court had overruled the motion for rehearing filed by the appellant Lone Star Gas Company, said appellant, on October 25, 1935, duly filed its Application for Writ of Error, and thereupon the said Application together with the entire record in said cause and a transcript of the proceedings in the Court of Civil Appeals were immediately forwarded by me to the [fol. 346] Clerk of the Supreme Court of Texas; and that on the 30th day of December, 1936, the Clerk of the Supreme Court of Texas filed with me certified copies of the orders of said Court refusing the Application for Writ of Error and overruling the motion for rehearing thereon, and at the same time the entire record in said cause, excepting only the Application for Writ of Error, the reply thereto, the motion for rehearing of said Application for Writ of Error, and the certified copies of the orders of the Court of Civil Appeals previously forwarded by me to the Supreme Court, was returned to this Court where it now permanently remains. All of which facts duly appear from docket entries and the files in my office.

In Testimony Whereof, witness my hand and the seal of the Court of Civil Appeals for the Third Supreme Judicial District of Texas, at Austin, this 10th day of August, A. D. 1937.

R. E. Moore, Clerk of the Court of Civil Appeals for the Third Supreme Judicial District of Texas.
(Seal.)

[fol. 347] IN COURT OF CIVIL APPEALS OF TEXAS

EXCERPTS FROM BRIEF FOR APPELLANTS

Appellants' Assignments of Error

1

The Court erred in defining the term "used and useful" in paragraph 3 of the Court's main charge. Such error was

duly and seasonably objected and excepted to by plaintiffs and was pointed out to both the Court and adverse counsel prior to the Court's reading of his main charge to the jury. Plaintiffs' objection and exception and the Court's error in defining said terms are again pointed out. Such definition was very prejudicial to plaintiffs, an incorrect statement of the law, and on the weight of the evidence, all of which entitles plaintiffs to a new trial.

2

The Court erred in giving the third paragraph of his charge to the jury, reading as follows:

"By the term 'used and useful' is meant the property of the defendant actually being used by the defendant in the production, transportation, sale and delivery of natural gas to its customers; and also such property as has been acquired by defendant in good faith and now held for use in the reasonably near future in order to enable it to supply and furnish adequate and uninterrupted gas service,"

because the above and foregoing charge and definition was upon the weight of the evidence, an incorrect statement of law, and necessarily caused the jury to include certain items and property in their evaluation of the defendant's property about which there was a sharp controversy on both sides without in any way giving the jury any right of applying [fol. 348] their independent judgment or being allowed to consider the same as a fact question.

Plaintiffs would show to the Court in this connection that by appropriate objection and exception, the above and foregoing erroneous definition was duly and pointedly brought to the Court's attention, and to the attention of adverse counsel, prior to the Court's reading of his main charge to the jury.

3

The Court erred in refusing to permit the record plaintiffs to introduce the record and statement of facts in the hearing of this case before the Railroad Commission. Said record and statement of facts were duly proved up as being true and correct and were offered in evidence by plaintiffs, in their rebuttal testimony, to show that the order of the Railroad Commission was not unreasonable and unjust to

the defendant, and the Court sustained the defendant's objection thereto and excluded the same from the jury.

4

The Court erred in sustaining the defendant's objection to the offer by plaintiffs to introduce the record and statement of facts adduced in the hearing of this cause before the Railroad Commission of Texas, to which action of the court plaintiffs duly excepted.

5

The Court erred in permitting the witness Ed C. Connor to testify over plaintiffs' objection and exception that the Railroad Commission of Texas had never before fixed a rate of return lower than seven per cent upon the fair value or [fol. 349] rate base of a natural gas company in any hearing that had been theretofore held by such Railroad Commission.

6

The Court erred in sustaining the objection made by defendant to the plaintiffs' proffer of evidence from the witness D. A. Hulcy on cross-examination that the temperature conditions caused a loss of business in the year of 1933, and the two years immediately preceding. Such testimony was relevent to explain why defendant's revenues had decreased during an abnormal period of time, and was excluded over plaintiffs' exception.

7

The Court erred in sustaining the defendant's objection to plaintiffs' effort to prove on cross-examination by the defendant's witness, D. A. Hulcy, the condition of the temperature during the years of 1931, 1932, 1933, and in sustaining such objection by stating in the presence of the court and jury:

"Yes, sir, the objection is sustained. That hasn't a thing to do with this case,"

because such language constituted a comment on the weight of the evidence by the Court and was calculated to, and did mislead and prejudice the jury.

8

The Court erred in stating from the bench during the course of the trial, and while the witness D. A. Hulcy, a witness for the defendant, was being cross-examined by the plaintiffs in regard to the dummy set of books held by the Lone Star Gas Company in the city of Dallas, Texas, by [fol. 350] stating in the presence and hearing of the jury that counsel should not make any further statement or ask any more questions in regard to said set of dummy books, because every lawyer knew that the State or the Attorney General either had the right or did not have the right of access to the same, and that counsel should not attempt to go any further into the matter or interrogate said witness Hulcy any further in regard to the same, because such action was calculated to and did prejudice the jury against the plaintiffs.

9

The Court erred in refusing to set aside the verdict of the jury and grant plaintiffs a new trial herein on account of the closing argument made in the case by attorney Karl F. Griffith for the defendant, as is fully shown by plaintiffs' bill of exceptions Number One.

10

The Court erred in refusing to set aside the verdict of the jury and grant plaintiffs a new trial herein on account of the closing argument made in the case by Attorney Karl F. Griffith for the defendant, as is fully shown by plaintiffs' bill of exceptions number two.

11

The Court erred in refusing to set aside the verdict of the jury and grant plaintiffs a new trial herein on account of the closing argument made in the case by Attorney Karl F. Griffith for the defendant, as is fully shown by plaintiffs' bill of exceptions number three.

12

The Court erred in refusing to set aside the verdict of the [fol. 351] jury and grant plaintiffs a new trial herein on account of the closing argument made in the case by Attor-

ney Karl F. Griffith for the defendant, as is fully shown by plaintiffs' bill of exceptions number five.

13

The Court erred in admitting in evidence, over the plaintiffs' objections and exception, defendant's styled volumes 7 and 8 of Exhibit 28, sponsored by the witness Ed C. Connor, and having to do with the overhead expenses that would be incured by the defendant on a reconstruction cost new basis.

14

The Court erred in admitting in evidence, over the plaintiffs' objection and exception, defendant's styled exhibit No. 42, sponsored by the witness Ed C. Connor, which said exhibit contained various data and purported information, as prepared by said witness, on the annual reserve accruals for said defendant, Lone Star Gas Company.

15

The Court erred in allowing the defendant to introduce in evidence defendant's styled Exhibit No. 4, sponsored by the witness D. A. Hulcy, over the objection and exception of plaintiffs, which same showed certain operating expenses calculated by said witness, and made comparisons with the order of the Railroad Commission of Texas.

16

The Court erred in admitting in evidence the defendant's styled Exhibit No. 5, sponsored by the witness D. A. Hulcy, over the objection and exception of plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons to [fol. 352] the order of the Railroad Commission, as made by said witness.

17

The Court erred in admitting in evidence defendant's styled Exhibit No. 6, sponsored by the witness D. A. Hulcy, over objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons, as made by said witness.

18

The Court erred in admitting in evidence defendant's styled exhibit No. 7, sponsored by the witness D. A. Hulcy,

over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping fixtures and comparisons, as made by said witness.

19

The Court erred in admitting in evidence defendant's styled Exhibit No. 8, sponsored by the witness D. A. Hulcy, over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons, as made by said witness.

20

The Court erred in admitting in evidence defendant's styled Exhibit No. 9, sponsored by the witness D. A. Hulcy, over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons, as made by said witness.

21

The Court erred in admitting in evidence defendant's styled Exhibit No. 10, sponsored by the witness D. A. Hulcy, [fol. 353] over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons, as made by said witness.

22

The Court erred in admitting in evidence defendant's styled Exhibit No. 11, sponsored by the witness D. A. Hulcy, over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons, as made by said witness.

23

The Court erred in admitting in evidence defendant's styled Exhibit No. 12, sponsored by the witness D. A. Hulcy, over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons, as made by said witness.

24

The Court erred in admitting in evidence defendant's styled Exhibit No. 13, sponsored by the witness D. A. Hulcy, over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons,

to the order of the Railroad Commission, as made by said witness.

25

The Court erred in admitting in evidence defendant's styled Exhibit No. 14, sponsored by the witness D. A. Hulcy, over the objection and exception of the plaintiffs, said exhibit reflecting certain bookkeeping figures and comparisons, as made by said witness.

[fol. 354]

26

The Court erred in admitting in evidence defendant's styled Exhibit No. 32, offered in evidence over the plaintiff's objection and exception, and sponsored by the witness E. A. Steinberger, because same included undeveloped gas leaseholds, which showed upon the face of said exhibit to not be used or useful in the public service.

27

The Court erred in sustaining the special exceptions of the defendant, Lone Star Gas Company, to paragraph 11 of plaintiffs' second amended original petition, wherein it was sought by plaintiffs to recover the difference between the higher forty cent (40c) rate, now in effect, and the lower thirty-two (32c) cent rate, which was promulgated by said order of the Railroad Commission of Texas, because under the law, plaintiffs in this case, in the event that they should be finally successful, have a right to recover this difference for the use and benefit of the domestic consumers and users of such gas.

28

The Court erred in sustaining the defendant's special exception to the next to the last paragraph of the prayer of plaintiffs' second amended original petition, relative to the refund to the domestic consumers of gas, in the event the lower rate should finally be put in force and effect and the order of the Railroad Commission of Texas finally unheld.

29

The Court erred in not requiring the defendant to make a proper segregation of the value of its property in Texas, and the value of its property in Oklahoma, as same applied to the amount of business done in each of said states.

[fol. 355] 30

The Court erred in not requiring the defendant to make a proper segregation of the value of its property, as same applied to interstate and intrastate commerce.

31

The trial court erred in not setting aside the verdict of the jury and granting a new trial herein, because said defendant wholly failed to segregate its Oklahoma and Texas property and the business done by it, insofar as same applied to interstate and intrastate commerce.

32

The trial court erred in not setting aside the verdict of the jury and granting a new trial herein, because the defendant failed to discharge the burden of proof resting upon it to make a proper segregation of its interstate and intrastate business and property.

33

The trial court erred in admitting in evidence over plaintiffs' objections and exceptions defendant's styled exhibits numbered four to fourteen, inclusive, all prepared by the defendant's witness D. A. Hulcy, and reflecting certain bookkeeping figures, purporting to show the receipts and disbursements of said defendant, and certain comparisons with the order of the Railroad Commission, because such exhibits applied to all of the defendant's operations, both in Texas and Oklahoma as a whole, without any segregation being made to show what amount of the expenses reflected by such exhibits were applicable to interstate and intrastate commerce, or the amount of business done in each of said States.

[fol. 356] 34

The trial court erred in admitting in evidence, over plaintiffs' objection and exception, volumes one to six of defendant's exhibit No. 28, all prepared by the witness E. A. Steinberger, such exhibit purporting to show an inventory with unit prices of all of said defendant's property, both

in Texas and Oklahoma, because there was no segregation or allocation between the two states or between interstate and intrastate commerce.

35

The trial court erred in admitting in evidence over plaintiffs' proper objection and exception, defendant's styled exhibit No. 31, estimating the value of defendant's gas leaseholds and sponsored by the witness, D. A. Hulcy, because such exhibit applied to the entire property of defendant as a whole, and did not show any segregation between Oklahoma and Texas property or business.

36

The court erred in admitting in evidence, over plaintiffs' proper objection and exception, volumes seven and eight of defendant's styled exhibit No. 28, sponsored by the witness C. Connor, and purporting to show overhead values in the aggregate sum of twenty-four million dollars, which same were based upon a reproduction cost new of defendant's property, because said exhibits included the property of the defendant located both in Texas and Oklahoma without any segregation or allocation between the two states or between the amount of business done in each of said State.

37

The court erred in admitting in evidence, over plaintiffs' [fol. 357] proper objection, and exception, defendant's styled exhibit No. 37, relating to the percent condition of defendant's property, and sponsored by the witness P. MacDonald Biddison, because such exhibit did not show any segregation of any kind between interstate and intrastate commerce, Oklahoma and Texas property or business.

38

The court erred in admitting in evidence, over plaintiffs' objection and exception, defendant's styled exhibit No. 40, sponsored by the witness E. A. Steinberger, and having to do with the reproduction cost new of all of defendant's property, because no segregation was shown in such exhibit between the business done in Texas and Oklahoma and between the property located or used in each State.

39

The trial court erred in admitting in evidence, over plaintiffs' objection and exception, defendant's styled exhibit No. 41, with reference to the annual rate of reserve accrual, as applied to the estimated cost of reproduction and sponsored by the witness Ed C. Connor, because such exhibit did not contain or show any segregation between Texas and Oklahoma property or business.

40

The trial court erred in admitting, over plaintiffs' objection and exception, the defendant's styled exhibit No. 42, sponsored by the witness Ed C. Connor, and dealing with the annual reserves accruals required for said defendant upon the basis of a reproduction cost new of defendant's property, because such exhibit did not show any segregation between Oklahoma and Texas property or business.

[fol. 358]

41

The trial court erred in refusing to grant the plaintiffs' first requested motion for an instructed verdict in plaintiffs' favor and against the defendant. Said motion was duly requested and presented to the court after the defendant had finished with all of its direct testimony in chief and rested. At the time of the presentation of such motion, said defendant had failed to prove by clear and satisfactory evidence that the order of the Railroad Commission of Texas was unreasonable and unjust as to it and the court erred in not granting such first requested motion for an instructed verdict.

42

The court erred in refusing to grant the plaintiffs' timely requested motion for an instructed verdict which was duly presented after both sides had finally rested and after all of the evidence in the case had been finished. At the time of the request of such motion, the defendant had wholly failed to prove by clear and satisfactory evidence that the order of the Railroad Commission of Texas was unreasonable and unjust as to it.

43

The court erred in overruling and in refusing to grant the timely motion and request of the plaintiffs for the court

to render judgment in plaintiffs' favor and against the defendant, notwithstanding the verdict of the jury. Such motion was duly presented to the court after the verdict of the jury had been returned into the court and prior to the time of any action thereon by the court. It was clearly pointed out in such motion that the defendant had wholly failed to prove, by clear and satisfactory evidence, that such [fol. 359] order of the Railroad Commission was unreasonable and unjust as to it, and that no fact issue for the jury to pass upon was shown or proved by defendant during the trial of the case, and that consequently plaintiffs were entitled to a judgment in their favor, notwithstanding such verdict.

44

The court erred in not setting aside the verdict of the jury and granting plaintiffs a new trial herein, because all of the evidence introduced during the trial of the case clearly showed that said verdict of the jury did not have any competent, legal or relevant facts to support it. Such verdict was contrary to all of the competent evidence introduced during the trial of said cause, and being without the support of any competent or legal evidence, the court should have set the same aside and granted plaintiffs' amended motion for a new trial.

45

The court erred in not setting aside the verdict of the jury and granting plaintiffs a new trial herein, because all of the facts introduced during the trial of this cause clearly show that the defendant failed and refused to prove, by clear and satisfactory evidence, that the order of the Railroad Commission of Texas was unreasonable and unjust as to it.

46

The court erred in not setting aside the verdict of the jury and granting plaintiffs a new trial herein, because the verdict of the jury was so against the great weight of the competent evidence introduced during the trial of the case and so opposed to the great preponderance of the testimony that the same should have been set aside. Under all of the [fol. 360] competent evidence introduced during the trial of this cause, including even the evidence of the defendant

alone, the verdict of the jury, upon its face, clearly shows that it did not properly apply or consider the facts of the case, and that the verdict returned into court by it was clearly against the great weight of all evidence introduced during the trial of this cause.

Respectfully submitted, James V. Allred, Attorney General of Texas; Elbert Hooper, First Assistant Attorney General; William C. Fitzhugh, Assistant Attorney General; A. R. Stout, Assistant Attorney General, Attorneys for Appellants.

[fol. 361] In Court of Civil Appeals of Texas

Excerpts from Brief for Appellee

* * * * * * *

Defendant does not deny the power and jurisdiction of the Railroad Commission to determine the reasonableness of the gate rate to be charged by it for gas which it sells in intrastate commerce, as it understands that term as applied to the facts in this case, and, subject to its rights under the Constitution of the United States and that of the State of Texas, to promulgate an order applicable to such business, fixing the price so determined to be reasonable as the gate rate to be charged.

It may even be that defendant, in the absence of plaintiffs' attempt to enforce the same, coud not have obtained injunctive relief against the order of the Commission in this case, the order applying as it does to both intrastate and interstate gas, if the Commission had stopped with a finding of a reasonable rate without undertaking to prevent defendant from charging in excess thereof. State Corporation Commission vs. Wichita Gas Company, 290 U. S. 561, 78 L. ed. 500.

Defendant, when it offered its evidence before the Commission had no reason to assume that it would do more.

But when the Commission went further and in its order undertook to directly regulate defendant's interstate business by prohibiting it from charging in excess of 32 cents for its interstate gas, and undertook to enforce the same as to such gas it usurped powers not conferred upon it by law, in conflict with the Commerce Clause of the United

States Constitution, and in the face of clear and repeated decisions of the Supreme Court condemning such action.

[fols. 362-363] There is a legal way in which the Commission could have accomplished the result sought to be achieved in this case, if just—through the regulation of local rates. Advisedly, it has sought to accomplish the same thing by a prohibited short cut.

* * * * * * *

[fols. 364-365] IN SUPREME COURT OF TEXAS

EXCERPTS FROM APPLICATION FOR WRIT OF ERROR

* * * * * * *

It is quite true that the Commission, because of the corporate affiliation between the defendant and the distributing companies, has authority to consider, in fixing the local rates of the distributing companies, what such companies may reasonably pay and charge for the gas sold to them by defendant at the city gates. The Commission has authority to review these contracts because of the affiliation between the parties; it is assumed that because of corporate affiliation the parties in making these contracts are not dealing at arm's length. But because the Commission in fixing local distribution rates may consider what would be a reasonable charge for the gas delivered at the city gates does not imply authority to determine and fix the rate as against pipe line companies transporting the gas in interstate commerce.

* * * * * * *

[fols. 366-367] If these arbitrary additions to the actual revenues had not been made, the prescribed rate would have shown a return of 5.77 per cent for the year 1933 instead of 6.76 per cent—even with all of the eliminations of property and operating expenses above noted.

* * * * * * *

[fols. 368-369] The witness Freese admitted that with this item eliminated—an item not allowed by the Commission—defendant's return under the prescribed rate would be only 5.77 per cent.

* * * * * * *

[fols. 370-371] Argument

It is clear from the opinions of the Railroad Commission (Tr. 19, Book of Exhibits 7, p. 3842) and the Court of Civil Appeals that the fixing of the gate rate to be charged by defendant for natural gas delivered by it to the distributing companies was an initial step in the work of the Commission which had for its ultimate object the fixing of rates for the distributing companies to charge for natural gas at the burner tip of the consumer. It was and is necessary for the Commission in the fixation of distributing rates to include as an expense of operation the sum paid by the local distributing companies for the gas which they receive from defendant at the city gates.

* * * * * * *

[fol. 372] If, however, the commission had only indicated an intent and purpose to determine what would be a reasonable gate rate for the distribution companies to set up as an expense of operation for gas purchased as a preliminary step in aid of the fixation of distributing rates, instead of fixing the maximum rates which defendant could charge and collect for gas delivered at the city gates, no question of interstate commerce could properly have been [fol. 373] raised (Western Dist. Co. vs. Pub. Serv. Com. of Kan., 285 U. S. 119, 76 L. ed. 655; State Corporation Commission vs. Wichita Gas Co., 290 U. S. 561, 78 L. Ed. 500) and a segregation of property between that used in interstate and intrastate commerce would have been unnecessary.

* * * * * * *

[fol. 374] Supreme Court of the United States

Order Extending Time for Docketing of Case and Filing of Transcript of Record—Filed March 13, 1937

Upon consideration of the application of Appellant herein for an extension of time within which to docket the above cause and to file the transcript thereof with the Clerk of this Court, and being of the opinion that good cause has been shown for the extension of such time,

It is Ordered that the time within which Appellant is required to docket the above cause, and to file the record

thereof, with the Clerk of this Court be and it hereby is extended to and including July 5th, 1937.

Benjamin N. Cardozo, Associate Justice of the Supreme Court of the United States.

Dated at Washington, D. C., March 13th, 1937.

[fol. 374½] [File endorsement omitted.]

[fol. 375] SUPREME COURT OF THE UNITED STATES

ORDER EXTENDING TIME FOR DOCKETING OF CASE AND FILING OF TRANSCRIPT OF RECORD—Filed June 19, 1937

Upon consideration of the joint request of counsel for appellant and appellees herein for an extension of time within which to docket the above cause and to file the transcript thereof with the Clerk of this Court, and being of the opinion that good cause has been shown for the extension of such time,

It is Ordered that the time within which Appellant is required to docket the above cause, and to file the record thereof, with the Clerk of this Court be and it hereby is extended to and including August 20th, 1937.

Benjamin N. Cardozo, Associate Justice of the Supreme Court of the United States.

Dated this 19th day of June, 1937.

[File endorsement omitted.]

[fol. 376] IN SUPREME COURT OF THE UNITED STATES

STATEMENT OF THE POINTS UPON WHICH APPELLANT INTENDS TO REPLY AND DESIGNATION OF PARTS OF THE RECORD TO BE PRINTED—Filed August 16, 1937

Comes now the appellant Lone Star Gas Company and adopts its assignments of error as its statement of the points to be relied upon, and represents that only the hereinafter designated parts of the record as filed in this Court need be printed by the clerk for the hearing of the case.

[fol. 377] The record certified to and filed in this Honorable Court in this case consists generally of proceedings had and done (a) before the Railroad Commission of Texas; (b) in the trial court, the 53rd Judicial District Court of Travis County, Texas; (c) in the Court of Civil Appeals for the Third Supreme Judicial District of Texas, the intermediate

appellate court; (d) in the Supreme Court of the State of Texas; and (e) proceedings incident to the perfecting and filing of this appeal in the Supreme Court of the United States. Therefore, this designation of portions of the record to be printed will be accordingly so classified.

A

The Railroad Commission Record

Appellant does not designate for printing any portion of the record made before the Railroad Commission of Texas.

B

The District Court Record

The proceedings in the trial court, the 53rd Judicial District Court of Travis County, Texas, are incorporated into:

(1) What is called a Transcript under the State practice, consisting of pages 1 to 600, inclusive, and containing all of [fol. 378] the pleadings, charge of the trial court, verdict of the jury, orders and judgment of the trial court, and all matters filed in the trial court, except exhibits introduced in evidence;

(2) What is called the Statement of Facts under the State practice, consisting of 5 separately bound volumes of the testimony of witnesses in Q and A form, being all of the testimony introduced in the trial court; and

(3) Books of exhibits described as follows:

(a) Five separately bound books of exhibits described as Book 6 (containing plaintiffs' Exhibits 1 to 11, inclusive); Book 7 (containing defendant's Exhibits 1 to 27, inclusive); Book 9-A (containing defendant's Exhibit 29); Book 10 (containing defendant's Exhibits 31 to 41, inclusive); Book 12 (containing defendant's Exhibits 43 to 51, inclusive);

(b) Eight separately bound red leather volumes, each styled "Lone Star Gas Company—Appraisal—Cost of Reproduction New, January 1, 1933. Public Service Plant, Property and Business," (containing defendant's Exhibit 28);

(c) One separately bound red leather volume styled "Report and Findings of Gas Reserves—Jan. 1, 1933," being defendant's Exhibit 30; and

(d) One separately bound red leather volume styled "Annual Reserve Accruals Required for Lone Star Gas Co. Jan. 1, 1933," being defendant's Exhibit 42.

[fol. 379] Appellant requests the printing of the following portions of said record made in the 53rd Judicial District Court of Travis County, Texas:

From Transcript

(as described in Section B, page 3 hereof)

	Page of Transcript
1. Plaintiffs' Second Amended Original Petition.....	2–25
But eliminating the following parts thereof:	
(a) Paragraph XI (page 13 through first paragraph on page 15);	
(b) Third paragraph on page 16;	
(c) Exhibit "A" and "B" attached to said petition.	
2. Order of Court staying proceedings.....	26–28
3. Second Amended Answer of appellant Lone Star Gas Company.....	31–144
But eliminating the following parts thereof:	
(a) Subsections 1 and 2 under Section A, pages 31 to 36;	
(b) Subsection 5 under Section A, pages 42 to 43, down to last paragraph on page 43;	

[fol. 380]

(c) Subsections 1, 2, 3, 4, and 5 under Section B, pages 45 to 53;
(d) Subsection 7, (pages 56 to 57), under Section B;
(e) Subsections 9 and 10 (pages 61 to 63), under Section B;
(f) Subsections 1, 2, 3, 4, 5, 6, 7, and 8, under Section C (pages 66 to 72);
(g) Subsection 10 under Section C (page 73);
(h) Subsections 1 to 27, both inclusive, under Section D (pages 74 to 114);
(i) Subsections 29 and 30 under Section D (pages 117–118);
(j) The sentence, beginning 14 lines from the top of page 120, with the words "the said City gate price;"
(k) The sentence beginning in the 3rd line from the top of page 131 and continuing to the end of the paragraph;
(l) Section (d) page 136;
(m) The clause beginning with the words "and operates" in the 13th line on page 139 and ending with the

[fol. 381]

words "United States" in the 16th line from top of the page;

Transcript
Page of

(n) All of page 140, except the first sentence consisting of six lines;
(o) The language "will deny to defendant freedom of contract and will impair the obligation of contract," in lines 11 and 12 of Paragraph XII, page 141.

4. Plaintiffs' Second Supplemental Petition..... 146–161

But eliminating therefrom the following:

(a) Paragraphs I to V, inclusive, on pages 146 to 149;
(b) The next to the last paragraph on page 151, beginning with the word "Plaintiffs" and ending with the word "developed";
(c) All of Section IX on page 152;
(d) The sentence beginning in the 12th line from the bottom of page 153;
(e) The last 8 lines in Section X, page 154, beginning with the words "which would have made" and ending with the words "as herein alleged";

[fol. 382]

(f) The clause beginning with the word "that" in the 7th line from the top of page 158 and ending with the word "and" in the 11th line from the top, on the same page;
(g) The clause beginning with the words "one-half" and ending with the word "Texas" in the 12th and 13th lines on page 159;
(h) The clause beginning with the words "and during" and ending with the words "Twenty per cent" in the 16th, 17th and 18th lines from the top of page 159;
(i) The clause beginning with the words "and upon" and ending with the words "through it" in the 20th, 21st and 22nd lines from the top of page 159.

5. Defendant's Second Supplemental Answer..... 162–196

But eliminating the following:

(a) Paragraphs I, II (pages 162–167), V, VI (pages 170–175), VIII, IX (a, b, c, and e), X, XI (pages 177–181), XIII (page 183), XVI, XVII, XVIII, XIX (pages 186–191), XXI, XXII, and XXIII (pages 192–194).

[fol. 383]

6. Order Overruling Defendant's Pleas to the Jurisdiction and Pleas in Abatement..... 200–201
7. Order Overruling Exceptions and Demurrers of the Defendant Lone Star Gas Company..... 203–206

But eliminating the following:

(a) Beginning with Section II on page 203 down to the last paragraph on page 206, said last paragraph beginning with the word "accordingly."
(b) File endorsement, p. 206.

Transcript Page of

8. Defendant's Request for a Peremptory Instruction and Order of the Court refusing same..... 215–216
(Eliminating file endorsement, p. 216).
9. Plaintiffs' Motion for an Instructed Verdict, filed July 5, 1934, and Order of the Court refusing same.... 217–219
(Eliminating file endorsement, p. 219).
10. Defendant's Motion to Strike Plaintiffs' Exhibit 8, and order of the Court overruling same..... 220–225

But eliminating the following therefrom:

(a) Paragraph I (page 220), Paragraph VI (page 222), and Paragraph X (page 224).
(b) Eliminating file endorsement, page 225.

[fol. 384]

11. Plaintiffs' Motion for an Instructed Verdict filed July 16, 1934, and Order of the Court overruling same..... 226–228
(Eliminating file endorsement, page 228).
12. Defendant's Request for a Peremptory Instruction at the close of all the testimony, and Order of the Court denying same..... 229–230
(Eliminating file endorsement, page 230).
13. Defendant's Exceptions to the Court's Charge..... 238–274

But including only the following parts of said exceptions:

(a) Sections I, II, III, and IV (pages 238–241);
(b) First 3 lines of Section XV, page 260; also subsections (f), (k), (n), (o), and (q) of Section XV, (pages 262, 264, 265, 266);
(c) Section XVI-a (pages 268–269);
(d) Subsections (a), (c), and (d) of Section XVI-b (pages 269–270; 1st two lines of 271);
(e) Sections XVII and XVIII (pages 271 and first five lines of 272);
(f) Order of Court on Exceptions (page 274).

[fol. 385]

14. Charge of the Court..... 515–518
(Eliminating file endorsement, page 518).
15. Verdict of the Jury..... 519
16. Judgment of the Trial Court..... 526–531

But eliminating the following:

(a) The portion thereof beginning with the quoted matter on page 526 and continuing to the words "It is therefore ordered, adjudged and decreed," etc., on page 529.
(b) Eliminating file endorsement and docket entry, pages 531–532.

17. Plaintiffs' First Amended Motion for New Trial..... 535–554

But including only the following:

(a) Paragraphs 4 and 5, page 536;

Transcript Page of

(b) Paragraphs 15, 16, 17, 18, 19, and 20, pages 539–540.

18. Order Overruling Plaintiffs' First Amended Motion for New Trial 560
(Eliminating file endorsement and docket entry, pages 560–561).

[fol. 386]

19. Defendant's Cross Assignments of Error 585–596

But including only the following:

(a) Paragraph 5 (page 586); paragraphs 15, 16, 17, 18, 19, 20, and 21 (pages 587–593); and paragraphs 23 and 24 (pages 595–596).

(b) Eliminating file endorsement, page 596.

[fol. 387] STATEMENT OF FACTS

The entire Statement of Facts, contained in bound Volumes 1 to 5, inclusive, pages 1 to 3560, inclusive, except the following:

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
17	1		10	2	
14	3		19	3	
27	3	"We object	22	4	Mr. Shannon."
25	14		10	15	
16	15		9	16	
19	16		22	19	
3	21		5	21	
12	21				
15	21	"This exhibit	4	22	the copy"
13	22	"This	15	22	
19	22		4	23	
12	24		13	24	
23	24	"This exhibit	24	24	
10	25	"This exhibit	11	25	
14	26		8	27	
11	27	"This exhibit	21	28	
3	29		5	29	
14	36		27	36	
9	40		21	40	we are."
25	40	"This exhibit	7	41	
22	41	"This exhibit	23	41	
13	42	"This exhibit	14	42	
4	43	"This exhibit	5	43	
7	44	"This exhibit	8	44	
23	44	"This exhibit	24	44	
13	45	"This exhibit	14	45	

Statement of Facts—Continued

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
5	46	"This exhibit	6	46	
21	46	"This exhibit	24	47	
18	48	"This exhibit	19	48	
24	49	"This exhibit	23	51	
[fol. 388]					
22	53		10	55	
10	57	"It is true	18	57	therefore"
25	57		22	60	
21	62		8	64	
7	65		5	71	
19	80				
23	80		19	84	
15	87		11	89	
6	90		19	91	
7	92		3	94	
4	96		8	96	
3	98		14	99	
19	100		23	100	
19	101		22	102	
10	103		10	105	
27	105		28	105	
7	108		4	111	
23	114		2	117	
15	131		7	132	
10	146		8	147	
12	147		13	147	
26	147		7	148	
11	148		12	148	
24	148		25	148	
9	149		10	149	
22	149		23	149	
6	150		7	150	
24	150		25	150	
11	151		12	151	
23	151		24	151	
7	152		8	152	
19	152		20	152	
4	153		5	153	
21	153		22	153	
19	159		20	161	
11	162		2	164	
23	164		14	173	
12	175		15	175	
10	178		16	180	
14	182		12	183	
10	200		3	201	

Statement of Facts—Continued

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
7	207		11	207	
16	231		10	232	
23	234		26	234	
8	242		1	244	
20	247		24	248	
26	259		20	260	
21	272		22	272	
2	273		9	273	
10	280		14	280	
[fol. 389]					
16	284		23	284	
12	308		21	308	
11	317		23	318	
9	319		12	319	
24	321		2	322	
20	331		12	334	
24	335		1	336	
13	336		23	348	
4	349		17	349	
11	350		13	350	
10	367		14	367	
1	373		15	373	
18	375		24	384	
7	385		9	385	
15	386		3	390	
6	390		28	393	
21	397		7	398	
19	400		5	401	
23	404		20	405	
6	406		7	406	
18	406		16	418	
21	419		3	423	
20	423		2	424	
2	427		23	427	
21	439		1	440	
3	443		17	448	
19	449		14	451	
9	453		20	458	
21	461		23	461	
20	462		8	463	
19	472		12	477	
9	479		8	480	
6	485		10	485	
21	486		5	488	
24	494		25	494	
18	499		18	500	

Statement of Facts—Continued

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
9	503		3	505	
26	507		4	508	
1	524		9	524	
7	526		8	526	
20	530		16	531	
7	534		23	536	
25	536		16	539	
19	539		8	542	
21	581		1	582	
17	586		2	588	
13	590		13	592	
[fol. 390]					
16	598		20	598	
16	599		22	599	
6	608		7	614	
16	614		20	688	
8	693	"For unloading	22	706	
7	707		15	714	
11	717		14	717	
11	730		23	732	
1	733		11	762	
5	764		4	766	
25	770		14	907	yes sir."
2	915	"The thought	24	1011	
3	1017		7	1017	
1	1023		6	1092	
9	1092		2	1093	
10	1097		17	1105	
21	1110		20	1113	
21	1114		13	1119	
22	1119		6	1121	
25	1121		5	1122	
19	1122		5	1125	
13	1127		16	1134	
8	1135	"Any objection	19	1135	
4	1136				
7	1136	"This exhibit	8	1136	
16	1142		2	1144	
5	1144		20	1144	
4	1147		8	1147	
1	1148				
22	1153		9	1158	
14	1159		14	1167	
13	1168		17	1168	
7	1187		10	1187	
25	1187		15	1189	

Statement of Facts—Continued

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
19	1189		24	1189	
11	1195		2	1196	
24	1197		15	1198	
20	1198		25	1240	
9	1248		25	1249	
3	1250		5	1252	
20	1252		18	1253	
24	1253		1	1259	
4	1270		9	1270	
1	1271		15	1271	
22	1292		24	1292	at page 85."
9	1301		10	1301	
22	1311		25	1311	
[fol. 391]					
14	1346		17	1346	
1	1347		7	1347	
6	1368	"If reference	9	1368	
24	1374		2	1375	Q"
7	1377		11	1377	
8	1378		9	1378	
15	1399		1	1400	A"
5	1404		9	1404	
13	1422		14	1422	
23	1425		7	1426	
10	1443		18	1443	
7	1451		13	1451	
14	1474		18	1474	
15	1482		24	1493	
18	1507		22	1507	
1	1508		7	1508	
11	1510		9	1512	
14	1538		19	1538	
19	1545		25	1545	
14	1557		21	1569	
3	1572		2	1574	
6	1577		8	1577	A"
12	1577		13	1577	
3	1583		16	1583	
12	1585		9	1586	
15	1588		25	1588	
13	1589		17	1589	
13	1599		19	1599	
14	1602		2	1603	A"
19	1613		4	1614	A"
3	1621		12	1621	
8	1625		12	1625	

Statement of Facts—Continued

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
25	1638		14	1639	
17	1639		18	1639	Mr. Connor."
25	1639		26	1639	my answer."
1	1641		17	1641	
1	1644		11	1645	
5	1647		10	1647	
12	1654				
15	1654		24	1665	
3	1666		17	1677	
22	1677		26	1684	
13	1686		16	1686	
19	1687		20	1687	
11	1693		14	1693	
24	1718		28	1718	
24	1734				
3	1735		23	1819	
23	1820		22	1834	
[fol. 392]					
8	1836		23	1839	
3	1840	"This	24	1840	
21	1845		22	1845	
25	1845	"May it	24	1847	Mr. Fitzhugh."
13	1848		15	1849	
3	1850		1	1854	
9	1854		25	1854	
26	1856		27	1856	
21	1857	"and by	3	1861	
4	1863		16	1863	
2	1871		19	1876	
11	1877		13	1877	
4	1881		2	1897	
17	1905		19	1905	
3	1911		8	1912	
12	1912		14	1912	
5	1914	"but as	13	1914	
16	1919		15	1920	
2	1933		24	1933	
13	1935		16	1935	
22	1948		25	1949	I say."
10	1958		11	1960	
20	1961		7	1962	
4	1966		6	1966	
8	1972		7	1973	
16	2004		1	2005	
5	2021		15	2053	
10	2061		28	2062	

Statement of Facts—Continued

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
9	2063		20	2063	
2	2066				
4	2066		23	2067	
6	2069		10	2069	
6	2070		10	2070	
22	2072		24	2072	
4	2073		11	2073	
12	2078		19	2078	
15	2083		20	2083	
4	2087		4	2099	
1	2105		18	2105	
2	2107		2	2122	
2	2124		15	2128	
12	2133		29	2135	
4	2142		5	2145	
24	2161		4	2162	
23	2193		7	2194	
1	2204		11	2204	
[fol. 393]					
20	2209		19	2212	
9	2216		27	2216	
3	2219		4	2219	
14	2219		9	2221	
15	2222		25	2224	
15	2227		1	2228	
1	2233		22	2233	
6	2234		13	2236	
1	2237		4	2239	
17	2239		6	2248	
8	2251		9	2251	
2	2252		4	2272	
1	2273		26	2274	
19	2278		20	2278	
23	2281		2	2282	
13	2282		10	2284	
25	2284		28	2284	
1	2285		6	2285	
10	2289		15	2289	
7	2291		8	2291	
11	2293		19	2293	
15	2296	"This	17	2296	
14	2298		9	2299	
20	2302		25	2302	
21	2309		24	2309	
22	2310		23	2310	
12	2311				

Statement of Facts—Continued

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
20	2311		21	2311	
10	2321		15	2321	
11	2332		1	2333	
9	2333				
5	2337				
20	2341		6	2343	
22	2346				
5	2347		11	2347	
14	2354		6	2355	
15	2356		24	2356	
7	2357		9	2357	
1	2358		10	2358	
25	2358		1	2359	
3	2362	"This exhibit	4	2362	
1	2363		7	2366	
9	2366		20	2367	

[fol. 394]

4	2371		10	2371	
9	2373		7	2374	
16	2383		19	2383	
11	2386		12	2386	
23	2387				
11	2406		13	2406	
8	2410		19	2410	
3	2412	"This	4	2412	
11	2412		18	2412	
6	2437		15	2437	
9	2460		7	2462	
14	2479		16	2479	
21	2479		26	2487	
4	2498		17	2498	
11	2506		2	2507	
14	2508		18	2508	
6	2510		15	2510	
3	2516		4	2516	
1	2517		16	2517	
6	2520				
1	2521		4	2521	
20	2521		24	2521	
7	2527		14	2527	
24	2541		24	2544	
2	2545		6	2560	
3	2564		16	2564	
21	2565		8	2569	
11	2571		25	2571	
3	2572		6	2572	

Statement of Facts—Continued

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
9	2572		11	2572	
25	2576	"Well	12	2577	
23	2580		19	2581	
7	2583				
6	2584				
2	2585		4	2586	
9	2588		19	2588	
10	2590		15	2590	
3	2593		11	2593	
19	2593		24	2594	
7	2596		19	2596	
7	2608		9	2608	
1	2614				
26	2614	"unless it be	11	2615	into that"
23	2615		9	2616	
23	2617		4	2622	
14	2627		17	2627	
[fol. 395]					
12	2628		4	2644	
7	2644	"This	27	2644	
24	2646		26	2646	Exhibit 5"
11	2657		18	2657	your pardon."
7	2658		13	2659	
19	2659				
6	2662		9	2663	
4	2666				
8	2669		13	2669	
15	2669	"Now, I	21	2669	of difference."
23	2669		5	2670	
13	2673		17	2673	
21	2676				
23	2676		13	2677	
5	2678		14	2678	
23	2689		4	2690	
8	2695		10	2695	
19	2695		27	2695	
5	2710		8	2711	
16	2712		24	2712	
4	2713		8	2713	
21	2713		24	2713	
6	2716		7	2716	
8	2718		12	2718	
10	2734		12	2734	
21	2734		28	2734	
12	2738		27	2738	
19	2739		24	2739	

Statement of Facts—Continued

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
4	2746				
6	2746		17	2746	
20	2748		3	2766	
10	2769		21	2769	
15	2770		11	2776	
1	2777		21	2784	
9	2785		5	2786	
24	2786		25	2786	
2	2790				
21	2791		25	2791	
24	2795				
16	2796		22	2798	Mr. Dobson."
8	2799		10	2799	
20	2799		5	2800	
24	2800		6	2801	
21	2809		1	2810	
21	2811		27	2811	
13	2817		16	2817	
8	2818		22	2818	
[fol. 396]					
1	2819		8	2819	
8	2822		12	2827	
25	2827		8	2835	
18	2846		3	2847	
11	2853		17	2853	
6	2854		10	2854	
13	2855		22	2855	
16	2856		1	2857	
3	2859		20	2860	
7	2861		8	2862	
18	2863		6	2864	
2	2866		24	2866	
13	2867		5	2868	
17	2869		23	2870	
16	2872		8	2879	
4	2882		14	2882	
16	2882		17	2882	
16	2885		1	2886	
25	2886		3	2887	
5	2887		6	2887	
18	2890		3	2892	
25	2892		6	2893	
9	2895		25	2899	
13	2901		8	2904	
2	2905		15	2905	
22	2905		1	2906	

Statement of Facts—Continued

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
5	2907		24	2908	you wish."
7	2909		10	2913	
4	2918		19	2919	
8	2926		10	2926	
8	2929		9	2929	A"
11	2929		15	2929	
9	2930	"but if	16	2930	
21	2931		25	2931	
8	2932				
3	2933		15	2934	
12	2935	"Before the	17	2935	
15	2939		5	2940	
8	2941		14	2941	
15	2942		25	2943	
6	2944		21	2944	
6	2945		10	2947	
13	2947		13	2950	
1	2951		17	2969	
18	2971		21	2971	
1	2972		11	2974	this way:"
21	2974		23	2974	
26	2975		1	2976	
[fol. 397]					
10	2976		15	2976	
18	2978		2	2979	
25	2979		1	2980	
15	2980		19	2980	
7	2981		24	2981	
4	2982		10	2982	
13	2982		14	2982	
25	2982		5	2983	
17	2983		20	2983	
3	2984		26	2984	
11	2987		15	2987	
13	2988		23	2988	
3	2989	"I think	24	2989	
13	2990		3	2991	
25	2992		14	2993	
17	2995		19	2999	
17	3000		7	3002	
11	3003	"six and	14	3003	Q"
14	3003	"Now,	12	3004	
23	3004		13	3005	
10	3006				
22	3006		4	3008	
10	3010		11	3010	

Statement of Facts—Continued

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
25	3012		22	3013	
16	3028		9	3029	
18	3034		23	3034	
11	3038		4	3039	
17	3041		18	3041	
10	3044		13	3044	
12	3050				
20	3051				
10	3052				
23	3052		4	3055	
19	3074		17	3075	
6	3076		25	3079	
21	3094				
17	3095		22	3095	
11	3097		25	3097	
26	3097		9	3098	
18	3103		21	3106	
17	3107		22	3108	
4	3109		24	3109	
7	3110		21	3110	
5	3124		22	3124	
14	3125		7	3126	Mr. Griffith:"
[fol. 398]					
11	3129		15	3130	
18	3130	"This	19	3130	
1	3135		17	3135	
14	3138		16	3139	Yes;"
19	3145				
8	3146		13	3146	
1	3153		3	3153	No."
11	3162		21	3162	
8	3163		9	3163	
1	3174		11	3174	
16	3174		19	3174	and,"
10	3175		23	3176	
6	3177		18	3177	
5	3178	"This exhibit	17	3186	
20	3186	"This exhibit	24	3187	
27	3187		19	3195	
4	3196				
9	3198		21	3198	
22	3202	"This exhibit	27	3202	
13	3204		16	3204	
14	3214	"Now, in order	12	3215	
7	3217		7	3219	
10	3219		15	3219	

Statement of Facts—Continued

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
10	3226		7	3258	
16	3259		22	3259	
1	3262		4	3262	
25	3262		1	3263	
19	3265		3	3266	
4	3272		22	3272	
12	3273				
15	3273		13	3274	
1	3276				
12	3276				
8	3277		13	3277	
16	3280		17	3280	
21	3281				
7	3295				
6	3296		7	3296	
25	3298		3	3299	
17	3299		19	3299	
8	3302		14	3303	
2	3304		13	3304	
2	3306		7	3306	
22	3306				
11	3307		20	3309	
22	3310		2	3311	
4	3312				
7	3312	"This exhibit	8	3312	
14	3312		21	3312	
[fol. 399]					
10	3314		11	3314	
15	3316	"con"			
12	3320		19	3320	
5	3321		5	3322	
12	3326		5	3327	
5	3330		17	3331	
9	3334		19	3335	
19	3337	"This exhibit	20	3337	
13	3342				
1	3344		7	3344	
13	3345		17	3345	
5	3346		17	3347	
26	3350		1	3351	
16	3353		5	3354	
22	3356		6	3357	
1	3361		7	3361	
23	3361		2	3367	
21	3372		4	3373	
24	3375		5	3376	

Statement of Facts—Continued

From			To (Inclusive)		
Line	Page	Beginning	Line	Page	Ending
18	3376				
14	3380		7	3390	
10	3391		21	3391	answer."
1	3401		3	3401	
9	3402		2	3403	
22	3406		8	3407	
21	3407		13	3411	
13	3413		20	3414	
10	3419		3	3420	
13	3422		15	3422	
23	3422				
10	3425				
26	3426		27	3426	
21	3434				
17	3436		6	3437	
20	3441				
3	3445		13	3445	
8	3446		3	3447	
17	3460	"This	22	3460	
13	3465		24	3465	
21	3466		26	3466	
11	3469		24	3470	
5	3475		15	3487	
1	3489		20	3490	
9	3491				
12	3491		7	3497	
9	3497	"Mr. Connor"			

[fol. 400]

18	3497		15	3514	
17	3526		1	3527	
18	3531		19	3531	
2	3532		22	3534	
21	3535	"However,	6	3537	
24	3537		2	3538	
20	3542		1	3545	
5	3548		13	3548	
14	3552		5	3553	so much."
2	3556				
5	3556		28	3556	
5	3557		9	3557	
7	3558		9	3558	
15	3558		24	3559	

From the Exhibits

	Book of Exhibits	Pages (Inclusive)
Plaintiff's Exhibits:		
Exhibit No. 4	6	3577–3591
Exhibit No. 5	6	3593–3618
But including only the following pages: 3596, 3610, 3611, 3617, and 3618.		
Exhibit No. 6	6	3620–3662
But including only the following pages: 3623, 3624, 3643 to 3645, inclusive.		

[fol. 401]

Exhibit No. 7	6	3664–3678
But including only the following pages: 3667 to 3674, inclusive.		
Exhibit No. 8	6	3680–3696
But including only the following pages: 3683 to 3686, inclusive; 3692; 3694 to 3696, inclusive.		
Defendant's Exhibits:		
Exhibit No. 1	7	3712–3834
But including only the following pages: 3713 to 3749, inclusive.		
Exhibit No. 3	7	3842–3929
Exhibit No. 4	7	3931–3932
Exhibit No. 5	7	3934–3937
Exhibit No. 6	7	3939–3942
Exhibit No. 8	7	3949–3952
Exhibit No. 9	7	3954–3957
Exhibit No. 10	7	3959–3962
Exhibit No. 11	7	3964–3966
Exhibit No. 12	7	3968–3970

[fol. 402]

Exhibit No. 13	7	3972–4037
But including only the following pages: 3976 to 3979, inclusive; 3985; 3989 to 3993, inclusive; 3999; 4001 to 4006, inclusive; 4012 to 4016, inclusive; 4022 to 4037, inclusive.		
Exhibit No. 14	7	4039–4041

	Book of Exhibits	Pages (Inclusive)
Exhibit No. 15	7	4043–4046
But including only the following: page 4043, through first paragraph of Article II; page 4044, first paragraph of Article V; page 4045, first paragraph of Article IX; page 4046, third paragraph of Article IX.		
Exhibit No. 16	7	4048–4052
But including only the following: page 4048 down to Art. III; page 4049, first paragraph of Article V; page 4051, first and third paragraphs of Article IX.		
Exhibit No. 17	7	4054–4057
But including only the following: page 4054 down to Article III; page 4055, first paragraph of Article V; page 4056, first and third paragraphs of Article IX.		

[fol. 403]

Exhibit No. 18	7	4059–4062
But including only the following: page 4059, down to Article III; page 4060, first paragraph of Article V; page 4061, first and third paragraphs of Art. IX.		
Exhibit No. 19	7	4064–4067
But including only the following: page 4064, through first three lines Art. II; page 4065, first paragraph of Art. V; page 4066, first and third paragraphs of Art. X; page 4067, first two lines.		
Exhibit No. 21	7	4071
But including only the following: page 4071, except signatures and attestation.		
Exhibit No. 22	7	4073–4077
But including only the following: page 4073, down to Art. III; page 4074, first paragraph of Art. V; page 4075, first paragraph of Art. IX; page 4076, third paragraph of Art. IX.		

[fol. 404]

	Book of Exhibits	Pages (Inclusive)
Exhibit 23	7	4079–4083
But including only the following: page 4079, down to Art. II; page 4080, first paragraph of Art. IV; page 4081, first paragraph of Art. VIII; page 4082, first paragraph.		
Exhibit 24	7	4085–4089
But including only the following: page 4085, down to Art. III; page 4087, first paragraph of Art. V; page 4087, first paragraph of Art. IX; page 4088, second paragraph.		
Exhibit No. 26	7	4095
But including only the following: page 4095, excluding signatures and attestations.		
Exhibit No. 27	7	4097–4101
But including only the following: page 4097, down to Art. III; page 4098, first paragraph of Art. V; page 4099, first paragraph of Art. IX; page 4100, first paragraph.		
Exhibit No. 28, in eight separate volumes		4104–8608
But including only the following pages: Volume I: 4116 to 4128, inclusive, 4391, 4396, 4417, 4422 to 4424, inclusive, 4471 to 4473, inclusive, 4527.		

[fol. 405]

Volume II:
5107, 5189, 5225 to 5226, inclusive, 5242, 5255 to 5256, inclusive.

Volume III:
5468, 5542 to 5543, inclusive.

Volume IV:
6155

Volume V:
6660

Volume VI:
7714, 7716 to 7717, inclusive, 7719 to 7720, inclusive; 7722 to 7723, inclusive; 7763, 7770, 7772, 7788, 7790, 7812 to 7813, inclusive; 7853.

	Book of Exhibits	Pages (Inclusive)
Volume VII: 7867, 7876, 7940, 7949, 8096, 8105, 8404.		
Volume VIII: 8513, 8523, 8534, 8605.		
[fol. 406]		
Exhibit No. 30, consisting of one separately bound volume, styled "Report and Findings of Gas Reserves, January 1, 1933"..	..	8611–8856
But including only the following pages: 8652, 8653, 8758 to 8761, inclusive.		
Exhibit No. 31.....	10	8858–8864
But including only the following pages: 8860		
Exhibit No. 32.....	10	8866–8895
But including only the following pages: 8891, 8895 (Giving totals and grand totals only).		
Exhibit No. 34.....	10	8939–8948
Exhibit No. 37.....	10	8974–9226
But including only the following pages: 8975 to 8978, inclusive.		
Exhibit No. 39.....	10	9232–9238
Exhibit No. 40.....	10	9240–9250
But including only the following pages: 9240 to 9248, inclusive.		
[fol. 407]		
Exhibit No. 41.....	10	9252–9256
Exhibit No. 42, consisting of one separately bound volume styled "Report Annual Reserve Accruals Required for Lone Star Gas Co., January 1, 1933.....	..	9258–9583
But including only the following pages: 9268 down to "Purpose of the Investigation" on page 9271; 9278; 9282 to 9284, inclusive; 9285 down to heading "Definitions" on page 9289; 9294, 9303, 9304, 9305, 9307, 9309; 9311, 9345, 9398 (last paragraph only); 9402; 9409 to 9427, inclusive; 9438 to 9445, inclusive; 9455, 9466 to 9476, inclusive; 9485 to 9492, inclusive; 9505 to 9513, inclusive; 9515 to 9524, inclusive;		

	Book of Exhibits	Pages (Inclusive)
9545 to 9550, inclusive; 9555, 9557, 9558, 9560; begin with heading on 9563 to 9571, inclusive; 9577 to 9582, inclusive.		
Exhibit No. 43	12	9585–9589
Exhibit No. 44	12	9591–9598
Exhibit No. 45	12	9600–9721
But including only the following pages: 9606 to 9719, inclusive.		

[fol. 408]

Exhibit No. 46	12	9723–9771
But including only the following pages: 9724 to 9726, inclusive; 9729 to 9735, inclusive; 9756; 9765 to 9771, inclusive.		
Exhibit No. 47	12	9773–9775
Exhibit No. 48	12	9777–9783
But including only the following pages: 9778; 9779 (heading and years only); 9780 (years, totals and percentages only); 9781 (heading and years only); 9782 (years, totals and percentages only); and 9783 (heading, years, totals and percentages only).		
Exhibit No. 49	12	9785–9791
Exhibit No. 50	12	9793–9794
Exhibit No. 51	12	9796–9798

[fol. 409] C

The following from the volume of the Transcript of the Record entitled "Final Volume Containing Proceedings in the Court of Civil Appeals and the Supreme Court of Texas, and on Appeal to the Supreme Court of the United States":

	Pages
1. Defendant's (Appellant herein) cross-assignments of error as presented in Appellee's Original Brief filed in the Court of Civil Appeals	9- 14
2. Opinion of the Court of Civil Appeals	16- 68
3. Judgment of the Court of Civil Appeals	69

Pages.

4. Defendant's (Appellant herein) Motion for Rehearing filed in the Court of Civil Appeals, and showing the date of filing 70-138

But eliminating the following assignments of error: 11, 13, 15, 17, 18, 19, 20, 21, 23, 24, 27, 28, 32, 38, 45, 46, 54, 55, 68, 69, 70, 71, 73, 90, 91, 92, 111, 128, 129, 130, 131, 132, 134, 135, 136, 138, 139, 140, 141, 142, 147, 148, 149, 150, 151, 152, 155, 157;

And also eliminating the prayer and signature of counsel.

5. Opinion on Appellee's Motion for Rehearing 139-140

[fol. 410] 6. Order of the Court of Civil Appeals overruling Appellee's Motion for Rehearing 141

D

The following from said "Final Volume":

1. Docket entry showing filing of Application for Writ of Error 142

2. The following parts of the Application for Writ of Error 143-220

(a) Beginning with the title of the cause on page 143 and extending to the first assignment of error on page 156;

(b) All assignments of error contained in said application beginning on page 156 and extending to 219 but eliminating the following assignments of error:

Twelfth, Thirteenth, Thirty-Seventh, Thirty-Eighth, Thirty-Ninth, Fortieth, Forty-First, Forty-Second, Forty-Sixth, Forty-Eighth, Forty-Ninth and Sixty-Third; and omitting all matter other than the assignments of error.

(c) Also eliminate prayer and signature of counsel on pages 219-220.

(d) Include endorsement showing when application for writ of error was filed in the Court of Civil Appeals and in the Supreme Court, page 220.

3. Order of the Supreme Court of Texas refusing the Application for Writ of Error 221

4. Docket entry showing filing of Motion for Rehearing of the Application for Writ of Error .. 222

Pages

[fol. 411] 5. The following parts of the Motion for Rehearing of the Application for Writ of Error 223-272

(a) Beginning with the title page, p. 223, and extending to the words Part I, on page 224;

(b) All assignments of error contained in said Motion for Rehearing except the following assignments of error; Sixteenth, Forty-Sixth, Forty-Seventh, Forty-Eighth, and Sixty-Second;

(c) Include endorsement showing when motion was filed in Supreme Court of Texas, p. 272;

(d) Exclude prayer, signature of counsel, and all other matter contained in the motion.

6. Order of Supreme Court overruling Motion for Rehearing of Application for Writ of Error 273

7. Certificate of Clerk of Supreme Court of Texas 274

8. Order of Chief Justice of Court of Civil Appeals denying Petition for Appeal to the Supreme Court of the United States 275-276

E

The following from said "Final Volume":

1. Appellant's Petition for Appeal and Assignment of Errors and Prayer for Reversal, with all endorsements appearing thereon (Original) 277-292

[fol. 412] 2. Order allowing appeal and fixing security for costs with all endorsements appearing thereon (Original) 293-296

3. Appellant's Præcipe for Transcript with all endorsements appearing thereon, including acknowledgment of service by appellees' counsel (Original) 308-324

4. Copy of order signed by Mr. Justice Cardozo enlarging time for Appellees' filing of Counter-Præcipe and contents of record, with endorsements appearing thereon 325

5. Appellees' Counter-Præcipe, including acknowledgment of service by appellant's counsel (Original) 326-333

6. Stipulation as to record (Original) 334-339

Pages

7. Certificate of the Clerk of the Court of Civil Appeals 343-346

8. "Statement of the Points upon which Appellant Intends to Rely and Designation of Parts of the Record to be Printed," and acknowledgment of service by appellees' counsel.

Roy C. Coffee, Marshall Newcomb, O. K. Shannon, Jr., Ben H. Powell, Charles L. Black, Attorneys for Appellant, Lone Star Gas Company.

[fol. 413] Acknowledgment of Service

The undersigned, being the attorneys of record for the Appellees in Lone Star Gas Company, Appellant, vs. State of Texas, et al, Appellees, pending on appeal in the Supreme Court of the United States, hereby acknowledge due service of copy of the foregoing "Statement of the Points upon which Appellant Intends to Rely and Designation of Parts of the Record to be Printed."

Dated at Austin, Texas, this the 14th day of August, 1937.

Wm. McCraw, Attorney General of Texas; Alfred M. Scott, Assistant Attorney General, Attorneys for the Appellees, State of Texas, et al.

[fol. 414] [File Endorsement Omitted.]

[fol. 415] In Supreme Court of the United States

Appellee's Designation of Additional Parts of the Record to be Printed—Filed August 18, 1937

Having been served on the 14th day of August, A. D., 1937, with copy of appellant's Designation of Points Intended to be Relied Upon and of Parts of the Record to be Printed, appellees now designate the following additional parts of the record to be printed.

For convenience appellees will designate from the various parts of the record in the same order, and under the same lettered subdivisions, as used by appellant in its said designation.

[fol. 416] All double references are intended to be "both inclusive," unless a contrary intention is indicated.

A

From the Record Made Before the Railroad Commission of Texas

Attorneys for appellant, Lone Star Gas Company, have stated to counsel for appellees that in view of the fact that in the trial in the 53rd District Court of Travis County, Texas, the appellees (State of Texas et al.) tendered in evidence the entire original record, including oral testimony and exhibits, made before the Railroad Commission of Texas, and the appellant, Lone Star Gas Company, made objections to the admissibility thereof, which objections the trial court sustained and excluded from evidence over the exceptions of appellees the entire Railroad Commission Record (S. F. 2545-2559); and in view of the further fact that neither the Court of Civil Appeals nor the Supreme Court of Texas passed upon the appellees' assignments of error complaining of the exclusion of said Railroad Commission record from evidence; that appellant, Lone Star Gas Company, considers itself foreclosed and estopped from attempting to present or argue in this appeal in this court any assignments or contentions as to what the evidence did or did not show before the Railroad Commission of Texas, except insofar as the evidence admitted by the District Court reflected in certain particulars what the evi- [fol. 417] dence was as certain points before the Railroad Commission of Texas; and in view of the representations of attorneys for appellant, Lone Star Gas Company, that they do not intend to advert in any way to the evidence and record before the Railroad Commission, except as above indicated, appellees, in reliance upon said representations, at this time designate no part of said Railroad Commission record for printing.

B

From the Record Made in the 53rd Judicial District Court of Travis County, Texas

I

From the transcript of pleadings, orders, and other proceedings in the District Court:

Page of Transcript

1. From plaintiffs' Second Amended Original Petition.. 2–25

Print only the following:

Paragraph XI, from the beginning at p. 13 through the first paragraph on p. 15; also the whole of the third paragraph on p. 16.

2. From defendant's Second Amended Original Answer. 31–144

Print only the following:

Beginning with the line 3, p. 131, with the word "defendant," through line 11, p. 131.

[fol. 418]

3. From plaintiffs' Second Supplemental Petition..... 146–161

Print only the following:

Second sub-paragraph of Paragraph VIII, p. 151; all of Paragraph IX, p. 152; the sentence beginning with line 19, p. 153 and ending with the word "defendant" in line 28, p. 153; the clause on p. 154 beginning with the word "which" in line 9 and extending through line 16, p. 154; the clause beginning with the word "that" in the seventh line, p. 158, and ending with the word "and" in the eleventh line of the same page.

4. From the Order Overruling Demurrers and Exceptions of Defendant, Lone Star Gas Company.... 203–206

Print only the following:

Beginning with paragraph 2 on p. 203, down to the last paragraph on p. 206.

5. Print the Order Overruling Plaintiffs' Motion for peremptory Instruction, July 5, 1934, omitting endorsements..... 219

6. Print the Order Overruling Defendant's Motion to Strike plaintiffs' Exhibit No. 8, omitting endorsements..... 225

7. Print the Order Overruling Plaintiffs' Motion for Peremptory Instruction, July 16, 1934, omitting endorsements..... 228

Page of Transcript

8. Print all of Plaintiffs' Objections and Exceptions to the Court's Charge, and Order Overruling same, omitting endorsements 235–237
9. From Defendant's Objections and Exceptions to the Court's Charge 238–274

Print only the following:
Paragraph V on p. 241.

[fol. 419]

10. Print the whole of Plaintiff's Motion for Judgment Non Obstante Veredicto, July 26, 1934, omitting endorsements 523–525
11. Print the Order Overruling Plaintiffs' Motion for Judgment Non Obstante Veredicto, July 26, 1934, omitting endorsements 533
12. From the Plaintiffs' First Amended Motion for New Trial, July 26, 1934 535–554

Print only the following:
The preliminary paragraph preceding paragraph 1; paragraphs 1, 2, 3, 6, 11, 12, 13, 14, 21, 33, 35, 36, 37, 38, 39, 40, 41, 42, 46, 48, 49, 51, 52, 53, 54, 55, 56, 57, and the last two unnumbered sub-paragraphs and the signatures on p. 553.

13. Print the Stipulation for Sending Up on Appeal the Original Record Before the Railroad Commission in Lieu of Transcript Thereof, omitting endorsements 562–563
14. Print the Order for Inclusion in Record on Appeal of All Original Documentary Evidence and Exhibits Introduced In Trial in District Court, omitting endorsements 583–584

II.

From the Statement of Facts (transcript of oral testimony and exhibits) made in the hearing on Defendant's pleas to the jurisdiction and pleas in abatement in the 53rd Judicial District Court, before Honorable W. F. Robertson 1–163

Print only the following:

[fol. 420]

From Testimony of Defendant's witness, E. F. Schmidt, print the following portions:

From Line	From Page		To Line (inclusive)	To Page	
14	4	"Q. In the performance"	9	5	"Schmidt"
15	8	"Mr. Griffith".....	18	15	"six ounces"
4	19	"Q. You don't mean"	14	23	"A. Yes Sir."
top	26	.....	28	34	"not?"
11	37	"The Court".....	3	38	"here"
4	40	"Q. At any rate"	27	41	"A. That is correct."
15	46	"The Court".....	28	47	"Yes, sir."

Print all of the testimony of Witness Karl F. Griffith, from top of p. 51 to bottom of p. 81, except the following portions which are to be eliminated:

20	52	"Q. What is the capitalization"...	17	53	"Stout"
26	56	"Mr. Shannon".....	12	57	"them"
13	58	"Q. Does the Lone Star".....	27	58	"by Mr. Stout"
18	59	"Mr. Shannon".....	13	60	"question"
1	62	"Q. That is".....	11	62	"Mr. Stout"
10	64	"Q. Except".....	6	66	"by Mr. Stout"

[fol. 421]

22	68	"Q. How much money".....	28	69	"by Mr. Stout"
23	76	"Q. If you do not"...	6	77	"by Mr. Stout"
14	77	"If there was".....	18	77	"sustained"
1	79	"Q. Do you know"...	10	79	"by Mr. Stout"
11	80	"Q. Of those directors".....	21	80	"by Mr. Stout"
6	81	"Q. The Lone Star"..	bottom	81	

Print all of the testimony of the plaintiffs' Witness, Olin Culberson, pp. 82–97, inclusive, except the following portions, which are to be eliminated:

22	83	"Q. Who does this"...	6	84	"Yes"
17	84	"Mr. Griffith".....	19	84	"admission"
1	86	"Mr. Griffith".....	18	86	"understanding"
1	91	"Mr. Shannon".....	5	91	"Itself"
25	91	"Q. Has the".....	3	92	"sustained"
23	93	"Mr. Griffith".....	24	93	"company".

Print all of the testimony of plaintiffs' witness, S. W. Freese, pp. 98–121, inclusive, except the following portions, which are to be omitted:

22	99	"Mr. Griffith".....	26	99	"Oklahoma"

[fol. 422]

Print the following exhibits:

Plaintiffs' Exhibit No. 3	134–137
Plaintiffs' Exhibit No. 4	138 (20 photostatic sheets)
Plaintiffs' Exhibit No. 5	139
Plaintiffs' Exhibit No. 6	140
Defendant's Exhibit No. 4	148–153, inclusive, and map on p. 153A

III.

From the Exhibits before the 53rd Judicial District Court of Travis County, Texas, in the trial upon the merits, print the following:

	Book of Exhibits	Pages
Plaintiffs' Exhibits:		
Exhibit No. 2	6	3564–3569
Exhibit No. 3	6	3572–3573
Exhibit No. 4	6	3576–3591
Print only p. 3576.		
Exhibit No. 5	6	3593–3618
Print only the following pages: 3593, 3597–3609, inclusive; 3612–3616, inclusive.		
Exhibit No. 6	6	3620–3662
Print only the following pages: 3621, 3622, 3625–3642, inclusive; 3646–3662, inclusive.		

[fol. 423]

Exhibit No. 7	6	3664–3678
Print only the following pages: 3665, 3666, 3675–3678, inclusive.		
Exhibit No. 8	6	3680–3696
Print only the following pages: 3680, 3682, 3687–3696, inclusive.		
Exhibit No. 9	6	3698
Exhibit No. 10	6	3700–3707
Exhibit No. 11	6	3709
Defendant's Exhibits:		
Exhibit No. 13	7	3792–4037
Print only the following pages: 3972; 3980-3984, inclusive; 3986–3988, inclusive; 3994–3998, inclusive; 4000; 4007–4011, inclusive; 4017–4021, inclusive.		

	Book of Exhibits	Pages
Exhibit No. 15	7	4043–4046
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 16	7	4048–4052
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 17	7	4054–4057
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 18	7	4059–4062
Print all of the remainder of this Exhibit not designated for printing by appellant.		

[fol. 424]

Exhibit No. 19	7	4064–4067
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 20	7	4069
Exhibit No. 21	7	4071
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 22	7	4073–4077
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 23	7	4079–4083
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 24	7	4085–4089
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 25	7	4091–4093
Exhibit No. 26	7	4095
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 27	7	4097–4101
Print all of the remainder of this Exhibit not designated for printing by appellant.		
Exhibit No. 28	8-A to 8-H (inclusive)	4104–8608

From Volume II (Book 8-B) print only the following pages or portions as indicated:

5238

[fol. 425]

From Volume III (Book 8-C) print only the following pages or portions as indicated:

5562; 5563; 5573; 5574; 5583-5585, inclusive; 5587–5589, inclusive; 5591–5599, inclusive; 5603; 5607–5612, inclusive;

Book of Exhibits Pages

5619; 5621; 5622; 5623; 5625; 5635–5640, inclusive; 5649–5651, inclusive; 5672; 5673; 5680–5682, inclusive; 5688; 5689; 5695; 5696; 5705; 5706; 5714; 5733; 5742; 5750; 5759–5762, inclusive; 5763–5765, inclusive; 5771; 5779–5782, inclusive; 5792; 5793; 5812; 5813; 5825–5828, inclusive; 5844; 5851; 5852; 5858–5860, inclusive; 5870; 5873–5875, inclusive; 5877; 5878; 5912-5914, inclusive; 5916; 5917; 5920; 5927–5936, inclusive; 5963–5965, inclusive; 5977–5993, inclusive.

From Volume IV (Book 8-D) print only the following pages or portions as indicated:

6012; 6026; 6032–6035, inclusive; 6062; 6063; 6075; 6076; 6087; 6089–6091, inclusive; 6103; 6104; 6107; 6113–6115, inclusive; 6124–6132, inclusive; 6146–6148, inclusive; 6109; 6175; 6176; 6206–6208, inclusive; 6222; 6231; 6232 down to and through "total line E 4 $6,395.26"; 6266; 6275; 6306; 6337; 6354; 6389; 6431; 6432; 6449; 6450; 6468; 6470; 6478–6480, inclusive; 6482–6484, inclusive; 6490; 6507; 6510; 6515; 6523; 6611; 6612; 6621; 6622; 6632; 6633; 6636–6640, inclusive; 6642–6644, inclusive.

From Volume VII (Book 8-G) print only the following pages or portions as indicated:

[fol. 426]

7857; 7869–7874, inclusive; 7877–7938, inclusive; 7942–7947, inclusive; 7950–7951, inclusive; 7953–7963, inclusive; 7965–7985, inclusive; 7987–9789, inclusive; 7991–8010, inclusive; 8012–8013, inclusive; 8015–8023, inclusive; 8025–8026, inclusive; 8028–8037, inclusive; 8039–8046, inclusive; 8048–8053, inclusive;

[fol. 427]

8055–8071, inclusive; 8073–8083, inclusive; 8085–8090, inclusive; 8092–8094, inclusive; 8097–8103, inclusive; 8106; 8110–8128, inclusive; followed by the following notation: "(Note: Here follow pp. 8129–8192, inclusive, omitted

	Book of Exhibits	Pages
in printing, setting forth detail similar to that just above shown)"; 8193, 8195–8226, inclusive, followed by the following notation: "(Note: Here follow pp. 8227–8263, inclusive, omitted in printing, setting forth detail similar to that just above shown); 8264–8300, inclusive, followed by the following notation: "(Note: Here follow pp. 8301–8334, inclusive, omitted in printing, containing detail detail similar to that just above shown)"; 8335–8368, inclusive; 8370–8402, inclusive; 8405–8446, inclusive.		
From Volume VIII (Book 8-H) print only the following pages or portions as indicated: 8450; 8459–8475, inclusive; 8479–8511, inclusive; 8514–8521, inclusive; 8524–8532, inclusive; 8535–8557, inclusive, followed by the following notation: "(Note: Here follow pp. 8558–8563, inclusive, omitted in printing, showing detail similar to that last above shown); 8564–8586, inclusive, followed by the following notation: "(Note: Here follow pp. 8587–8591, inclusive, omitted in printing, containing detail similar to that last above shown)"; 8592–8603, inclusive; 8606–8607.		
Exhibit No. 29 (Map of System).....	9-A	8610
[fol. 428]		
Exhibit No. 30.....	9-B	8612–8856
Print only the following pages and portions indicated: 8614; 8619; 8622; 8626; 8627; 8630; 8637; 8639; 8642; 8662; 8663, lines 1, 2, and 3; 8663, line 16, through line 7, p. 8664; 8665–8666, inclusive; 8668; 8670; 8706; 8712; 8717; 8736; 8742; 8743, lines 1, 2, 3, and 19-24 through the word "decline"; 8747; 8748, lines 1–6, inclusive; 8749, lines 2–4, inclusive; 8751; 8765, lines 1–7, inclusive, followed by following notation: "(Note: The remainder of p. 8765 down to and including line 27, p.		

3537

	Book of Exhibits	Pages
8772, contains data similar to that above shown and are omitted in printing)"; 8772, line 28, only, followed by the following notation: "(Note: p. 8773 through line 9, p. 8799, contain detail similar to that just above shown and are omitted in printing)"; 8799, print totals in line 10, only; 8800, print lines 1–7, inclusive, followed by the following notation: "(Note: From line 8, p. 8800, through 13, p. 8805, data are set forth similar to that above shown, and are omitted in printing)"; and on p. 8805, print only lines 14–16, inclusive.		
Exhibit No. 31	10	8858–8864
Print only the following pages: 8858; 8861–8864, inclusive.		
Exhibit No. 32	10	8866–8895
Print only the following pages and portions indicated: 8866; 8867, lines 1–9 inclusive, followed by the following notation: "(Note: From line 10, p. 8867, through line 19, p. 8870,		

[fol. 429]

follow data similar to that above shown, omitted in printing)"; print p. 8870, line 20, only, followed by following notation: "(Note: from line 21, p. 8870, through line 12, p. 8879, follow data similar to that above shown, omitted in printing)"; p. 8879, print line 13, only, followed by following notation: "(Note: From line 14, p. 8879, through line 14, p. 8891, are shown data similar to above, omitted in printing)"; p. 8891, print line 15, only, followed by the following notation: "(Note: From line 16, p. 8891, through line 23, p. 8895, follow data similar to above, omitted in printing)"; p. 8895, print lines 24 and 25, only.

Exhibit No. 33	10	8897–8937
Print only pp. 8897 and 8901, lines 1–10, inclusive.		
Exhibit No. 37	10	8974–9226
Print only the following pages: 8981; 8988; 9003; 9035; 9054; 9121; 9219.		

	Book of Exhibits	Pages (Inclusive)
Exhibit No. 40	10	9240–9250
Print only pp. 9249–9250, inclusive.		
Exhibit No. 42	11	9259–9582
Print only following pages and portions: 9271 from "Purpose of the Investigation" to bottom of page; 9272–9277, inclusive; 9278–9281, inclusive; 9295–9300, inclusive; 9314, line 1–22, inclusive; 9322–9323, inclusive; 9334; 9339–9344, inclusive; 9403–9404, inclusive; 9407–9408, inclusive; 9428–9436, inclusive; 9446–9453, inclusive; 9463–9465, inclusive; 9480; 9498–9500, inclusive; 9503; 9514; 9525; 9529–9530, inclusive; 9532–9537, inclusive; 9554; 9556; 9559; 9561–9562, inclusive; 9574–9575, inclusive.		
Exhibit No. 45	12	9600–9721
Print only the following pages: 9600; 9720–9721, inclusive.		
Exhibit No. 46	12	9723–9771
Print only the following pages: 9723; 9736–9755, inclusive; 9757–9764, inclusive.		
Exhibit No. 48	12	9777–9783
Print only the following pages: 9777 and 9779–9783, inclusive.		

[fol. 430]

[fol. 431]

IV

From the oral testimony in question and answer form before the 53rd Judicial District Court of Travis County, Texas in the trial upon the merits, being Volumes 1-5, inclusive, print the following portions:

From Line	From Page		To Line	To Page (inclusive)
17	1			
9	15		10	15
7	58		18	58
1	59	"This shows"	4	59
17	59		2	60
7	65		5	71
6	89		10	89

From Line	From Page		To Line (inclusive)	To Page	
6	90		3	91	
10	103	down to "The exhibit shows, etc."			
1	161		4	161	
11	161		20	161	
11	162		24	162	
23	164		14	173	
10	178		16	180	
14	182		12	183	
8	242		1	244	
20	247		16	248	
11	317		7	318	
18	318		23	318	
13	336		3	337	
6	390		25	393	
21	397		7	398	
23	404		20	405	
18	406		24	406	
16	409		3	410	
6	420		26	422	
23	450		14	451	
9	453		20	458	
20	462		8	463	
19	472		12	477	
21	486		5	488	
18	499		18	500	
9	503		4	504	
7	534		22	536	
25	536		13	539	
17	586		2	588	
13	590		9	591	"whatsoever"
6	608		7	614	
16	614		20	614	
10	615		20	638	

[fol. 432]

1	639		20	642	
8	643		18	643	
13	653	"The next item"	22	655	"Oklahoma"
6	657		11	657	
15	662		27	662	"tract"
13	673		21	674	
7	731		2	732	
26	734	"Q. What method"	14	735	
18	748		15	749	
1	758		13	758	
23	760		2	761	
13	761		11	762	
1	773		5	785	

From Line	From Page		To Line (inclusive)	To Page	
18	785		19	789	
1	790		25	802	
11	804		13	809	
24	814		25	814	
19	827		18	830	
18	831		14	840	
12	842		26	842	
11	843		17	859	
23	859		11	873	
19	873		27	873	
8	874		9	880	
16	881		3	897	
10	897		14	907	"Yes, sir."
2	915	"The thought"	28	922	
3	923		9	929	
18	929		21	930	"difference"
1	931		3	931	
6	931		11	938	
8	939		5	947	
8	950		19	970	
5	971		2	985	
16	985		20	993	
8	994		24	1011	
1	1023		4	1037	
15	1037		15	1047	

[fol. 433]

8	1048	18	1049	
22	1049	11	1054	A
6	1055	26	1073	
2	1074	6	1092	
10	1097	9	1103	
8	1104	17	1105	
21	1114	11	1117	
25	1121	1	1122	
3	1161	9	1167	
11	1195	2	1196	
4	1198	12	1198	
20	1198	12	1223	
24	1223	11	1233	
1	1234	25	1240	
9	1248	24	1249	
24	1253	17	1254	
19	1254	1	1255	
13	1255	14	1255	
20	1255	18	1258	
15	1482	19	1485	
2	1486	21	1488	

From Line	From Page		To Line (inclusive)	To Page (inclusive)
25	1488		24	1493
11	1510		9	1512
14	1557		1	1566
1	1567		21	1569
3	1572		2	1574
15	1588		25	1588
13	1599		19	1599
25	1638		14	1639
1	1641		17	1641
1	1644		11	1645
24	1682		15	1683
3	1735		7	1740
10	1741		13	1754
23	1754		13	1779
2	1780		27	1816
8	1818		23	1819
23	1820		5	1830
1	1847	"We object"	24	1847
13	1848	"The Court"	5	1849
7	1850		1	1854
9	1854		25	1854
21	1857	"And by"	2	1861
6	1872		20	1875
11	1877		13	1877
4	1881		15	1884

[fol. 434]

22	1884		22	1889
1	1890		19	1894
18	1895		11	1896
3	1911		8	1911
5	1914	"But as"	13	1914
16	1919		15	1920
4	1933		24	1933
15	1958			
9	2063		20	2063
4	2066		23	2067
6	2069		10	2069
6	2070		10	2070
22	2072		24	2072
4	2073		9	2073
4	2087		20	2087
2	2088		4	2099
1	2105		18	2105
2	2107		2	2122
2	2124		5	2124
10	2125		17	2127
19	2127	"Line K–C"	15	2128
12	2133		29	2135

From Line	From Page		To Line (inclusive)	To Page	
4	2142		5	2145	
1	2210		19	2212	
9	2216		27	2216	
14	2219		9	2221	
15	2222		25	2224	
1	2233		22	2233	
6	2234		13	2236	
1	2237		3	2237	
17	2239		6	2248	
8	2251		9	2251	
2	2252		26	2261	
7	2262		4	2272	
1	2273		25	2274	
20	2302		25	2302	
22	2310		23	2310	
5	2347		11	2347	
1	2363		7	2366	
9	2366		20	2367	
4	2371		10	2371	
21	2479		25	2482	"conditions"
[fol. 435]					
1	2484		26	2487	
4	2498		17	2498	
14	2508		18	2508	
3	2516		4	2516	
1	2517		14	2517	
1	2521		4	2521	
4	2545		20	2555	"introduced"
25	2558		21	2559	
3	2564		16	2564	
21	2565		8	2569	
25	2576	"Well"	10	2577	
5	2585		11	2585	
9	2588		19	2588	
8	2596		19	2596	
1	2614				
26	2614	"Unless it be"	11	2615	"into that"
23	2617		8	2619	
8	2620		4	2622	
12	2628		13	2628	
1	2659		11	2659	
11	2662		6	2663	
5	2678		7	2678	
13	2678		14	2678	
19	2695		23	2695	
6	2716		7	2716	
8	2718				
2	2749		19	2754	

From Line	From Page		To Line (inclusive)	To Page	
15	2770		17	2774	
22	2774	"Observation 35"	23	2774	
7	2775	"Observation 36"	23	2775	
26	2775		11	2776	
1	2777		2	2777	
13	2777		21	2784	
22	2798	Add "Q" before "Suppose"			
8	2818		22	2818	
8	2822		12	2827	
1	2828		14	2834	
18	2846		25	2846	
13	2855		22	2855	
3	2859		20	2860	
18	2863		6	2864	
13	2867		16	2867	
16	2872		8	2879	
[fol. 436]					
16	2885		1	2886	
18	2890		3	2892	
25	2892		6	2893	
9	2895		25	2899	
13	2901		8	2904	
22	2905		1	2906	
5	2907		24	2908	"You wish"
7	2909		10	2911	
9	2930	"But if"	11	2930	
3	2933		15	2934	
8	2941	through "work done."			
1	2972		11	2974	"way"
10	2976		15	2976	
4	2982		10	2982	
25	2982		5	2983	
3	2984		13	2984	
3	2989	"I think"	24	2989	
13	2990		3	2991	
17	2995		19	2999	
13	3001		20	3001	
4	3002				
3	3055		4	3055	
6	3076		25	3079	
11	3097		7	3098	
18	3103		2	3105	
18	3105		1	3106	
14	3125		7	3126	"Mr. Griffith"
1	3135		17	3135	
3	3153	Add "A" before "This"			
7	3178		13	3181	
19	3182		22	3183	

From Line	From Page		To Line	To Page (inclusive)
25	3183		5	3184
5	3185		6	3185
10	3226		11	3226
18	3226		9	3242
14	3242		4	3251
7	3251		7	3258
11	3307		20	3307
9	3334		14	3335
14	3380		18	3387
20	3387	"in all rock	25	3388

[fol. 437]

24	3389		7	3390
11	3391			
21	3391	Add "A" before "It would"		
21	3407		3	3411
13	3413		20	3414
10	3419		3	3420
11	3469		21	3469
14	3470			
1	3489		20	3490
12	3491		7	3497
18	3497		15	3514
1	3537		6	3537
20	3542		17	3543
20	3543		1	3545
11	3556		13	3556
20	3559		21	3559

[fol. 438]

C

From the Record in the Court of Civil Appeals

1. Assignments of Error Nos. 1-46, inclusive, filed by State of Texas et al. (appellants in the Court of Civil Appeals, appellees here) and set forth at pages 251-264 of the original brief filed in the Court of Civil Appeals by the State of Texas et al.

2. Excerpt from the original brief filed in the Court of Civil Appeals by the Lone Star Gas Company, appellee in said court, appellant herein, beginning with the words "defendant does not deny" in the third paragraph on p. 218, and extending through the words "by a prohibited short cut" in the first paragraph on p. 219 of said brief.

D

From the Record and Proceedings in This Cause in the Supreme Court of Texas

1. The following excerpts from the Application for Writ of Error filed by the Lone Star Gas Company in the Court

of Civil Appeals and transmitted to and filed in the Supreme Court of Texas:

(a) The third paragraph on p. 47 of said Application, beginning with the words "It is quite true" and ending with the words "in interstate commerce."

(b) Beginning with the words, "If, however," beginning on the eighth line from the bottom of p. 217 and extending through the words "would have been unnecessary" in the [fol. 439] fourth line from the top of p. 218.

(c) Beginning with the words "It is clear from the opinions" on p. 121, under the heading "Argument" and extending through the words "defendant at the city gates" in the eleventh line of said argument.

2. The following excerpts from the above mentioned application for Writ of Error filed by Lone Star Gas Company.

(a) The second paragraph on p. 79, beginning with the words "If these arbitrary additions" and ending with the words "expenses above noted."

(b) The third paragraph on p. 95, beginning with the words "The witness Freese" and extending through the words "only 5.77 per cent."

E

The Appeal Papers in the Supreme Court of the United States

Appellees' counter-printing præcipe (this document).

Dated this 16th day of August, A. D. 1937.

William McCraw, Attorney General of Texas. Alfred M. Scott, Assistant Attorney General.

[fol. 440] [File endorsement omitted.]

Endorsed on cover: File No. 41,794. Texas Court of Civil Appeals for the Third Supreme Judicial District. Term No. 313. Lone Star Gas Company, appellant, vs. State of Texas, The Railroad Commission of Texas, et al. Filed August 13, 1937. Term No. 313, O. T., 1937.

BLANK

PAGE

BLANK

PAGE

FILE COPY

Office - Supreme Court, U. S.
FILED
AUG 13 1937
CHARLES ELMORE CROPLEY
CLERK

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1937

166

85796
U.S.S.C.

Pat

No. 313

LONE STAR GAS COMPANY,

Appellant,

vs.

STATE OF TEXAS ET AL.

APPEAL FROM THE COURT OF CIVIL APPEALS, THIRD SUPREME JUDICIAL DISTRICT, STATE OF TEXAS.

STATEMENT AS TO JURISDICTION.

ROY C. COFFEE,
OGDEN K. SHANNON,
MARSHALL NEWCOMB,
BEN H. POWELL,
CHARLES L. BLACK,
Counsel for Appellant.

BLANK

PAGE

INDEX.

SUBJECT INDEX.

	Page
Statement as to jurisdiction	1
I. Statutory provisions sustaining jurisdiction	2
II. Statute of the State the validity of which is involved	2
(a) Pertinent provisions of the Commission's opinion	4
III. Date of judgment and date of presentation of application for appeal	5
IV. Nature of the case and of the rulings of the State court bringing the case within the jurisdiction of this Court	6
(Here also showing *when* and *how* the Federal questions were raised in the State courts, as required by Amended Rule 12.)	
Nature of the case	6
Rulings of the State court bringing the case within the jurisdiction of this Court	9
1. Questions arising and rulings made under the Commerce Clause	9
(a) Gas produced in Texas Panhandle and transported across Oklahoma to City Gates in Texas	10
(b) Gas originating in Oklahoma and transported to Texas	11
(c) Interstate commerce defense was expressly pleaded in the court of first instance	12
(d) Rulings of the State court on interstate commerce defense	14
2. Ruling involved a denial of adequate judicial review	16
3. Questions arising and rulings made in connection with the issue of confiscation	17
(a) Rulings relating to appellant's alleged failure to make a proper segregation of its properties and operations as between interstate and intrastate commerce	17
(b) Additional rulings on confiscation issue	23
V. The Federal questions relied on as sustaining this Court's jurisdiction are substantial	28

Page

1. Questions arising under the Commerce Clause ... 28
2. Denial of adequate judicial review ... 33
3. Questions arising under the Due Process Clause of the Fourteenth Amendment ... 34

VI. Cases believed to sustain the jurisdiction ... 38
VII. Opinions appended ... 38
Appendix "A"—Opinion of Court of Civil Appeals ... 39
Appendix "B"—Opinion of court on rehearing ... 80
Appendix "C"—Rules of courts ... 81
Appendix "D"—Map of Appellant's pipe line system ... 82

AUTHORITIES.

United States Constitution:

Commerce Clause ... 14
Due Process Clause of Fourteenth Amendment ... 1, 2, 36, 37

United States Statutes:

Sec. 237, Judicial Code (U. S. C. A., Title 28, Sec. 344a) ... 2
Act of January 31, 1928 (45 Stat. 54, U. S. C. A., Title 28, Sec. 861a) ... 2
Act of April 26, 1928 (45 Stat. 466, U. S. C. A., Title 28, Sec. 861b) ... 2
Sec. 266, Judicial Code (U. S. C. A., Title 28, Sec. 380) ... 7

Texas Statutes:

Art. 1877, Revised Civil Statutes, 1925 ... 5
Arts. 1728, 1729, 1742, Revised Civil Statutes, 1925 ... 5
Art. 1743, Revised Civil Statutes, 1925 ... 5
Art. 6050, Revised Civil Statutes, 1925 ... 4
Art. 6053, Revised Civil Statutes, 1925 ... 4

Court Rules:

Rule 12, United States Supreme Court, as amended, March 2, 1936 ... 1
Rule 4, Texas Supreme Court ... 6
Rule 66, Texas Court of Civil Appeals ... 6

Table of Cases:

Ætna Insurance Co. v. *Hyde*, 275 U. S. 440 ... 34
Allen v. *St. Louis I. M. S. R. Co.*, 230 U. S. 553 ... 35
Alpha Portland Cement Co. v. *Mass.*, 268 U. S. 203 ... 29
Baldwin v. *Franks*, 120 U. S. 686, 688 ... 32
Baltimore & Ohio R. Co. v. *United States*, 298 U. S. 349 ... 34
Bluefield Water Co. v. *Public Service Comm.*, 262 U. S. 679 ... 36
Board of Comm. v. *N. Y. Tel. Co.*, 271 U. S. 23 ... 36, 38
Board of Trade v. *Olsen*, 262 U. S. 1, 33, 34 ... 31, 32

	Page
Butts v. *Merchants, etc. Transportation Co.*, 230 U. S. 126, 135	32
Carson Petroleum Co. v. *Vial*, 279 U. S. 95	32
Clark's Ferry Bridge Co. v. *Public Service Comm.*, 291 U. S. 227	38
Columbus Gas & Fuel Co. v. *Public Service Comm.*, 292 U. S. 398, 404, 405	36
Cudahy Packing Co. v. *Hinkle*, 278 U. S. 460, 466	29
East Ohio Gas Co. v. *Tax Comm. of Ohio*, 283 U. S. 465	29, 30, 31
Employers' Liability Cases, 207 U. S. 463, 502	32
Groesbeck v. *Duluth S. S. & A. R. Co.*, 250 U. S. 607, 608	35
Hanley v. *K. C. S. R. Co.*, 187 U. S. 617	28
Illinois Central R. R. Co. v. *McKendree*, 203 U. S. 514, 529	32
I. C. C. v. *L. & N. R. R. Co.*, 227 U. S. 88	34
King Mfg. Co. v. *Augusta*, 277 U. S. 100	2, 38
Lake Erie, etc. R. Co. v. *State Pub. Utilities Comm.*, 249 U. S. 422, 424	38
Lehigh Valley Ry. Co. v. *Pennsylvania*, 145 U. S. 192	28
McCardle v. *Ind. Water Co.*, 272 U. S. 400	36, 37
Minnesota Rate Cases, 230 U. S. 352, 401	29, 37
Missouri v. *Kansas Natural Gas Co.*, 265 U. S. 298, 309	29, 30, 32
M., K. & T. R. Co. v. *Commission*, 3 S. W. (2d) 489, 494	2
Missouri Pacific R. Co. v. *Stroud*, 267 U. S. 404	28
Missouri Rate Cases, 230 U. S. 474	35
Ohio R. R. Comm. v. *Worthington*, 225 U. S. 101, 107, 108	32, 33
Ohio Water Co. v. *Ben Avon Borough*, 253 U. S. 287	33
Ozark Pipe Line Co. v. *Monier*, 266 U. S. 555	33
Pennsylvania Gas Co. v. *Public Service Commission*, 252 U. S. 23	30
Peoples Natural Gas Co. v. *Public Service Commission*, 270 U. S. 550, 554, 555	31, 33
Public Utilities Commission v. *Attleboro Co.*, 273 U. S. 83, 89, 90,	29, 31, 32
Public Utilities Commission v. *Landon*, 249 U. S. 236	29
St. Joseph Stock Yards Co. v. *United States*, 298 U. S. 38	33
St. L., S. F. & T. R. Co. v. *Seale*, 229 U. S. 156	6
St. Louis & O'Fallon R. R. Co. v. *United States*, 279 U. S. 461	37
San Antonio & Aransas Pass. R Co. v. *Wagner*, 241 U. S. 476	6
Simpson v. *Sheppard* (Minn. Rate Cases), 230 U. S. 352	35
Smith v. *Illinois Tel. Co.*, 282 U. S. 133, 148	29, 34, 35
Southern Pac. Terminal Co. v. *I. C. C.*, 219 U. S. 498, 526	32
S. W. Bell Tel. Co. v. *San Antonio*, 75 Fed. (2d) 880, 883, 885	35
Stafford v. *Wallace*, 258 U. S. 495	32
Stanley v. *Schwalby*, 162 U. S. 255, 269	38
State Corp. Comm. v. *Wichita Gas Co.*, 290 U. S. 561, 563, 564	29, 30, 32
State v. *Kansas Natural Gas Co.*, 111 Kansas 809	30
State Tax Comm. v. *Interstate Natural Gas Co.*, 284 U. S. 41, 44	28, 33
State of Texas v. *Lone Star Gas Co.*, 86 S. W. (2d) 484	38
Sullivan v. *State*, 207 U. S. 416	38
Sultan v. *Department of Labor*, 277 U. S. 135	2
T. & N. O. R. R. Co. v. *Sabine Tram Co.*, 227 U. S. 111, 113	6, 38

Page

The Trade Mark Cases, 100 U. S. 82, 99 32
United Fuel Gas Co. v. *Hallanan*, 257 U. S. 277, 281 ..... 31, 33
West v. *Chesapeake & Potomac Tel. Co.*, 295 U. S. 662, 667 ..... 34, 36, 37
West Ohio Gas Co. v. *Commission*, 294 U. S. 63, 67 ..... 34, 37
Western Distributing Co. v. *Public Service Comm.*, 285 U. S. 119, 124 30
Western Union Tel. Co. v. *Speight*, 254 U. S. 17 28
Yohn v. *United States* (2 C. C. A.), 280 Fed. 511 28
Zucht v. *King*, 260 U. S. 174 6

Text Writers:

Gavit, The Commerce Clause, p. 109 28
Willoughby on the Constitution, Vol. 2, p. 1002 28

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1937

No. 313

LONE STAR GAS COMPANY,

Appellant,

vs.

STATE OF TEXAS ET AL.

APPEAL FROM THE COURT OF CIVIL APPEALS, THIRD SUPREME JUDICIAL DISTRICT, STATE OF TEXAS.

STATEMENT AS TO JURISDICTION ON APPEAL.

Lone Star Gas Company, the above named appellant, submits this statement in accordance with Rule 12 of the Rules of this Court, as amended March 2, 1936, particularly disclosing the basis upon which it is contended that the Supreme Court of the United States has jurisdiction to review this cause on appeal from the final judgment entered herein by the Court of Civil Appeals for the Third Supreme Judicial District of Texas sustaining a rate order of the Railroad Commission of Texas, challenged as being repugnant to the Commerce Clause and to the Due Process Clause of

the Fourteenth Article of Amendment to the Constitution of the United States, as hereinafter more fully pointed out.[1]

I.

Statutory Provisions Sustaining Jurisdiction.

1. This Court has jurisdiction of this appeal under Section 237 of the Judicial Code, as amended (U. S. C. A., Title 28, Sec. 344a), which provides that,

> "(a) A final judgment or decree in any suit in the highest court of a State in which a decision in the suit could be had, * * * where is drawn in question the validity of a statute of any State, on the ground of its being repugnant to the Constitution, treaties, or laws of the United States, and the decision is in favor of its validity, may be reviewed by the Supreme Court upon a writ of error. * * *"

2. Pursuant to the Act of January 31, 1928 (45 Stat. 54; U. S. C. A., Title 28, Sec. 861a), as amended by the Act of April 26, 1928 (45 Stat. 466; U. S. C. A., Title 28, Sec. 861b), the present appeal is brought in lieu of a writ of error.

II.

Statute of the State the Validity of Which is Involved.

The statute of Texas, the validity of which is herein involved, consists of an order of the Railroad Commission of Texas, of a legislative nature,[2] prescribing the maximum rates to be charged and collected by appellant, operating an integrated system of trunk pipe lines in both Oklahoma and

---

[1] The Opinion of the State Court (copied as Appendix "A" hereto) expressly shows that these Federal questions were raised and were duly considered and decided by the Court.

[2] See *King Mfg. Co.* v. *Augusta*, 277 U. S. 100; *Sultan Ry. Co.* v. *Department of Labor*, 277 U. S. 135. The Texas courts hold that rate orders of the Commission "have the force and effect of statutes." *M. K. & T. R. Co.* v. *Commission*, 3 S. W. (2d) 489, 494.

Texas, for gas sold and delivered by it at wholesale at city gates to distributing companies in approximately 270 cities and towns in the State of Texas. This rate order is as follows:

> "The Railroad Commission having instituted a proceeding upon its own motion inquiring into the rates charged by the Lone Star Gas Company for domestic gas sold to distributing companies at the city gate station, hereby finds as a fact that the rate of $0.40 per thousand cubic feet, as now charged by Lone Star Gas Company is unfair, unjust and unreasonable.
>
> "Basing its order on the foregoing finding of fact and on such other findings and statement of facts as are set out in the opinion next preceding this order, or in this order
>
> "It is Ordered, Adjudged and Decreed that effective as of the next billing date the Lone Star Gas Company shall charge, bill and receive for domestic gas at the city gate from all distributing companies served by it, a rate not to exceed $0.32 per thousand cubic feet.
>
> "It is Further Ordered, Adjudged and Decreed that a rate not to exceed $0.32 per thousand cubic feet at the city gate is hereby fixed, approved and promulgated and found and declared to be fair, just and reasonable and shall remain in force and effect until the Commission shall have otherwise determined, pursuant to other proceedings in respect to the fixing of city gate rates for domestic gas on said Lone Star Gas Company's lines.
>
> "It is Further Ordered, Adjudged and Decreed that this proceeding shall be kept open for such further orders as may be proper.
>
> "The foregoing opinion and order are hereby approved and ordered filed as the opinion and order of the Railroad Commission of Texas.
>
> "Dated at Austin, Texas, this 13th day of September, A. D. 1933."

An applicable State statute subjects gas pipe lines to the "jurisdiction, control and regulation" of the Railroad

Commission (Art. 6050, Revised Civil Statutes of Texas, 1925). The Commission is authorized to fix reasonable prices and rates "for producing, transporting, selling and delivering gas by such pipe lines." (Art. 6053, Revised Civil Statutes of Texas, 1925.)[3]

The opinion of the Railroad Commission containing its findings of fact, and expressly made a part of the above order, appears in the record. Pertinent portions of the Commission's findings are summarized as follows:

(a) The Commission found that appellant is engaged "in the production, transportation and sale at wholesale of natural gas. It operates an integrated pipe line system of approximately 4,000 miles and is engaged in both interstate and intrastate commerce in the selling of gas to some 300 cities and towns within the States of Oklahoma and Texas. The Company's Texas properties and its Oklahoma properties constitute parts of an integrated operating system."

The Commission directed the reduced rate to be applied to all sales and deliveries to distributing companies at city gates in Texas, drawing no distinction between interstate and intrastate commerce.

(b) The Commission valued appellant's "integrated pipe line system", located in both States, as a whole, arriving at a value or rate base of $46,246,617.53.

(c) In determining the amount of appellant's annual revenues and expenses the Commission treated its properties and operations as an integrated whole.

(d) The Commission adopted the sinking fund method for determining what amount would be a reasonable annual accrual to the depreciation and amortization reserve. It

[3] In Texas a rate order of the Railroad Commission is a final legislative act; the courts do not participate in the rate making process.

fixed the amount of $968,066.98, or approximately two per cent of its rate base, as applied to the entire properties.

(e) It found that appellant was entitled to a minimum rate of return of six per cent per annum and that a uniform city gate rate of 32¢ per thousand cubic feet would yield a return of slightly more than six per cent on the value of all of appellant's public service properties as fixed by the Commission.

III.

Date of Judgment and Date of Presentation of Application for Appeal.

1. The judgment of the Court of Civil Appeals for the Third Supreme Judicial District of Texas, sought to be here reviewed, was entered on July 10, 1935. Appellant's Motion for Rehearing was filed within fifteen days, as authorized by Art. 1877, Revised Civil Statutes of Texas, 1925. The Motion was entertained and overruled on September 25, 1935. Thereupon, within the time limited by applicable statutes (Arts. 1728, 1729 and 1742, Revised Civil Statutes of Texas, 1925), appellant petitioned the Supreme Court of Texas to grant a writ of error and review the case. The Petition was refused by the Supreme Court on October 6, 1936.

Appellant thereupon, within fifteen days, as is authorized by Rule 4 of the Rules of the Supreme Court of Texas, filed its Motion for Rehearing of the Application for Writ of Error. This Motion for Rehearing was entertained by the Supreme Court of Texas and was overruled on December 30, 1936. Whereupon the judgment of the Court of Civil Appeals, here sought to be reviewed, became final under the State law.[4]

---

[4] When a Petition for Writ of Error is filed, the Petition and the original record are forwarded by the Clerk of the Court of Civil Appeals to the Clerk of the Supreme Court (*Art.* 1743, *Revised Civil Statutes of Texas,*

The Court of Civil Appeals has possession of the record and is the "highest court of the State in which a decision in the suit could be had." The following are examples of cases brought here from courts of civil appeals in Texas: *T. & N. O. R. Co.* v. *Sabine Tram Co.*, 227 U. S. 111; 113; *St. L., S. F. & T. R. Co.* v. *Seale*, 229 U. S. 156; *San Antonio & Aransas Pass R. Co.* v. *Wagner*, 241 U. S. 476; *Zucht* v. *King*, 260 U. S. 174.

2. The date on which this application for appeal is presented is February 12, 1937.

IV.

The Nature of the Case and of the Rulings of the State Court Bringing This Case Within the Jurisdiction of This Court.

Under this heading will also be shown *when* and *how* the Federal questions sought to be reviewed were raised; the method of raising them; and the way in which they were passed upon by the State Court, as required by *Amended Rule* 12.

Nature of the Case.

In this suit appellant challenges, on grounds arising under the Federal Constitution, the rate order of the Texas Railroad Commission, copied under heading II.

The litigation originated in a suit filed September 22, 1933, by appellant in the United States District Court for

---

1925). The record is retained in the Supreme Court for fifteen days after the Petition is refused, awaiting the filing of a Motion for Rehearing, and then until the Court has overruled any such motion that may be filed. It is then returned to the Court of Civil Appeals (Rule 4, Supreme Court). The mandate of that Court cannot be issued until the record has been returned and that Court has been properly advised of the action of the Supreme Court on the Petition (Rule 66, Court of Civil Appeals).

True copies of the court rules here referred to are appended as Appendix "C".

the Western District of Texas seeking to enjoin the enforcement of the rate order in question as being violative of the Federal Constitution in the respects hereinafter pointed out. The Commission, joined by the State of Texas and the Attorney General thereof, then filed this suit against the appellant in the State court in an effort to bring appellant within the jurisdiction of the State court, as provided in Section 266 of the Judicial Code (28 U. S. C. A., Sec. 380), alleging in their Second Amended Original Petition, upon which the trial was had, that they desired to have the constitutional questions raised by appellant in its attack on the rate order determined in the courts of the State. (Paragraph IX.)

In the State court suit appellees sought an injunction, upon final hearing, restraining appellant from violating the rate order and further asked that the enforcement of said order be stayed pending final judgment. The stay order was entered in the State court and subsequently the Federal Court, conforming to what it deemed proper procedure under Section 266, entered an order staying all proceedings in that Court and restraining the enforcement of the rate until final determination of this cause. (Order of Federal Court Staying Proceedings.)

Appellant, after unsuccessfully resisting this procedure and reserving its exceptions, answered in the State court setting up its defenses to and attack upon the rate order, grounded on the Federal Constitution, and the trial was there had.

The grounds of attack on the rate order are, first, that the transportation, sale and delivery at wholesale to local distributing companies, through high pressure lines, at city gates in Texas, of gas originating on appellant's lines in the State of Oklahoma, as well as of gas produced in Wheeler County, Texas, and brought into and across Oklahoma into Texas, constitutes interstate commerce and

that the attempted regulating and fixing of appellant's rates of charges for gas thus transported and delivered violates the Interstate Commerce Clause of the United States Constitution; and, second, that the rates are confiscatory and repugnant to the Due Process Clause of the Fourteenth Amendment to the United States Constitution.

The case was tried to a jury, the Court submitting to the jury the following special issue:

> "Do you find from the evidence in this case that, as applied to points in Texas, the order of the Railroad Commission of Texas bearing date of September 13, 1933, providing for a rate of not exceeding 32¢ per thousand cubic feet of gas sold to the distributing companies at the gates of points served, is unreasonable and unjust as to the defendant Lone Star Gas Company? Answer this question yes or no."

The jury answered: "Yes."

In submitting this issue the trial court instructed the jury that appellant was entitled to "a fair return at this time on the present fair value of its property that is used and useful in the public service after first deducting all necessary operating expenses and a fair and reasonable amount for depreciation of said property." The court further instructed the jury that "an unreasonable and unjust rate" was one "so low as to have not provided for a fair return upon the fair value of defendant's property used and useful in supplying the service furnished by said defendant."

The charge further defined the terms "fair value," "fair return," "used and useful," "operating expenses," "annual depreciation," "reproduction cost new," and "going value."

The jury's verdict, interpreted in the light of the charge, imports that the prescribed rate would not yield a fair

return on the fair value of appellant's public service properties and is therefore confiscatory.

On this verdict the trial court rendered judgment enjoining the prescribed rate.

On appeal, the Court of Civil Appeals, after stating and discussing at length appellant's attacks on the rate order, based on the Commerce and Due Process Clauses (Appendix "A", overruled same, reversed the judgment of the trial court and sustained the validity of the Commission's rate order in all respects. The Court's opinion was not based upon any non-federal ground.

Certain other questions arose initially in the Court of Civil Appeals in connection with that Court's disposition of the constitutional issue of confiscation tendered by the appellant, and its rulings in that connection are challeged by appellant as amounting to a violation of the Due Process Clause of the Fourteenth Amendment to the United States Constitution.

NATURE OF THE RULINGS OF THE STATE COURT BRINGING THIS CASE WITHIN THE JURISDICTION OF THIS COURT.

1. *Questions Arising and Rulings Made in Connection With Appellant's Defense Grounded on the Commerce Clause.*

Appellant owns and operates 4,000 miles of high pressure trunk pipe lines located in Oklahoma and Texas, through which it transports natural gas to the city gates of approximately 300 cities and towns in Oklahoma and Texas. At the city gates it sells and delivers the gas in wholesale quantities to distributing companies, most of which are affiliated with it. The distributing companies then sell and deliver the gas to domestic consumers through low pressure lines. The title passes to the distributing companies at the city gate measuring stations.

The sale of the gas at the city gates is governed by long term contracts between appellant and the distributing companies, and the contract price for domestic gas is uniformly 40¢ per thousand cubic feet, with negligible exceptions.

(a) *Gas Produced in Texas Panhandle and Transported Across Western Oklahoma to City Gates in Texas.*—Appellant's pipe line system crosses the State line between Oklahoma and Texas at eight points.[5] Three of these lines, designated as lines "H", "2H", and "G", transport gas from Oklahoma to Texas. Three lines transport gas from Texas to Oklahoma. Another line, designated as line "A", extends from the Shamrock gas field in Wheeler County, Texas, eastward into the State of Oklahoma and thence runs south approximately parallel to the west line of Oklahoma (supplying Hollis, Oklahoma), and again crosses the State line, entering Texas near Quanah. Thence it extends southeastward in Texas and furnishes the exclusive gas supply, without any commingling, for the Texas cities of Wichita Falls, Iowa Park, Electra, Harrold, Oklaunion, Vernon, Tolbert and Chillicothe. A branch of this line extends from Oklaunion, Texas, back into the State of Oklahoma and furnishes the exclusive gas supply of Davidson, Manitou, Frederick, Tipton, Snyder, and Mountain Park, in Oklahoma.[6]

The gas moves to the city gates through line "A" without any interruption. The quantity transported through this line across western Oklahoma is definitely known and was found by the Court of Civil Appeals to be seventeen

---

[5] A map of appellant's pipe line system is attached hereto and designated as Appendix "D".

[6] The Court of Civil Appeals states in its opinion that this Wheeler County gas furnishes the gas supply for only one Oklahoma town, Hollis. The finding is erroneous because it ignores the towns on the branch line extending from Texas into Oklahoma (see Map, Appendix "D").

per cent of the total annual sales of gas made by appellant at Texas cities and towns.

After passing Wichita Falls this line is tapped at Petrolia, Texas, by trunk lines "H" and "2H" transporting gas produced or purchased in Oklahoma. Further south and east the line is tapped by other lines lying wholly in Texas and transporting intrastate gas. The commingled gas is then transported and delivered to other Texas cities and towns. The amount of gas originating in line "A" and becoming thus commingled is definitely known.

(b) *Gas Originating in Oklahoma and Transported to Texas.*—In addition to the Wheeler County gas transported through Oklahoma, appellant produces or purchases gas in Oklahoma gas fields and transports same in a southeasterly direction through its 16" high pressure trunk line "G", entering the State of Texas at a point north of Gainesville. Other Oklahoma gas produced or purchased by appellant is transported in its high pressure 16" trunk lines "H" and "2H", entering Texas near Petrolia. The Oklahoma gas transported to Texas in these three lines is sold and delivered to local distributing companies at city gates in Texas.[7]

This gas is run through gasoline plants, part of it at Petrolia and part of it at Gainesville. The forward movement of the gas is not interrupted or arrested when it passes through the plants. The gas enters the bottom of large cylindrical tanks and comes in contact with a mineral oil having a high attraction for hydrocarbons and, by this contact, the hydrocarbons are absorbed and the gas passes out of the absorbers directly into the lines with no interruption in movement.[8]

---

[7] The part of the gas brought to Texas in line "G" is carried back to Oklahoma on a branch line extending north from Gainesville and serving the cities of Durant, Caddo and Achille, in Oklahoma.

[8] No part of the Wheeler County gas, transported across western Oklahoma through line "A", is run through gasoline plants in Texas.

The gas transported into Texas through lines "H" and "2H" is compressed at Petrolia and the gas transported into Texas through line "G" is compressed at Gainesville. The compression is merely for the purpose of boosting the pressure and increasing the forward movement of the gas through the trunk lines to the city gates.

As written and as interpreted and enforced in this suit, and otherwise, by the Commission and by the Court of Civil Appeals, the rate order applies to all sales of gas by appellant at city gates in Texas.

(c) *The Interstate Commerce Defense Was Expressly Pleaded.*—Appellant duly pleaded in the court of first instance, and throughout the progress of the case has contended, that it was engaged in interstate commerce in transporting, selling and delivering gas at wholesale to local distributing companies in Texas and that the rate order was void because amounting to a direct regulation of interstate commerce, in violation of the Commerce Clause of the National Constitution; and, further, that said order, being indivisible, was void in its entirety.

Appellant averred that the Commission in its findings and order had considered and valued its entire properties as an integrated whole, making no effort to distinguish as between interstate and intrastate properties or business of appellant (Sec. E, subsec. 3); and that the rate order was unconstitutional and void because the Commission was undertaking to fix its rates "in relation to all of its business including its interstate business" and that a substantial portion of the natural gas sold and delivered by it to distributing companies was gas transported "by defendant in interstate commerce, national in its character," and that the rate order of the Commission

> "unlawfully denies to defendant the free right to sell from its transportation system its natural gas so continuously transported in interstate commerce and un-

lawfully deprives defendant of the rights guaranteed to it by Article 1, Section 8, Clause 3 of the Constitution of the United States, and imposes upon defendant an unreasonable regulation, and places an undue and direct burden upon, and constitutes a direct interference with interstate commerce." (Sec. E, subsecs. 10(b), 10(c).)

Appellant further asserted that said order was void in its entirety, alleging in this connection:

"The said opinion and order were entered and promulgated by the Railroad Commission of Texas and the members thereof, with the intent and purpose of fixing the city gate price which defendant could charge all distributing companies for all domestic gas transported and sold by defendant, whether in interstate or intrastate commerce. That said order in respect of defendant's interstate business is void, as being violative of the Commerce Clause of the Constitution of the United States; and that said order being void in part and indivisible, is therefore void in its entirety, and is not capable of being enforced against the defendant in respect of its intrastate business only." (Sec. E, subsec. 10(j).)

The trial court rendered judgment in favor of appellant on a jury finding that the rate was "unreasonable and unjust."[9]

The present appellees then prosecuted their appeal to the Court of Civil Appeals. Appellant (being then appellee) submitted its counter-proposition in its brief, in conformity to the State practice, asserting that the rate order was void because amounting to a regulation of interstate commerce (Counter-Prop. No. 15); and also its cross-assignment of error asking that the judgment of the trial court, enjoin-

[9] As hereinbefore pointed out, this finding, interpreted in the light of the Court's charge, was in effect a finding that the rate was confiscatory, pp. 8-9, *supra*.

ing the rate order, be affirmed because that court erred in denying appellant's request to instruct a verdict in its favor upon the ground that the rate order was void in its entirety, being violative of the Commerce Clause (Cross-Assignment No. 2).

The Court of Civil Appeals affirmatively found that appellant's defenses based on the Commerce Clause were duly raised. We quote from its opinion:

> "Appellee alleged that the rate order was violative of the commerce, the due process, the equal protection, and the freedom of contract clauses of the Federal Constitution (article 1, sec. 8, cl. 3; Amend. 14); and was confiscatory and unreasonable and unjust because it would not afford a reasonable return on the fair value of its property used in the public service." (Appendix "A", p. 40).

The Court further said:

> "1. Three constitutional objections are urged against the 32¢ rate order as follows:
> "(a) Interference with interstate commerce.
> "(b) Interference with the right to contract.
> "(c) Confiscation of property." (Appendix "A", p. 41.)

(d) *Rulings of the State Court on Appellant's Interstate Commerce Defense.*—The Court of Civil Appeals upheld the rate order as against appellant's attack thereon, duly pleaded and based on the Commerce Clause of the Federal Constitution. Error was duly assigned as to this ruling of the Court in appellant's Motion for Rehearing (Assignments Nos. 125 and 126; see also 104, 107, 108, 110, 113 and 119). The Motion being overruled, the ruling was then complained of in the Petition for Writ of Error filed in the Supreme Court of Texas. (Petition, Assignments Nos. 58 and 59; see also, 1, 2, 3, 4, and 6). The Petition being refused, the same ruling was complained of in the motion for

Rehearing filed in the Supreme Court of Texas (Motion, Assignment No. 58; also 1, 2, 3, 4, 5, 6, 7, 8, and 10).

In overruling appellant's attack on the rate order grounded on the Commerce Clause of the Federal Constitution, the Court of Civil Appeals made the following other rulings, which were duly complained of as is now shown:

(1) That the transportation of gas by appellant from Wheeler County, Texas, across the State of Oklahoma to city gates in Texas "is not interstate commerce as a matter of fact." (Appendix "A", pp. 52-54). Appellant in its Motion for Rehearing specifically assailed as erroneous the ruling of the Court of Civil Appeals that the transportation of gas from Wheeler County, Texas, through Oklahoma into Texas "is not interstate commerce as a matter of fact." (Motion, Assignment 104); the same point was raised in other grounds of the Motion (Assignments 119, 108, 125, 126; in Assignments 125 and 126 the Commerce Clause was expressly referred to.) The Motion for Rehearing being overruled, the same question was raised in the Petition for Writ of Error filed in the Supreme Court of Texas (Petition, Assignments 1, 2, 3, 4, 58, 59). The Petition being denied, the question was again raised in the Motion for Rehearing filed in that Court (Motion, Assignments 1, 2, 58).

(2) That the gas "produced or purchased by appellee (now appellant) in Oklahoma and transported by its pipe line to Texas does not move in interstate commerce when it reaches the city gates of delivery." (Appendix "A", p. 55. Appellant in its Motion for Rehearing specifically assigned error complaining of this ruling that "the gas produced or purchased by appellant in Oklahoma and transported by its pipe lines to Texas does not move in interstate commerce when it reaches the city gates in Texas for

delivery." (Motion, Assignment 113). The same question was raised in other grounds of the Motion, (Motion, Assignments 114, 115, 125, 126; the Commerce Clause being expressly invoked in 125 and 126). The same question was raised in the Petition for Writ of Error filed in the Supreme Court of Texas (Petition, Assignments 6, 7, 8, 58, 59); and in the Motion for Rehearing filed in that Court (Motion, Assignments 7, 8, 9, 10, 58).

(3) The State Court further held that the State of Texas might validly fix reasonable rates to be charged upon the sale and delivery of this gas at the city gates in Texas, even if it should be regarded as interstate gas; and that the fixing of such rates did not amount to a direct burden upon, or regulation of, interstate commerce. (Appendix "A", pp. 53-55, and 59-60.) This ruling was duly complained of in the Motion for Rehearing as involving a Federal question (Motion, Assignments Nos. 120, 121, 122, 125 and 126). The Motion being overruled, the same question was raised in the Petition for Writ of Error filed in the Supreme Court (Petition, Assignments Nos. 58, 59; also 4); and in the Motion for Rehearing filed in that Court (Motion, Assignments Nos. 5, 4, 10 and 58).

2. *Ruling Involving a Denial of Adequate Judicial Review of the Rate Order.*

The Court of Civil Appeals held, in effect, that, in a judicial review of the rate order in question, it was the duty of the reviewing court to sustain the rate order if any substantial evidence was offered at the trial in support of the order; the court thus, in effect, holding that the reviewing court was without power to weigh the evidence and settle the conflicts in the evidence and pass its independent judgment on the facts as well as the law relating to and underlying the issue of confiscation. (Appendix "A", pp.

65-66, 71-72, 77-79.) This ruling of the court was duly challenged as involving a denial to the appellant of the right to that adequate judicial review of the rate order that is secured to it by the Due Process Clause of the Fourteenth Amendment to the Federal Constitution; and further upon the ground that, with adequate judicial review thus denied, the order became void and its enforcement against appellant will deprive it of its property without due process of law in violation of the Fourteenth Amendment to the Federal Constitution (Motion for Rehearing, Assignments Nos. 1, 2, 3, 5, 6, 8 and 12; Petition for Writ of Error filed in the Supreme Court of Texas, Assignments Nos. 14, 43, 44, 45 and 60; Motion for Rehearing of said Petition for Writ of Error, Assignments Nos. 17, 18, 19, 50, 51).

3. *Questions Arising and Rulings Made in Connection With the Issue of Confiscation.*

(a) *Rulings Relating to Appellant's Alleged Failure to Make a Proper Segregation of its Properties and Operations as Between Interstate and Intrastate Commerce.*— In valuing appellant's properties located in Oklahoma and Texas and in considering and determining its proper operating revenues and expenses and proper annual reserve accrual for depreciation and amortization the Commission dealt with appellant's properties and operations as an "integrated system" and made no segregation as between interstate and intrastate commerce. Similarly, the Commission ordered the reduced rate to be applied to all deliveries by appellant in Texas, making no segregation as between interstate and intrastate commerce. The Commission's findings have already been summarized, pages 4-5, *supra*.

In the court of first instance, appellant pleaded, and throughout the progress of the case has contended, that the enforcement of the rate order would deny to it a fair re-

turn on the fair value of its public service properties and deprive it of its said properties without due process of law, in violation of Section I of the Fourteenth Amendment to the United States Constitution, and that accordingly said rate order was unconstitutional and void. (Second Amended Answer, Sec. E, subsecs. 10, 12.)

After setting out its specific grounds of attack on the rate order, appellant in its Answer averred that "for each and every one of the reasons aforesaid, the rate or price that the said order of the Railroad Commission of Texas requires it to charge the various distributing companies * * * is confiscatory of its property used and useful in the public service * * * and the enforcement of said order necessarily will deprive defendant of its property devoted to public service and used and useful therein without due process of law * * *, all in violation of its rights under the Constitution of the United States and especially in violation and contravention of the Fourteenth Amendment." (Sec. E, subsec. 12.)

The State court, after stating that appellant had assailed the order as confiscatory, thus interpreted its pleadings:

> "The rate was alleged to be so because it would not afford a reasonable return on the fair value of the property used in the public service of delivering gas to the various city gates, and amounted to taking the property without just compensation or due process of law, in violation of the Fourteenth Amendment to the Federal Constitution." (State Court's Opinion, Appendix "A", p. 61.)

In showing that the rate was confiscatory appellant alleged specifically:

(1) That the present fair value of its entire properties to which the Commission had assigned an over-all value of $46,246,617.53, was more than $70,000,000.00, or approxi-

mately $23,000,000.00 in excess of the value found by the Commission. (Second Amended Answer, Sec. E, subsecs. 6, 8.)

(2) That a sum of not less than $3,400,000.00 was a "fair minimum annual allowance for a depreciation, depletion and amortization reserve charge" as against the allowance of only $983,698.43 in the Commission's findings. (Sec. E, subsecs. 6(f), 8.)

(3) That the appellant was not earning a fair return on the fair value of its property above set out, after making a proper allowance for depreciation, depletion and amortization, under the prevailing 40¢ rate and that at the reduced rate of 32¢ its property would be further confiscated, in violation of its rights under the Fourteenth Amendment to the United States Constitution. (Sec. E, subsec. 8.)

(4) That said order was confiscatory under the Commission's own findings; here the Answer sets forth the details. (Sec. E, subsec. 6.)

(5) That the Commission in its findings had refused to include in the rate base certain described items of property used and useful by the appellant in its public service business and had excluded certain operating expenses actually and normally incurred by the appellant in the conduct of its business, with the effect of depriving it of its property without due process of law, in violation of the Fourteenth Amendment to the Federal Constitution. (Sec. E, subsec. 10(h).)

(6) That the Commission had failed to include in its rate base, as shown by its order and opinion, any amount of "going value." (Sec. E, subsec. 6(d).)

(7) That a six per cent rate of return is confiscatory.

Appellant introduced evidence directly responsive to and assailing the Commission's findings as these findings were

made. This evidence fully supported the allegations of its pleadings just above set out as to the (a) fair value of its properties; (b) proper annual depreciation reserve accrual; (c) proper operating expenses; (d) proper rate of return; and (e) the confiscatory operation of the rate order.[10] This evidence clearly negatived the correctness of the Commission's findings and, if accepted as true, established that the reduced rate was confiscatory.

Appellees offered no rebuttal evidence applicable to the over-all properties and operations covered by the Commission's findings and by appellant's evidence just referred to. The issue here was drawn simply between the Commission's findings and the appellant's evidence relating to the properties and operations in both Oklahoma and Texas considered as a unit.

Having introduced the evidence just referred to, assailing the Commission's findings as these findings were made, appellant then introduced evidence segregating its properties and operations between interstate and intrastate commerce, basing the segregation on the way in which the properties were used and its business conducted. From this evidence, showing the fair value of the segregated properties and operating revenues and expenses applicable thereto and adopting the Commission's allowance for reserve accruals, it appeared that the prescribed rate was confiscatory, yielding an annual return of only 3.78 per cent on the present fair value, and 4.65 per cent on the actual cost, of the segregated properties employed in intrastate commerce.

Appellees offered no evidence in rebuttal of appellant's evidence last referred to as applied to the properties and

---

[10] This evidence showed an over-all fair value of properties amounting to $69,738,021.16 against the Commission's rate base of $46,246,617.53, and an annual depreciation reserve accrual of $3,465,123.36 against the Commission's estimate amounting to $983,698.43.

operations identified by appellant's segregation. Instead, appellees attempted to sustain the rate order by showing an entirely different segregation of appellant's properties and operations—a segregation based on geographical location of properties. They assigned the properties located in Texas to Texas and the properties located in Oklahoma to Oklahoma, with unimportant exceptions. (Appendix "A", p. 69-70.)

On appeal the Court of Civil Appeals held that appellant's evidence relating to its over-all properties and operations "proved nothing material to this case" and that said evidence was of no legal value and was insufficient as a matter of law "to establish the invalidity of the rate as being confiscatory (Appendix "A", p. 70-71) because said evidence was not based on a proper segregation of appellant's properties and operations as between interstate and intrastate commerce.[11]

Such being the view of the court, it made no findings settling the conflict between appellant's evidence, relating to its properties and operations considered as a whole, and the Commission's findings relating to the same properties and operations.

The court further held that appellant's evidence tendered on the issue of confiscation, and showing a segregation of its properties and operations as between interstate and intrastate commerce, was immaterial to any issue involved in the case because, in the view of the court, the segregation was erroneous in that it was based upon the assumption that the Wheeler County gas was interstate gas as well as on the assumption that the Oklahoma gas transported to Texas was interstate gas, whereas, under the court's dis-

[11] The Court here, in effect, condemned the Commission's findings made in support of the rate order as being insufficient to support the order because these findings were not based on any segregation, and the prescribed rate applied to all sales of gas in Texas whether made in interstate or in intrastate commerce.

position of the interstate commerce issue, all of this gas was intrastate gas. (Appendix "A", pp. 70-71.)

The court further approved the segregation of appellant's properties and operations under the geographical standard sponsored by appellees, assigning the Texas properties to Texas and the Oklahoma properties to Oklahoma. It approved the rate base of $40,256,862.39 applicable to the Texas properties thus segregated, same being approximately $5,000,000.00 lower than the rate base of the Commission. (Appendix "A", p. 69-70.)

In its Motion for Rehearing appellant assigned error as to the ruling of the Court of Civil Appeals that its evidence, introduced to show confiscation of its properties, "proved nothing material to this case" and that it had failed to furnish the "quantum and character of proof necessary to establish the rate as being confiscatory"; and also assigned error as to the ruling of said court that its segregation of its properties and operations as between interstate and intrastate commerce was erroneous and that the evidence it introduced on the issue of confiscation, based upon such segregation, "proved nothing material to this case" and did not constitute the "quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory" (Motion, Assignments Nos. 89, 80, 81, 83, 85, 86, 87, 47, 156). The same rulings were complained of in the Petition for Writ of Error filed in the Supreme Court of Texas (Petition, Assignments Nos. 32, 33, 34, 15, 16); and in the Motion for Rehearing filed in the Supreme Court of Texas (Motion, Assignments Nos. 21, 28, 29, 30, 31).

Appellant further assigned error as to the holding of the court approving the rate base of $40,256,862.39 and the geographical segregation of appellant's properties and operations sponsored by appellees' witnesses (Motion, Assignments Nos. 31 and 67). The same ruling was com-

plained of in the Petition for Writ of Error filed in the Supreme Court of Texas (Petition, Assignments Nos. 11 and 20); and in the Motion for Rehearing filed in the Supreme Court of Texas (Motion, Assignments Nos. 13, 25).

(b) *Additional Rulings on Confiscation Issue.*[12]—In upholding the rate fixed by the Commission as against appellant's charge of confiscation under the Due Process Clause of Section I of the Fourteenth Amendment to the Constitution of the United States the Court of Civil Appeals

(1) Adopted the results obtained by appellees' witnesses on the trial based, in the main, upon the geographical segregation of appellant's property and business as between Texas and Oklahoma, and adopted the determination of property value, operating expenses and revenues made by such witnesses, thereby approving:

a. The elimination from the rate base of the value of appellant's production system property consisting of natural gas reserves, both producing and non-producing, gas wells, gas well equipment, drilling tools and equipment used and useful in the public service in Texas, all of such property costing approximately $5,200,000.00; which ruling was complained of in the Motion for Rehearing (Motion, Assignments Nos. 39, 66 and 158); and in the Petition for Writ of Error filed in the Supreme Court of Texas (Petition, Assignments Nos. 10, 18); and in the Motion for Rehearing filed in the Supreme Court of Texas (Motion, Assignments Nos. 12, 15, 20).

---

[12] These rulings were complained of at the earliest opportunity by appellant in its Motion for Rehearing in the Court of Civil Appeals, and its assignments of error based thereon, and on the judgment of the Court sustaining the rate, were perpetuated in its Petition for Writ of Error in the Supreme Court of Texas and in its Motion for Rehearing in that Court, as hereinafter shown in each instance.

b. The elimination of all expense actually incurred in good faith in the operation of such property amounting to the sum of $232,759.70 for 1933 and $222,752.66 for the twelve months period ended March 31, 1934; which ruling was complained of in the Motion for Rehearing (Assignments Nos. 59, 159); and in the Petition for Writ of Error filed in the Supreme Court of Texas (Assignments Nos. 18, 19); and in the Motion for Rehearing filed in the Supreme Court (Assignments Nos. 14, 15).

c. The failure to make any allowance for depreciation, depletion and amortization of such properties, although appellees' own testimony showed that $94,000.00 per annum would be required; which ruling was complained of in the Motion for Rehearing (Motion, Assignments Nos. 154, 162, and 41); and in the Petition for Writ of Error filed in the Supreme Court of Texas (Petition, Assignments Nos. 36, 10 and 19); and in the Motion for Rehearing filed in the Supreme Court (Motion, Assignments Nos. 12 and 38).

d. An addition to operating expenses, in lieu of items a, b and c above, of $212,031.46 for the year 1933 and $232,644.75 for the twelve months ended March 31, 1934, such sums being arrived at by applying the average well head price paid by appellant to independent producers to the volume of gas produced by appellant from its own Texas gas reserves during said periods. The sum arrived at by the use of this arbitrary formula was insufficient by approximately $426,000.00 to provide for actual operating expenses, depreciation, depletion and amortization (the latter three items as estimated by appellees' witnesses) and a six per cent return (which the Commission held was the minimum to which appellant was entitled) on the actual cost of such property; which ruling was complained of in the Motion for Rehearing (Motion, Assignments Nos. 41, 42); and in the Petition for Writ of Error filed in the Supreme Court

of Texas (Petition, Assignments Nos. 10, 19); and in the Motion for Rehearing in the Supreme Court (Motion, Assignments Nos. 12, 14).

e. The elimination from the rate base of appellant's property located in Oklahoma actually and necessarily used and useful in transporting to Texas for sale and delivery therein, gas purchased and produced in Oklahoma, being more than fifty per cent of all of appellant's property in Oklahoma actually costing in excess of $6,000,000.00; which ruling was complained of in the Motion for Rehearing (Motion, Assignments Nos. 37, 67); and in the Petition for Writ of Error filed in the Supreme Court (Petition, Assignment No. 20); and in the Motion for Rehearing filed in the Supreme Court (Motion, Assignment No. 25).

f. The elimination of all expenses actually and in good faith incurred in the operating of such properties and the failure to make any allowance whatever for depreciation, depletion and amortization on such properties; which ruling was complained of in the Motion for Rehearing (Motion, Assignments Nos. 51, 154, 162); and in the Petition for Writ of Error filed in the Supreme Court of Texas (Petition, Assignment No. 36); and in the Motion for Rehearing in the Supreme Court of Texas (Motion, Assignment No. 38).[13]

g. The arbitrary addition to appellant's actual revenues of $441,240.12 for the year 1933 and $268,829.65 for the twelve months ended March 31, 1934, to compensate for assumed deficiencies in actual gas sales due to alleged abnormally warm weather; which ruling was complained of in the Motion for Rehearing (Motion, Assignments Nos. 40, 163);

---

[13] In lieu of e and f above, the Court approved an addition to operating expenses for the year 1933 of $29,617.92 (a so-called Texas-Oklahoma gas sales adjustment), which sum was insufficient to cover actual operating expenses on such property much less provide for depreciation, depletion, amortization and a fair return.

and in the Petition for Writ of Error filed in the Supreme Court of Texas (Petition, Assignment No. 61); and in the Motion for Rehearing in the Supreme Court of Texas (Motion, Assignment No. 60).

The reduced rate would have permitted appellant to earn not more than five per cent on the fair value of its Texas public service properties, as determined by appellees' witnesses upon the trial, if appellant's production system property be included in said evaluation and if actual operating expenses thereon and revenues therefrom be allowed, and if effect be given to appellees' estimate for annual reserve accruals for depreciation, depletion and amortization, and thus was shown to be confiscatory by appellees' own evidence.

(h) An annual reserve accrual for depreciation, depletion and amortization of $831,946.08, insufficient for future requirements without making use of an assumed credit balance in the reserve account of $5,000,000 at the date of the inquiry; which ruling was complained of in the Motion for Rehearing (Motion, Assignment No. 52); and in the Petition for Writ of Error filed in the Supreme Court of Texas (Petition, Assignment No. 35); and in the Motion for Rehearing filed in the Supreme Court of Texas (Motion, Assignment No. 37).

(2) Approved an allowance of $831,946.08, sponsored by appellees' expert witnesses, same being applicable only to appellant's Texas properties, and being approximately $150,000 less than the Commission's allowance of $983,698.43 applicable to appellant's Texas and Oklahoma properties as a whole.[14] Appellant's evidence showed that an allowance

[14] In its Opinion the Court refers to this as being the Commission's estimate. (Appendix "A", p. 72. The statement is erroneous. This estimate was made, not by the Commission, but by certain witnesses testifying for the Commission at the trial. The Commission made no findings as to what the depreciation allowance should be as applied to appellant's

of $3,465,123.36 was necessary. The Court's rulings in respect to an annual allowance for depreciation, depletion and amortization were duly challenged in appellant's Motion for Rehearing (Motion, Assignments Nos. 49, 50, 52, 53, 162); and in the Petition for Writ of Error filed in the Supreme Court of Texas (Petition, Assignments Nos. 25, 26, 35, 36); and in the Motion for Rehearing filed in the Supreme Court of Texas (Motion, Assignments Nos. 37, 38, 39, 40).

(3) Approved the elimination from the rate base of an allowance to cover going concern value. This ruling was duly challenged in appellant's Motion for Rehearing as involving a denial of due process of law in violation of the Fourteenth Amendment (Motion, Assignments Nos. 60, 61); and in the Petition for Writ of Error filed in the Supreme Court of Texas (Petition, Assignments Nos. 30, 31); and in the Motion for Rehearing filed in the Supreme Court of Texas (Motion, Assignments Nos. 41, 42).

(4) Approved a six per cent return as nonconfiscatory. Appellant introduced evidence showing clearly and conclusively that a much higher rate of return was reasonable and actually required, considering the hazards of the natural gas business. This ruling of the Court was duly challenged in the Motion for Rehearing (Motion, Assignments Nos. 62, 63, 64, 160); and in the Petition for Writ of Error filed in the Supreme Court of Texas (Petition, Assignments Nos. 27, 28, 29); and in the Motion for Rehearing filed in the Supreme Court of Texas (Motion, Assignments Nos. 43, 44, 45).

---

properties located in Texas. None of the Commission's findings related simply to the Texas properties; all of its findings related to the entire properties. In other connections the Court in its opinion refers to the Commission when, under the record, the reference is applicable only to expert witnesses testifying for the Commission.

V.

The Federal Questions Relied on as Sustaining This Court's Jurisdiction are Substantial.

1. *Questions Arising Under the Commerce Clause.*

(a) The gas produced in Wheeler County, Texas, and transported in a high pressure line into and through Oklahoma back into Texas for sale and delivery at wholesale at city gates in Texas is interstate gas; its transportation, sale and delivery constitute interstate commerce in fact, and, therefore, in law. The interstate character of the transportation and sale of this gas is not affected by the fact that the point of origin and point of terminus lie in the same State. The opinion of the State Court is in direct conflict with the opinion of this Court in *Hanley* v. *K. C. S. R. Co.*, 187 U. S. 617; and also *Western Union Telegraph Co.* v. *Speight*, 254 U. S. 17; *Missouri Pacific R. Co.* v. *Stroud*, 267 U. S. 404; *State Tax Commission* v. *Interstate Natural Gas Co.*, 284 U. S. 41.

Lehigh Valley Ry. Co. v. *Pennsylvania*, 145 U. S. 192, on which appellees rely, is distinguishable for the reasons pointed out in *Hanley* v. *K. C. S. R. Co.*, 187 U. S. 617, 621.[15]

It is immaterial to inquire whether it was necessary for appellant to construct this line through Oklahoma or to consider its reasons for doing so. *Western Union Telegraph Co.* v. *Speight*, 254 U. S. 17; *Missouri Pacific R. Co.* v. *Stroud*, 267 U. S. 404.

(b) The interstate transportation of this gas in high pressure lines does not end until the gas is delivered by appellant at the city gates into the low pressure local lines

---

[15] All the later decisions have carefully confined *Lehigh Valley Ry. Co. v. Pa., supra*, to cases involving questions of *taxation*, as distinguished from questions of *regulation*. *Yohn* v. *United States* (2 C. C. A.), 280 Fed. 511; *Willoughby on the Constitution*, Vol. 2, p. 1002; *Gavit, The Commerce Clause*, p. 109.

of the distributing companies purchasing same. *Missouri* v. *Kansas Natural Gas Co.*, 265 U. S. 298; *State Corporation Commission* v. *Wichita Gas Co.*, 290 U. S. 561, 563, 564; *Public Utilities Comm.* v. *Landon*, 249 U. S. 236; *East Ohio Gas Co.* v. *Tax Comm. of Ohio*, 283 U. S. 465.

(c) The State is without power to fix the price that appellant may collect for this gas when delivered at the city gates to distributing companies. The prescribed rate is a direct regulation of interstate commerce. *Missouri* v. *Kansas Natural Gas Co.*, 265 U. S. 298; *State Corporation Comm.* v. *Wichita Gas Co.*, 290 U. S. 561, 563, 564.[16] That the price may be reasonable is immaterial. The question is one of *power*, not of *reasonableness*. *Minnesota Rate Cases*, 230 U. S. 352, 401; *Smith* v. *Illinois Tel. Co.*, 282 U. S. 133, 148. It is enough that the regulation imposed is a direct one. *Cudahy Packing Co.* v. *Hinkle*, 278 U. S. 460, 466; *Alpha Portland Cement Co.* v. *Mass.*, 268 U. S. 203.

The State court erroneously assumed that the fixing of the city gate rate is merely a local police regulation and valid, unless it discriminates against interstate commerce. (Appendix "A", pp. 54-55.) The fixing of the city gate rate is the fixing of the compensation that the utility may exact for the use of interstate facilities. It is a regulation of a matter of national and not merely of local concern. *East Ohio Gas Co.* v. *Tax Comm.*, 283 U. S. 465, 470, 472; *Missouri* v. *Kansas Natural Gas Co.*, 265 U. S. 298, 309.

(d) The failure of Congress to act is immaterial because the rate operates as a direct regulation of interstate commerce. *Missouri* v. *Kansas Natural Gas Co.*, 265 U. S. 298; *State Corporation Comm.* v. *Wichita Gas Co.*, 290 U. S. 561; *Public Utilities Comm.* v. *Landon*, 249 U. S. 236; *Public Utilities Comm.* v. *Attleboro Co.*, 273 U. S. 83, 90.

---

[16] The rate order here involved is unlike that involved in *State Corporation Comm.* v. *Wichita Gas Co., supra*, because it fixes the rate and prohibits the pipe line company from charging or collecting any higher rate.

For this reason, the Federal statute, providing that the Interstate Commerce Act shall not apply to gas pipe lines, has no application. That was directly held in *Missouri* v. *Kansas Natural Gas Co.*, 265 U. S. 298.[17]

(e) Corporate affiliation between appellant and the distributing companies (excepting two) does not change the interstate character of the transportation to which the rate directly applies. Transporting the gas to the city gates is interstate commerce in fact without regard to ownership of the facilities used in transporting it. The fixing of the city gate wholesale rate fixes the amount of compensation that the public utility may collect for the use of its property in rendering a public service in interstate commerce. This is none the less true even though the pipe line company and the distributing company may be affiliated. *State Corporation Comm.* v. *Wichita Gas Co.*, 290 U. S. 561, 563, 564 (where the companies were affiliated); *East Ohio Gas Co.* v. *Tax Comm.*, 283 U. S. 465, 470 (where one company owned the trunk line and the distributing facilities).

Western Distributing Company v. *Public Service Comm.*, 285 U. S. 119, 124, is distinguishable because it did not involve any effort to directly fix the city gate rate; it involved only the burner tip rate. The rate order here applies directly against the interstate pipe line and prohibits it from charging any other rate. Its application does not even depend upon corporate affiliation.

Pennsylvania Gas Co. v. *Public Service Commission*, 252 U. S. 23, is not in point because there was involved only the burner tip rate. The business regulated was local and not national in character; that was the ground upon which the

---

[17] In that case the State Court held, as did the State Court here, that since Congress had not acted the State had the power to regulate "the sale of natural gas in this State by the Kansas Natural Gas Company." *State* v. *Kansas Natural Gas Co.*, 111 Kansas 809. The decision was reversed in this Court, 265 U. S. 298.

decision was based, as was explained in *Missouri* v. *Kansas Natural Gas Co.*, 265 U. S. 298, 309, and in *Public Utilities Comm.* v. *Attleboro Co.*, 273 U. S. 83, 89. As to that case, see also *East Ohio Gas Co.* v. *Tax Comm.*, 283 U. S. 465, 472.

(f) The commingling of a part of this Wheeler County gas, transported across Oklahoma, with intrastate gas after it arrives in Texas is immaterial since the total quantity transported across Oklahoma into Texas is definitely known—being seventeen per cent of the total amount sold in Texas, as found by the State court. *Peoples Natural Gas Co.* v. *Public Service Comm.*, 270 U. S. 550, 554, 555; *United Fuel Gas Co.* v. *Hallanan*, 257 U. S. 277, 281; *Board of Trade* v. *Olsen*, 262 U. S. 1, 33, 34.

No commingling of this Wheeler County gas takes place until after it has passed Wichita Falls, Texas, going south. It furnishes the exclusive source of supply, uncommingled, for Wichita Falls and the Texas cities and towns lying to the north and west, as well as for Hollis, Oklahoma, and other Oklahoma cities and towns located on the branch line extending north into Oklahoma from Oklaunion, Texas. The rate order is indivisible and applies as well to the uncommingled deliveries made at Wichita Falls and the other Texas cities just mentioned as it does to commingled deliveries made after the gas passes Wichita Falls.

(g) That the amount of this gas (17% of the total amount sold in Texas) may be less than the amount transported by appellant in intrastate commerce is not material for the amount is known and the prescribed rate falls on all gas sold in Texas including this gas. *Peoples Natural Gas Co.* v. *Public Service Comm.*, 270 U. S. 550, 554, 555; *Public Utilities Comm.* v. *Attleboro*, 273 U. S. 83.

Since the rate places a direct burden upon interstate commerce "it is none the less beyond the power of the State

bcause this may be a smaller part of the general business." *Public Utilities Comm.* v. *Attleboro Co.*, 273 U. S. 83, 90. If quantity is controlling, then seventeen per cent is enough; only three per cent was involved in *Public Utilities Comm.* v. *Attleboro Co., supra.*

(h) As written and as interpreted and applied by the Commission and as upheld and enforced by the Court of Civil Appeals, the rate order applies to all city gate sales in Texas whether made in interstate or intrastate commerce. The rate order is an indivisible legislative act. "The order is in terms single and indivisible." *Illinois Central R. R. Co.* v. *McKendree*, 203 U. S. 514, 529. The result is that the order may not be limited to intrastate transactions; to do this would remake it. *Butts* v. *Merchants, etc., Transportation Co.*, 230 U. S. 126, 135; *Employers' Liability Cases*, 207 U. S. 463, 502; *Baldwin* v. *Franks*, 120 U. S. 686, 688; *The Trade Mark Cases*, 100 U. S. 82, 99.

(i) What has been said thus far under this heading has related to the Wheeler County gas. It is now submitted that the gas produced or purchased in Oklahoma and transported to Texas is interstate gas. *Missouri* v. *Kansas Natural Gas Co.*, 265 U. S. 298; *State Corporation Comm.* v. *Wichita Gas Co.*, 290 U. S. 561, 563. None of the grounds relied upon by the State court in support of the rate order, as applied to this case, are tenable.

Running this gas through gasoline extraction plants in Texas does not change its character as interstate gas. This process does not even interrupt its movement. *Carson Petroleum Co.* v. *Vial*, 279 U. S. 95; *Stafford* v. *Wallace*, 258 U. S. 495; *Board of Trade* v. *Olsen*, 262 U. S. 1; *Ohio R. R. Comm.* v. *Worthington*, 225 U. S. 101; *Southern Pacific Terminal Co.* v. *Interstate Commerce Comm.*, 219 U. S. 498, 526 (converting cotton seed cake into meal).

The temporary storage of a small part of the gas, produced or purchased in Oklahoma, in gas wells does not change its character. Furthermore, the rate order is indivisible and applies to all of this Oklahoma gas delivered at city gates whether stored or not; and the State court finds that only a part of it is stored. The fact that a part of the gas might have become intrastate gas because stored will not support an order fixing a city gate rate applicable to all of it, including that not stored.

Inability to trace a known quantity of this gas, after commingling, to any particular city is without effect. At what city in Texas a given quantity may be delivered is not material because it is known that the entire amount is moving in interstate commerce to city gates in Texas and it is all subjected to the same rate operating as a direct burden on interstate commerce. *Peoples Natural Gas Co.* v. *Public Service Comm.*, 270 U. S. 550; *United Fuel Gas Co.* v. *Hallanan*, 257 U. S. 277, 281; *Ohio R. R. Co.* v. *Worthington*, 225 U. S. 101, 107, 108.

(j) The use of a compressor station at Petrolia, Texas, to increase the movement of that part of the gas not delivered at other Texas city gates before reaching Petrolia did not bring the gas "to rest." *Ozark Pipe Line Co.* v. *Monier*, 226 U. S. 555; *Peoples Natural Gas Co.* v. *Public Service Comm.*, 270 U. S. 550; *State Tax Comm.* v. *Interstate Natural Gas Co.*, 284 U. S. 41, 44.

2. *Denial of Adequate Judicial Review.*

To impose on the reviewing court the duty to render judgment upholding the rate order, merely because of the existence of a conflict in the evidence on the issue of confiscation, the court being without power to settle the conflict, is to deny the court the power to pass its independent judgment on the facts as well as the law relating to the

constitutional issue of confiscation. *Ohio Water Co.* v. *Ben Avon Borough,* 253 U. S. 287; *St. Joseph Stock Yards Co.* v. *United States,* 298 U. S. 38 (Preliminary Print); *Baltimore & Ohio R. Co.* v. *United States,* 298 U. S. 349 (Preliminary Print). With the right of judicial review thus defined and limited, the order becomes void and its enforcement operates to deprive appellant of its property without due process of law, in violation of the Fourteenth Amendment to the Constitution of the United States.

3. *Questions Arising Under the Due Process Clause of the Fourteenth Amendment.*

(a) *Necessity for Segregation of Appellant's Properties and Operations as Between Interstate and Intrastate Commerce.*—To deny, as did the Court of Civil Appeals, the right to introduce evidence responsive to, and in conflict with, the findings of the Commission was, in effect, to deny the right to introduce evidence assailing the rate based upon the findings; it was a denial of due process of law, in violation of appellant's rights under the Due Process Clause of the Fourteenth Amendment to the Federal Constitution. *I. C. C.* v. *L. & N. R. R. Co.,* 227 U. S. 88; *West* v. *C. & P. Tel. Co.,* 295 U. S. 662, 667; *West Ohio Gas Co.* v. *Comm.,* 294 U. S. 63, 67.

Appellant, assailing the order, had the burden of showing specifically the invalidating facts. *Ætna Insurance Co.* v. *Hyde,* 275 U. S. 440, 447. It could not do this and ignore the specific findings made by the Commission in support of the order.

Smith v. *Illinois Tel. Co.,* 282 U. S. 133, 148, cited by the State Court, is not applicable in support of the Court's ruling. If appellant is engaged only in intrastate commerce, as held by the Court of Civil Appeals, then no segregation of its properties and operations was necessary. Thus viewing the case, the Commission properly valued all

of its properties, wherever situated, used in furnishing the service to which the rate applied—a service that the State Court held was a local one. *Smith* v. *Illinois Tel. Co.* has no application except where the utility is engaged locally in both interstate and intrastate commerce. On the other hand, if the State Court wrongly decided the interstate commerce question, as appellant contends, then *Smith* v. *Illinois Tel. Co.* is applicable here, but only in support of appellant's segregation of its properties and business—a segregation conforming to the test defined in that case because based upon actual use of the property and conduct of the business.

Smith v. *Telephone Company* is further distinguishable because in that case the rate as prescribed applied only to intrastate transactions, while here the prescribed rate applies to all sales of gas made by appellant in Texas including any sales made in interstate commerce.

Whether a segregation was practical or was necessary was for the Commission to decide in the first instance. It was a question of fact falling within the administration field. *Groesbeck* v. *Duluth S. S. & A. R. Co.*, 250 U. S. 607, 608; *S. W. Bell Tel. Company* v. *San Antonio*, 75 F. (2d) 880, 883, 885.

(b) *Refusal to Approve Appellant's Segregation of Its Properties and Business Operations as Between Interstate and Intrastate Commerce.*—Appellant's segregation of its properties and business as between interstate and intrastate commerce was based upon the manner in which the properties were used and the business conducted. It therefore met the controlling test defined by this Court. *Simpson* v. *Sheppard* (*Minn. Rate Cases*), 230 U. S. 352; *Smith* v. *Illinois Tel. Co.*, 282 U. S. 133; *Missouri Rate Cases*, 230 U. S. 474; *Allen* v. *St. Louis I. M. S. R. Co.*, 230 U. S. 553; *Groesbeck* v. *Duluth S. S. & A. R. Co.*, 250 U. S. 607, 608.

The only objection to appellant's segregation made by the Court of Civil Appeals was one grounded upon the assumed correctness of its rulings in respect to the interstate commerce question. If these rulings were wrong, then the Court's disapproval of appellant's segregation was wrong.

(c) *Elimination From Rate Base of Production System Properties.*—Appellant's production system property consisting of gas wells, gas well equipment, producing and non-producing leases and drilling tools and equipment and appellant's property, located in Oklahoma, but used and useful in producing, transporting and delivering gas to points in Texas being actually used and useful in the rendition of public service in Texas should have been included in the rate base approved by the Court of Civil Appeals. The exclusion of all of such property from the rate base approved by the Court denied appellant a reasonable return upon the fair value thereof and hence denied to appellant due process of law and just compensation, in violation of its rights under the Due Process and Equal Protection Clauses of the Fourteenth Amendment to the Federal Constitution. *McCardle* v. *Ind. Water Co.*, 272 U. S. 400; *Bluefield Water Co.* v. *Public Service Comm.*, 262 U. S. 679; *Board of Commissioners* v. *N. Y. Tel. Co.*, 271 U. S. 23; *West* v. *C. & P. Tel. Co.*, 295 U. S. 662.

(d) The approval by the Court of Civil Appeals of an allowance for annual accruals to depreciation, depletion and amortization reserve which wholly failed to provide anything for depletion of appellant's producing gas reserves—wasting assets—was a denial to appellant of due process of law, in violation of its rights under the Due Process Clause of the Fourteenth Amendment to the Federal Constitution. *Columbus Gas & Fuel Co.* v. *Public Service Comm.*, 292 U. S. 398, 404, 405.

(e) The approval by the Court of Civil Appeals of arbitrary formulas in substitution for an evaluation of, and an

allowance of operating expenses, depreciation, depletion and amortization and a fair return on, appellant's Texas production system properties and properties located in Oklahoma used and useful in the rendition of public service in Texas was a denial to appellant of due process of law and just compensation, in violation of its rights under the Due Process and Equal Protection Clauses of the Fourteenth Amendment to the Federal Constitution. *West* v. *C. & P. Tel. Co.*, 295 U. S. 662; *West Ohio Gas Co.* v. *Comm.*, 294 U. S. 63. Mere calculations and formulas should not be substituted for actual facts and experience; *McCardle* v. *Ind. Water Co.*, 272 U. S. 400, 410, 416, 417; *St. Louis & O'Fallon R. R. Co.* v. *United States*, 279 U. S. 461; *Minn. Rate Cases*, 230 U. S. 352; or actual operating experience and expenses. *West Ohio Gas Co.* v. *Public Utilities Comm.*, 294 U. S. 63.

(f) The addition to appellant's revenues of $441,240.12 for the year 1932, because of assumed abnormal temperature conditions, although the actual weather conditions during the operating period and the actual operating income were known and well established, was arbitrary action, in violation of appellant's rights under the Due Process and Equal Protection Clauses of the Fourteenth Amendment to the Federal Constitution. Preferring prophecy to experience was arbitrary action. *West Ohio Gas Co.* v. *Public Utilities Comm.*, 294 U. S. 79.

(g) The approval by the Court of Civil Appeals of an annual allowance to reserve for depreciation, depletion and amortization, which was based upon the assumed existence and use of a credit balance in the reserve account of approximately $5,000,000.00 at the rate of inquiry, and which allowance was admittedly inadequate unless supplemented by such an assumed reserve, denied to appellant due process and equal protection of the laws, in violation of its rights under the Due Process Clause of the Fourteenth Amendment to the Federal Constitution. *Board of Commissioners*

v. *N. Y. Tel. Co.*, 271 U. S. 23; *Clark's Ferry Bridge Co.* v. *Public Service Comm.*, 291 U. S. 227.

VI.

Cases Believed to Sustain Jurisdiction.

In addition to the cases cited under heading V to show the substantial nature of the Federal questions relied on, the following are cited as sustaining the Court's jurisdiction.

1. *The rate order is a "statute" of the State of Texas.*

King Mfg. Co. v. *Augusta*, 277 U. S. 100, 112;
Lake Erie, etc., R. Co. v. *State Public Utilities Comm.*, 249 U. S. 422, 424.

2. *The appeal is properly taken from the judgment of the Court of Civil Appeals; it is the highest court of the State in which a decision could be had.*

Stanley v. *Schwalby*, 162 U. S. 255, 269;
Sullivan v. *Texas*, 207 U. S. 416, 422;
T. & N. O. R. Co. v. *Sabine Tram Co.*, 227 U. S. 111, 113.

VII.

Opinions Appended.

1. Copy of Opinion of the Court of Civil Appeals (unofficially reported 86 S. W. (2d) 484) is attached as Appendix "A".

2. Copy of Opinion of the same Court on rehearing is attached as Appendix "B".

LONE STAR GAS COMPANY,
By ROY C. COFFEE,
OGDEN K. SHANNON, JR.,
MARSHALL NEWCOMB,
BEN H. POWELL,
CHARLES L. BLACK,
Its Attorneys.

APPENDIX "A".

Opinion of Court of Civil Appeals.

(Reported 86 S. W. (2d) 484.)

No. 8238.

THE STATE OF TEXAS *et al*, *Appellants*,

vs.

LONE STAR GAS COMPANY, *Appellee*.

Appeal from District Court of Travis County.

Acting under the power conferred by Article 6050, et seq., R. S. 1925, and after a hearing which continued for more than seven months, the Railroad Commission of Texas promulgated its order requiring appellee Lone Star Gas Company to "charge, bill and receive for domestic gas at the city gate from all distributing companies served by it, a rate not to exceed $0.32 per thousand cubic feet", in lieu of the $0.40 rate theretofore charged. Immediately appellee filed a bill of complaint in the Federal District Court, seeking to restrain the enforcement of the rate order on several constitutional grounds, and particularly as being confiscatory of its property. Thereafter, the Commission, Attorney General, and others, herein called Commission, instituted this proceeding in the District Court of Travis County, Texas, in order to bring appellees within the jurisdiction of the state court under the provisions of Sec. 266 of the Judicial Code of the United States (28 U. S. C. A., Sec. 380). The Commission asserted the validity of the order in every particular, and sought to restrain appellee from violating it. In conformity with what was regarded as proper procedure under Sec. 266 of the Judicial Code, both the state and the federal courts temporarily restrained the enforcement of the rate order, and later the federal court ordered all proceedings therein stayed until the final disposition of this cause. Appellee's answer herein, seeking to set aside the rate and restrain its en-

forcement, was in effect an appeal by it under Article 6059, which provides that any gas utility dissatisfied with any rate may petition a court of competent jurisdiction in Travis County and have same set aside, upon showing by "clear and satisfactory evidence that such rate is unreasonable and unjust as to it." Appellee alleged that the rate order was violative of the commerce, the due process, the equal protection, and the freedom of contract clauses of the Federal Constitution; and was confiscatory and unreasonable and unjust, because it would not afford a reasonable return on the fair value of its property used in the public service. In reply, the Commission asserted the validity of the order in every particular, denied that any gas moved in interstate commerce; but that if so, it was negligible in amount and was not affected by the rate; and that in absence of legislation by Congress on the subject, the Commission had the authority under the statutes and in the exercise of the police power of the state to regulate and control public gas utilities, and to fix reasonable rates for gas sold and delivered to its citizens, even though interstate commerce was indirectly or incidentally affected thereby.

The trial court concluded the commerce and all constitutional questions against appellee; but the jury found in answer to the one special issue submitted, that "the order for a rate not to exceed 32 cents per thousand cubic feet of gas sold to the distributing companies at the gates of the points served, is unreasonable and unjust as to the Lone Star Gas Company." Judgment was accordingly rendered setting aside the 32-cent rate order, and perpetually restraining its enforcement.

The special issue submitted, with the definition and instructions given in connection therewith, was in the nature of a general charge, and required the jury to determine all questions of law and fact of the entire case. Under the pleadings of appellee the ultimate question of fact was whether the 32¢ rate would yield a reasonable return on the fair value of the property used in the public service of delivering and selling natural gas to the distributing companies at the city gates of the various Texas cities and towns. Appellee attempted to prove that the 32¢ rate

would not yield a reasonable return, for two reasons, as follows:

1. Because the 32¢ rate would not yield the minimum return of 6% declared to be reasonable by the Commission; and

2. Because if so, a return of 6% was so low as to be confiscatory and unreasonable and unjust.

The burden was heavily upon appellee to show by clear and satisfactory evidence that the 32¢ rate would not afford a reasonable rate of return on the property used in the Texas public service. Appellee did not meet this burden and quantum of proof; and the trial court erred in overruling the Commission's motions for an instructed verdict and for judgment declaring the rate to be valid. In view of this conclusion, the appeal presents two main divisions, as follows:

1. Three constitutional objections are urged against the 32¢ rate order, as follows:

(a) Interference with interstate commerce.

(b) Interference with the right to contract.

(c) Confiscation of property.

2. The legal sufficiency of the evidence adduced by appellee to show that the rate order was confiscatory or unreasonable and unjust as to it.

The Texas statutes, particularly Articles 6050, 6051 and 6053, classify the various kinds of business engaged in producing, transporting, delivering and selling natural gas to the public for domestic or other use, and declare each to be a public gas utility, affected with the public interest and subject to the regulation and control of the Commission. Gas pipe lines engaged in producing, buying, transporting, delivering, or otherwise dealing in natural gas are each declared to be a public utility, affected with the public interest, and in nature and according to the established method of conducting same a monopoly, and subject in respect to all their holdings pertaining to the gas business and in all relations to the public, and in respect to their producing, transporting, receiving and distributing

facilities, to the full and complete control and supervision of the Commission. Authority is also given the Commission to fix, establish and enforce a reasonable rate which pipe lines may charge for gas delivered at the city gate to another distributing company or municipality; to fix a reasonable rate for gas sold and delivered by pipe lines or other distributing companies to the public for domestic or other use; and to fix and establish a fair and equitable division of the proceeds of the sale of natural gas between the producing or transporting companies and the companies distributing or selling it to the ultimate consumer. In the exercise of the power so conferred, the Commission is authorized to act upon its own motion, or upon the petition of any person, corporation, municipality, etc., showing a substantial interest in the subject.

Accordingly the Commission of its own motion, ordered a hearing to investigate the 40¢ city gate rate which appellee uniformly charged the various distributing companies throughout the State for gas. Appellee and each of the approximately 270 cities and towns served by it were given notice of the hearing, after which the Commission made its order fixing the 32¢ gate rate, found to be "fair, just and reasonable", in lieu of the 40¢ rate theretofore charged, found to be "unfair, unjust and unreasonable."

Interstate Commerce Issue.

Appellee obtains its natural gas from two states, which under its system of accounting is allocated to three sources. The first source is gas produced or purchased in Texas and transported and delivered entirely within Texas. As to this gas, appellee admits the authority of the Commission to regulate and fix the price for which it shall be sold at the city gates to the affiliated distributing companies in a proper proceeding; but contends that since the rate order in question also attempts to fix the price of gas transported in interstate commerce, the order is invalid in toto because invalid in part. From this source appellee accounts for about 79% of its total gas supply.

The second source of gas is produced or purchased by appellee in Oklahoma, and transported through its pipe

lines from points of production into Texas. All of this gas is processed and treated in gasoline plants located near Gainesville, Texas, and Petrolia, Texas. At these plants the heating value of this gas is lowered by extracting the gasoline therefrom, and practically all of it is recompressed. When this gas leaves Oklahoma for Texas its exact ultimate destination is not known, and a considerable amount of it is run through and stored in wells at the extraction plants in Texas for future use as needed. Each pipe line transporting this gas has a meter at the State line, for the purpose of measuring the amount thereof. From this source, over the 1927-1933 period considered, appellee accounts for about 4% of its total gas supply. However, the amount of this gas has shown a marked decline until during the last year of the accounting period it amounted to about one-half of 1% of appellee's total gas supply. All of this gas is commingled in storage or pipe lines with appellee's Texas gas before delivery at the city gates. Appellee contends that this gas moved in interstate commerce to the city gates, and is, therefore, not subject to the jurisdiction of the Commission.

The third source of gas is produced or purchased in the Panhandle field in Wheeler County, Texas, and transported by appellee's private pipe line through a corner of Oklahoma (less the amount of deliveries at Hollis, Oklahoma) and back into Texas, uninterruptedly. The Commission alleged and indisputably proved that this pipe line was built through a sparsely settled, rough, rocky region, just within and paralleling the boundary line of Oklahoma, for about 40 miles, recrossing the Texas line at a point on the Prairie-Dog Town Fork of Red River, where an exceedingly expensive crossing was necessary, which would not have been necessary if the pipe line had been constructed by a more direct route within Texas; and that as compared to the Oklahoma route, the Texas route would have been much less expensive, through sandy and less corrosive soil, more direct, and through a more populous region. The Commission contends that the construction of this pipe line was, therefore, fraudulently done for the purpose of attempting to deprive it of jurisdiction over appellee. From

this source of gas appellee accounts for about 17% of the total supply subject to the rate order in question.

The gas reserve of appellee in Oklahoma as compared to those in Texas amounted to about one-fourth of one per cent. The gas reserves in Texas are more than sufficient to supply all Texas needs, and the gas supply of Oklahoma will likewise supply all its needs. The Texas gas used in Oklahoma and the Oklahoma gas used in Texas about strike a balance, and in any event, if the excess should be in favor of Oklahoma, it is negligible. Texas gas is less expensive to produce than Oklahoma gas. Approximately 85% of appellee's property is situated in Texas; and approximately 99% of its gas reserves are in Texas. Gas coming from Oklahoma is so mixed and commingled with Texas gas that it cannot be definitely traced by volume to any particular city gate, because it is divided and redivided into the network of appellee's pipe lines, in amounts which are negligible in comparison with the amount of the Texas gas. Oklahoma produced gas is not served south of Fort Worth or Dallas, nor west of Fort Worth. A very small amount of Oklahoma gas is delivered to independent distributors at Gainesville and Waxahachie. The order does not in any manner interfere with the sale of the Oklahoma gas at the same rate as the Texas gas.

In view of these facts, appellee contends that the order was an attempt to regulate and burden interstate commerce, because a part of the gas affected by the 32¢ rate is produced or purchased in the State of Texas, and transported by the pipe lines of appellee through a corner of the State of Oklahoma and back into Texas, where it is sold and delivered wholesale at the gates of the various Texas cities and towns; and because a part of the gas is produced or purchased in the State of Oklahoma and transported by the pipe lines of appellee uninterruptedly and at high pressure into Texas, where it is sold wholesale at the city gates.

As preliminary and as bearing upon the issues of interstate commerce, the interference with the right to contract, operating expenses, and other issues relating to the jurisdiction of the Commission to regulate and control appellee, it was the theory of the Commission that by reason of an intercorporate setup and affiliation between appellee

and the distributing companies to which it delivered gas at the city gates, an integrated but single business enterprise was established in which appellee and the distributing companies were merely the departments or instrumentalities through which the single business enterprise sold and delivered natural gas to the ultimate consumer or burner tip user. The Commission asserted that the fixing of the gas rate at the city gate under such business setup effectually fixed the rate from the city gate to the burner tip, which was intrastate commerce and subject to the control and regulation of the Commission. It was alleged that the unity or oneness of the business enterprise was accomplished by the combination of property and effort, and through a holding corporation, the Lone Star Gas Corporation, a Delaware chartered corporation, with its principal offices in Pittsburgh, Pa. The facts sustaining this allegation are as follows:

Appellee, Lone Star Gas Company, is in corporate theory a Texas gas pipe line corporation, classified by Article 6050 as a "public utility", and "declared to be affected with a public interest and subject to the jurisdiction, control and regulation of the Commission." By Article 6051, appellee's business is declared to be "a business which in its nature and according to the established method of conducting the business is a monopoly and shall not be conducted unless * * * such business be subject to the jurisdiction herein conferred upon the Commission." In excess of 99% of appellee's common, voting or controlling stock is owned by the Lone Star Gas Corporation, the Delaware chartered corporation, which does not have a permit to do business in Texas.

The affiliated distributing companies material to this case are the Community Natural Gas Company, County Gas Company, Dallas Gas Company, Municipal Gas Company, and Texas Cities Gas Company. Each of these companies is a Texas corporation, and in corporate theory and as classified by Article 6050, each is a "public utility", engaged "in distributing or selling natural gas to the public for domestic or other use," serving one or more of some 270 cities and towns in Texas. The Delaware holding corporation owns in excess of 99% of the common

or voting stock of the affiliated Community Gas Company, County Gas Company, Municipal Gas Company, Texas Cities Gas Company, and, through a subholding corporation, the Dallas Gas Company.

Appellee and all of its affiliated distributing companies have connected offices in Dallas, Texas, and all of these Texas corporations and the Delaware holding corporation have officers and directors common to each corporation, although there is not a majority by number in any instance. Voting by proxy or as attorney in fact is practiced by the interlocking directors and officials of all corporations involved in the intercorporate setup. All Texas corporations confer with and are subject to the management of the Lone Star Gas Corporation, the holding corporation. For these services it exacts a "management fee" of one per cent of the gross annual revenue of appellee, and a "management fee" is also exacted by the holding corporation for each affiliated distributing company. The holding corporation has loaned appellee $17,600,000 on its unsecured note; and loans have been made to each affiliated distributing company either on open account or on unsecured notes. Interest at six per cent. is charged on the $17,600,000 indebtedness of appellee, although the holding corporation borrowed the money at five per cent., and a similar condition exists as to the affiliated distributing companies, notwithstanding some of them are able to borrow large sums from local banks at from four to four and one-half per cent. interest.

All books of all corporations, except the holding corporation, are kept in the offices at Dallas, Texas, and a general or supervising auditor has authority and direction over all books. Accounting services, engineering, financing, purchasing and operating supervision are furnished all Texas corporations by the Delaware holding corporation, and a general counsel represents all the corporations involved in the intercorporate setup.

In its department of the integrated business enterprise, appellee is engaged in producing and purchasing natural gas and in transporting same by its 4000-mile pipe line system from the point of production to the city gates of some

270 cities and towns in Texas, where the gas is delivered to one and the other affiliated distributing companies. A uniform rate of 40¢ at the city gate is made by appellee, which rate it filed with the Commission, and has charged and collected for several years. Appellee has long-term contracts with its affiliated distributing companies for the 40¢ city gate rate.

In their department of the integrated business enterprise, the affiliated distributing companies are engaged in selling and delivering the gas to the burner tips of the consumers, and for which service they charge a fixed rate.

Appellee also furnishes gas at the city gates of Waxahachie and Gainesville, Texas, to two independent distributing companies,—the Waxahachie Gas Company and the Gainesville Gas and Electrical Company; and in Waxahachie, a small amount to its affiliated Municipal Gas Company. The amount of this gas is negligible, in comparison with appellee's total gas business. Each independent distributing company pays the 40¢ city gate rate under long term contracts with appellee.

The cases are legion which deal with the relationship of two or more corporations from the standpoint of ownership of the capital stock in one by another, and from the standpoint of association together for the purpose of carrying on a single or common business enterprise. The rule is well settled that courts will look through the forms to the realities of the relationship between two or more corporations in order to determine whether each is a separate entity or corporation; or whether their commingled affairs are such as to constitute them one integrated and single business enterprise; or whether through intercorporate setup, affiliation or stock ownership, the purpose is to control the subsidiary corporation or corporations so that they are used as the mere instrumentalities or agents of the owning corporation or corporations. In discussing the rule, it has been held that while "ownership alone of capital stock in one corporation by another does not create an identity of corporate interest * * * or create the relation of principal and agent or representative between the two;" still it has been repeatedly held that such rule is not applicable "where

stock ownership has been resorted to, not for the purpose of participating in the affairs of a corporation in the normal and usual manner, but for the purpose * * * of controlling a subsidiary company so that it may be used as a mere agency or instrumentality of the owning company or companies. Chicago Ry. *v.* Minn. Civic Ass'n, 247 U. S., 490, 62 L. Ed. 1229; United States *v.* Lehigh Valley R. R. Co., 220 U. S., 257, 55 L. Ed., 458; United States *v.* Reading Co., 253 U. S., 26, 64 L. Ed., 760; United States v. Delaware L. & W. R. Co., 238 U. S. 516, 59 L. Ed., 1438. Also in discussing the rule the fact that the same persons are directors and managers of two corporations has been given consideration (McCaskill Co. *v.* United States, 216 U. S., 504) and "a growing tendency is therefore exhibited in the courts to look beyond the corporate form to the purpose of it and to the officers who are identified with that purpose." See also Gallatin Gas Co. *v.* Public Service Co., 256 Pac., 373. Where one corporation owns or dominates another it has been often held that "the independent entity of the two companies is so far disregarded that each is considered a part of the invisible whole." Kimberly Coal Co. *v.* Douglas, 45 Fed. (2d) 25; *In re* Kentucky Wagon Mfg. Co., 3 F. Supp. 958; Law *v.* McLaughlin, 2 F. Supp., 601. And "the rule which appears to be established by these cases is that, where the corporate organization and affairs of one railroad company are controlled and dominated by another railroad company through ownership or stock or lease, the roads must be regarded as identical for the purpose of rate making." Pacific Ry. Co. *v.* R. R. Com., 168 N. W., 927, 929.

A somewhat analogous question was decided by this court in A. T. & S. F. Ry. Co. *v.* R. R. Com., 77 S. W. (2d), 773, (writ refused), wherein it was held that subsidiary corporations, owned, controlled and operated by railroads to carry on pickup and delivery service, did not possess separate legal individuality from the parent corporations, as regards the jurisdiction of the Railroad Commission; and wherein it was held as follows:

> "To permit railroads to perform such steps in the process of transportation through other separate legal entities created and owned by them would enable them

to defeat the jurisdiction of the Commission over such transportation. And in such case where the stock of such separate corporation is owned by the railroad company, and its sole function is merely to help conduct the business of the parent corporation under whose complete control it operates, and in the instant case largely, if not wholly, through the same employees, the subsidiary corporation will be treated as if it were a mere department of the railroad itself."

When viewed in the light of the facts and the aforesaid rule, it becomes apparent that appellee and its affiliated distributing companies were engaged in an integrated but single business enterprise of producing, purchasing, transporting, delivering and selling natural gas for domestic or other use to the ultimate consumer. This was accomplished by combination of property and effort, and through ownership of more than 99% of the capital stock of appellee and all affiliated distributing companies by the holding corporation. All corporations are under the common management of the holding corporation, for which service it is paid management fees. The Texas corporations and the holding corporation have officers and directors common to each, who actually manage, supervise and control the entire business enterprise through the intercorporate setup. By permitting or organizing such intercorporate setup, the Texas corporations have, considering their entire operations as a whole, created a single and integrated business enterprise, and with respect to the jurisdiction of the Commission, to regulate and control such business, and particularly for the purpose of fixing the rates for which it might sell gas to the public in Texas, the corporation must be regarded as being engaged in the single business enterprise of producing, purchasing, transporting, delivering, and selling natural gas to the ultimate consumer or user in Texas. The fact that separate corporate entities were formed which represent different departments of the integrated but single business enterprise, does not affect the question, because the court must look beyond the corporate form to the purpose of the unified organization, and to the officials who are identified with that purpose. To otherwise hold, and to permit the

Texas corporations to so dispose of their capital stock and to so form a separate entity of their own, and to surrender the management and control of their business to the holding corporation, which has no permit to do business in Texas, would enable them to defeat the jurisdiction of the Commission over them as Texas public utilities, for which purpose the State of Texas granted them life and the privilege of doing business.

The fact that appellee and the affiliated distributing companies may be engaged in the integrated but single business enterprise of producing, purchasing, transporting and selling natural gas to the ultimate consumer or burner tip user, is not of controlling importance on the commerce issue; because the Commission did not fix the burner tip rate, nor did it require the distributing companies to pay appellee not in excess of the 32¢ city gate rate, and to pass the 8¢ reduction on to the ultimate consumer or burner tip user.

Just why the Commission fixed the 32¢ city gate rate for gas without also requiring the distributing companies to pay not in excess of such rate, and to pass the 8¢ reduction on to the ultimate consumer or burner tip user, is not clear from the order or record. It is conceded that the business of distributing gas from the city gate to the burner tip user was intrastate commerce over which the Commission had jurisdiction; and that it could have, after a hearing at which the reasonableness of the City gate rate charged by appellee for gas was inquired into, required the various distributing companies to pay appellee at each city gate a rate not in excess of the 32¢ rate, even though the gas sold and delivered by appellee moved in interstate commerce to the city gate. Article 1119, R. S. 1925, authorizes cities and towns of over 2000 population to fix local rates for gas sold by a public utility. Texas-Louisiana Power Co. *v.* City of Farmersville (Com. App.), 67 S. W. (2d) 235. The Commission is authorized to originate rates for cities and towns of less than 2000 population; and Article 6053 authorizes it to fix city gate and other rates for natural gas for all cities and towns without regard to population. The order recited that there were then pending some 125 appeals from rates fixed by cities and towns under the provisions of Arti-

cles 1119 and 6058, and that there were also pending before the Commission numerous cases in which the rates to be reviewed or fixed necessarily involved the determination of the reasonableness of the city gate rate charged the distributing companies by appellee, as a step preliminary to the disposition of such appeals and cases, and in order to determine or fix reasonable local or burner tip rates therein. All of these cities and towns were given notice of the hearing before the Commission. It would seem from these recitations of facts and circumstances, that the Commission consolidated all the appeals and cases pending before it in which the determination of the city gate rate charged by appellee for gas was necessarily involved as a step preliminary to reviewing or fixing the local or burner tip rates for gas. The wisdom of the method of procedure adopted cannot be successfully attacked. A separate hearing in the case of each city or town would have presented an insurmountable task; and if the expenses of this hearing are a criterion, no city or town could bear such expense. Separate hearings would not afford appellee any relief to which it is not entitled to receive here. Nor is it "essential that the Commission dispose of the matter before it in a single order, but it may in a proper case make a preliminary disposition of the matter, and reserve for further consideration, and dispose of by subsequent order, other questions or issues involved in the main issue without further notice or hearing." Houston Chamber of Commerce *v.* R. R. Com., 19 S. W. (2d) 586, affirmed 78 S. W. (2d) 591; Magnolia Pet. Co. *v.* Edgar, 62 S. W. (2d) 359 (writ ref.). Moreover, all parties have by court proceedings and otherwise treated the order as a final order fixing the 32¢ city gate rate. Certainly appellee has so treated the order, and if declared valid herein, appellee has no further interest in any order the Commission may make with regard to requiring the various distributing companies to pay not in excess of the 32¢ city gate rate, and to pass the 8¢ reduction on to the ultimate consumer or burner tip user. Furthermore, in its department of the intercorporate setup and affiliation appellee was a gas pipe line utility, engaged in the integrated business of producing, purchasing, transporting by

pipe line, and selling natural gas to the distributing companies at the city gates of some 300 cities and towns in Texas and Oklahoma. Appellee's charter and the books kept under the direction of the auditor of the intercorporate business setup established that it was so engaged. On the hearing before the Commission, all parties proceeded upon the theory that appellee was so engaged. It had contracts with the affiliated as well as the two independent distributing companies for the 40¢ city gate rate uniformly charged throughout the State of Texas by appellee. The Texas statutes authorize the Commission to fix reasonable city gate as well as local or burner tip rates for gas, and appellee states in its brief that "the Railroad Commission of Texas has power and authority to fix and prescribe the charges which defendant may make for gas produced or purchased by it and moving throughout its entire transit, up to the point of delivery at the city gates, wholly within the State of Texas, subject to defendant's right under the 14th Amendment of the Constitution of the United States, and the Bill of Rights of the Texas Constitution; and it has power and authority to determine the rates and charges to be received for the sale of gas to domestic customers in towns and cities in Texas (i. e. local rates), even though a part of the gas so sold has moved continuously in interstate commerce from the points of origin to the points of delivery at the city gates, subject to a similar qualification. But it may not regulate the gate rate to be charged by defendant for the sale of interstate gas." In view of these facts, admissions and proceedings, we will consider the rate order in question as a final appealable order, and pass to a further consideration of the interstate commerce issue.

Whether the conduct of appellee, in constructing and transporting by its private pipe line gas from the Texas Panhandle field through Oklahoma and back into Texas, where it is intended at all times to be delivered, sold and used, constitutes a fraudulent attempt to make such gas move in interstate commerce, and thereby deprive the Commission of the power to regulate the price for which it may be sold, does not appear to be material, because such transportation of the gas is not interstate commerce as a

matter of fact. Except for the right to authorize the construction of the pipe line within its boundary, the State of Oklahoma has no concern whatever with the transaction. Only one town, Hollis, in Oklahoma, is served by the pipe line. It could have been as well served by a direct pipe line from Texas to it, and such service is in no manner affected by the rate order in suit. The mere fact that such town is served with gas delivered from the pipe line does not stop, hinder, affect, or in any manner interrupt or interfere with the continuous flow of the gas from Texas through Oklahoma and back into Texas, where it is intended at all times to be delivered, sold and used.

In 1 Supreme Court Law, 347, the following rule is stated:

> "Interstate commerce is a practical conception drawn from the course of business upon a broad consideration of the substance of the whole transaction. Substance and not form controls. The actual fact, not technical considerations, governs."

The text cites many cases supporting the rule, holding in substance that what is or is not interstate commerce is to be determined upon broad consideration of the substance of the whole transaction. See Federal Trade Com. *v.* Pacific, etc. Ass'n, 273 U. S. 52, 71 L. Ed. 534; Eureka Pipeline Co. *v.* Hallanan, 257 U. S. 265, 66 L. Ed. 227; Swift & Co *v.* United States, 196 U. S. 375, 398, 49 L. Ed. 518; Dozier *v.* State, 218 U. S. 124, 54 L. Ed. 965, 28 L. R. A. (N. S.) 264.

Cases cited by appellee and many others hold that gas produced in one state and transported by pipe line to another state for sale and use is interstate commerce. 1 Supreme Court Law, 367. But no case is cited and none is found by us which would support a holding that the transportation by its private pipe line of gas produced or purchased by appellee in Texas through a corner of Oklahoma and back into Texas, uninterrupted, and with the intention at all times that such gas would be delivered, sold and used in Texas, is interstate commerce. Appellee is a Texas public gas utility corporation. Its primary duty is to serve

Texas citizens with gas produced from Texas soil. Its corporate life and being was granted in consideration of these premises. With this in view, but one practical conception can be drawn from the whole transaction involved, that is, the gas produced in Texas and intended to be delivered, sold and used in Texas is intrastate commerce. The mere fact that appellee has selected a route through Oklahoma as an aid to the transaction of its Texas business can not work a change in the nature of the business, nor does it affect the character of the business. The transportation of gas through Oklahoma is merely a method of delivery and is a negligible circumstance in determining the interstate commerce issue. Heyman *v.* Hays, 236 U. S. 178, 59 L. Ed. 527.

If, however, the delivery of the gas by appellee from Texas through Oklahoma and back into Texas, intended at all times for Texas consumption, be regarded as interstate commerce, such transaction only affects transportation of the gas and as to which only appellee and the Texas consumers are interested. The Interstate Commerce Act, as now amended, expressly excepts from the jurisdiction of the Interstate Commerce Commission the regulation of interstate transportation of "natural or artificial gas by pipe line, or partly by pipe line and partly by railroad and by water." U. S. C. A., Title 49, chap. 1, Sec. 1, subd. (1)(b). And since the regulation of the transportation of gas is expressly excluded from the scope of the interstate commerce statute, it is within the police power of the state to fix reasonable rates for which gas may be sold to its citizens, even though such rates may indirectly or incidentally affect the interstate transportation of such gas, or may so affect interstate commerce in the same. Simpson *v.* Shepard, 230 U. S. 352, 57 L. Ed. 1511, 48 L. R. A. (N. S.) 1151; West *v.* Kansas Natural Gas Co., 221 U. S. 229, 55 L. Ed. 716, 35 L. R. A. (N. S.) 1193; Pennsylvania Gas Co. *v.* Public Service Com., 252 U. S. 23, 64 L. Ed. 434; Manufacturers' Light & Heat Co. *v.* Ott (D. C.) 215 F. 940, 944, 945.

Neither the Texas statutes nor the rate order interfere in any manner with the transportation of gas from Texas

through Oklahoma and back into Texas. The order only attempts to regulate and fix the price for which such gas may be sold in Texas by appellee to its various distributing companies. Manifestly, this circuitous route of delivery of gas through Oklahoma can not and does not affect the exercise of the police power of Texas to make or fix reasonable rates for such gas sold to its citizens.

Appellee contends, however, that there can be no question but that the gas produced or purchased by it in Oklahoma and transported to and sold in Texas, is gas moving in interstate commerce up to the time it reaches the city gates of delivery; and that the fact that the amount of this gas is small does not affect its interstate commerce character, nor its interstate transportation. We do not sustain the contention.

The facts show that the gas produced or purchased by appellee in Oklahoma and transported by its pipe lines to Texas, does not move in interstate commerce, when it reaches the city gates of delivery. All gas coming from Oklahoma is run through extraction plants in Texas, where the heavier hydro-carbons and volatile gasoline are extracted, leaving the residue gas changed in its composition, and with its heating value lowered and changed. Large amounts of it are run through and stored in wells on the Miller farm near the extraction plant in Texas, continuously, and for use later as needed. The Oklahoma gas has no particular Texas city gate destination, but it is first transported to the extraction plants, and after its composition is changed, it is passed into the pipe line system of appellee, mixed and commingled with Texas gas, divided and redivided in the pipe line system until it is impossible to trace or identify it by volume at any city gate of delivery. At various points before delivery its pressure is reduced and the gas allowed to expand. The amount of Oklahoma gas as a whole is small and as divided and redivided before delivery to the various city gates, its amount is negligible in comparison with the amount of the Texas gas with which it is mixed or commingled.

Doubt has been expressed by several courts as to whether gas produced in several states and commingled in pipe

lines from which it is sold, is interstate commerce. This conclusion seems to have been reached on the "original package" doctrine, the courts holding that after the bulk of the imported gas is broken up for indiscriminate distribution to individual purchasers at retail sale, the interstate commerce is at an end. Contrary conclusions seem to have been reached where merely transmission for immediate or practically immediate use, direct from the seller to the consumer, is involved. But a different question arises where the gas transmitted from one state is stored and then distributed as its needs might afterwards develop; and where, as in this case, the composition of the gas is and must be changed by extracting hydrocarbons and volatile gasoline before it is ready for delivery and use by the consumer. As to such transmission of gas, the "original package" theory or doctrine is applicable and should be invoked, even though the transporting company, as did appellee and the affiliated distributing companies through stock ownership and intercorporate setup, actually sells the Oklahoma produced gas as changed to the ultimate consumers in Texas. These questions have been either passed upon or anticipated and discussed in the following cases. Pennsylvania Gas Co. *v.* Public Service Comm., 252 U. S. 23, 64 L. Ed. 434; Id., 225 N. Y. 397, 399, 122 N. E. 260; West *v.* Kansas Natural Gas Co., 221 U. S. 229, 55 L. Ed. 716, 35 L. R. A. (N.S.) 1193; Public Utilities Comm. *v.* Landon, 249 U. S. 236, 63 L. Ed. 577; Id., 249 U. S. 590, 63 L. Ed. 791; State *v.* Flannelly, 96 Kan. 372, 152 P. 22; West Virginia, etc. Co. *v.* Towers, 134 Md. 137, 106 A. 265.

In other cases it has been held that in the exercise of the police power of the state, the state commission has authority to fix the local burner tip rates, even though the gas moved in interstate commerce to the city gate, and particularly so where, as in the instant case, an affiliation exists between the transporting and the distributing companies. Thus the state commission may validly, by the indirect process of prescribing reasonable rates for local distributing companies, control and fix the city gate rate for gas moved in interstate commerce.

The Commission did not expressly require the distributing companies to pay not in excess of the 32¢ city gas rate,

but since this hearing was necessary as a preliminary step to the disposition of the appeals and cases pending, it was not essential that the Commission dispose of the matter before it in a single order; but it may, if the rate herein complained of be held not confiscatory or unreasonable and unjust, subsequently make its order requiring the distributing companies to pay not in excess of such rate, without further notice or hearing. Houston Chamber of Commerce *v.* R. R. Comm., *supra*. Manifestly, if the 32¢ rate is declared valid herein, appellee can have no further interest in any order the Commission may make with regard to requiring the various distributing companies to pay not in excess of such rate, and to pass the 8¢ reduction on to the ultimate consumer. Missouri *v.* Kansas Natural Gas Co., 265 U. S. 298, 68 L. Ed. 1027; Public Utilities Comm. *v.* Landon, *supra;* East Ohio Gas Co. *v.* Tax Com., 283 U. S. 465, 75 L. Ed. 1171; Pennsylvania Gas Co. *v.* Public Service Comm., *supra;* State Corp. Comm. *v.* Wichita Gas Co., 290 U. S. 561, 78 L. Ed. 500; Dayton P. & L. Co. *v.* Public Utilities Comm., 292 U. S. 290, 78 L. Ed. 1267; Gallatin Natural Gas Co. *v.* Public Service Comm., 79 Mont. 269, 256 P. 373.

Final decision, however, in most cases is rested upon the principle that the State may regulate interstate commerce of the character of natural gas in the absence of action by Congress. As hereinabove stated, the Interstate Commerce Act expressly excludes from the scope of the interstate commerce statute the transportation of natural gas. The amount of the rate or price to be charged for gas is primarily for the determination of the State in which the gas is consumed, and it is within the police power of the State to make or fix reasonable rates for gas furnished by a public utility to its citizens. Where the rates are reasonable and are fixed according to some uniform, fair and practical standard, they constitute no burden on interstate commerce. So, if the delivery of the gas by appellee from Texas through Oklahoma and back into Texas, intended at all times for Texas consumption; and if the production and transportation of the small amount of gas from Oklahoma to Texas, where it is sold, be regarded as interstate

commerce, still appellee's business is predominantly a Texas business; and it is within the police power of the State to fix reasonable rates for which gas may be sold to its citizens, even though such rates may indirectly or incidentally affect the interstate transportation of such gas, or may so affect interstate commerce in the same. Simpson *v.* Shepard, 230 U. S. 352, 57 L. Ed. 1511, 48 L. R. A. (N. S.) 1151, wherein it is held as follows:

> "Where the subject is peculiarly one of local concern, and from its nature belongs to the class with which the state appropriately deals in making reasonable provision for local needs, it cannot be regarded as left to the unreasonable will of individuals because Congress has not acted, although it may have such a relation to interstate commerce as to be within the reach of the federal power."

This doctrine has been carefully restated in the recent case of A. L. A. Schechter Poultry Corp. *v.* United States, 55 S. Ct. 837, 850, 79 L. Ed. 1570, 97 A. L. R. 947, as follows:

> "But where the effect of intrastate transactions upon interstate commerce is merely indirect, such transactions remain within the domain of state power. If the commerce clause were construed to reach all enterprises and transactions which could be said to have an indirect effect upon interstate commerce, the federal authority would embrace practically all the activities of the people; and the authority of the state over its domestic concerns would exist only by sufferance of the federal government. Indeed, on such a theory, even the development of the state's commercial facilities would be subject to federal control. As we said in Simpson *v.* Shepard (Minnesota Rate Case), 230 U. S. 352, 410, 33 S. Ct. 729, 745, 57 L. Ed. 1511, 48 L. R. A. (N. S.) 1151, Ann. Cas. 1916A, 18: 'In the intimacy of commercial relations, much that is done in the superintendence of local matters may have an indirect bearing upon interstate commerce. The development of local resources and the extension of local

facilities may have a very important effect upon communities less favored, and to an appreciable degree alter the course of trade. The freedom of local trade may stimulate interstate commerce, while restrictive measures within the police power of the state, enacted exclusively with respect to internal business, as distinguished from interstate traffic, may in their reflex or indirect influence diminish the latter and reduce the volume of articles transported into or out of the state.' See, also, Kidd *v.* Pearson, 128 U. S. 1, 21, 9 S. Ct. 6, 32 L. Ed. 346; Heisler *v.* Thomas Colliery Co., 260 U. S. 245, 259, 260, 43 S. Ct. 83, 67 L. Ed. 237."

It has also been held that "if it be assumed that interstate commerce will be incidentally affected, yet the regulation of the local charges of the Natural Gas Company as a public service corporation is within the police power of the State until the Congress sees fit to act." Manufacturers' Light & Heat Co. *v.* Ott, *supra*. And certainly the State's regulatory power is not denied where it does not interfere with or burden the free interstate flow of gas. Peoples Natural Gas Co. *v.* Public Service Com., 270 U. S. 550, 70 L. Ed. 726. The rate order in this suit does not in any manner interfere, restrain or burden the free transportation of gas between Texas and Oklahoma. Oklahoma gas may be freely transported to Texas and sold in the open market at the same reasonable rate fixed for Texas gas. We therefore conclude that, absent legislation by Congress, and since the Interstate Commerce Act as now amended, expressly excepted the regulation of transportation of "natural or artificial gas by pipe lines" from the jurisdiction of the Interstate Commerce Commission, the State Commission, in the exercise of the police power of the State to regulate and control public gas utilities, had the power to fix reasonable rates for gas delivered by appellee to distributing companies at the city gate, although interstate commerce may be indirectly or incidentally affected thereby.

We further conclude that since the amount of gas produced or purchased by appellee in Oklahoma and transported to and sold in Texas, is negligible; and, if interstate

commerce, the 32¢ rate fixed by the Commission in no manner interfered with, impeded, or burdened the flow of gas from Oklahoma, but such gas may be sold in competition with Texas gas and at the same reasonable price fixed by the Commission.

Freedom of Contract Issue.

The contracts of appellee with the distributing companies for the 40¢ city gate rate were made in the light of the Constitution and laws, and of the jurisdiction of the Commission to regulate such rates. The order changing such rate is therefore not violative of the freedom of contract, or impairment of obligation clauses of either the State or Federal Constitutions. (Const. Tex. art. 1, Secs. 16, 19; Const. U. S. art. 1, Sec. 10, cl. 1; Amend. 14).

The right of the State to regulate the rates and practices of a public utility is referable to the police power of the State, and is a legislative function which cannot be alienated or contracted away by the State or any agency or political subdivision of the State. The Constitution and laws of a state are a part and parcel of the terms of the corporate franchise, and the right of the state in the exercise of its police power to change franchise or contract rates in the protection of the inalienable rights and general welfare of its citizens is settled. Munn *v.* Illinois, 94 U. S. 113, 24 L. Ed. 77; Milwaukee Electric Ry., etc., Co. *v.* R. R. Com., 153 Wis. 592, 142 N. W. 491, L. R. A. 1915F, 744, Ann. Cas. 1915A, 911, affirmed in Id., 238 U. S. 174, 35 S. Ct. 820, 59 L. Ed. 1254; State *v.* Public Serv. Comm., 275 Mo. 201, 204 S. W. 497. The one exception to the rule is with regard to ordinances or contracts fixing rates for a limited period of time. Southern Iowa Electric Co. *v.* Chariton, 255 U. S. 539, 41 S. Ct. 400, 65 L. Ed. 764. Appellee's contracts are all for long periods of time, and do not come within the exception. And where, as in the instant case, there is an intimate alliance between the buyer and seller, and they are not dealing at arm's length because of intercorporate affiliation and transactions, the prices they fix are of no concern to the public, unless they are not within the bonds of reason. Houston *v.* Southwestern Bell Tel. Co., 259 U. S. 318, 323,

42 S. Ct. 486, 66 L. Ed. 961; Missouri ex rel. Southwestern Bell Tel. Co. *v.* Public Service Com., 262 U. S. 276, 288, 43 S. Ct. 544, 67 L. Ed. 981, 31 A. L. R. 807; United Fuel Gas Co. *v.* Railroad Com. of Kentucky, 278 U. S. 300, 320, 49 S. Ct. 150, 156, 73 L. Ed. 390, citing and quoting from Chicago & Grand Trunk Railway *v.* Wellman, 143 U. S. 339, 345, 12 S. Ct. 400, 36 L. Ed. 176, with approval; Smith *v.* Illinois Bell Tel. Co., 282 U. S. 133, 51 S. Ct. 65, 75 L. Ed. 255; Western Distributing Co. *v.* Public Service Comm. of Kansas, 285 U. S. 119, 52 S. Ct. 283, 76 L. Ed. 655; Dayton Power & Light Co. *v.* Public Utility Comm., 292 U. S. 290, 54 S. Ct. 647, 650, 78 L. Ed. 1267.

Confiscation of Property.

The constitutionality of a rate depends upon whether it will yield a fair return for the present and immediate future, on the value of the property used in the public service. In absence of an actual test under a new rate, the question of it will afford a reasonable return is one of fact. The burden rests heavily upon one seeking to set aside a state-made rate to plead and prove the invalidating facts. Ætna Ins. Co. *v.* Hyde, 275 U. S. 440, 48 S. Ct. 174, 72 L. Ed. 357, Beaumont, S. L. & W. Ry. Co. *v.* United States, 282 U. S. 74, 51 S. Ct. 1, 75 L. Ed. 221; Brush Electric Co. *v.* Galveston, 262 U. S. 443, 43 S. Ct. 606, 47 L. Ed. 1076. Appellee failed as a matter of law to plead and prove any invalidating fact as to the rate in suit; to which question we now pass.

Legal Sufficiency of Evidence to Show Rate Confiscatory or Unreasonable and Unjust.

The remaining question concerns the legal sufficiency of the evidence adduced by appellee to show that the 32¢ city gate rate was confiscatory and unreasonable and unjust. The rate was alleged to be so because it would not afford a reasonable return on the fair value of the property used in the public service of delivering gas to the various city gates, and amounted to taking the property without just compensation or due process of law, in violation of the 14th amendment to the Federal Constitution. When viewed in the light of the presumption in favor of the validity of the rate order,

and the quantum and character of the evidence required to overcome such presumption, the evidence adduced by appellee was clearly insufficient to show the rate confiscatory or unreasonable and unjust on the ground alleged.

The rate fixed by the Commission is presumed to be valid, reasonable and just until it is declared otherwise by a court of competent jurisdiction. R. R. Com. *v.* Uvalde Construction Co. (Tex. Civ. App.) 49 S. W. (2d) 1113. In order to overcome this presumption in favor of the validity of the rate on the constitutional ground of confiscation, the burden of proof rests heavily upon appellee. Dayton P. & L. Co. *v.* Pub. Utilities Comm., 292 U. S. 290, 54 S. Ct. 647, 78 L. Ed. 1267. And in order to set aside the rate as being unreasonable and unjust, Article 6059 requires that appellee show by "clear and satisfactory evidence that such rate is unreasonable and unjust as to it." A controversy immediately arises as to the proper interpretation to be given these rules and statutory requirements as to the burden and quantum of proof. The Commission contends that the rate must be sustained against the attack that it is confiscatory and unreasonable and unjust, because it does not allow a reasonable return on the fair value of the property, when it is shown to be based upon substantial evidence adduced before the Commission, and that only the evidence adduced before the Commission on the rate hearing may be considered on appeal to the court. On the other hand, appellee contends that the hearing on appeal to the court of such issues is de novo, and that "due process of law requires submission to a judicial tribunal for determination upon its own independent judgment as to both law and facts according to the settled rules governing judicial action and decision." Otis Elevator Co. *v.* Indus. Comm. 302 Ill. 90, 134 N. E. 19, 21; Ohio Valley Water Co. *v.* Ben Avon Borough, 253 U. S. 287, 40 S. Ct. 527, 64 L. Ed. 908; Reagan *v.* Farmers' Loan & Trust Co., 154 U. S. 363, 14 S. Ct. 1047, 38 L. Ed. 1014. As regards the rate making power of the Commission, the Texas courts have adopted this wider scope of review. R. R. Comm. *v.* H. & T. C. R. R. Co., 90 Tex. 340, 352, 38 S. W. 750; R. R. Comm. *v.* Weld & Neville, 96 Tex. 394, 403, 73 S. W. 529; Gulf, C. & S. F. Ry. Co. *v.* R. R. Com., 102 Tex. 338,

113 S. W. 741, 116 S. W. 795; R. R. Com. *v.* San Antonio Compress Co. (Tex. Civ. App.) 264 S. W. 214 (writ ref. Id., 114 Tex. 582, 278 S. W. 1115); Houston Chamber of Commerce *v.* R. R. Comm. (Tex. Civ. App.) 19 S. W. (2d) 583, affirmed (Tex. Com. App.), 78 S. W. (2d) 591, and Missouri-Kansas & T. Ry. Co. *v.* R. R. Com. (Tex. Civ. App.) 3 S. W. (2d) 489, 494, affirmed Producers' Ref. Co. *v.* Missouri, K. & T. R. Co. (Tex. Com. App.) 13 S. W. (2d) 679, wherein this court said:

> "Rate making is essentially a legislative function, and operates prospectively. Railroad Com. v. Weld & Neville, above; Prentis v. Atlantic Coast Line Co., 211 U. S. (210), 226, 29 S. Ct. 67, 53 L. Ed. (150), 158, 159, and authorities there cited. And the same is true of many rules and regulations within the delegated powers of the commission. Rate making has been delegated to the Railroad Commission alone, and its acts in that regard have the force and effect of statutes, and are subject to review to the extent only that statutes of the same import are so subject, with the additional power which articles 6657 and 6658 confer upon the courts to determine whether a rate, etc. is unreasonable or unjust to the party complaining."

The case of Crowell *v.* Benson, 285 U. S. 22, 76 L. Ed. 598, in determining the scope of review and whether new evidence will be heard on appeal from a state commission's rate order, held as follows:

> "In cases brought to enforce constitutional rights, the judicial power of the United States necessarily extends to the independent determination of all questions, both of fact and law, necessary to the performance of that supreme function.' The case of confiscation is illustrative, the ultimate conclusion almost invariably depending upon the decisions of questions of fact. This court has held the owner to be entitled to 'a fair opportunity for submitting that issue to a judicial tribunal for determination upon its own independent judgment as to both law and facts. * * *.
>
> "Assuming that the Federal court may determine for itself the existence of these fundamental or juris-

> dictional facts, we come to the question—Upon what record is the determination to be made? There is no provision of the statute which seeks to confine the court in such a case to the record before the deputy commissioner or to the evidence which he has taken. * * *
>
> "We think that the essential independence of the exercise of the judicial power of the United States in the enforcement of constitutional rights requires that the Federal court should determine such an issue upon its own record and the facts elicited before it."

See, also, State Corp. Com. *v.* Wichita Gas Co., 290 U. S. 561, 54 S. Ct. 321, 78 L. Ed. 500; Lehigh Valley R. Co. *v.* Com'rs, 278 U. S. 24, 49 S. Ct. 69, 73 L. Ed. 161, 62 A. L. R. 895; Prendergast *v.* N. Y. Tel. Co., 262 U. S. 43, 43 S. Ct. 466, 67 L. Ed. 853.

As regards the statutory appeal authorized by Article 6059, to determine whether a rate order is unreasonable and unjust, it is manifest that the legislature intended for the trial on appeal to be de novo and upon new or additional evidence pertinent to the issue, because the complainant is required to show by "clear and satisfactory evidence that such rate is unreasonable and unjust as to it." Similar statutes regarding railroad rates have been so construed by the above cited Texas cases, and in other states. The scope of judicial appellate review of orders of administrative boards or commissions is usually controlled by legislative enactment. This may be either by a hearing de novo or it may mean merely the correction of non-permissible error. Freund on Administrative Powers over Persons and Property, 278. Statutes which authorize appeals from matters of purely administrative decision or discretion are usually construed to authorize only the correction of non-permissible error, or to favor the merely corrective scope of review. Illustrative of these matters is the question of issuing a license, or the granting of a permit, or determining whether a public necessity or convenience exists for bus or truck operation. In such cases the legislature does not vest in courts the administrative function of determining whether a license, permit, or certificate of convenience

or necessity should issue, but merely gives the courts authority to determine whether the action of the administrative board or commission is (a) beyond the power it could constitutionally exercise, or (b) beyond its statutory power, or (c) based upon substantial evidence.

As to such administrative matters the legal effect of the findings of fact by the administrative body approximates a question of law, and a finding without evidence is, of course, beyond the power of the administrative body. Nor will courts in such cases review conclusions of the administrative body based upon conflicting evidence; but will sustain its order if based upon substantial evidence. Such is the holding in the case of R. R. Comm. *v.* Shupee (Tex. Civ. App.) 57 S. W. (2d) 295, affirmed Id., 123 Tex. 521, 73 S. W. (2d) 505, and R. R. Comm. *v.* Lamb (Tex. Civ. App.) 81 S. W. (2d) 161. But the questions of whether a rate is confiscatory or unreasonable and unjust have been held to be legal or justiciable questions of fact, and as to which the wider scope of judicial appellate review seems to have been adopted by the legislature and courts of this state. The limited scope of judicial review of rates fixed by an administrative commission was first enforced (Peik *v.* Chicago, etc. Ry. Co., 94 U. S. 164, 178, 24 L. Ed. 97) by the courts; but was soon abandoned, and through a process of trial and argument of several cases, the present rule that the 14th Amendment to the Constitution protects the property of citizens from confiscation by an act of the legislature or by a commission to which legislative regulatory power has been delegated, was developed. State *ex rel.* Southwestern Bell Tel. Co. *v.* Pub. Serv. Com. (Mo. Sup.) 233 S. W. 425, 430.

But whether the scope of judicial review is a hearing de novo or the correction of non-permissible error, the appeal is still merely corrective. The question is not whether the court, if the order were originally before it, would make the same order as was made by the Commission, but only whether the commission has acted reasonably upon sufficient evidence, and whether any substantial right of the complaining party has been infringed. In determining the sufficiency of the evidence under the wider scope of judicial review, the question is not whether there is a scin-

tilla of evidence to support the order, but whether the order is fairly and substantially supported by the evidence, when viewed in the light of the presumption in favor of the order, and the quantum and character of the evidence required to overcome such presumption. Particularly is this so with regard to making rates or division of rates, which are legislative and not judicial in character, and necessarily imply a range of legislative discretion, which the courts must recognize, and with which they cannot interfere except where constitutional or statutory rights are violated. The reason for the court appeal being corrective only is well stated in the Bell Telephone case, *supra*, as follows:

> "The statutes declaring rates fixed by the Commission to be prima facie reasonable until that presumption is removed by one seeking their annulment are but a proper recognition of the power and purpose of the Commission, without which its acts would be mere empty declarations, whose effective operation would, in each instance, have to await judicial approval. Such a conception of the nature and powers of the Commission is wholly unauthorized. Organized, as the Statute creating the Commission clearly declares, for the purpose of supervising and regulating public service corporations, the courts, in reviewing its actions, proceed upon the assumption that the experience of the members of the Commission has especially fitted them for dealing with questions concerning the powers and activities of such corporations; and, despite the fact that the entire evidence will be reviewed, much consideration is to be given to the findings of the Commission, which if reasonable, and neither arbitrary nor capricious, will be deferred to. New York *ex rel.* N. Y. & Queens County Gas Co. *v.* McCall, 245 U. S. (345), loc. cit. 347, 38 S. Ct. 122, 62 L. Ed. 337."

In the case of R. R. Commission *v.* Galveston C. of C., 105 Tex. 101, 145 S. W. 573, 580, which construed the similar statutes authorizing appeals from railroad rates fixed by the Commission, and the statutory requirement that complainant show "by clear and satisfactory evidence that the

rates are unreasonable and unjust," the scope of judicial appellate review was held to be as follows:

> "The foregoing statute so guards the Commission from improper interference that the courts must regard its actions, when within the limits of its delegated powers, as being the result of a purpose to do justice between all parties, and as having resulted in just and correct action until it be shown by clear and satisfactory evidence to be otherwise. R. R. Commission *v.* Weld & Neville, 96 Tex. (394), 409, 73 S. W. 529. The language, 'clear and satisfactory evidence,' limits the power of courts in setting aside rates, etc., to cases in which it may be established by evidence which leaves no reasonable doubt in the judicial mind that the rate or rule is unjust and unreasonable. Willis *v.* Chowning, 90 Tex. 617, 40 S. W. 395, 59 Am. St. Rep. 842. It is true that this attributes to the work of the Commission a high degree of verity, but it is the plain language of the law, and is no doubt a wise provision.
>
> "It is not within the language nor the spirit of the law which authorizes the courts to review the action of the Railroad Commission that any court should investigate the methods adopted by the Commission in fixing its rates nor the motives or purposes which prompted such action. The result and its effect upon the rights of railroads and shippers mark the limit of judicial inquiry."

The rules and statutory requirements are general in nature and their applicability necessarily depends upon the facts in each case. No rule can be laid down as to rates which will apply uniformly to all sorts of utilities. In determining whether a rate is confiscatory or unreasonable and unjust because it may not in the future yield a proper return, the basis of calculation is the fair value of the property used in the public service. What may be a fair return for one may be inadequate for another, depending upon circumstances, competition or monopoly, public necessity, speculative and highly profitable enterprises, hazards, locality and risk. And where as in the instant case the evidence is conflicting and the conclusion to be drawn there-

from in respect of this or that item uncertain or speculative, the court should not interfere with gas rates in advance of any actual experience of the practical result of such new rates. Willcox *v.* Consolidated Gas Co., 212 U. S. 19, 29 S. Ct. 192, 53 L. Ed. 382, 48 L. R. A. (N. S.) 1134, 15 Ann. Cas. 1034; Brush Elec. Co. *v.* Galveston, 262 U. S. 443, 43 S. Ct. 606, 67 L. Ed. 1076; N. P. Ry. Co. *v.* North Dakota, 216 U. S. 579, 30 S. Ct. 423, 54 L. Ed. 624; Cedar Rapids Gas Light Co. *v.* Cedar Rapids, 223 U. S. 655, 32 S. Ct. 389, 56 L. Ed. 594; City of Louisville *v.* Telephone Co., 225 U. S. 430, 32 S. Ct. 741, 56 L. Ed. 1151; City of Knoxville *v.* Knoxville Water Co., 212 U. S. 1, 29 S. Ct. 148, 53 L. Ed. 371. Especially is this true where our statutes and the rate order here complained of provide that "this proceeding shall be kept open for such orders as may be proper." Immediately upon the rate in question being fixed, appellee applied to the courts to restrain its enforcement before an actual test was had under the reduced rate.

On the hearing before the Commission as well as on appeal to the court, five primary factors were considered as essential to the correct determination of whether the rate was confiscatory or unreasonable and unjust because it did not allow a reasonable return on the fair value of the property of appellee used in the public service of delivering natural gas to the various city gates, as follows:

1. What was the present fair value of the property of appellee used in the public service?

2. What was a reasonable annual allowance for depreciation of such property?

3. What were the reasonably necessary operating expenses?

4. What were the reasonable operating revenues?

5. What was a reasonable rate of return on the property used?

The fair value of the property used by appellee in the public service was determined by deducting from the reproduction cost new the accrued depreciation of such property. Since appellee was engaged in the integrated business of

producing, purchasing, transporting and selling natural gas to the distributing companies at the city gates of some 300 cities and towns in Texas and Oklahoma, it became necessary to allocate or segregate the property used in Texas as well as that used conjointly in both states, in order to determine the fair value of the property used in the Texas public service, the annual depreciation thereof, and the Texas operating expenses and revenue. In making the segregation and proof of fair value of the property, both the Commission and appellee used calculations, estimates and opinions of expert accountants and engineers. However, different methods of segregation were adopted by the parties. The method of segregation adopted by the Commission provided for allocation to Texas operations, or to intrastate commerce the value of all property located within the physical boundary of Texas. The short section of pipe line from Texas Panhandle field across the corner of Oklahoma and back into Texas was also allocated to Texas operations. Gas sales adjustment was made wherein Texas or intrastate operations were charged with the net amount of Oklahoma produced gas for the six-year (1929-1934) accounting period adopted by the Commission. No charge against Oklahoma or interstate operations was made for the use of the transmission lines and for equipment within Texas; the effect of which was to give free transportation in Texas of all Oklahoma produced gas. Texas and Oklahoma expenses and revenues were allocated in general accord with the segregation of the physical properties. Under this method the fair value of the property undepreciated used in Texas public service was $40,256,862.39, according to the calculations and opinions of the Commission's experts. After deducting the operating expenses and annual depreciation there remained for the last two years of the accounting period, being the two lowest revenue years of the period, Texas net revenue which would yield a return of 6.74% and 6.76%, respectively. The method of segregation used by appellee was materially different. Under its method of segregation all of the gas produced or purchased by appellee in Texas Panhandle field and transported by its private pipe lines across the corner of Oklahoma and back into Texas for sale and use, and all Oklahoma produced

gas were allocated to interstate commerce. The allocation was made by a determination of the specific gravity of the Oklahoma and Texas Panhandle gas on the one hand, and West Texas gas with which it was commingled in pipe lines on the other hand. It seems that the Oklahoma and Panhandle gas had about the same specific gravity. Appellee claimed that by determining the specific gravity of the gas in any particular pipe line, the percentage of Oklahoma-Texas Panhandle gas could be determined and allocated to that line. Appellee allocated operating expenses and revenue between the two states upon substantially the same basis as used for the property. An expert employed by appellee found the fair value of property used in Texas public service, based upon reproduction cost new, less depreciation, to be $38,350,882.32. He excluded from this calculation all property and equipment used in handling the Texas Panhandle field gas. If he had allocated such property to Texas and considered the fair value of the property as undepreciated, there would have been very little difference between his finding of fair value and that found by the Commission's experts. However, in all their elaborate calculations, estimates and opinions, the experts employed by the appellee allocated the Texas Panhandle gas to interstate commerce. We have held that this gas did not move in interstate commerce, and it necessarily follows that the testimony of the experts based upon the erroneous assumption that such gas did move in interstate commerce proved nothing material to this case. Appellee offered no other proof upon a correct segregation or allocation of the property, and the trial court erred in refusing the Commission's motion for an instructed verdict and for judgment declaring the rate order appealed from to be valid in every respect. The burden was upon appellee to show by clear and satisfactory evidence a proper segregation of interstate and intrastate properties and business, and to show the value of the property employed in intrastate business or commerce and the compensation it would receive under the rate complained of upon such valuation. Having failed to make a proper segregation of interstate and intrastate properties, appellee did not adduce the quantum and character of proof necessary to establish the invalidity of the rate as being con-

fiscatory, or unreasonable and unjust. Simpson *v.* Shepard, 230 U. S. 352, 33 S. Ct. 729, 57 L. Ed. 1511, 48 L. R. A. (N. S.) 1151, Ann. Cas. 1916A, 18; Allen *v.* St. Louis, I. & M. S. R. Co., 230 U. S. 553, 33 S. Ct. 1030, 57 L. Ed. 1625; Smith *v.* Illinois Bell Tel. Co., 282 U. S. 133, 51 S. Ct. 65, 75 L. Ed. 255.

Clearly the difference in theory as to whether the gas produced or purchased by appellee in the Texas Panhandle field and transported by its private pipe line across a corner of Oklahoma and back into Texas, where it was intended at all times to be sold and used, accounts for most of the important difference with respect to the fair value of the property used in Texas public service, the annual depreciation thereof, and particularly as to the operating expenses and revenues. For instance, the Texas Panhandle gas cost appellee 2¢ per thousand cubic feet at the well; whereas, the gas from all other sources or fields cost from 6 to 10¢ per thousand cubic feet. The advantage in favor of appellee in excluding this gas from intrastate commerce is apparent. The cost of the 2¢ gas would add only about $125,000 annually to Texas operating expenses, according to appellee's Exhibit No. 46; whereas, according to the same exhibit, which shows the percentage of the total cost of gas transported from the Panhandle field and sold in Texas, the Texas revenue would have been increased for the 1929-1933 period more than $1,500,000 annually; and calculations show that if other proper operating expenses were included and charged against the Panhandle gas, still the profit in such gas was more than in other gas handled by appellee either in Oklahoma or Texas. Thus the double advantage to appellee in freezing this gas from intrastate commerce and from state regulation is shown.

The appraisals also differ as to various units of transmission construction costs, due in a large measure to the difference in theory of segregation. Where they relate to the same property the appraisals are in every way comparable. Appellee used actual cost experiences and arbitrarily added 20% as possible contingencies. The Commission allowed only actual cost experience, which were substantiated by the testimony of contractors engaged in excavation and general construction work. At most the evidence merely presented the difference of opinions of equally

well qualified experts. Manifestly this evidence in absence of actual experience under the rate, does not meet the quantum and character of proof necessary to set aside the rate order as being confiscatory or unreasonable and unjust as to appellee.

The greatest difference between the parties relates to a proper allowance for depreciation and amortization. Appellee estimated that for both Texas and Oklahoma properties, exclusive of gas leasehold depletions, the annual requirement for depreciation and amortization was $3,465,-123.36. The Commission estimated that appellee should be allowed for annual depreciation and amortization of its Texas properties, exclusive of leaseholds, the sum of $831,-946.08. The actual experience of the appellee for the seven-year period as shown by its books, is as follows:

"Jan. 1, 1927, to Dec. 31, 1933, inclusive

Jan. 1st	Balance.	Accrual.	Net Charges.
1927	$8,294,762.08	$1,280,856.10	$245,097.73
1928	9,330,520.45	1,198,192.50	260,768.59
1929	10,267,944.36	1,190,062.06	450,335.00
1930	11,007,671.42	580,022.80	464,875.93
1931	11,122,818.29	1,841,779.61	720,014.28
1932	12,244,583.68	1,841,508.16	(Credit 62,725.18
1933	14,148,817.02	1,882,333.41	335,736.55
1934	15,695,413.88	Total....	$2,414,102.90"

Thus it is shown that the depreciation allowance of appellee's experts is speculative, at war with the actual experience, and plainly excessive. Against $2,414,102.90 for the seven-year period as evidenced by appellee's books, its experts estimate annual depreciation and amortization at approximately $1,000,000.00 per year more. With respect to such proof it was held in the case of Lindheimer *v.* Ill. Bell Tel. Co., 292 U. S. 151, 54 S. Ct. 658, 668, 78 L. Ed. 1182, that:

> "The company has had abundant opportunity to establish its contentions. In seeking to do so the company has submitted elaborate estimates and computations, but these have overshot the mark. Proving too much, they fail of the intended effect. • • •
>
> "Elaborate calculations which are at war with realities are of no avail."

The Commission adopted the sinking fund method for determining annual depreciation, which provides for an annual return on an undepreciated rate base; and which in addition to the annual depreciation of $831,946.08, also allowed 6% per annum on the accumulated depreciation reserve. The calculations and estimates of appellee applied to both Texas and Oklahoma properties, and since such calculations and estimates are so contrary to the experience of the company, they do not meet the quantum and character of proof required with respect to judicial appellate review of utility rates fixed by an administrative commission or board. Dayton P. & L. Co. *v.* Pub. Utilities Comm., *supra.*

With respect to operating expenses, except as to a few controverted items, and with respect to revenues, there is no substantial difference in the testimony as to totals of both Texas and Oklahoma for the years of the accounting period. However, the same controversy arises as to a proper segregation of such expenses and revenues to each state. This difference has already been pointed out, and since appellee failed to make proper segregation of the expenses and revenues, it failed to prove its case.

Many items of operating expense are so contrary to the actual experiences of appellee, or are so large as to be excessive on their face. A few of these will be adverted to as showing that in proving too much appellee's experts proved nothing.

Federal Taxes.

An item of between three and four hundred thousand dollars a year is set aside by the experts as federal income and other taxes. The company has never paid an income tax, and its liability therefor is now in litigation. The only testimony in the record with regard to the amount that should be paid for taxes by appellee in its department of the corporate hook-up was around $50,000 per annum. The testimony indicates that the Lone Star Gas Corporation, the holding company, has paid all of the income taxes for all of its affiliated companies; but if it be assumed that such payment is chargeable back to appellee company, a proper amount would not be more than $50,000 per year, instead

of the three or four hundred thousand dollars charged against it by the experts. Galveston Electric Co. *v.* Galveston, 258 U. S. 388, 42 S. Ct. 351, 66 L. Ed. 678.

Management Fees.

The evidence shows that the holding corporation has charged appellee management fees ranging from $78,000 to around $100,000 per year. These fees appellee claims were earned by four persons, Crawford, Mitchell, Gregory and Simpson. They are directors of one or the other corporations constituting the corporate set-up above referred to. Simpson seems to have rendered service as a purchaser of pipes for appellee. The item of pipes was the greatest of appellee's expenses. The evidence shows that if Simpson rendered any service in purchasing pipes at a discount, that no such discount would be any longer allowed, and that appellee would have to pay the quoted prices like anyone else. Manifestly this service is not worth anything in the future. Besides, he rendered the services prior to 1929, when the management fee was originated, and no compensation was required before that time. Other management fees were charged, as legal fees, accounting fees, and engineering and supervision fees. Appellee was organized in 1909, with a capital stock of $2,500,000, half of which was paid for with gas leases owned by the incorporators. Since then its capital stock has been increased to $12,500,000. It borrowed on its unsecured note or open account $17,600,000 from the holding corporation, which debt with others amounting to $19,000,000, have been gradually reduced. The holding corporation borrowed this money from one-half to two per cent less than it charged appellee. This ought to be sufficient management fees, if any should be demanded by the holding corporation. The holding corporation has been paid fair to large dividends annually on the stock of appellee owned by it. In addition, some of the holding company officers are paid salaries by appellee and the affiliated distributing companies. The proof as to the reasonableness of the management fee was not clear and satisfactory, as required to be under the aforementioned rule.

New Business Expenses.

These advertising or new business expenses vary from $81,000 to $126,000 per annum. Appellee does business with the affiliated corporations. Besides sale of the industrial gas, the affiliated corporations sell to the domestic and local burner tip consumers. Appellee proved only a small amount of advertising, nothing in proportion to the charges made by the experts in their account. Except for a few items, it made no showing how much advertising it did for the affiliated distributing companies; and certainly this $100,000 annual expense for advertising is not supported by the quantum and character of evidence required.

Cancelled and Surrendered Leases.

The undisputed evidence shows that appellee has gas reserves which are adequate for forty years to come. It has gas reserves in the largest gas fields in the world. Beginning in 1929, appellee began to charge off around $200,000 per annum for cancelled and surrendered leases. In view of its admitted large gas reserves, which will last for forty years, and in view of the fact that it is a matter of judicial knowledge that gas by the multiplied millions in cubic feet is being wasted daily because of the lack of a market, we think these large charges are unjustified. The Commission allowed the company for its gas produced from company owned wells the full prevailing price. They eliminated production expenses, drilling and tool expenses, dry holes, and cancelled and surrendered leases, because the method adopted of allowing the full prevailing field price concurrently paid to other gas owners necessarily eliminated such items. The owners of other gas wells bear all of these expenses, and it would seem that the price paid other owners includes all of these items of expense. West Ohio Gas Co. *v.* Public Utilities Comm., 128 Ohio St. 301, 191 N. E. 105. At any event, if appellee was entitled to some charge for leasehold depletions, the amount claimed was clearly too large and excessive. The burden was upon appellee to show that the charge was reasonable.

Regulatory Commission and General Expenses.

The experts employed by appellee charged in excess of $400,000 per annum for regulatory commission and general expenses. The proof did not show the reasonableness of any item of such expense. There was some character of litigation in Oklahoma and this present litigation. If the entire expense should be spread over a period of years since 1909, when the appellee began to do business, it would amount to some $16,000 per year. A witness for appellee testified that such annual amount would be reasonable. It is, therefore, manifest that $50,000 per year or better for such expenses is too much. This defendant began business in 1909, with a comparatively small capital stock. It has now a capital stock of $12,500,000, which is fully paid up. It owes approximately $17,600,000; it has properties in Oklahoma and Texas of the aggregate value of $75,000.000. Allocated to Texas public service is property valued at $40,000,000. Appellee offered evidence covering only about 3½ years next preceding the fixing of the rate as to its operating expenses. These calculations covered the depression years, which, of course, are the worst in its history; and even at that the last year shows an upward trend in its business. It is not shown to have lost money at any time, or to have failed to earn a fair return upon the property allocated to Texas, not even for the year 1933, which was the most abnormal one from the standpoint of temperature and financial depression. Its experts testified that its property is almost 85% perfect. From the very beginning appellee has been favored, enjoying a clear monopoly with all the rights of eminent domain. There is nothing in the history of appellee's business experience which would justify the exorbitant and large account sought to be charged in this item of expense.

Going Value.

In arriving at its rate base appellee included an item of more than $7,000,000 as "going value." Appellee has not experienced any losses on account of inception costs, which are usually included in going value. With the exception of

all items, inception costs of all kinds have been in reproduction cost new calculations. Appellee's was valued as an assembled and going business. ness has been profitable, and all inception costs doubt been long since paid out of rates heretofore and collected. The reproduction cost new value, mined in the instant case, allows for all overhead which, together with the reasonable operating ex- lowed, fully compensate appellee for all develop- ts which have been incurred, and are ample to ms entering into and forming a part of what is to as "going concern value." The following au- show clearly the impropriety of allowing going value under the facts of the instant case. Los Gas & Electric Corp. *v.* R. R. Com., 289 U. S. 287, 637, 77 L. Ed. 1180; Columbus Gas & Fuel Co. *v.* Com., 292 U. S. 398, 54 S. Ct. 763, 78 L. Ed. 1327, R. 1403; Dayton Power & Light Co. *v.* Utility Com., 290, 54 S. Ct. 647, 78 L. Ed. 1267; Galveston Elec- . Galveston, 258 U. S. 388, 42 S. Ct. 351, 66 L. Ed. D. C.) 272 F. 147.

Rate of Return.

he contention of appellee that the jury may have at a 6% rate of return was confiscatory or un- e and unjust. The issue of confiscation was not l to the jury, and we are clear in the view that the adduced by appellee did not raise a jury question ther a 6% rate of return was either confiscatory onable and unjust. The Commission found that of return on the fair value of the property used ublic service after allowing for all reason- ating expenses and for depreciation and amor- was sufficient. The burden was heavily upon o show by clear and satisfactory evidence that of return was confiscatory or unreasonable and o meet this test appellee was required to "estab- idence which leaves no reasonable doubt in the ind that the rate is unjust and unreasonable." m. *v.* Galveston C. of C., *supra*. This appellee

did not do. It offered the testimony of an interested witness and the testimony of experts employed by it to the effect that in their opinion an 8% or 10% rate of return would be reasonable. A disinterested expert testified that under present business conditions a 6% rate of return was entirely fair and reasonable. This evidence merely presented the difference of opinion of experts, and manifestly their opinion or opinions cannot be substituted for the finding of the commission that a 6% rate of return was fair and reasonable, which finding was based upon substantial evidence. In fact, six per cent per annum is the legal or statutory rate of interest in this State, and appellee offered no evidence which even tended to show that a 6% rate of return would confiscate its property, or was unreasonable or unjust. And since the rate order was calculated upon the fair value of the property used in the public service, after allowing very reasonable operating expenses and depreciation and amortization allowances, no reason exists why the 6% rate of return should be declared confiscatory; but to the contrary, it should be held to allow a fair and reasonable rate of return on the property dedicated to the public service by appellee.

A 6% rate of return has been held not confiscatory in the following cases: Willcox *v.* Consolidated Gas Co., 212 U. S. 19, 48, 50, 29 S. Ct. 192, 53 L. Ed. 382, 48 A. L. R. (N. S.) 1134, 15 Ann. Cas. 1034; Cedar Rapids Gas Light Co. *v.* Cedar Rapids, 223 U. S. 655, 670, 32 S. Ct. 389, 56 L. Ed. 594; Des Moines Gas Co. *v.* Des Moines, 238 U. S. 153, 172, 35 S. Ct. 811, 59 L. Ed. 1244. See, also, Stanislaus County *v.* San Joaquin & King's River C. & I. Co., 192 U. S. 201, 216, 24 S. Ct. 241, 48 L. Ed. 406; West Ohio Gas Co. *v.* Public Utilities Com., 128 Ohio St. 301, 191 N. E. 105, 115; State *ex rel.* Capital City Water Co. *v.* Public Service Comm. of Mssiouri, 298 Mo. 524, 252 S. W. 446, 454-459.

We are also clear in the view that where a state commission fixes a utility rate so as to allow a 6% rate of return on the property used in the public service, the courts will not, prior to a fair test of such rate, declare same void, unless the evidence establishes that it is confiscatory or

invalid as a matter of law. Denver Union Stock Yard Co. *v.* United States (D. C.) 57 F. (2d) 735, 752, 753; State *v.* Public Service Com., 298 Mo. 524, 252 S. W. 446, 458; Knoxville *v.* Water Co., 212 U. S. 1, 15, 29 S. Ct. 148, 53 L. Ed. 371; West Ohio Gas Co. *v.* Public Utilities Comm., 128 Ohio St. 301, 191 N. E. 105, 110, Cedar Rapids Gas Light Co. *v.* Cedar Rapids, 223 U. S. 655, 666, 670, 32 S. Ct. 389, 56 L. Ed. 594; Willcox *v.* Consolidated Gas Co., 212 U. S. 19, 51, 29 S. Ct. 192, 53 L. Ed. 382, 48 L. R. A. (N. S.) 1134, 15 Ann. Cas. 1034; Railroad Com. of Louisiana *v.* Cumberland Tel. & Tel. Co., 212 U. S. 414, 426, 29 S. Ct. 357, 53 L. Ed. 577.

The calculations, estimates and opinion of its experts show a studied effort on the part of appellee to charge large items as operating expenses and depreciation, at war with the actual experience of the company, and we find no proof which would authorize the trial court to submit any issue to the jury, but find that appellee wholly failed to meet the burden of proof placed upon it, and to show by clear and satisfactory evidence that the rate was confiscatory, unjust, and unreasonable as to it. Especially is this true in view of the rule that absence actual experience under the rate fixed, the courts will not disturb a rate where the evidence is so conflicting, and the conclusions to be drawn therefrom in respect to this or that item uncertain and speculative; and particularly is this true where, as in the instant case, if it be shown in actual experience that the rate would not afford a reasonable return and was confiscatory, appellee is free to make another application for relief before the Commission.

Judgment of the trial court declaring the rate to be unjust and unreasonable is reversed. The injunction granted by the trial court is dissolved, and the city gate rate of 32¢ fixed by the Commission is declared to be just, reasonable and valid in every particular.

M. B. Blair,
Associate Justice.

Judgment trial court reversed; Injunction Dissolved.
Filed July 10, 1935.

APPENDIX "B".

Opinion of Court of Civil Appeals on Motion for Rehearing.

(Reported 86 S. W. (2d) p. 506)

No. 8238.

Motion No. 8153.

THE STATE OF TEXAS *et al, Appellants,*

vs.

LONE STAR GAS COMPANY, *Appellee.*

ON APPELLEE'S MOTION FOR REHEARING.

On motion for a rehearing appellee makes the claim that the record does not sustain some of our findings of fact. No reference is made to the record in support of such claim. Most of the asserted discrepancies relate to the valuation of the property used in the public service, or to alleged necessary operating expenses. We held that as a matter of law appellee failed to establish by clear and satisfactory evidence the ultimate fact issue, to-wit: Whether the rate fixed by the Commission was so low as not to afford a reasonable return on the fair value of the property used in the Texas public service. Appellee was afforded a seven months hearing before the Commission and a three months trial on appeal to the court. It made no segregation as between its Texas and Oklahoma properties and operations; and did not prove the fair value of the property used in the Texas public service. The question of the value of such property determines the reasonableness of the rate and probably, in the ultimate analysis, adequacy of service and principles of financing. Valuation of such public service property is in the main a matter of estimate or opinion, and closely resembles discretion as regards the finding of value by an administrative commission. In any event, a scientific or statutory standard of absolute value is unattainable; and because of this uncertainty of value, except where the evidence clearly shows gross over or under valuation, or mistake, inequality or fraud in the appraisal,

the finding of value by an administrative commission is generally given finality. Especially is this the rule in absence of an actual test under the new rate. In addition to the authorities cited in the original opinion, see the following: People *v.* Board of Assessors, 39 N. Y. 81; Taylor *v.* L. & N. R. Co. (C. C. A.) 88 F. 350; Chicago *v.* Burtice, 24 Ill. 489; State Railroad Tax Cases, 92 U. S. 575, 23 L. Ed. 663; Hilton *v.* Merritt, 110 U. S. 97, 3 S. Ct. 548, 28 L. Ed. 83; People *v.* State Board of Tax Com'rs, 196 N. Y. 39, 89 N. E. 581.

Motion overruled.

APPENDIX "C".

Court Rules.

1. *Rule 4 of the Supreme Court of Texas:*

When the application shall have been filed for a period of ten days, if the court shall determine to refuse the same, then whether the defendant has answered or not, the clerk of the court will retain the application, together with the transcript and accompanying papers, for fifteen days from the day of rendition of the judgment refusing the writ. At the end of that time, if no motion for rehearing has been filed, or upon the overruling or dismissal of such motion, in case one has been filed, the clerk of this court shall transmit to the Court of Civil Appeals to which the writ of error is sought a certified copy of the orders of this court denying such application and of the order overruling the motion for a rehearing thereof, and shall return the papers which belong to that court to the clerk thereof, but shall retain the petition for writ of error.

A motion for rehearing of an application for writ of error is not a matter of right, but in case such motion shall be filed within fifteen days after the refusal of the application and before the court shall adjourn for the term, the court will consider the same if it be based upon a ground not embraced in the application or contains the citation of authorities not before cited. The presentation of any point

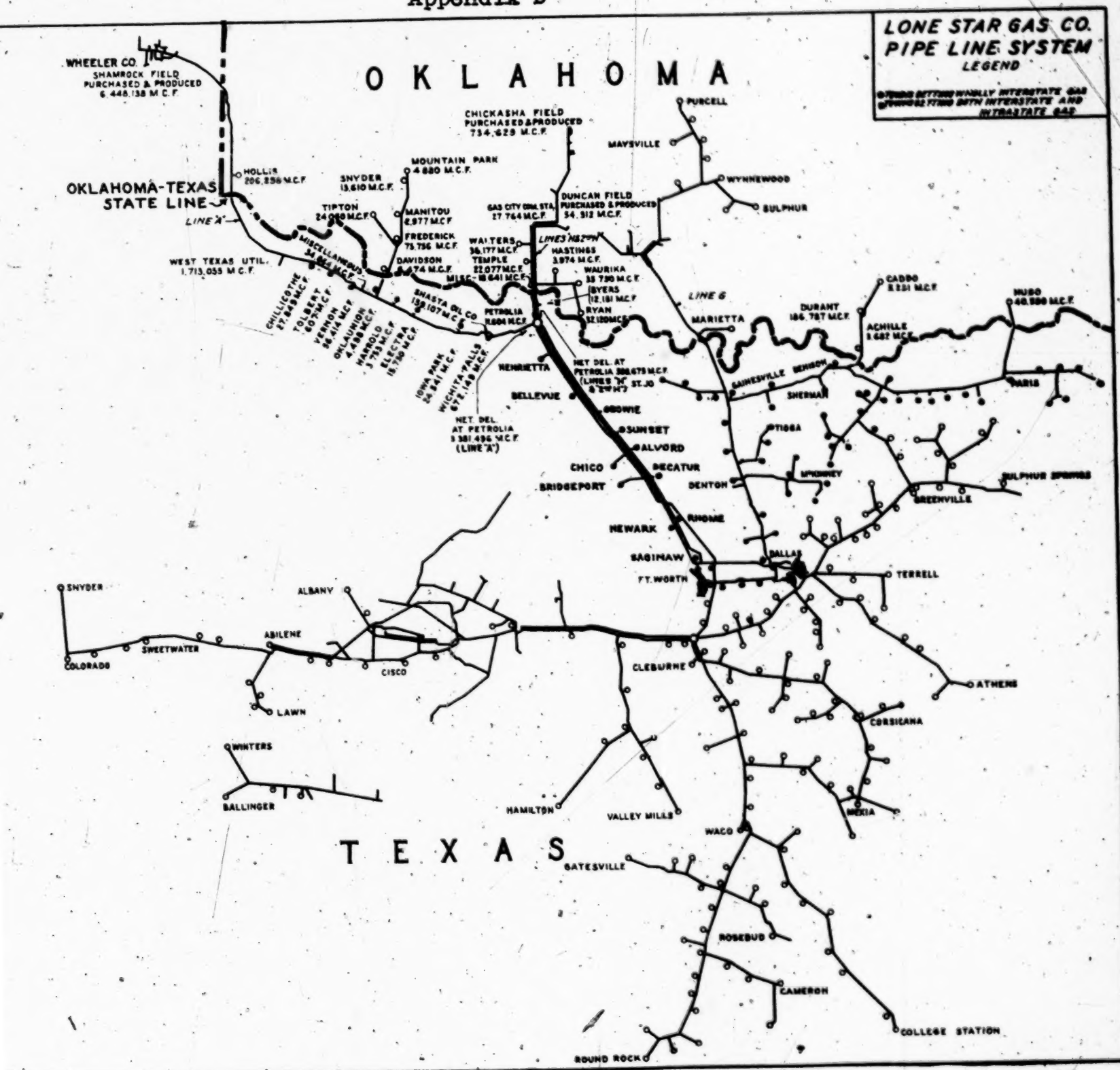
or points presented in the application without urging some new argument or citing some new authority will be deemed a sufficient ground for dismissing the motion.

2. *Rule 66, Texas Courts of Civil Appeals:*

Upon the presentation to him of an application for a writ of error, the clerk of the Court of Civil Appeals shall withhold the mandate until properly advised of the disposition of the case by the Supreme Court.

(Here follows one map, Appendix D, side folio 109.)

Appendix D


LONE STAR GAS CO.
PIPE LINE SYSTEM
LEGEND
OKLAHOMA
TEXAS
WHEELER CO.
SHAMROCK FIELD
PURCHASED & PRODUCED
6,448,138 M.C.F.
OKLAHOMA-TEXAS
STATE LINE
LINE 'A'
HOLLIS
206,256 M.C.F.
SNYDER
13,610 M.C.F.
MOUNTAIN PARK
4,880 M.C.F.
TIPTON
24,089 M.C.F.
MANITOU
2,977 M.C.F.
FREDERICK
75,756 M.C.F.
DAVIDSON
2,674 M.C.F.
MISCELLANEOUS
34,864 M.C.F.
WEST TEXAS UTIL.
1,713,055 M.C.F.
CHILLICOTHE
27,849 M.C.F.
TOLBERT
607 M.C.F.
VERNON
86,414 M.C.F.
OKLAUNION
4,838 M.C.F.
HARROLD
3,793 M.C.F.
ELECTRA
15,790 M.C.F.
IOWA PARK
24,841 M.C.F.
WICHITA FALLS
672,148 M.C.F.
BHASTA OIL CO.
158,107 M.C.F.
PETROLIA
11,804 M.C.F.
NET DEL. AT PETROLIA
1,381,496 M.C.F.
(LINE 'A')
CHICKASHA FIELD
PURCHASED & PRODUCED
734,629 M.C.F.
GAS CITY GAS STA.
27,764 M.C.F.
DUNCAN FIELD
PURCHASED & PRODUCED
54,312 M.C.F.
WALTERS
36,177 M.C.F.
TEMPLE
22,077 M.C.F.
MISC. 18,641 M.C.F.
HASTINGS
3,974 M.C.F.
WAURIKA
35,790 M.C.F.
BYERS
12,181 M.C.F.
RYAN
32,120 M.C.F.
LINE 'G'
LINE 'G'
NET DEL. AT PETROLIA 388,675 M.C.F.
(LINES 'H' & 'J')
PURCELL
MAYSVILLE
WYNNEWOOD
BULPHUR
MARIETTA
DURANT
186,787 M.C.F.
CADDO
8,231 M.C.F.
ACHILLE
3,682 M.C.F.
HUGO
48,598 M.C.F.
PARIS
SHERMAN
DENISON
GAINESVILLE
HENRIETTA
BELLEVUE
GOODNIE
SUNSET
ALVORD
CHICO
DECATUR
BRIDGEPORT
DENTON
PTTOGA
LEWISVILLE
GREENVILLE
SULPHUR SPRINGS
NEWARK
RHOME
SAGINAW
FT. WORTH
DALLAS
TERRELL
SNYDER
COLORADO
SWEETWATER
ABILENE
ALBANY
CISCO
LAWN
CLEBURNE
ATHENS
CORSICANA
WINTERS
BALLINGER
HAMILTON
VALLEY MILLS
WACO
MEXIA
GATESVILLE
ROSEBUD
CAMERON
COLLEGE STATION
ROUND ROCK

BLANK

PAGE

FILE COPY

Office - Supreme Court, U. S.
FILED
MAR 8 1938
CHARLES ELMORE CROPLEY
CLERK

SUPREME COURT OF THE UNITED STATES

October Term, 1937

No. 313

LONE STAR GAS COMPANY, *Appellant*,

vs.

STATE OF TEXAS, ET AL., *Appellees*

Appeal from the Court of Civil Appeals, Third Supreme Judicial District of Texas

---

BRIEF FOR APPELLANT

ROY C. COFFEE,
MARSHALL NEWCOMB,
OGDEN K. SHANNON,
BEN H. POWELL,
CHARLES L. BLACK,
Counsel for Appellant.

BLANK

PAGE

INDEX.

		Pages
	Introductory Statement	1-2
I.	**Opinions of the Court Below**	2
II.	**Jurisdiction of This Court**	3
III.	**Statement of the Case**	3-21
	1. The Challenged Order	6-7
	2. The Commission's Findings	7-10
	3. Proceedings in United States District Court	10-12
	4. Proceedings in State Trial Court	12-17
	(1) The Pleadings	12-13
	(2) The Evidence	13-15
	(3) Charge, Verdict and Judgment	15-17
	5. Proceedings in Court of Civil Appeals	17-21
	6. Proceedings in Supreme Court of Texas	21
IV.	**Statement of the Facts Affecting the Questions Raised**	21-51
	1. Facts Relating to the Interstate Commerce Questions	21-34
	(a) Facts relating to Wheeler County gas transported through Oklahoma into Texas	22-30
	(b) Facts relating to gas produced or purchased by appellant in Oklahoma and transported into Texas	30-34
	2. Facts Affecting the Issue of Confiscation and Related Issues	34-44
	Appellees' evidence on the confiscation issue	44-50

Pages

3. Facts Relating to Claimed Denial of Adequate Judicial Review 51

V. Specification of Errors 51-60

VI. Summary of Argument 60-63

ARGUMENT

Point One—The transportation of the Wheeler County gas through Oklahoma, for sale and delivery at city gates in Texas, constitutes interstate commerce, and the rate order as applied to it violates the Commerce Clause 63-104

1. The interstate character of the movement of this gas is fixed by the fact that it is transported through another State 65-70
2. The motives moving appellant to construct its line through Oklahoma are immaterial 71-74
3. Commingling of a part of this gas is without effect on commerce issue 74-76
4. Size of appellant's interstate business as compared with intrastate business is not material 76-78
5. State court's holding that commission had power to prescribe reasonable rates applicable to interstate deliveries is wrong 79-82
6. Failure of Congress to regulate gas pipe lines 82-83
7. Corporate affiliation between appellant and distributing companies is without effect on commerce issue 83-97
8. The rate order is indivisible; and, being void as to interstate deliveries, it is wholly void 97-104

Point Two—The transportation, sale and delivery in Texas of gas produced or purchased in Oklahoma constitutes interstate commerce, and the order as applied to it violates the Commerce Clause 104-110

1. Various points made by State court in respect to this gas are untenable 105-110

Pages

Point Three—State court's holding that appellant's evidence showing value of its entire "integrated operating system" and revenues and expenses connected therewith was not material to confiscation issue is plainly wrong 110-124

1. This ruling of State court denied appellant fair opportunity to prove that rate was confiscatory 115-119

2. If segregation was necessary, then proper basis was laid in the evidence and, presumptively, jury made segregation 119-124

Point Four—State court's holding that triers of fact were without power to settle conflicts in evidence denied appellant adequate judicial review of order on tendered issue of confiscation 124-134

Point Five—Jury finding that rate was confiscatory is sustained by clear and satisfactory evidence, and judgment of Court of Civil Appeals should be reversed and that of District Court affirmed 134-170

1. Application of the rate considered in the light of the evidence as to appellant's integrated properties and operations 139-158

   (1) Discussion of the State court's criticism of

   (a) Certain expense items 139-144
   (b) Going value 144-147
   (c) Rate of return 147-149
   (d) Depreciation, depletion and amortiaztion reserve accruals 149-158

2. The application of the rate to appellant's intrastate operations as determined by its segregation 158-159

3. The application of the rate to appellant's Texas properties and operations as segregated by the appellees 159-165

4. The application of the rate to appellant's Texas properties and operations, these

Pages

properties being identified by applying appellees' formula of segregation to the entire integrated operating system; and discussion of the application of the rate to various bases of fact supported by the record 165-170

VII. The judgment of the Court of Civil Appeals sustaining the rate order, challenged by appellant as being repugnant to the Constitution of the United States, should be reversed and the rate order adjudged to be void 170

VIII. Appendix 171-173

AUTHORITIES.

	Pages
United States Constitution:	
Commerce Clause, Article I, Sec. 8, Ch. 3	11, 12, 52
Due Process Clause, 14th Amendment	11
Seventh Amendment	137
United States Statutes:	
Transportation Act of 1920, Sec. 1, Subdivision (2) (a)	70
National Labor Relations Act, Sec. 152, 49 Stat. 450	70
Act approved Feb. 22, 1935, 49 Stat. 30	70
Texas Statutes:	
Article 1119, Revised Statutes, 1925	90
Article 6050, Revised Statutes, 1925	6
Article 6053, Revised Statutes, 1925	6
Article 6058, Revised Statutes, 1925	90
List of Cases:	
Alpha Cement Co. vs. Massachusetts, 268 U. S. 203, 217	109
Atchison, etc., R. Co. vs. Interstate Commerce Commission, 190 Fed. 591	103
Baldwin vs. Franks, 120 U. S. 678, 686, 688	100
Baltimore & Ohio R. Co. vs. United States, 298 U. S. 349, 368	128, 134
Bluefield Waterworks & Improvement Co. vs. Public Service Comm., 262 U. S. 679, 692, 693	148
Board of Trade vs. Olsen, 262 U. S. 1, 33, 34	76
Butts vs. Merchants, etc., Transportation Co., 230 U. S. 126, 135	100
Cannon Mfg. Co. vs. Cudahy Pkg. Co., 267 U. S. 333, 336, 337	87
Carson Petroleum Co. vs. Vial, 279 U. S. 95	106
Chicago, etc., Ry. Co. vs. Osborne, 265 U. S. 14, 16-17	131
Choate vs. Railway Co., 91 Texas 406, 410	126
Clark's Ferry Bridge Co. vs. Public Service Comm., 291 U. S. 227	150, 154
Columbus Gas & Fuel Co. vs. Public Utilities Comm., 292 U. S. 398, 406	94, 151, 154
Cooney vs. Mountain States Tel. Co., 294 U. S. 384, 392, 393	70, 78, 100
Cudahy Pkg. Co. vs. Hinkle, 278 U. S. 460, 466	77
Dahnke-Walker Co. vs. Bondurant, 257 U. S. 282, 290	91

List of Cases (continued): Pages

Daniel vs. Tyrrell & Garth Investment Co., 127 Texas 213, 220 100
Dayton Power & Light Co. vs. Public Utilities Comm., 292 U. S. 290, 295 ..... 94, 135, 136
Dower vs. Richards, 151 U. S. 658, 667 137
East Ohio Gas Co. vs. Tax Comm. of Ohio, 283 U. S. 465, 468, 470, 472 ..... 67, 81, 88, 95, 96, 106, 107
Employers' Liability Cases, 207 U. S. 463, 502 100
Eureka Pipe Line Co. vs. Hallanan, 257 U. S. 265 88
Galveston Electric Co. vs. Galveston, 258 U. S. 388 140
Georgia Ry. & Power Co. vs. Railroad Commission, 262 U. S. 625 140
Hall vs. Pennsylvania R. Co., 257 Pa., 54 70
Hanley vs. Kansas City Southern Ry. Co., 187 U. S. 617, 620, 621 ..... 65, 66, 68, 69
Heisler vs. Thomas Colliery Co., 260 U. S. 245, 259 ..... 77, 109
Heyman vs. Hays, 236 U. S. 178, 187 ..... 106, 107
Illinois Central R. Co. vs. McKendree, 203 U. S. 514, 529 ..... 78, 99
James vs. Bowman, 190 U. S. 127 100
Jones National Bank vs. Yates, 240 U. S. 541, 552, 553 138
Kelley vs. Rhoads, 188 U. S. 1, 8-9 104
Kirmeyer vs. Kansas, 236 U. S. 568, 572-573 ..... 66, 72, 73
Lehigh Valley R. Co. vs. Pennsylvania, 145 U. S. 192, 201 ..... 69, 70
Liebengood vs. Missouri, K. & T. Ry. Co., 83 Kan. 25 70
Lemke vs. Farmers Grain Co., 258 U. S. 50 91
Lindheimer vs. Illinois Bell Telephone Co., 292 U. S. 151 ..... 137, 150, 151, 152
Looney vs. Crane Co., 245 U. S. 178, 190 ..... 77, 109
Los Angeles Gas & Electric Corp. vs. Railroad Comm., 289 U. S. 287, 313-315 147-148
L. & N. R. R. Co. vs. United States, 242 U. S. 60, 74 97
Maine vs. Grand Trunk Ry. Co., 142 U. S. 217 69
Manufacturers' Light & Heat Co. vs. Ott, 215 Fed. 940 83
Minnesota Rate Cases, 230 U. S. 352, 396, 401 ..... 80, 83
Missouri vs. Kansas Natural Gas Co., 265 U. S. 298, 301, 305, 309 ..... 64, 67, 80, 81, 82, 83, 88, 94, 96
Missouri Pacific R. Co. vs. Stroud, 267 U. S. 404 ..... 65, 72, 73

List of Cases (continued):

	Pages
Norwegian Nitrogen Co. vs. United States, 288 U. S. 294, 319	117
Ohio Bell Telephone Co. vs. Public Utilities Comm., 301 U. S. 292, 300, 304	115
Ohio Railroad Comm. vs. Worthington, 225 U. S. 101	106
Ohio Water Co. vs. Ben Avon Borough, 253 U. S. 287	128
Oregon-Washington Co. vs. State of Washington, 270 U. S. 87, 102	83
Ozark Pipe Line Co. vs. Monier, 266 U. S. 555, 560	107
Pacific States Box & Basket Co. vs. White, 296 U. S. 176, 186	117
Pennsylvania Gas Co. vs. Public Service Comm., 252 U. S. 23	88, 94
Peoples Natural Gas Co. vs. Public Service Comm., 279 Pa. 252	83
Peoples Natural Gas Co. vs. Public Service Comm., 270 U. S. 550, 554, 555	64, 67, 76, 77, 80, 82, 83, 107
Pipe Line Cases, 234 U. S. 548, 560, 561	104
Public Utilities Comm. vs. Attleboro Co., 273 U. S. 83, 88, 90, 91	64, 67, 76, 77, 80, 81, 82, 88
Public Utilities Comm. vs. Landon, 249 U. S. 236	82, 88, 95, 96
Railroad Commission vs. Uvalde Construction Co. (Tex. Civ. App.), 49 S. W. (2d) 1113, 1114	100
Railroad Commission vs. Weld & Neville, 96 Texas 394, 403	100
Reagan vs. Farmers Loan & Trust Co., 154 U. S. 362, 400	100-101
St. Joseph Stock Yards Co. vs. United States, 298 U. S. 38, 50, 51, 54	128, 133, 134, 137
Shafer vs. Farmers Grain Co., 268 U. S. 189, 198	91
Smith vs. Illinois Tel. Co., 282 U. S. 133, 148	80, 86, 94, 123
Southern Pacific R. Co. vs. Interstate Commerce Comm., 219 U. S. 433, 451, 498, 526	103, 106
Stafford vs. Wallace, 258 U. S. 495	106
State ex rel Cities Service Gas Co. vs. Public Service Comm., 337 Mo. 809; cert. denied, 296 U. S. 657	89
State vs. Flannelly, 96 Kan. 372	83

List of Cases (continued): Pages

State vs. Humble Pipe Line Co., 112 Texas 375, 385, 386 100
State vs. Kansas Natural Gas Co., 111 Kan. 809 83
State of Texas vs. Lone Star Gas Company, 86 S. W. (2d) 484; on Motion for Rehearing, 86 S. W. (2d) 506 2
State Corporation Comm. vs. Wichita Gas Co., 290 U. S. 561, 563, 564 ..... 64, 67, 80, 82, 88, 89
State Tax Comm. vs. Interstate Natural Gas Co., 284 U. S. 41, 43-44 ..... 64, 65, 80, 107
Texas-Louisiana Power Co. vs. City of Farmersville (Tex. Comm. App.), 67 S. W. (2d) 235 90
Thompson vs. Consolidated Gas Co., 300 U. S. 55, 69 118
Trade Mark Cases, 100 U. S. 82 100
United Fuel Gas Co. vs. Hallanan, 257 U. S. 277, 281 76
United Gas Co. vs. Railroad Commission, 278 U. S. 300, 320 94
United Gas Public Service Co. vs. State of Texas, 89 S. W. (2d) 1094, 1102 130
United Gas Public Service Co. vs. State of Texas, (unreported), decided February 14, 1938 ..... 17, 90, 113
United States vs. Ju Toy, 198 U. S. 253, 262 99
United States vs. Yohn, 275 Fed. 232 70
Wabash, etc., Ry. Co. vs. Illinois, 118 U. S. 557, 575 18
Welton vs. Missouri, 91 U. S. 275, 282 83
Western Distributing Co. vs. Public Service Comm., 285 U. S. 119, 124 ..... 92, 93, 96
West Ohio Gas Co. vs. Public Utilities Comm. (No. 1), 294 U. S. 63, 70, 72 ..... 118, 141
Western Union Tel. Co. vs. Foster, 247 U. S. 105 88
Western Union Tel. Co. vs. Speight, 254 U. S. 17, 18 ..... 65, 66, 72
Western Union Tel. Co. vs. Texas, 62 Texas 630 100
Wichita Gas Co. vs. Public Service Comm., 2 Fed. Supp. 792 141
Yohn vs. United States, (C. C. A. 2), 280 Fed. 511 70

Text Writers:

Gavit, The Commerce Clause, p. 109 70
Willoughby on the Constitution (2 ed.), Vol. 2, p. 1002 70

SUPREME COURT OF THE UNITED STATES

October Term, 1937

No. 313

LONE STAR GAS COMPANY, *Appellant*,

vs.

STATE OF TEXAS, ET AL., *Appellees*

Appeal from the Court of Civil Appeals, Third Supreme Judicial District of Texas

---

BRIEF FOR APPELLANT

Introductory Statement.

This is an appeal from a final judgment of the Court of Civil Appeals for the Third Supreme Judicial District of Texas, sustaining a rate order of the Railroad Commission of Texas, challenged by

appellant as being repugnant to the Commerce Clause and to the Due Process Clause of the Fourteenth Article of Amendment to the Constitution of the United States.

The appellant is a gas pipe line company engaged in the business of producing, selling, transporting and delivering gas in wholesale quantities to distributing companies at city gates in Oklahoma and Texas. By the challenged rate order the Railroad Commission reduced appellant's prevailing city gate rate of 40¢ per MCF, applied by it under contracts with the distributing companies, to 32¢ per MCF, and directed that the reduced rate be applied to all city gate delieveries of gas in Texas, including

(a) gas produced or purchased in Wheeler County, Texas, and transported by appellant through the State of Oklahoma and back into Texas for delivery at city gates in Texas; and

(b) gas produced or purchased in Oklahoma and transported by appellant to city gates in Texas.

I.

Opinions of the Court Below.

The opinions of the Courts of Civil Appeals of Texas are no longer officially reported. The opinion of the Court of Civil Appeals in this case is unofficially reported as State of Texas, et al, vs. Lone Star Gas Company, 86 S. W. (2d) 484. The Court's opinion filed in overruling appellant's motion for rehearing is reported under the same title, 86 S. W. (2d) 506.

II.

Jurisdiction of the Court.

This Court has jurisdiction of this appeal under Section 237 of the Judicial Code, as amended; USCA, Title 28, Section 344(a).

Appellant duly filed its Statement as to Jurisdiction, as required by Paragraph 1 of Rule 12, as amended. No opposing statement was filed by appellees. Probable jurisdiction was noted by order entered October 11, 1937.

The specific claims advanced and the rulings made in the State court which are relied upon as the basis of this Court's jurisdiction, together with a specification of such of the assigned errors as are intended to be urged, are hereinafter presented, *infra*, pp. 51-60.

The opinion of the State court expressly shows that the Federal questions presented in this Court were raised in, and were duly considered and decided by, the State court. (V, R. 3334, 3335, 3370.)*

III.

Statement of the Case.

The suit involved the validity of an order of the Railroad Commission of Texas prescribing the maximum rates that may be collected by appellant for gas sold and delivered by it in wholesale quantities to distributing companies at the city gates of

*In making references to the record we shall refer first to the number of the volume and then to the page.

approximately 275 cities and towns in the State of Texas.

Appellant was incorporated under the laws of the State of Texas on June 4, 1909. It has acquired and now owns and operates not only pipe lines, compressor stations, and other equipment necessary for the transportation and sale of natural gas but also gas leases, gas wells, well drilling equipment, and other property used as a part of its production system. It operates approximately 4,000 miles of high pressure pipe lines, located in Oklahoma and Texas, through which it transports natural gas to the city gates of more than 300 cities and towns located in the States of Oklahoma and Texas, where it sells and delivers such gas in wholesale quantities to gas distributing companies operating therein. (I, R. 15.) The distributing companies then deliver the gas to ultimate consumers through low pressure systems. The distributing companies, with the exception of two companies, one operating at Waxahachie and the other at Gainesville, Texas, are corporations affiliated with the appellant, being subsidiaries of the same parent corporation. The appellant makes two city gate deliveries at Waxahachie, one to an independent corporation and the other to an affiliated corporation. (IV, R. 2312, 2342.) The distributing company at Gainesville is an independent corporation. (V, R. 3340.)

The sale and delivery by appellant of gas at city gates to distributing companies is governed by long term contracts between appellant and such companies, and the contract price is 40¢ per MCF, with negligible exceptions. The deliveries to the affiliated

companies are made under substantially the same kind of contracts and in the same manner as are the deliveries made to the independent companies. (IV, R. 2306-2356.)

Appellant's pipe line system crosses the State line between Oklahoma and Texas eight times. A map showing the location of appellant's lines in Oklahoma and Texas is appended hereto.

Three of its lines, designated as Lines H, 2nd H, and G, transport gas from Oklahoma to Texas—gas previously produced or purchased in Oklahoma. (II, R. 1464.) Another line, designated as Line A, extends from the Shamrock gas field in Wheeler County, Texas, (a part of the great Texas Panhandle gas field) into Oklahoma and then runs south through Oklahoma approximately parallel to the west line of Oklahoma and again crosses the State line, coming again into Texas near Quanah, Texas. (II, R. 1465.) The line then extends generally in a southeasterly direction through Texas to Petrolia, Texas, where it joins Lines H and 2nd H coming from Oklahoma. (II, R. 1465.) Line A furnishes the exclusive supply of gas, delivered at city gates, to many cities and towns located on the line, including the important city of Wichita Falls. After this line reaches Texas it is tapped by a branch line extending north again into Oklahoma and serving various Oklahoma cities. (II, R. 1468.) Appellant also has two other lines extending from Texas northward into Oklahoma and serving certain Oklahoma cities and towns, these being designated as Line E-5 and Line E-16. (II, R. 1471, 1476.)

A map showing the location of appellant's lines in Oklahoma and Texas is appended hereto.

An applicable Texas statute subjects gas pipe lines to the "jurisdiction, control and regulation" of the Railroad Commission of Texas *(Art. 6050, Revised Civil Statutes of Texas, 1925)*. The commission is authorized to fix reasonable prices and rates "for producing, transporting, selling and delivering gas by such pipe lines." *(Art. 6053, Revised Civil Statutes of Texas, 1925.)** The challenged order was promulgated under Article 6053.

1. The Challenged Order.

After investigation and hearing the Railroad Commission of Texas, on September 13, 1933, entered its order reducing appellant's wholesale city gate rate, as fixed by its contracts with the distributing companies, from 40¢ to 32¢ per MCF. The order follows:

"The Railroad Commission having instituted a proceeding upon its own motion inquiring into the rates charged by the Lone Star Gas Company for domestic gas sold to distributing companies at the city gate station, hereby finds as a fact that the rate of $0.40 per thousand cubic feet as now charged by Lone Star Gas Company is unfair, unjust and unreasonable.

"Basing its order on the foregoing finding of fact and on such other findings and statements of fact as are set out in the opinion next preceding this order, or in this order

*These and other Texas statutes relating to gas utilities and their regulation are set forth in Appendix "A," *infra*, pp. 171-173.

"IT IS ORDERED, ADJUDGED and DECREED that effective as of the next billing date the Lone State Gas Company shall charge, bill and receive for domestic gas at the city gate from all distributing companies served by it, a rate not to exceed $0.32 per thousand cubic feet.

"IT IS FURTHER ORDERED, ADJUDGED and DECREED that a rate not to exceed $0.32 per thousand cubic feet at the city gate is hereby fixed, approved and promulgated and found and declared to be fair, just and reasonable and shall remain in force and effect until the Commission shall have otherwise determined, pursuant to other proceedings in respect to the finding of city gate rates for domestic gas on said Lone Star Gas Company's lines.

"IT IS FURTHER ORDERED, ADJUDGED and DECREED that this proceeding shall be kept open for such further orders as may be proper.

"The foregoing opinion and order are hereby approved and ordered filed as the opinion and order of the Railroad Commission of Texas." (I, R. 116.)

2. The Commission's Findings.

The opinion "*next preceding this order*," and made a part of the order, contains elaborate findings of fact stating in detail how the commission valued appellant's properties, what property was included in the valuation, and what operating revenues were considered and what expense items were allowed as proper deductions from the operating revenues. (I, R. 14-116.)

Pertinent portions of the commission's findings are stated and summarized as follows:

(1) As to the unified nature of appellant's properties and business operations in Oklahoma and Texas the Commission made this finding:

"The Lone Star Gas Company, a Texas corporation, is engaged in the production, transportation and sale at wholesale of natural gas. It operates an integrated pipe line system of approximately 4000 miles and engages in both interstate and intrastate commerce in the selling of gas to some 300 cities and towns within the States of Oklahoma and Texas.

"The company's Texas properties and its Oklahoma properties constitute parts of an integrated operating system. For that reason we have considered the Oklahoma properties and operations and the effect thereof on the revenues and the expenditures within Texas. On this basis we have fixed a rate for application within the jurisdiction of Texas." (I, R. 15.)

Having made this finding, the Commission then proceeded to value appellant's "integrated operating system" and to consider its operating revenues and expenses incident to its "integrated operating system." (I, R. 14-16.)

The year 1931 was used "as a basis for finding the city gate rate which would earn a fair return." (I, R. 16.)

(2) The Commission directed the reduced rate to be applied to all sales and deliveries made by appellant to distributing companies at city gates in Texas, drawing no distinction between interstate and intrastate commerce. (I, R. 116.) The commission found that appellant "engages in both interstate and intrastate commerce in the selling of gas to some 300 cities and towns in the States of Oklahoma and Texas." Apparently, therefore, the commission, in applying its rate to all Texas deliveries, proceeded on the theory that it had the power to prescribe rates

applicable to all of the deliveries, even though some of the deliveries might constitute interstate commerce.

(3) In respect to a rate base, the commission found "a reproduction cost new as of December 31, 1931, for transmission and production properties, exclusive of leaseholds, of $44,606,337.16"; and "a fair value of leaseholds as of December 31, 1931, of $1,991,613.92"; and a rate base of $46,246;617.53. (I, R. 19.)

The rate base findings of the commission are summarized on pp. 66-67 and 100 of the Record, Volume I. The book cost of appellant's integrated operating system was found by the commission to be $47,696,533.11, as of December 31, 1931. (I, R. 109.) This did not include material and supplies, cash working capital, or going concern value.

(4) The commission found gross revenues for the year 1931 in the amount of $9,301,862.65. Total expenses for the year were found to be $4,174,807.47, leaving $5,127,055.18 available for depreciation, depletion and return on the producing and transmission properties. (I, R. 18.)

(5) Annual reserve accruals for depreciation and depletion were fixed on a 6% sinking fund basis and amounted to $968,066.98 for depreciation and $15,631.45 for depletion. This allowance amounts to approximately 2% of the rate base found by the commission. (I, R. 19.) Detailed findings as to depreciation will be found in I, R. 76-98, and as to depletion, I, R. 99.

(6) Having found $5,127,055.18 available for depreciation, depletion, return and Federal income taxes for the year 1931, the commission deducted therefrom depreciation in the amount of $968,066.98, and thereby found $4,158,988.20 as the amount available for depletion, Federal income taxes and return for the year 1931. By deducting $15,631.45 for depletion, it found $4,143,356.75 as the amount available for return and Federal income taxes for the year 1931, on appellant's integrated operating system. (I, R. 99.)

(7) The commission found "a minimum fair rate of return for the year 1931 to be 6%," and that this amounted to $2,774,797.05 when applied to the rate base as of December 31, 1931. It then computed excess of net earnings over a 6% return at $1,368,559.70, which amounted to 8.039¢ per MCF on the domestic gas sold during 1931. On this basis it was determined that the 40¢ gate rate charged by appellant should be reduced 8¢ per MCF and a rate of 32¢ per MCF established in its place. (I, R. 102-105.)

3. Proceedings in the United States District Court.

The rate order was promulgated September 13, 1933. On September 22, 1933, appellant filed a suit in the District Court of the United States for the Western District of Texas, wherein it sought to enjoin the Railroad Commission and the Attorney General of Texas from enforcing said order, and wherein it attacked the validity of the order on the ground that it amounted to a direct regulation of appel-

lant's deliveries of gas in interstate commerce, in violation of the Commerce Clause of the Federal Constitution, and on the further ground that the prescribed rate was confiscatory and violative of the Due Process Clause of the Fourteenth Amendment to the Federal Constitution. (III, R. 2183-2207.) The United States District Court issued an order temporarily restraining the enforcement of the order.

Thereafter, this suit was filed by appellees in the Fifty-third District Court of Travis County, Texas, in an effort to fix jurisdiction in that court, under the provision of Section 266 of the Judicial Code; the appellees alleging in their pleadings, upon which the trial was had, that they desired to have the constitutional questions raised by appellant in its attack on the rate order determined in the courts of the State. They further sought to have the commission's rate order enforced. (I, R. 12.) In the State court appellees sought an injunction, upon final hearing, restraining appellant from violating the rate order; and further prayed that the enforcing of said rate order be stayed pending final judgment. (I. R. 11.) A stay order was entered in the State court; (I, R. 121); and subsequently the Federal court, following what it deemed to be proper procedure under Section 266 of the Judicial Code, entered an order staying all proceedings in that court and also restraining the enforcement of the rate order pending final determination of the case filed in the State courts. (I, R. 117-121.)

Perforce these stay orders of the State and Federal courts, the 32¢ rate prescribed in the commission's

order has not been put into effect and appellant has continued to charge the 40¢ rate.

4. Proceedings in the State Trial Court.

Appellant, after unsuccessfully resisting the procedure resorted to by appellees to force it to litigate its attack on the commission's order in the State courts, and reserving its exceptions, (I, R. 136), answered in the State court, setting up its defense and grounds of attack upon the rate order and the trial was there had on Appellant's Second Amended Answer (I, R. 122-161) and its Second Supplemental Answer (I, R. 161-170).

(1) *The Pleadings.*

Appellant's grounds of attack on the rate order were:

That the transportation, sale and delivery by appellant at wholesale to local distributing companies, through high pressure lines at city gates in Texas, of gas produced in Wheeler County, Texas, and transported into and through Oklahoma and back into Texas without interruption, constituted interstate commerce, and that the attempted regulating and fixing of appellant's city gate rates for the gas thus transported, sold and delivered violated Cl. 3 of Article I of the Constitution of the United States, vesting in Congress the power to regulate commerce among the several States; and that the same was true of the gas produced or purchased by appellant in the State of Oklahoma and transported in high pressure lines to Texas for sale and delivery at city gates in Texas. (I, R. 123-124; 131-132; 147-151.)

That the prescribed rate was confiscatory and therefore repugnant to the Due Process Clause of the Fourteenth Amendment to the United States Constitution. (I, R. 147-151.) The facts upon which the appellant based its claim that the rate order was confiscatory were specifically alleged.

These allegations cover the value of appellant's property (I, R. 141, 146); the elimination by the commission of property used and useful in rendering the public service for which the rate was charged, including capital additions to such properties made the year 1932 and costing $2,257,682.07 (I, R. 142); the book cost of the property (I, R. 141, 146); the amount required to be annually set aside to reserve for depreciation, depletion and amortization as against the commission's allowance (I, R. 138); and the amount available under the 40¢ rate; and that the amount of revenue available for return, after making all proper deductions, was so low as to show beyond doubt that the prescribed rate was confiscatory. (I, R. 145.)

We deem it unnecessary to go further into the details of appellant's pleadings. That the Federal rights and defense it now claims were expressly and sufficiently pleaded has not been denied. The opinion of the State court expressly shows that the Federal rights and defenses now asserted by appellant were duly asserted in the State courts.

(2) *The Evidence.*

The trial was entirely *de novo*. The record of the evidence heard by the commission was offered in evidence by appellees but was not received by the trial court.

Appellees, as plaintiffs in the trial court, introduced the commission's order; the stay order of the Federal Court; and a stipulation that the prescribed rate had not been put into effect, and rested their case. (I, R. 301-309, 310.) The commission's findings were later introduced in evidence by appellant to show the basis for the commission's order. The order recites that it was based on the findings and they were made a part of it. (I, R. 116.) Appellant's motion for a directed verdict having been overruled, (I, R. 310) it then introduced evidence in support of its attack on the rate order. This included evidence showing the interstate character of its business. This evidence is hereinafter summarized, *infra*, pp. 21-34. It also introduced evidence as to the value of its properties, depreciation reserve accruals, revenues, expenses, rate of return and other facts pertinent to the confiscation issue. This evidence covered appellant's operating experience for the years 1931, 1932, 1933, and the twelve months ended April 30, 1934, the latest date as to which evidence was available at the time of trial.

The evidence thus introduced by appellant dealt, first, with its "integrated operating system"; and was in direct rebuttal of the commission's findings. This evidence is hereinafter summarized, *infra*, pp. 34-43. Appellant's evidence dealt next with its properties and business operations as segregated by the appellant between interstate and intrastate commerce or service; and this evidence is hereinafter summarized, *infra*, pp. 43-44.

Thereafter appellees undertook to demonstrate that the commission's order would afford a reason-

able return. This was done by segregating what the commission had found to be an "integrated operating system" as between Texas and Oklahoma. The evidence in support of appellees' segregation allocated to Texas the property physically located in Texas and to Oklahoma the property physically located in that State. It excluded the value of all of appellant's production system properties located in Texas, having an actual cost of $5,191,539.42, and also excluded all property in Oklahoma used in producing and transporting gas to points in Texas and substituted therefor arbitrary and inadequate expense allowances hereinafter discussed, *infra*, pp. 44-50. Under this segregation, operating revenues and expenses were similarly segregated as between Oklahoma and Texas. No evidence was offered by the appellees relating to the property constituting the appellant's "integrated operating system" or its value or the amount of net revenues accruing therefrom. No evidence was offered in support of the findings of the commission as they were made, these findings covering, as we have already pointed out, all of appellant's properties and operations as an "integrated system."

We hereinafter separately submit summary statements of the facts affecting the issues involved; *infra*, pp. 21-34; p. 51; pp. 34-50.

(3) *Charge, Verdict and Judgment.*

The case was tried by a jury. The court submitted to the jury the following special issue:

"Do you find from the evidence in this case that, as applied to points in Texas, the order of the Rail-

road Commission of Texas, bearing date of September 13, 1933, providing for a rate of not exceeding 32¢ per thousand cubic feet of gas sold to the distributing companies at the gates of the points served, is unreasonable and unjust as to the defendant Lone Star Gas Company? Answer this question yes or no."

The jury answered: "Yes." (I, R. 192-195.)

In submitting the above special issue the trial court further instructed the jury as follows:

"In determining your answer to said issue, you are instructed that the defendant, Lone Star Gas Company, is entitled to receive a fair return at this time on the present fair value of its property that is used and useful in the public service, after first deducting all necessary operating expenses and a fair and reasonable amount for depreciation of said property; and that, in determining what is a fair value of said property, you will take into consideration the reasonable worth of the property at this time that is being used and useful in the public service, including the reproduction cost new of said property, annual depreciation, and the amount of going value, if any, that inheres in said property." (I, R. 194-195.)

The court further instructed the jury that "an unreasonable and unjust rate" was one "so low as to have not provided for a fair return upon the fair value of defendant's property used and useful in supplying the service furnished by said defendant." (I, R. 194.)

The charge further defined the terms "fair value," "fair return," "used and useful," "operating expenses," "annual depreciation," "reproduction cost new," and "going value." (I, R. 193.)

The jury's verdict, interpreted in the light of the charge, imports that the prescribed rate would not yield a fair return on the fair value of appellant's public service properties and is therefore confiscatory.*

On this verdict the trial court rendered judgment annulling the commission's rate order and enjoining the enforcement of the prescribed rate against appellant. (I, R. 197.)

5. Proceedings in the Court of Civil Appeals.

Appellees then prosecuted their appeal to the Court of Civil Appeals for the Third Supreme Judicial District of Texas. By counter propositions presented in its brief and by cross-assignments of error appellant duly presented its contention that the trial court erred in failing to sustain its interstate commerce defenses, as well as its confiscation defense.† (V, R. 3329-3332.)

On appeal, the Court of Civil Appeals, after stating and discussing at length appellant's interstate commerce and confiscation defenses, overruled same, reversed the judgment of the trial court, dissolved the injunction granted by that Court, and declared the rate prescribed by the commission to be "just,

---

*This Court in *United Gas Public Service Company vs. State of Texas, et al.*, (unreported), decided February 14, 1938, interpreted a similar verdict, construed in connection with a similar charge, as expressing a finding on the issue of confiscation. The verdict there was in favor of the commission; here it is in favor of the utility.

†The judgment of the trial court being in favor of appellant, it was not in fact required, under the State practice, to present any cross-assignments of error.

valid and reasonable in every particular." (V, R. 3333-3370.

The Court of Civil Appeals held:

(1) That the transportation by appellant in its high pressure line (designated as Line A) of gas produced or purchased in Wheeler County, Texas, into and through the State of Oklahoma and thence back into Texas for sale and delivery at city gates, in wholesale quantities, "is not interstate commerce as a matter of fact." (V, R. 3345-3348.) In this connection the court further held that appellant's "primary duty is to serve Texas citizens with gas produced from Texas soil" and that "the mere fact that appellee has selected a route through Oklahoma" could not work a change in the character of its business and that "this circuitous route of delivery of gas through Oklahoma" could not affect the police power of Texas "to make or fix reasonable rates" for gas sold in Texas (V, R. 3346-3347); and that, "with this in view but one practical conception can be drawn from the whole transaction involved and that is, the gas produced in Texas and intended to be delivered, sold and used in Texas is intrastate commerce." (V, R. 3346-3347.)

(2) That the transportation in appellant's high pressure Lines H, 2nd H, and G of gas produced or purchased by appellant in the State of Oklahoma and intended for sale and delivery at city gates in Texas does not move in interstate commerce when it reaches the city gates in Texas for delivery. (V, R. 3348-

3352.) In this connection the Court made certain other rulings that will be hereinafter specifically discussed, *infra*, pp. 105-110.

(3) That even though a part of appellant's gas deliveries in Texas may have constituted interstate commerce, the rate order was nevertheless valid as applied to such interstate deliveries because the prescribed rate was, in the view of the court, a reasonable rate; and the court ruled, in this connection, that the prescribing by the State of reasonable rates to be applied to interstate deliveries affects interstate commerce, not directly, but only "incidentally or indirectly." (V, R. 3347, 3350-3352.) The Court held that even if appellant's deliveries constituted interstate commerce, "the 32¢ rate fixed by the Commission in no manner interfered with, impeded or burdened the flow of gas from Oklahoma, but such gas may be sold in competition with Texas gas and at the same reasonable price fixed by the Commission." (V, R. 3352.)

The court, in this connection, emphasized the fact that Congress had not authorized the Interstate Commerce Commission to regulate such rates and had not otherwise provided for their regulation, and held that absent legislation by Congress, "the State Commission, in the exercise of the police power of the State to regulate and control public gas utilities, had the power to fix reasonable rates for gas delivered by appellee to distributing companies at the city gate, although interstate commerce may be indirectly or incidentally affected thereby." (V, R. 3352.)

(4) The court overruled appellant's claim that the prescribed rate was confiscatory, and held, in this connection, that appellant's evidence on the issue of confiscation was legally immaterial and of no probative value because of appellant's alleged failure to make a proper segregation of its properties and business operations as between interstate and intrastate commerce, or as between Oklahoma and Texas operations. The questions arising in this connection and the evidence affecting them are hereinafter discussed, *infra*, pp. 110-124.

(5) The court further made certain rulings relating to the kind of judicial review of rate orders that was available under the State procedure. The court held that the evidence on certain vital issues connected with the ultimate issue of confiscation, including the issue as to the *fair value* of appellant's properties and the issue as to what would be a *fair rate of return*, was merely conflicting and therefore insufficient to sustain the attack on the rate order; that "at most the evidence merely presented the difference of opinions of equally well qualified experts" (V, R. 3363, 3368), and that such evidence was insufficient as a matter of law. The court denied the right of the jury to settle these conflicts in the evidence. These rulings are hereinafter more fully stated and discussed, *infra*, pp. 124-134.

(6) The court made other rulings going to the merits of the issue of confiscation. These are hereinafter stated and discussed, *infra*, pp. 134-170.

More detailed references to the lengthy opinion of

the Court of Civil Appeals will be made in connection with the specific rulings complained of.

6. Proceedings in the Supreme Court of Texas.

Appellant then applied to the Supreme Court of Texas for a writ of error. The application was refused; and motion for rehearing thereon, as authorized by the court's rules, was overruled. (V, R. 3435, 3436.)

This appeal was allowed on February 12, 1937, this being less than three months after the judgment of the State court became final under the State law. (V, R. 3468.) Details as to this were fully presented in Appellant's Statement as to Jurisdiction previously filed and considered by this Court.

IV.

Statement of the Facts Affecting the Questions Raised.

The questions raised on this appeal may be divided into two groups. First, those that grow out of appellant's attack on the rate order on the ground that it amounts to a regulation of *interstate commerce;* and, second, those that relate to appellant's attack on the rate order as being *confiscatory.* Orderly presentation requires that the evidence relating to these two features of the case be separately stated.

1. Statement of the Facts Relating to the Interstate Commerce Questions.

Here there is involved the gas produced or purchased by appellant in Wheeler County, Texas, (hereinafter referred to as the Wheeler County gas) and transported into and through the State of Oklahoma and back into Texas for sale and delivery in wholesale quantities to distributing companies at city gates in Texas. Next there is involved the gas produced or purchased by appellant in the State of Oklahoma and transported to Texas for sale and delivery at city gates to distributing companies.

(a) *The facts relating to the Wheeler County gas transported through Oklahoma into Texas.*

Appellant owns and operates an 18" high pressure gas pipe line, known as Line A, extending from the Shamrock gas field (a part of the Texas Panhandle gas field and referred to in the record either as the Shamrock field or the Wheeler County field), in Wheeler County, Texas, into and through the State of Oklahoma and back into Texas. Through this pipe line appellant transports gas produced or purchased by it in the gas field mentioned to city gates in both Texas and Oklahoma where it is sold and delivered in wholesale quantities to distributing companies operating in said cities. (II, R. 1465-1466.)

This pipe line, starting in the Shamrock gas field in Wheeler County, Texas, follows a southeasterly course, crossing into the State of Oklahoma; and then a southeasterly course through Oklahoma and generally parallel to the western boundary of Oklahoma until it again enters the State of Texas. After entering the State of Texa it extends in a generally southeasterly direction to Petrolia, Texas. The loca-

tion of this line is correctly shown on the map appended to this brief.

The distributing companies operating in the cities of Hollis, in the State of Oklahoma, and Chillicothe, Tolbert, Vernon, Oklaunion, Harrold, Electra, Iowa Park, and Wichita Falls, in the State of Texas, are all supplied directly and exclusively with natural gas transported from the Wheeler County field through this line and delivered at the city gates. (II, R. 1465-1468.) At Oklaunion, Texas, this line is tapped by a branch line that extends northward back into the State of Oklahoma; and this branch line furnishes the sole source of gas supply for distributing companies operating in the cities of Frederick, Tipton, Davidson, Snyder, Manitou, and Mountain Park, in the State of Oklahoma. (II, R. 1466, 1482.)

The Wheeler County gas transported in Line A passes through a gasoline extracting plant at Hollis, Oklahoma. (II, R. 1491.) It does not pass through any gasoline extracting plant in the State of Texas. (II, R. 1478.) The discussion in the opinion of the Court of Civil Appeals relating to the passing of gas through gasoline extracting plants in Texas is applicable, under the undisputed evidence, only to the gas produced or purchased in the State of Oklahoma and transported to Texas in Lines H, 2nd H and G. The facts relating to this gas produced or purchased in Oklahoma and transported to Texas in the three lines mentioned are separately stated, *infra*, pp. 30-34.*

*In stating the facts relating to the interstate commerce issue the Court of Civil Appeals does not clearly separate the facts relating to the Wheeler County gas from the facts relating to the gas produced or purchased in Oklahoma and transported to Texas through Lines H, 2nd H and G.

The Wheeler County gas moves uninterruptedly at high pressure from the time it enters the appellant's main in the Shamrock or Wheeler County field until it is delivered to the various distributing companies purchasing the same at the city gates of the various cities and towns supplied in Oklahoma and Texas. (II, R. 1490.) These deliveries are made under contracts between the appellant and the distributing companies running for a term of five years. These contracts provide for delivery at the city gate measuring stations located at or near the corporate limits of each city or town. These contracts were introduced in evidence. (IV, R. 2306-2362.) They provide that appellant may make deliveries of the gas "at the maximum pressures carried in its pipe line at the various delivery points," and require the distributing companies in each instance to install and operate "such regulators and regulator stations as it may require to regulate the pressure of the gas after delivery thereof by vendor to vendee." These contracts provide that appellant shall in no event be liable for any pressure fluctuation at the delivery points or for the control of gas pressures after delivery. (IV, R. 2308.)*

The movement of the gas, the pressures maintained, and the method of measuring and making delivery of the gas to distributing companies at the city gates are clearly described in the testimony of the witness Schmidt, as follows:

"Q. Mr. Schmidt, will you please relate to the

*We refer to only one of the contracts. The other contracts with distributing companies, both affiliated and independent, contain the same provisions.

jury generally how gas travels from the well to the city gate station where a wholesale delivery is made by the Lone Star Gas Company?

"A. The gas is taken from the well at high pressure and transported through the lines at high pressure to the city gate delivery points. At those points the pressure is reduced through regulators, which are devices for automatically carrying and reducing the high pressure to a low pressure, and at the discharge side of these regulators the gas is measured, and that measurement is the total gas delivered to any particular city. The pressures in the field at the wells and in the pipe lines may vary from 300 to 400 pounds, and at the inlet of the regulators at the city gate stations the pressure varies, depending upon the location or distance of those towns from the source of supply. That pressure will vary from 150 to as high as 300 pounds, or in some cases 350 pounds. The gas travels uninterruptedly from the wells to the delivery points at the city gates.

"Q. To what pressure is the gas transported in the high pressure pipe lines of the company reduced at the city gate measuring stations and for what purpose is that reduction in pressure made?

"A. The pressure is reduced at those city gate stations through the regulators to a pressure there of twenty-five or thirty pounds. This is done in order to supply gas at a pressure which is safe to transport it through the city lines, the city distribution system, and it is done to accommodate the distribution plants in their operations.

"Q. And it is done solely for that purpose, in so far as the Lone Star Gas Company is concerned?

"A. That is correct.

"Q. Where does the title to the gas pass out of or from the Lone Star Gas Company to the local dis-

tributing company at the city gate measuring station?

"A. At the outlet of the meter, which is usually the outlet header of the orifice meter measuring station.

"Q. Is there ever any period of time, Mr. Schmidt, when the gas transported by the company from and through the State of Oklahoma in its high pressure pipe line, when that forward movement of the gas is arrested?

"A. There is not.

"Q. What is the last act of the Lone Star Gas Company in connection with the actual delivery of the gas by it at the city gate to the local distributing company?

"A. The measurement of the gas is the last operation." (II, R. 1469-1470.)

As pointed out by the witness, loss of pressure is an incident of the transportation of the gas. The original pressure decreases as the distance from the point of production increases.

The opinion of the State court refers to the running of gas through gasoline extracting plants and to the use of compressor stations. None of the Wheeler County gas is run through a gasoline extracting plant in Texas. The gasoline content is extracted by running all of it through a plant at Hollis, Oklahoma. (II, R. 1478, 1491.) The discussion in the court's opinion of gasoline plants relates only to the gas produced or purchased in Oklahoma and transported to Texas.

Part, but not all, of this Wheeler County gas is run through a compressor station at Petrolia, Texas. (II, R. 1478.) There is no other compressor station on Line A between the Shamrock field in Wheeler

County, Texas, and Petrolia, Texas. (II, R. 1491.) The original rock pressure is sufficient to transport the gas from the gas field in Wheeler County into and through the State of Oklahoma and, finally, to Petrolia, Texas; a total distance of approximately 185 miles.

The purpose of running gas through a compressor is to boost the pressure and increase the movement of the gas. It is simply a transporting agency. We quote the testimony of the witness Schmidt:

"Q. Now all the gas that comes through Line A goes through the compressor station at Petrolia, does it not?

"A. Not all of it. There are times during the summer time when Petrolia is by-passed, and gas from Line A goes direct down into the lines south of Petrolia.

"Q. But most of the time that gas does go through the compressor plant, doesn't it?

"A. Yes, a good share of the time it does.

"Q. And the pressure is what, when it comes into the plant?

"A. That varies from about 250 pounds to about 100 pounds, or 110, something like that.

"Q. And when it leaves the plant, what is its pressure?

"A. That will vary too, from around 250 pounds to 300 pounds or 325." (II, R. 1478.)

The quantity of the Wheeler County gas transported through Line A for sale and delivery to distributing companies at city gates in Texas, as well as its relation to the total amount of gas transported by appellant, is definitely known. These quantities are shown on appellant's Exhibit 44. (V, R. 3201-

3206.) The evidence shows that city gate deliveries are metered and a record kept.

Appellant's Exhibit 44 gives a five-year summary of the amount of gas transported by Lone Star Gas Company *from* and *through* Oklahoma, beginning with the year 1929 and including the year 1933, as compared with the total gas transported by appellant from all sources. This exhibit shows the percentage for each year of appellant's total deliveries of gas that was transported either from or through Oklahoma as follows:

1929	32.9%
1930	30.7%
1931	26. %
1932	29.6%
1933	23.3%

The weighted average for the five-year period was 28.9%.

The ratio in amount of the gas transported by appellant from the Shamrock field in Wheeler County, Texas, into and through Oklahoma and delivered at Texas city gates to the total amount of gas transported by appellant from all sources for the years 1929 to 1933, inclusive, as can be calculated from the same exhibit, was as follows:

1929	14.8%
1930	16.5%
1931	17. %
1932	23.3%
1933	19.5%

(V, R. 3201-3206.)

It will be noted that, in general, these Wheeler County deliveries are increasing in amount both in Texas and Oklahoma.

This Wheeler County gas is delivered in uncommingled state at all Texas cities on Line A from Chillicothe to Petrolia, including the important city of Wichita Falls; it furnishes the exclusive source of gas supply for these cities. After it reaches Petrolia it is commingled with other gas, some of it coming from Oklahoma and some of it produced in other Texas gas fields. The amount of the Wheeler County gas that is received at Petrolia and is then commingled with other gas is definitely known. (II, R. 1467.)

The commission's rate order fixes a single rate of 32¢ per MCF applicable to all city gate deliveries made on appellant's lines in Texas. The order draws no distinction between interstate and intrastate deliveries at city gates. The commission clearly intended that the order should apply to all deliveries made in Texas. (I, R. 116.) It included all of Line A in the rate base. The State court has directed that the order be so enforced. (V, R. 3333-3370.)

Appellees alleged that appellant's line in Wheeler County, Texas, was routed through Oklahoma for the fraudulent purpose of depriving the Railroad Commission of Texas of the jurisdiction which it would have had over appellant's business if the line had been routed wholly through Texas. (I, R. 156.) The record distinctly negatives the existence of fraud or bad faith in selecting the route for this line; engineering considerations induced the selection of the

route. (Testimony of witness Schmidt, II, R. 1472-1475, 1487-1490, 1493-1496; also *infra*, p. 74.

(b) *The facts relating to the gas produced or purchased by appellant in Oklahoma and transported into Texas.*

Appellant owns and operates a 16" high pressure line, designated as Line G, extending southward from the Loco, Fox, Robertson, and Palacine gas fields, in Stephens and Carter Counties, Oklahoma, and entering the State of Texas at a point north of the City of Gainesville. (II, R. 1464.) The Oklahoma gas produced or purchased in the gas fields referred to is transported in appellant's Line G into Texas for delivery at city gates.

Gas produced or purchased by appellant in the Chickasha, Nellie and Duncan gas fields, in Stephens County, Oklahoma, travels in a southerly direction through appellant's Lines H and 2nd H. These are 12" high pressure lines and enter the State of Texas at a point near Petrolia. (II, R. 1464.)

Gas from Line G is ordinarily the exclusive source of supply of gas for the City of Gainesville (II, R. 1469); and also certain towns north of Gainesville that are supplied from a branch line designated as Line G-3 (II, R. 1468). The towns of Petrolia and Byers are served almost exclusively by Lines H and 2nd H. (II, R. 1468.)

The gas produced and purchased by appellant in Oklahoma and transported to Texas in Line G is run through a gasoline plant at Gainesville, in the State of Texas. (II, R. 1480.) The Oklahoma gas transported in Lines H and 2nd H is run through a gaso-

line absorption plant at Petrolia. (II, R. 1480.) The purpose of this process is to remove certain heavy hydrocarbons. This is done to eliminate operating troubles due to the freezing of these gases and to make the gas more suitable for domestic consumption. (II, R. 1479-1480.)

The treatment to which this gas is subjected in the absorption plants is clearly and accurately stated in the testimony of the witness Schmidt, as follows:

"Q. Now, what is done at the gasoline plants?

"A. At the gasoline plant, certain heavy hydrocarbons are removed and condensed by a method known as an absorption method, and the gas enters the bottom of large cylindrical tanks and comes in touch or in contact with a petroleum oil known as mineral seal oil, which has a high attraction for the hydrocarbons, and by means of this contact the hydrocarbons are then absorbed and the gas passes out of the absorbers directly into the line again, with no interruption.

"Q. Now, after the volatile gasoline, or the heavy hydrocarbons, as you want to call it, is absorbed, the residue gas that is left is of a different composition, isn't it?

"A. The composition is practically the same. There is such a small proportion of these hydrocarbons removed, that the composition is almost identical.

"Q. When you extract gasoline vapors from natural gas, that is present in the line before it goes to the gasoline plant, and then pass on through the residue gas, it has a different heating value, doesn't it?

"A. The heating value is lowered by possibly three per cent, but that is not the entire facts of the matter, because most of the hydrocarbons would con-

dense in the lines anyhow, and you would have the same condition, besides giving us considerable operating troubles; these gases freeze up and cause stoppages in the line." (II, R. 1479.)

The forward movement of the gas is not stopped when it passes through these gasoline plants. We quote the testimony of the witness Schmidt, as follows:

"Q. Now, then, the forward movement is to some extent checked whenever the gas passes through a gasoline plant too; isn't that correct?

"A. It is not.

"Q. Well now, you know that it is stopped to some extent, don't you, Mr. Schmidt?

"A. It does not stop at all.

"Q. Well Mr. Schmidt, does the whole gasoline process not depend upon arresting the forward movement of that gas, and getting it into a static condition, where the vapors can be condensed out?

"A. No, sir; as I said before, the gas enters the bottom of these large tanks, through openings sufficient to carry the capacity of the pipe lines, and that gas passes up through these tanks and out the top, and right back into the pipe line, without any interruption whatever." (II, R. 1484.)

The witness testified that the diameter of these tanks is about 30" and that they allow some expansion of the gas, but that this does not interrupt the forward movement of the gas. (II, R. 1484.)

The gas transported in Lines H and 2nd H is compressed at Petrolia, Texas; and the same is true of part of the gas coming into Texas through Line G; it goes through the compressor station at Gainesville. The compressing of the gas does not interrupt its

forward movement. The purpose is to aid and increase the movement. The gas comes into the compressor plant with the pressure varying from 100 to 250 pounds and leaves the plant with the pressure increased to around 250 to 325 pounds. (II, R. 1478.)

A part, but not all, of the gas produced or purchased in Oklahoma and transported into Texas in Lines H and 2nd H is stored temporarily in the ground on what is referred to in the record as the Miller Lease, near Petrolia, Texas. (II, R. 1477-1482.) None of the Line G gas is thus stored.

The Court of Civil Appeals states in its opinion that, for the period 1929 to 1933, appellant obtained about 4 per cent of its total gas supply from Oklahoma, this, of course, excluding the Wheeler County gas. (V, R. 3337.) This is an erroneous statement. A computation based on appellant's Exhibit 44 will show that the average amount of gas produced or purchased in Oklahoma and transported to Texas was about 11 per cent of the total amount transported by appellant. (V, R., 3201-3205.) There is no evidence in the record disputing the correctness of the quantities shown in appellant's Exhibit 44.

The State court further found that "the gas reserves in Texas are more than sufficient to supply all Texas needs." (V, R. 3337.) If the Court intended to hold that the Oklahoma gas supply available to appellant was not necessary in order to take care of the demands for gas made on appellant in Texas, the finding is without support in the evidence, which shows that the Oklahoma gas and the facilities used to transport it to Texas were necessary in order for

appellant to be able to supply its Texas customers during period of peak demand. (III, R. 2043-2044.)

2. Statement of Facts Affecting the Issue of Confiscation and Related Issues.

We have heretofore summarized the findings of the commission and stated the manner in which they were arrived at. (*Supra*, pp. 7-10.)

Appellant's Evidence.

At the trial appellees, to make out their prima facie case, offered the commission's order, and rested. Appellant then presented a motion for a directed verdict, and this being overruled, proceeded to introduce evidence showing that the order of the commission, as made and sought to be applied, was confiscatory. Appellant first proceeded with evidence rebutting the commission's findings as they were made; that is, with evidence showing the value of the entire "integrated operating system" that had been valued by the commission.

Appellant's evidence relating to a proper annual accrual to the reserve for depreciation, depletion and amortization and relating to operating revenues and expenses followed the same theory followed by the commission in its findings and was in direct rebuttal of the findings. The evidence that appellant thus introduced will be briefly stated.

On the issue as to a proper *rate base*, appellant introduced in evidence an appraisal showing the cost of reproducing its "integrated operating system" as of January 1, 1933. This appraisal was prepared in great detail and consisted of eight volumes, only the summaries of which have been included in

the printed record by appellant. (Appellant's Ex. 28, IV, R. 2363.) It showed $73,983,405.57 as the cost of reproducing the "integrated operating system." The commission's valuation of appellant's "integrated operating system" amounted to $46,246,617.53 (*supra*, p. 9.) Appellant's appraisal was prepared by Biddison, Connor and Steinberger. No question of their qualifications has been raised in this case. They were men thoroughly trained and experienced in their professions. (Biddison's qualifications, I, R. 609-613; Connor's qualifications, II, R. 858-869; Steinberger's qualifications, I, R. 475-481).

The property is well designed, maintained and operated. "It is an excellent property from all viewpoints." (I, R. 656.) The unit costs used in the appraisal were based, to a large extent, upon the experience of appellant in actual construction cost. These costs were determined by an analysis of construction records. (I, R. 638-639.) Labor rates were those currently prevailing (I, R. [illegible]) and the material prices used were the lowest quoted by leading manufacturers for large lot purchases. (I, R. 640-641; II, R. 842-843.)

The method employed in arriving at the reproduction cost new of physical properties was thoroughly explained by the witness Biddison. (I, R. 613-841; II, R. 1141-1226; III, R. 2002-2029.) The manner in which the witness Connor arrived at the collateral construction costs and non-physical values included in the appraisal was fully explained. (II, R. 869, et seq.; Appellant's Ex. 28, IV, R. 2602-3007.)

Gas reserves were determined by appellant's reg-

ularly employed production engineer and geologist. The manner in which the reserves were calculated was carefully explained by the witness Dunn (I, R. 512-544) and the results are shown in exhibit form. (Appellant's Ex. 30, V, R. 3007-3030.) Only proven and developed reserves were included in the appraisal. (I, R. 528, 529.) Those included represented only about one-third of the total gas acreage held by appellant. (I, R. 530.) It was estimated that appellant's gas reserves would be sufficient for approximately twenty years. (I, R. 531.) The value of the reserves included in the appraisal is set forth in exhibit form. (Appellant's Ex. 31, V, R. 3031-3033.)

Accrued depreciation was determined by inspection of the physical property. Fair value was determined by deducting the accrued depreciation thus determined from the reproduction cost new. (II, R. 1141-1171.) In this manner the *fair value* was determined to be $69,738,021.16. (Appellant's Ex. 37, V, R. 3037.) The appraisal was later supplemented to May 1, 1934. (Appellant's Ex. 40, V, R. 3047.) This supplemental appraisal showed an increase in material and construction costs between January 1, 1933, and May 1, 1934, of $1,579,381.72. (Appellant's Ex. 40, V, R. 3052.)

It was also shown that the difference between prices for steel pipe and dresser couplings adopted by the commission and those prevailing at June 11, 1934, amounted to an increase of $3,409,626.91, when applied to appellant's property. (Appellant's Ex. 39, V, R. 3043-3046.)

Costs of the property, as reflected by appellant's

books, were: December 31, 1931, $47,776,749.63, (Appellant's Ex. 5, III, R. 2209); December 31, 1932, $50,034,431.70, (Appellant's Ex. 6, III, R. 2212); December 31, 1933, $49,837,026.06, (Appellant's Ex. 8, III, R. 2215); April 30, 1934, $49,858,751.23 Appellant's Ex. 10, III, R. 2221). The decrease in costs, as reflected by the books, was due to property abandoned or taken out of the public service. The costs, as reflected by the books, did not include overhead construction costs incurred prior to 1927. It was not appellant's policy to capitalize these costs from 1909 to 1927, and a substantial part of the property was constructed prior to 1927. For other reasons explained in the record, the books understated the actual cost of the property. (I, R. 348-352.) The costs, as reflected by the books, did not include working capital, material and supplies, or going concern value. (I, R. 364-365.)

Annual accruals to reserve to provide for *depreciation, depletion and amortization* were estimated by appellant's witness Conner, at $3,465,123.36. This amounts to approximately 5% on the value as appraised by appellant ($3,465,123.36÷$69,738,021.16). The estimate was based on the straight line method of reserve accounting, the method actually used by appellant. (II, R. 1259-1260.) The commission used a sinking fund method. It allowed $968,066.98, or 2.28%, on the depreciable items of property, and approximately 2% on its total rate base, $46,246,617.53. (I, R. 98.) Connor treated this subject thoroughly both in exhibits and oral testimony. (II, R. 1256-1323.) Separate accrual rates for each of the various

classes of property were determined. (Appellant's Ex. 41, V, R. 3055.)

The basis upon which these accrual rates were determined is set forth in detail in exhibit form. (Appellant's Ex. 42, V, R. 3057-3196.) Briefly stated, the reserve accrual rates were based upon an analysis of the history of the various classes of property. The records examined covered a period from 1909 to 1933. (II, R. 1257; V, R. 3057-3060.) This study covered approximately 8,000,000 feet of three inch equivalent diameter pipe which had been removed, replaced and abandoned. (II, R. 1280-1284; V, R. 3073-3080.) All factors bearing upon the life of gas wells were analyzed. The history of over 1,000 gas wells which have been attached to appellant's system was included in this study. The average life of gas wells was thus determined to be four years. (II, R. 1268-1276.) This may be compared with the commission's finding of thirteen and one-half years. (II, R. 1275.) The dates upon which various lines in the system were put into service and the length of their service before replacements were required, were determined. (II, R. 1278-1288, 1295-1296.) All factors contributing to the mortality of the various classes of property were analyzed and given due weight in the ultimate conclusion.

The record shows that more than 60% of all the pipe in the system was installed new during the seven-year period prior to the date of inquiry. (V, R. 3081-3082.) Only 20.45% of the total compressor horse power in service at the date of inquiry had been installed prior to 1922. (V, R. 3175.) The pipe

lines and compressor equipment constitute the major portion of the total value ascribed to the physical property.

The annual rate of growth is shown in appellant's exhibit 42. (V, R. 3081.) The property had a weighted age of only twelve years at the date of inquiry. (III, R. 1860, 2041-2042.) Other facts establish that the system was a comparatively new one at the date of inquiry. Hence, the charges against reserve in past years were not deemed to represent the ultimate retirement liability which would accrue as the property grew older. Charges experienced in the past on the smaller property were no criterion for determining the reserve accruals needed to meet the increasing eventual retirement liability on the larger and newer system.

Operating expenses and revenues were shown in accounting exhibits covering the years 1931, 1932, 1933, and the twelve months ended April 30, 1934. Gross revenues and amounts available for depreciation, depletion and return under the 40¢ rate, after deduction of actual expenses of operation, were:

12 Mos. Ended	Gross Revenues	Amounts Available for Depreciation, Depletion and Return
12-31-31	$9,267,270.80	$4,605,721.83
12-31-32	8,831,205.35	4,658,506.46
12-31-33	7,690,167.01	3,892,748.58
4-30-34	7,923.087.30	4,114,322.81

(Ex. 5, III, R. 2209; Ex. 6, III. R. 2212; Ex. 8, III, R. 2215; Ex. 10, III, R. 2221.)

After allowing for depreciation reserve accruals in the sum estimated by appellant's witness, the sums

remaining would have provided the following amounts for return *under the 40¢ rate* on the fair value of the property as determined by appellant's witnesses: For the year 1931, 1.64%; 1932, 1.71%; 1933, .61% and the twelve months ended April 30, 1934, .93%.

All expenses of operation claimed by appellant were actually incurred in good faith by the management in the exercise of their best judgment. (I, R. 365.) They represent actual outlays. The accounts conform to the classification of accounts prescribed by the American Gas Association. (I, R. 315.) The Railroad Commission of Texas has not prescribed a classification of accounts. (I, R. 375-376.) There was no material dispute between the auditors for appellees and appellant with reference to actual revenues. Appellees' witness so testified. (III, R. 1661-1665.) The State court refers to this fact in its opinion. Said the court:

"With respect to operating expenses, except as to a few controverted items, and with respect to revenues, there is no substantial difference in the testimony as to the totals of both Texas and Oklahoma for the years of the accounting period." (V, R. 3364; 86 S. W. (2d) 503.)

Gross revenues and amounts available for depreciation, depletion, Federal income tax and return *under the 32¢ rate*, after adjusting operating expenses in accordance with the commission's findings, which eliminated management fees paid the holding company, and other items, were:

12 Mos. Ended	Gross Revenues	Amounts Available for Depreciation, Depletion, Federal Income Tax and Return
12-31-31	$7,941,986.82	$3,765,160.24
12-31-32	7,519,397.26	3,908,663.51
12-31-33	6,610,219.85	2,997,969.38
3-31-34	6,813,222.57	3,191,162.50

(III, R. 2270-2271.)

After allowing for depreciation reserve accruals in the sum estimated by appellant's witness, the sums remaining would have provided the following amounts for return *under the 32¢ rate* on the fair value of the property determined by appellant's witnesses:

12-31-31	.43%
12-31-32	.64%
12-31-33	.67% (deficit)
3-31-34	.39% (deficit)

Appellant's evidence also showed that after applying the 32¢ rate ordered by the commission, adjusting the operating expenses to conform to the commission's eliminations therefrom, computing depreciation and depletion reserve accruals as found by the commission, the amount available for return, when expressed as a percentage of the rate base adopted *by the commission* were as follows: For the year 1931, 5.56%; 1932, 5.76%; 1933, 3.97%; and twelve months ended March 31, 1934, 4.31%. Thus it appears that, considered in the light of the commission's own findings, the prescribed rate yields less than the "minimum fair return" as found by the commission—6 per cent. (*supra*, p. 10.) (Appel-

lant's Ex. 13, Sec. 3, III, R. 2233; for details, III, R. 2268, et seq.)

Upon the same basis, except that operating expenses were those actually incurred, it was determined that the prescribed rate would have allowed 3.76% for return on the commission's rate base, for the twelve months ended April 30, 1934. (Appellant's Ex. 14, III, R. 2304, et seq.)

Appellant's evidence showed that a net return of from 8% to 10% was reasonable; that such a return was necessary, considering the hazards of the business, in order for appellant to attract a free flow of capital into its business, insure confidence in the financial soundness thereof, support and maintain its credit, and properly discharge its public service obligations. The commission had never before allowed less than 7% for return to a natural gas utility. (II, R. 1329.) The testimony to this effect was given by appellant's engineers Biddison and Connor and two independent bankers, presidents of two of the larger banking institutions in Texas. These witnesses were familiar with the rates of return commonly demanded and received by investors in the securities of natural gas enterprises. (Connor, II, R. 1324-1330; Biddison, III, R. 2014; Thornton, III, R. 1960-1965; Florence, III, R. 1965-1977.)

(b) Appellant's evidence above summarized was in direct rebuttal of the commission's findings. Appelles objected to the admissibility of this evidence on the ground that it dealt with over-all properties and business operations—the same properties and operations covered by the commission's findings—

and was not based upon segregation of appellant's properties and operations as between interstate and intrastate commerce or as between Oklahoma and Texas. These objections, many times urged, were consistently overruled in the trial court and the evidence admitted.

Appellant, after offering the evidence we have summarized above, then offered additional evidence based upon a segregation of its "integrated operating system" as between interstate and intrastate commerce.

This segregation was based upon the actual use of appellant's properties in the two classes of commerce—upon the actual conduct of its business. The method employed is explained in appellant's Exhibit 45 (V, R. 3207, et seq.) It was also explained in detail by the witness Schmidt. (II, R. 1497-1529.) The basis used in segregating and allocating operating expenses and revenues is explained in appellant's Exhibit 46 (V, R. 3279, et seq.), and also in the oral testimony of the witness Hulcy (II-III, R. 1529-1604). On the basis of this segregation and allocation it was shown that the rate prescribed in the order, when applied to appellant's intrastate deliveries of gas, would yield 6.65% for depreciation and return for the year 1933 on the actual cost (Appellant's Ex. 46, V, R. 3283-3284), and 5.78% on the present value of the property employed in the intrastate public service. (V, R. 3287-3288.) After calculating reserve accruals for depreciation, depletion and amortization at the two per cent rate allowed by the commission, there remained available for return 4.65% on the actual cost, and 3.78% on the fair

value of the intrastate property. (II, R. 1563.) Of the total actual cost of the integrated operating system $32,080,146.32 was allocated to intrastate operations. (V, R. 3284, 3313, "D" Operations, Appellant's Ex. 46.) The fair value of the intrastate property was determined by segregating the appraised value shown in appellant's Exhibits 28 and 37 for the integrated system exclusive of going concern value. The fair value thus determined was $38,350,882.32. (V, R. 3288, 3314, "D" Operations, Appellant's Ex. 46.)

The only criticism made by the State court with respect to appellant's segregation between interstate and intrastate commerce was that Line A, used in transporting gas from Wheeler County, Texas, through Oklahoma and thence into Texas, had been allocated to interstate operations. (V, R. 3361.)

Appellant's evidence above summarized was rejected by the Court of Civil Appeals as not being material to any issue in the case; the evidence covering the entire "integrated operating system" upon the ground that it did not involve any segregation of properties and operations; and the evidence, based upon the segregation mentioned, upon the ground that the segregation, in the view of the State court, was an improper one, it being based upon the assumption that the Wheeler County gas was interstate gas. (V, R. 3361, 3362, 3364.)

Appellees' evidence on the confiscation issue.

Appellees offered no evidence supporting the commission's findings upon which it based its order;

they offered no evidence relating to appellant's "integrated operating system." They offered no evidence controverting the evidence introduced by appellant either with respect to the "integrated operating system" or with respect to appellant's segregation of its properties and operations between interstate and intrastate commerce. Instead of attempting to support the commission's findings and to rebut the evidence offered by the appellant, appellees offered evidence based upon a wholly different segregation of the properties and operations. Their evidence was based upon a segregation which, in the main, as pointed out by the State court, divided the property according to its geographical location and made a similar segregation of the operations. (V, R: 3360.)*

This evidence related to properties and operations that were never separately considered by the commission, as appears from its findings; the findings relate only to the integrated properties and operations. (I, R. 14-16.)

Upon the basis of Appellee's segregation, the State court found that "85 per cent of appellant's

*The Court will note that the State court in this connection refers to "the method of segregation adopted by the *commission*. (V, R. 3360.) This is a misleading and erroneous statement. As we have before pointed out, the commission as an administrative or legislative body made no segregation of the properties and operations in fixing the rate. On the contrary, it expressly found that the properties should be appraised and the operations considered as a "unit"; as an "integrated operating system." *(Supra,* p. 8.) This statement of the State court is correct only when applied to the commission as a *litigant;* certain witnesses testifying for the commission at the trial made the segregation to which the State court refers.

property is situated in Texas; and approximately 99 per cent of its gas reserves are in Texas." (V, R. 3337.)

Appellees' allocation referred to allocated to Oklahoma, or to "interstate commerce" (using their terminology) the properties physically located in that state and the operating revenues and expenses which they deemed to be properly allocable to such properties. They allocated to Texas, or to "intrastate operations," properties physically located in Texas and the revenues and expenses deemed to be allocable thereto. This segregation was based, not upon the actual use of the properties and the conduct of appellant's business operations, but upon a geographical standard unrelated to the actual use of the properties and conduct of the business. (III, R. 1668-1670.)

Appellees excluded from their appraisal of the Texas properties all of the production system property located in Texas and also the expenses incurred in the operation of such properties. (III, R. 1795-1796, 1903-1905.) This property was used and useful in appellant's public service. (III, R. 2044-2045.)

Appellees found a reproduction cost new for appellant's Texas gathering, transmission, compressing and general property of only $40,256,862.39 as of June 15, 1934. (Appellees' Ex. 6, III, R. 2141, et seq.) This figure includes nothing for going concern value. (III, R. 1793-1794; 2108.) The Texas properties thus segregated by appellees had a book cost of $44,053,612.30 as of March 31, 1934. This figure includes the production system properties in Texas, which were eliminated from appellee's appraisal. It

includes net capital additions to Texas properties at actual cost from January 1, 1932, to March 31, 1934, in the sum of $1,500,843.28. (Appellees' Ex. 4, III, R. 2125.) This book cost figure did not include cash working capital, materials and supplies, or going concern value.

Appellees' evidence showed $2,721,854.13 for the year 1933, and $2,714,877.13 for the twelve months ended March 31, 1934, available for return, after application of the 32 cent rate prescribed in the commission's order. This amounted to 6.76% for the former period and 6.74% for the latter period on the value of the Texas properties, as appraised by appellees in the amount and manner hitherto stated. (Appellant's Ex. 8, III, R. 2164.) The amount thus determined to be available for return was arrived at after eliminating all expenses incurred by appellant in the operation of its production system properties and after making an arbitrary addition to actual revenues of $441,240.12 for the year 1933, and $268,829.64 for the twelve months ended March 31, 1934. These additions to revenues were based on the theory that the year 1933 and the twelve months ended March 31, 1934, were abnormally warm periods. They represent appellees' calculation of the additional amount that appellant would have received under the 32 cent rate if the weather had been colder and more gas had been sold. (Appellees' Ex. 8, III, R. 2164-2165.)

Appellees estimated annual reserve accruals to provide for depreciation at $848,546.48. (Appellees' Ex. 7, III, R. 2159, 1843.) This amounted to 2.11% on the value of the Texas property as appraised by

appellees in their Exhibit 6. *(III,* R. 2142-2143.) This estimate was based on the sinking fund method. Appellees' witness testified that if he had used the straigth line method in computing depreciation reserve accruals he would have used the percentage of 4.205 on the physical properties, including the production system properties. He also testified that on the straight line basis he would have used a percentage of 3.0902 on both the physical and non-physical properties. (III, R. 1873-1874.) This would have amounted to approximately $1,404,355.61 upon appellees' valuation of the physical properties in Texas, plus the production system properties at cost. ($40,256,862.39+$5,191,539.42=$45,448,401.81× 3.09%=$1,404,355.61.) Appellees' expert admitted that his estimate would be insufficient to meet the calculated future mortalities unless supplemented by the existence and use of a credit balance in the reserve account at the date of inquiry of $5,000,000.00 for the transmission line equipment alone. It was assumed that this credit balance, together with future accumulations, would be further supplemented by interest at the rate of 6% per annum compounded. (III, R. 1860-1862.) Nothing was included in the estimate for depletion of gas reserves for depreciation on the production system properties. Appellees' expert conceded that at least $94,000.00 would be required for these purposes on the Texas properties. (III, R. 1912-1913.)

The effect of appellees' elimination of appellant's production system properties and expenses and their failure to provide for depletion and return thereon, is thus shown: The commission included in its rate

base $4,674,285.91 for appellant's production system properties. (I, R. 100.) All of these properties were eliminated by appellees. The commission made an allowance for expenses in operating the production system property of $247,732.86 for the year 1931, this being the year upon which the commission made its determination. (I, R. 21, 104.) The commission included approximately $116,000.00 for depreciation and depletion of the production system properties. (III, R. 1912.) The commission determined that it would require $636,533.46 to provide for operating expenses, depreciation, depletion, and a 6% return on the value included by it in the rate base for production system properties. (I, R. 104.) Appellees allowed only $212,031.46 for the year 1933, and $232,644.75 for the twelve months ended March 31, 1934, for the same purpose. (III, R. 2164.) The evidence shows that only approximately 1% of the production system properties are located in Oklahoma. (I, R. 459.)

Appellees' own accounting exhibit shows that the production system expenses amounted to $232,758.70 for the year 1933, and $222,752.66 for the twelve months ended March 31, 1934. (Appellees' Ex. 4, III, R. 2116-A.) These amounts represent expenses actually incurred by appellant.

The production system properties located in Texas, and eliminated by appellees, had an actual cost of $5,191,539.42 at March 31, 1934. (Appellees' Ex. 4, III, R. 2125.) They consisted of leases, mineral rights, gas rights, lands in fee, drilling tools, gas farms, gathering system, and Petrolia field property. The Petrolia Field property is included at

actual cost in the amount of $758,619.23. (Appellees' Ex. 4, III, R. 2125.) Instead of including the production system properties in the appraisal and allowing operating expenses, depletion and return thereon, appellees substituted an arbitrary allowance in lieu thereof. The allowance substituted by appellees amount to $212,031.46 for the year ended December 31, 1933, and $232,644.75 for the twelve months ended March 31, 1934. (Appellees' Ex. 8, III, R. 2164.) These substituted amounts were arrived at by applying to the volume of gas produced by appellant from its own wells in Texas the average prevailing well head price in the field. (III, R. 1903.) The deficiency of appellees' allowance for the year 1933 alone is thus shown:

The operating expenses on the production system properties for the year 1933 were $232,758.70 as heretofore shown. $94,000.00 would be required for depletion, according to appellees' expert witness. A 6% return on the actual cost of the production system properties would be $311,492.36. This makes a total requirement for operating expense, depletion and return of $638,251.06. This sum is to be compared with appellees' allowance of only $212,031.46. The allowance is therefore deficient by $426,219.60.

The foregoing statement is regarded as being sufficient to show, not only the facts affecting confiscation on the merits, but also the facts affecting the various rulings made by the State court in connection with appellant's alleged failure to make a proper segregation of its integrated properties and operations. For that reason a separate statement on the issues mentioned will not be submitted.

3. Statement of the Facts Affecting Appellant's Claim That It Was Denied an Adequate Judicial Review of the Order.

That the evidence was at least sufficient to raise an issue of fact as to whether the rate was confiscatory is shown by the statement previously submitted, *supra*, pp. 34-50. The Court of Civil Appeals held that in respect to certain vital matters affecting the issue of confiscation, including the issue as to the *fair value* of appellant's properties and the issue as to what would be a *fair rate of return*, the evidence was conflicting and at most "merely presented the difference of opinions of equally well qualified experts." (V, R. 3363, 3368.) The court further held that, in these circumstances, the jury had no right to resolve the conflict in the evidence and that appellant's attack on the rate order should be overruled as a matter of law. Appellant has challenged this ruling as involving a denial of adequate judicial review of the rate order.

It has been found more convenient to state the facts and the various rulings of the Court of Civil Appeals affecting this issue of adequate judicial review as a part of the argument hereinafter presented, *infra*, pp. 124-134. For that reason no separate statement is here submitted.

V.

Specification of Errors Intended to Be Urged.

Appellant assigns the following errors committed by the Court of Civil Appeals in entering its judg-

ment, affirming and sustaining the validity of said rate order, as against appellant's attack thereon based on the Commerce Clause of the Federal Constitution and the Due Process Clause of the Fourteenth Amendment to the Federal Constitution; and it shows that in making each of the rulings complained of in Sections I to VI of this Assignment of Errors the Court of Civil Appeals denied to appellant rights secured to it by the Commerce Clause of the Federal Constitution; and that each of the rulings complained of in Sections VII to XV of this Assignment of Errors deprives appellant of its property without due process of law in violation of the Due Process Clause of the Fourteenth Amendment to the Constitution of the United States.

1. The Court of Civil Appeals erred in holding that appellant pipe line company was not engaged in interstate commerce in transporting and selling gas produced or purchased by it in Wheeler County, Texas, and transported in its high pressure line through Oklahoma and thence back into the State of Texas to the city gates in Texas where delivery is made to local distributing companies.

2. The Court of Civil Appeals erred in holding that the rate order did not interfere with and constitute a direct burden upon interstate commerce and appellant's right to engage therein, in violation of Article I, Section 8, Paragraph 3 of the Constitution of the United States, and was not void and unenforceable in so far as it was sought to be enforced as to gas produced or purchased in Wheeler County,

Texas, transported in appellant's high pressure pipe line A through Oklahoma and ultimately delivered in wholesale quantities at city gates in Texas.

3. The Court of Civil Appeals erred in holding that the gas produced or purchased by appellant in Oklahoma and transported by its pipe lines to Texas does not move in interstate commerce when it reaches the Texas city gates for delivery.

4. The Court of Civil Appeals erred in holding that the rate order did not interfere with an constitute a direct burden upon interstate commerce and appellant's right to engage therein, in violation of Article I, Section 8, Paragraph 3 of the Constitution of the United States, and was not void and unenforceable in so far as it was sought to be enforced as to gas purchased and produced in Oklahoma, transported in appellant's high pressure pipe lines from Oklahoma and ultimately delivered in wholesale quantities at city gates in Texas.

5. The Court of Civil Appeals erred in upholding the rate order in question as against appellant's attack thereon grounded upon the claim that it operated as a direct regulation of interstate commerce, in which appellant was engaged, in violation of the Commerce Clause of the Constitution of the United States.

6. The Court of Civil Appeals erred in failing to hold that the order of the Railroad Commission was void and the rate therein prescribed unenforceable as

to all gas sold by appellant pipe line company in Texas inasmuch as the same was void and unenforceable in part (as to gas sold and delivered in interstate commerce) and inasmuch as the same was indivisible.

7. The Court of Civil Appeals having held that the courts of this State, in this suit involving the validity of the rate order in question, challenged as being confiscatory and for that reason violative of the Due Process Clause of the Fourteenth Amendment, are without power to weigh the evidence and settle the conflicts in the evidence and pass their independent judgment on the facts as well as the law, relating to the tendered issue of confiscation, erred in holding that the rate order was valid. This ruling of the Court denied to appellant that adequate judicial review granted to it by the Due Process Clause of the Fourteenth Amendment to the Federal Constitution, and the enforcement of the rate order against appellant under such circumstances will deprive it of its property without due process of law, in violation of the Fourteenth Amendment to the Federal Constitution.

8. The Court of Civil Appeals erred in refusing to consider, and in holding to be immaterial, appellant's evidence as to the value of its integrated pipe line properties, located both in Texas and in Oklahoma, and its revenues and expenses incident to the operation of such properties, appellant thereby being deprived of its right to attack the rate and the findings of the Commission upon which it was based on

the same theory and by the same character of evidence underlying the promulgation of the rate, and thus being denied an adequate judicial review of the rate order and deprived of due process of law, contrary to the provisions of the Fourteenth Amendment to the Constitution of the United States.

9. The Commission, having found that appellant's property and business was an integrated system and having valued the same as such and the Court of Civil Appeals having found that appellant was not engaged in interstate commerce in transporting and supplying gas at the city gates of cities and towns in Texas, and appellant having introduced evidence showing that the order of the Commission would not permit it to receive in any of the years involved as much as a six per cent (6%) return on the fair value of its integrated public service properties, the Court of Civil Appeals erred in holding that the evidence was insufficient as a matter of law to raise an issue of fact as to the confiscatory character of the rate.

10. The Court of Civil Appeals, having held that appellant is not engaged in interstate commerce in the transportation and delivery of gas at the city gates in Texas, erred in holding that it was necessary to segregate appellant's integrated pipe line property and business as between interstate and intrastate commerce in order to test the validity of the rate.

11. The Court of Civil Appeals erred in holding that appellant failed to make a proper segregation

of its properties and operations as between interstate and intrastate commerce.

12. The Court of Civil Appeals erred in holding that the evidence introduced by appellant based upon a segregation of its properties and operations as between interstate and intrastate commerce proved nothing material to the case.

13. The Court of Civil Appeals erred in holding that, since appellant failed to make a proper segregation of its properties as between interstate and intrastate commerce, it did not adduce the quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory.

14. The Court of Civil Appeals erred in approving a segregation of appellant's properties and operations as between interstate and intrastate commerce that was based merely on geographical location of the property and not upon the way in which the property was used and the business conducted.

15. The Court of Civil Appeals erred in upholding the validity of the rate order as against appellant's claim that same was confiscatory in its operation and was violative of appellant's rights under the Due Process Clause of the Fourteenth Amendment to the Constitution of the United States in the following particulars, and in each of said particulars appellant was deprived of its property without due process of law, in violation of the Fourteenth Amendment to the Constitution of the United States:

(a) In adopting a rate base of $40,256,862.39 which did not include the value of appellant's production system property consisting of natural gas reserves, both producing and non-producing, gas wells, gas well equipment, drilling tools and equipment used and useful in the public service in Texas, all of such property costing approximately $5,200,000.00.

(b) In approving the elimination of all operating expenses actually incurred in good faith in the operation of appellant's production system property amounting to the sum of $232,759.70 for 1933, and $222,752.66 for the twelve months period ended March 31, 1934.

(c) In adopting appellees' estimate of $831,946.08 per annum for depreciation, depletion and amortization reserve accruals, which did not embrace any sum for depreciation, depletion or amortization on appellant's production system property, gas wells, gas well equipment, drilling tools and equipment used and useful in the Texas public service.

(d) In adopting a formula in lieu of actual operating expenses and an allowance for annual accruals to reserve for depreciation, depletion and amortization and a fair return on appellant's gas reserves, gas wells, gas well equipment and other production system property, consisting of an addition to operating expenses of a sum of money arrived at by applying the average well head price paid by appellant to independent producers to the volume of gas pro-

duced by appellant from its own Texas gas reserves, such substituted sum being insufficient by approximately $426,000.00 to provide for operating expenses, the necessary annual reserve accrual for depreciation, depletion and amortization (as estimated by appellees' witnesses) and a 6% return (which the Commission held was the minimum to which appellant was entitled) on the actual cost of such property.

(e) In adopting a rate base of $40,256,867.39, which did not include the value of appellant's property located in Oklahoma actually and necessarily used and useful in transporting to Texas for sale and delivery therein gas purchased and produced in Oklahoma.

(f) In approving the elimination from operating expenses of all expenses actually and in good faith incurred in the operation of appellant's properties located in Oklahoma, actually and necessarily used and useful in transporting to Texas for sale and delivery therein, gas purchased and produced in Oklahoma and the disallowance of any depletion or amortization of such properties.

(g) In adopting an arbitrary addition to appellant's actual revenues of $441,240.12 for the year 1933, and $268,829.64 for the twelve months ended March 31, 1934, to compensate for assumed deficiencies in actual gas sales due to abnormally warm weather.

(h) In adopting an annual allowance for depreciation, depletion and amortization reserve accruals of $831,946.08, which amount was insufficient for current and future requirements without being supplemented by an assumed credit balance in the reserve account of $5,000,000 at the date of inquiry.

(i) In adopting a rate base containing no allowance to cover the item of going concern value.

(j) In failing to hold that a six per cent return was confiscatory.

(k) In approving a rate which would not permit appellant to earn the six per cent return which the Railroad Commission held was the minimum to which it was entitled on the fair value of its Texas public service properties as determined by appellees' witnesses upon the trial if appellant's production system property be included in said evaluation and actual operating expenses and revenues be allowed, and if effect be given to a 2% per annum reserve accrual for depreciation, depletion and amortization allowed by the Commission.

(l) In approving a rate which appellant's unrebutted evidence showed would not permit it to earn the minimum 6% return, to which the Commission held it was entitled, upon the fair value of its integrated properties as determined by the Commission after computing accruals to the reserve for depreciation, depletion and amortization at the rate approved by the Commission.

(m) In approving a rate which appellant's uncontradicted evidence clearly showed would not permit it to earn in excess of 3.78% on its fair value, and 4.65% on the actual cost of its properties used and useful in intrastate commerce in Texas as determined by appellant's segregation between interstate and intrastate commerce, based upon use, after allowing for annual accruals to the reserve for depreciation, depletion and amortization at the rate of 2%, being the rate adopted by the Commission.

(n) In holding immaterial and refusing to consider or permit the trial court to consider appellant's evidence showing that the depreciated fair value of its integrated properties was $69,738,021.16, whereas the Commission found the undepreciated value of such property to be $46,246,617.53.

(o) In holding that appellant's evidence showing that a fair annual allowance for accruals to the depreciation, depletion and amortization reserve was not less than $3,465,123.36, as compared with the Commission's allowance of only $983,697.98, for its entire integrated property and business, was of no probative force. (V, R. 3461-3467.)

VI.

Summary of Argument.

I. The Wheeler County gas transported through Oklahoma for sale and delivery at city gates in Texas, constitutes interstate commerce. The rate

order, as applied to it, is void under the Commerce Clause.

1. The interstate character of the movement of this gas is fixed by the fact that it is transported through another State.
2. Appellant's motives in constructing its Line A through Oklahoma are not material.
3. The commingling of a part of this gas is without effect on the interstate commerce issue.
4. Appellant's interstate business may not be subjected to direct regulation on the ground that it is small as compared with its intrastate business.
5. The State court's holding that the rate may be applied to interstate deliveries, provided it is reasonable, is plainly wrong.
6. Discussion of the failure of the Congress to regulate gas pipe lines.
7. Corporate affiliation between appellant and the distributing companies is not material to the correct determination of the interstate commerce issue.
8. The rate order is an indivisible legislative act and, being void as to the interstate deliveries, it is also void as to the intrastate deliveries.

II. The transportation, sale and delivery in Texas of the gas, produced or purchased in Oklahoma, con-

stitutes interstate commerce, and the rate order, as applied to this gas, violates the Commerce Clause.

III. The State court's holding that appellant's evidence, relating to the value of the entire "integrated operating system" and the revenues accruing therefrom and operating expenses incurred in connection therewith, was not material and should not be considered because of appellant's failure to make a proper segregation of its properties and operations, as between interstate and intrastate commerce or between Oklahoma and Texas, is plainly wrong.

1. The ruling of the State court in this connection denied appellant a fair opportunity to prove that the rate order was confiscatory and amounted to a denial of due process.
2. If any segregation was necessary, then a proper basis therefor was laid in the evidence and, presumptively, the jury, following the charge, made the segregation.

IV. The holding of the State court that the triers of fact were without power to settle conflicts in the evidence denied appellant an adequate judicial review of the rate order on the tendered issue of confiscation.

V. The finding of the jury that the rate was confiscatory is sustained by clear and satisfactory evidence. Therefore the judgment of the Court of Civil Appeals should be reversed and that of the District Court affirmed.

1. Discussion of various items criticized by the Court of Civil Appeals.
2. Discussion of actual application of the rate order under various bases of fact supported by the record.

ARGUMENT.

Point One.

The transportation of the Wheeler County gas from Wheeler County, Texas, through Oklahoma and back into Texas, for sale and delivery at city gates in Texas, constitutes interstate commerce, and the rate order fixing the price or rate that appellant may collect upon sale and delivery of this gas at city gates in Texas is unconstitutional and void, because amounting to a direct regulation of interstate commerce.

The facts relating to appellant's high pressure gas pipe line, designated as Line A, and the Wheeler County gas transported in it from the great Panhandle gas field in Wheeler County, Texas, through Oklahoma and back into Texas, for sale and delivery in wholesale quantities at city gates in Oklahoma and Texas, have been stated, *supra*, pp. 22-30. These facts are undisputed; the question arising thereon is simply one of law.

The gas is taken from the wells in Wheeler County, Texas, at high pressure and is transported, without interruption of movement, under the original rock pressure, through Line A and the branch line just mentioned to the city gate delivery points; part of it to city gates in Oklahoma and the remainder to

city gates in Texas. The pressures in the transportation line vary from 300 to 450 pounds. At the city gate delivery points the pressure is reduced to 25 or 30 pounds. This is done solely for the purpose of making the delivery and as a part of the delivery; *supra*, p. 25. The pressures are reduced to a point where the gas may be safely transported through the lines of the distributing company. (*Supra*, p. 25.) The reduction in pressure is accomplished by the use of regulators. These, under the contracts, are installed, maintained and operated by the distributing company. (IV, R. 2308.)

The transporting, selling and delivering of this Wheeler County gas at city gates in Texas and Oklahoma, in the manner shown by the undisputed evidence, constitutes interstate commerce, and the State commission was without authority to regulate this commerce in the way attempted. The case is clearly ruled by *Hanley vs. Kansas City Southern Ry. Co., 187 U. S. 617*, considered in connection with

Missouri vs. Kansas Nautral Gas Co., 265 U. S. 298;

Public Utilities Comm. vs. Attleboro Co., 273 U. S. 83, 90;

Peoples Gas Co. vs. Public Service Comm., 270 U. S. 550, 554;

State Tax Comm. vs. Interstate Natural Gas Co., 284 U. S. 41;

State Corporation Comm. vs. Wichita Gas Co., 290 U. S. 561, 563, 564.

Orderly presentation requires that the various reasons assigned by the State court in support of its ruling be separately discussed.

1. The interstate character of the movement of this Wheeler County gas is fixed by the fact that it is transported through Oklahoma.

The interstate character of the transportation, sale and delivery of this gas is in no way affected by the fact that the point of origin and points of termini where the city gate deliveries are made in Texas are located in the same State—Texas. The holding of the State court on this point is in direct conflict with the holding of this Court in *Hanley vs. Kansas City Southern Railway Co., 187 U. S. 617*, and the following later cases:

Western Union Tel. Co. vs. Speight, 254 U. S. 17;
Missouri Pacific R. Co. vs. Stroud, 267 U. S. 404;
State Tax Comm. vs. Interstate Natural Gas Co., 284 U. S. 41.

The State court in its opinion held that the transportation of this Wheeler County gas across the State of Oklahoma for sale and delivery at city gates in Texas "is not interstate commerce as a matter of fact." (V, R. 3346.)

In this connection the State court further said that:

"The mere fact that appellee has selected a route through Oklahoma as an aid to the transaction of its Texas business cannot work a change in the nature of the business, nor does it affect the character of the business. The transportation of gas through Oklahome is merely a method of delivery and is a negligible circumstance in determining the interstate commerce issue. (V, R. 3347.)

The holding of the State court that the transporting of this gas from one point in Texas to other points in Texas, through the State of Oklahoma, is not "*interstate commerce as a matter of fact*" is in clear conflict with the decision of this Court in *Western Union Tel. Co. vs. Speight, 254 U. S. 17.* That case involved the question whether the sending of a telegraph message from one point in North Carolina to another point in North Carolina, but transmitted through the State of Virginia, was interstate commerce. This Court, in an opinion by Mr. Justice Holmes, held that the transaction constituted "interstate commerce *as a matter of fact.*" (254 U. S. 18; our italics.) And in the same case the Court further said:

"The fact must be tested by the actual transaction."

The Court in *Hanley vs. Kansas City Southern Ry. Co., supra,* approved the following test laid down by Mr. Justice Field sitting on the Circuit:

" 'To bring the transportation within the control of the State, as part of its domestic commerce, the subject transported must be within the entire voyage under the exclusive jurisdiction of the State.' " (187 U. S. 620.)

Part of this Wheeler County gas transported through Line A is sold and delivered by appellant to a distributing company at Hollis, Oklahoma. (V, R. 3346.) Part of it after reaching Texas is transported, without interruption of movement, back into Oklahoma in appellant's branch line extending from

Oklaunion, Texas, northward into Oklahoma. The gas last referred to is delivered by appellant at city gates to distributing companies supplying the following Oklahoma cities: Davidson, Manitou, Frederick, Tipton, Snyder and Mountain Park.* *(Supra,* p. 23.)

We assume that it will not be seriously contended that these Oklahoma city gate deliveries, made at the various cities, located on the branch line extending northward from Oklaunion, Texas, constitute intrastate commerce carried on in the State of Oklahome. Such a contention would be in plain conflict with the holding of this Court in *Missouri vs. Kansas Natural Gas Co., 265 U. S. 298*, approved and followed in later cases. Clearly the power to regulate the rate applicable to these Oklahoma deliveries is exclusively vested in Congress.

Missouri vs. Kansas Natural Gas Co., supra;
Public Utilities Comm. vs. Attleboro Co., 273 U. S. 83;
Peoples Natural Gas Co. vs. Public Service Comm., 270 U. S. 550;
State Corporation Comm. vs. Wichita Gas Co., 290 U. S. 561, 563, 564;
East Ohio Gas Co. vs. Tax Commission of Ohio, 283 U. S. 465.

If Oklahoma has not the authority to regulate the rates applicable to the Oklahoma deliveries made on

*The Court of Civil Appeals states in its opinion that this Wheeler County gas is delivered to only one Oklahoma city, Hollis. (V, R. 3346.) The statement is erroneous because it ignores the Oklahoma cities on the branch line extending from Texas into Oklahoma. (III, R. 1671-1673, 2063.) See map attached hereto.

this line, then Texas has not the authority to regulate the rates applicable to the deliveries made from that part of the line lying in Texas. In *Hanley vs. Kansas City Southern Ry. Co. supra*, this Court said:

"If one could not regulate it the other could not."

The Texas part of the line is being used in the same way as is the Oklahoma part of the line: A part of the gas moves without interruption to the city gates in Oklahoma and the remainder moves, in the same way, to city gates in Texas. All of it is being transported and delivered in interstate commerce. The power of regulating the rates applicable to deliveries made on this line may not be split up between the two States in proportion to the line mileage located in each State.

In *Hanley vs. Kansas City Southern Ry Co., supra*, the State attempted to regulate a rate covering a shipment from one point in Arkansas to another point in Arkansas, the railroad line extending, however, through the Indian Territory. This Court said:

"No one contends that the regulations could be split up according to the jurisdiction of State or Territory over the track, or that both State and Territory may regulate the whole rate, fixed by one authority, whether that authority be Arkansas or Congress." (187 U. S. 620.)

In the same case the Court said that "when a rate is established it must be established as a whole." (187 U. S. 621.)

If the Texas commission has authority to regulate the city gate rate for the deliveries made on Line A, it also has authority to fix the conditions governing the rendering of the service to which the rate is applicable. Let it be supposed that the Wheeler County supply should become inadequate to meet the full city gate demands of Oklahoma and Texas towns on this line; that, in time will inevitably be true. In that situation the prorating of the total supply will become necessary. We assume that it would hardly be contended that the power to prorate the supply as between the Oklahoma and Texas points of delivery would be vested in either the Texas commission or the Oklahoma commission. Undoubtedly, that power would be vested exclusively in Congress. And the same applies to rate regulation. It cannot be true that the power of rate regulation is vested in one authority and the power to regulate the rendering of the service is vested in another authority.

Lehigh Valley R. Co. vs. Pennsylvania, 145 U. S. 192, upon which appellees strongly relied in the State court, is distinguishable upon the grounds pointed out in *Hanley vs. Kansas City Southern Ry. Co., supra.* The case involved a taxing statute and the tax "was determined in respect of receipts for the proportion of the transportation within the State." (145 U. S. 201.) A tax thus proportioned had been previously sustained. *Maine vs. Grand Trunk Ry. Co., 142 U. S. 217.* The case merely holds that the State may require payment of an occupation tax from one engaged in both intrastate and interstate commerce, the tax being properly proportioned. See

Cooney vs. Mountain States Telephone Co., 294 U. S. 384, 392 (footnote).

All later decisions have confined the application of *Lehigh Valley R. Co. vs. Pennsylvania, supra,* to questions of taxation, as distinguished from questions of rate regulation.*

The rule laid down in the Hanley case, and followed in later cases, has been recognized and applied in many Federal statutes regulating interstate commerce. The Transportation Act of 1920 subjects to its provisions all transportation of passengers and property, except that taking place "wholly within one State." *Sec. 1, Subdivision (2) (a).* The National Labor Relations Act defines "commerce" as meaning trade, traffic or transportation among the several States or "between points in the same State but through any other State." *(Sec. 152, 49 Stat. 450.)* Section 2, Paragraph (3) of an act to regulater interstate and foreign commerce in petroleum and its products by prohibiting the shipment in such commerce of petroleum and its products in violation of State law, approved February 22, 1935, defines "interstate commerce" as meaning commerce between "points within the same State but through any place outside thereof." (49 Stat. 30.)

---

*This has been recognized in the lower Federal Courts. See opinion of Judge Learned Hand in *United States vs. Yohn, 275 Fed. 232,* affirmed in *Yohn vs. United States, (C. C. A., 2), 280 Fed. 511,* and by many State courts: *Leibengood vs. Missouri, K. & T. Ry. Co., 88 Kan. 25; Hall vs. Pennsylvania R. Co., 257 Pa. 54.* The same distinction has been recognized by text writers: *Willoughby on the Constitution, (2 ed.), Vol. 2, p. 1002; Gavit, The Commerce Clause, p. 109.*

2. The motives moving appellant to construct Line A through Oklahoma are not material.

Appellees contend that the interstate commerce issue is not involved because appellant in locating and constructing Line A so as to extend through the State of Oklahoma was attempting, fraudulently, to evade the jurisdiction of the rate making authorities in Texas. The State court discussed this contention, without either sustaining or overruling the claim that appellant's motive in constructing Line A through Oklahoma would have controlling effect on the issue of interstate commerce. But it is clear that the State court was influenced by this plainly erroneous contention. The court stated in its opinion that the commission had alleged "and indisputably proved that this pipe line was built through a sparsely settled, rough, rocky region, just within and paralleling the boundary line of Oklahoma," and that its construction was more expensive than would have been its construction wholly within Texas. (V, R. 3337.)

The State court further held that the mere fact that appellant has selected a route through Oklahoma as an aid to the transaction of its Texas business could not change the nature or affect the character of that business. (V, R. 3347.) Said the court:

"Neither the Texas statute nor the rate order interfere in any manner with the transportation of gas from Texas through Oklahoma and back into Texas. The order only attempts to regulate and fix the price for which such gas may be sold in Texas by

appellee to its various distributing companies. Manifestly, this circuitous route of delivery of gas through Oklahoma cannot and does not affect the exercise of the police power of Texas to make or fix reasonable rates for such gas sold to its citizens." (V, R. 3347.)

It is not material to inquire whether it was necessary for appellant to construct this line through Oklahoma or to consider the reasons that moved appellant to so construct it. The character of appellant's business as being interstate commerce is determined by the actual manner of conducting the business, and not by appellant's motives in so conducting it. The business is not divested of its interstate character by showing that its owner deliberately chose to arrange it that way, whatever may have been the owner's motive. *Kirmeyer vs. Kansas, 236 U. S. 568, 572.* One may not be tried and convicted as for negligence or fraud, because of conducting his businses in such a way as that it constitutes interstate commerce.

Western Union Tel. Co. vs. Speight, 254 U. S. 17; Missouri Pacific R. Co. vs. Stroud, 267 U. S. 404; Kirmeyer vs. Kansas, 236 U. S. 568, 572.

In *Western Union Tel. Co. vs. Speight, supra,* it was contended that the sending of a message through the State of Virginia was unnecessary; that it was the duty of the company to confine its transmission to the State of North Carolina; and that the burden devolved upon the company to show that what was done "was not to evade the jurisdiction of the state."

This contention was upheld in the State court (178 N. C. 146). This court held that the character of the transaction as constituting intrastate or interstate commerce must be tested by the actual facts and that "the motive would not have made the business intrastate." (254 U. S. 19.)

To the same effect was the decision of this Court *In Missouri Pacific R. Co. vs. Stroud, 267 U. S. 404.*

Kirmeyer vs. Kansas, 236 U. S. 568, is directly applicable. In that case the State court found, and the finding was approved by this Court, that Kirmeyer adopted a cumbersome and expensive method of conducting a liquor business so that the business would constitute interstate commerce and for the sole purpose of avoiding the liquor laws of Kansas. Overruling the State court, this Court held that Kirmeyer's motives were not material; that whether his business constituted interstate commerce "must be tested by the actual transactions." Said the Court:

"Considered in the light of our former decisions, if the business carried on by plaintiff in error after removal of his office to Stillings had been conducted by a dealer who had always operated from that place we think there could be no serious doubt of its interstate character. And we cannot conclude that a legal domicile in Kansas coupled with a reprehensible past and a purpose to avoid the consequences of the statutes of the State suffice to change the nature of the transactions. Otherwise one of two persons located side by side in the same State and doing the same business in identical ways might be engaged in interstate commerce while the other was not." (236 U. S. 572-573.)

It is further submitted that appellees failed to establish their claim of improper motive in locating Line A through Oklahoma. The evidence shows that appellant's selection of this Oklahoma route was an engineering decision based upon a careful investigation of the relative merits of this and another route located wholly within the State of Texas. These reasons were fully and clearly detailed in the testimony of the witness Schmidt, who acted as appellant's engineer in locating the line. (II, R. 1487-8, 1489.) The locating engineer testified that the matter of constructing the line so that the deliveries made from it would constitute interstate commerce, not subject to State regulation, was never discussed or even mentioned in connection with the selection of the route. (II, R. 1474-5); and that the line "was constructed entirely on engineering principles and nothing else." (II, R. 1475.)

The evidence offered to show that the route was fraudulently selected, in an effort to evade State regulation of deliveries made from it, shows no more than the fact that some other route located wholly within the State might just as well have been selected.

3. The commingling of a part of the Wheeler County gas, after it passes Wichita Falls, Texas, with other gas, before delivery, is without effect on the interstate commerce issue.

A good deal is said in the opinion of the State court about the commingling of gas in appellant's lines. (V, R. 3336-3348.) No commingling of this Wheeler

County gas takes place until after it has passed Wichita Falls, Texas, going south. It furnishes the exclusive source of supply, in *uncommingled* state, for Wichita Falls and all of the Texas cities and towns located to the north and west on the line, as well as for Hollis, Oklahoma, and the Oklahoma cities located on the branch line extending north back into Oklahoma from Oklaunion, Texas. (*Supra*, p. 23.) The rate order as written, and as construed and enforced by the commission and the State court, is an indivisible act, of a legislative nature. (*Infra*, pp. 97-104.) It applies as well to the uncommingled deliveries at Wichita Falls and the other Texas cities just mentioned as it does to the commingled deliveries made after the gas passes Wichita Falls. Being clearly void as to the uncommingled deliveries made at Wichita Falls and the other Texas cities north and west of that place, and being indivisible, it is void as to all of the deliveries.

Furthermore, the commingling of a part of this Wheeler County gas, transported across Oklahoma, with intrastate gas after it passes Wichita Falls, Texas, going south, is not material because the total amount of this Wheeler County gas is definitely known—being 17 per cent of the total amount of gas sold and delivered by appellant at city gates in Texas, as found by the State court (*supra*, V, R. 3337.) Where the quantities commingled are known, the commingling does not mean that all of the gas becomes intrastate gas. The quantity of the interstate gas being known, its interstate character remains, notwithstanding the commingling.

Peoples Natural Gas Co. vs. Public Service Comm., 270 U. S. 550, 554, 555;
United Fuel Gas Co. vs. Hallanan, 257 U. S. 277, 281;
Board of Trade vs. Olsen, 262 U. S. 1, 38, 34.

Commingling or no commingling, the order is void in so far as it fixes the rate for the interstate deliveries, the quantities of which are known. And being indivisible, it is wholly void. (*Infra*, pp. 97-104.)

4. Appellant's interstate business may not be regulated by the State on the theory that it is small in amount as compared with its intrastate business.

That the amount of this Wheeler County gas (17% of the amount sold and delivered by appellant in Texas) may be less than the amount transported and sold in intrastate commerce is not material, for the amount is known and the prescribed rate falls on all gas sold in Texas, including this interstate gas. That appellant's intrastate deliveries exceed in amount its interstate deliveries does not confer power on the State commission to regulate the interstate deliveries as well as the intrastate deliveries in the way attempted.*

Inasmuch as the fixing of the rate imposes a direct burden upon interstate commerce "it is none the less beyond the power of the State because this may be a smaller part of the general business." *Public Utilities Comm. vs. Attleboro Co., 273 U. S. 83.*

---

*To this Wheeler County gas delivered in Texas in interstate commerce should be added the Oklahoma gas, making a total amount of approximately 29% of appellant's total Texas deliveries.

A State statute that imposes a direct burden upon interstate commerce may not be sustained because the burden imposed is relatively small. *Cudahy Packing Co. vs. Hinkle, 278 U. S. 460, 466.*

"The action of the state, as a regulation of interstate commerce, does not depend upon the degree of interference; it is illegal in any degree." *Heisler vs. Thomas Colliery Co., 260 U. S. 245, 259.*

In Looney vs. Crane Co., 245 U. S. 178, 190, the Court said:

"It is thus manifest on the face of all the cases that they in no way sustain the assumption that because a violation of the Constitution was not a large one it would be sanctioned. * * * ".

If quantity or amount of burden were controlling, then the attempted direct regulation of 17% of appellant's deliveries of gas would be enough; less than 3% was involved in *Public Utilities Comm. vs. Attleboro Co., 273 U. S. 83, 91.*

People Natural Gas Co. vs. Public Service Comm., 270 U. S. 550, is distinguishable because there the challenged order, as construed by the State court, applied only to the intrastate part of the commingled mixture, leaving the gas company free "to deal in usual course with so much of the mixture as represents the gas from West Virginia"—the interstate gas. The order applied only to the City of Johnstown, Pennsylvania. It ordered the company not to discontinue the furnishing of gas to Johnstown. The company had on hand, as found by the State court, a sufficient amount of intrastate gas to perform the order and also had on hand enough interstate gas to serve the other cities on its line. This

Court held that, in these circumstances, "the order does not interfere with or affect the interstate commerce in which the company is engaged." In *Peoples Natural Gas Company vs. Public Service Commission, supra,* the order was separable on its face and as construed and sought to be enforced by the State commission and State courts. Here the challenged order, as construed by the State commission and State court, applies to all of appellant's deliveries in Texas, including any deliveries constituting interstate commerce. It is an indivisible order. (*Infra,* pp. 97-104.) The order amounts to an indiscriminate regulation of interstate and intrastate commerce. This being its character, the entire order must fall. *Illinois Central Ry. vs. McKendree, 203 U. S. 514, 529; Cooney vs. Mountain States Tel. Co., 294 U. S. 384, 392, 393.*

It is further submitted that, even if the quantity of this Wheeler County gas were not known, still the attempted regulation could not stand. It would be sufficient, in the circumstances mentioned, that the regulation applies to the Wheeler County gas and, thus applied, amounts to a direct regulation of interstate commerce. That fact would establish that the commission had gone beyond the limits of its rightful authority, and, the regulation being indivisible, the entire regulation must fall. Under the decisions of this Court the State may not to any extent directly regulate the interstate deliveries. The amount of the burden imposed by the regulation is immaterial. It is sufficient that it is known that interstate deliveries are being made and they are subjected to the order, indiscriminately, along with the intrastate deliveries.

5. The holding of the State court to the effect that the State may prescribe reasonable rates applicable to the interstate deliveries of gas is plainly wrong.

After holding that the deliveries made on appellant's Line A of gas transported through the State of Oklahoma were not interstate deliveries, the State court further held that even if these deliveries constitute interstate commerce, the State commission might validly regulate them because, in the view of the court, the prescribed rates were reasonable. (V, R. 3347-3352.) Said the State court:

"Where the rates are reasonable and are fixed according to some uniform, fair and practical standard they constitute no burden on interstate commerce." (V, R. 3350.)

" * * *

"The rate order in this suit does not in any manner interfere, restrain or burden the free transportation of gas between Texas and Oklahoma. Oklahoma gas may be freely transported to Texas and sold in the open market at the same reasonable rate fixed for Texas gas." (V, R. 3351-2.)

" * * *

"The order only attempts to regulate and fix the price for which such gas may be sold in Texas by appellee to its various distributing companies." (V, R. 3347.)*

*The State court's discussion of this question refers not only to the Wheeler County gas transported *through* Oklahoma but also to the gas produced or purchased by appellant in the State of Oklahoma and transported to city gates in Texas. The questions arising in connection with the gas produced or purchased in Oklahoma are elsewhere discussed, *infra*, pp. 104-110.

The holding of the State court is clearly wrong. The rate order operates as a direct regulation of interstate commerce and, for that reason, must fall. The State is without power to prescribe the rates, reasonable or unreasonable, applying to the interstate deliveries of gas. The question discussed by the State court is settled against its view by the prior decisions of this Court.

Missouri vs. Kansas Natural Gas Co., 265 U. S. 298;
Public Utilities Comm. vs. Attleboro Co., 273 U. S. 83, 89, 90;
Peoples Gas Co. vs. Public Service Comm., 270 U. S. 550, 554;
State Corp. Comm. vs. Wichita Gas Co., 290 U. S. 561, 563, 564;
State Tax Comm. vs. Interstate Natural Gas Co., 284 U. S. 41.

The State court's affirmance of the State's power is based upon its finding that the prescribed rate is *reasonable*. This assumes the very question to be decided—the power of the State commission to determine the issue of reasonableness. That the rate may be reasonable is not material where the question is one of power and not reasonableness. There can be no valid or *reasonable* exertion of usurped power. *Minnesota Rate Cases, 230 U. S. 352, 396, 401; Smith vs. Illinois Tel. Co., 282 U. S. 133, 148; Missouri vs. Kansas Natural Gas Co., 265 U. S. 298; Peoples Natural Gas Co. vs. Public Service Comm., 270 U. S. 550, 554.* The power to regulate being exclusively vested in the Congress, only the Congress may determine whether a given regulation is reason-

able. A determination of the issue of reasonableness is merely incidental to the proper exercise of the power of rate regulation—a power not vested in the State commission.

The holding of the State court is in conflict with the decisions of this Court that we have cited and with its ruling in an earlier and leading case, *Wabash, etc. Ry. Co. vs. Illinois, 118 U. S. 557, 575.*

The original cost of the gas at the wells is trifling as compared to cost of constructing and operating this interstate line used in transporting the gas in interstate commerce. The result is that the fixing of the city gate rate as here attempted is, in practical and legal effect, the fixing of the compensation that the utility may exact for the use of its interstate facilities; it amounts to the fixing of the utility's compensation for the transporting of the commodity in interstate commerce; for the performance of a public service in interstate commerce. It amounts, therefore, to a regulation of a matter of national and not merely local concern. *East Ohio Gas Co. vs. Tax Comm., 283 U. S. 465, 470, 472; Missouri vs. Kansas Natural Gas Co., 265 U. S. 298, 309; Public Utilities Comm. vs. Attleboro Co., 273 U. S. 83, 88, 89, 90.*

That appellant's business, viewed as a whole, may be predominantly local, as is asserted by the State court, does not change the fact that a part of its business is interstate and therefore national in character. The fact that the greater part of the business may be local in nature is not effective to extend the power of the State so as to enable it to regulate, in the direct way here attempted, that part of appel-

lant's business that indisputably is interstate in character.

The State court erroneously assumed, as is apparent from its opinion, that this order fixing the city gate rate is merely a local police regulation and valid, unless it discriminates against interstate commerce. Discrimination against interstate commerce is not material except where, absent such discrimination, the attempted regulation would be valid as a regulation of intrastate commerce. The rate order here challenged is a direct regulation of interstate commerce and for that reason must fall, however non-discriminatory it may be.

6. The failure of Congress to regulate gas pipe lines.

The State court refers to the failure of Congress to act and to the Federal statute providing that the Interstate Commerce Act shall not apply to gas pipe lines. (V, R. 3347.) Inasmuch as the rate operates as a direct regulation of interstate commerce, the failure of Congress to legislate on the subject is not material. Precisely the same contention was made, considered and expressly overruled in *Missouri vs. Kansas Natural Gas Co., 265 U. S. 298.** See also *State Corporation Comm. vs. Wichita Gas Co., 290 U. S. 561; Peoples Natural Gas Co. vs. Public Service Comm., 270 U. S. 550, 553, 554; Public Utilities Comm. vs. Landon, 249 U. S. 236; Public Utilities Comm. vs. Attleboro, 273 U. S. 83, 90.*

*In that case the State court held, as did the State court here, that since Congress had not acted, the State had the power to regulate "the sale of natural gas in this State by

The failure of Congress to regulate interstate rates does not enlarge the power of the states; nor does such enlargement flow from a mere denial by Congress of the power of a given Federal agency—the Interstate Commerce Commission—to impose the regulation. The only implication arising from that fact is that the Congress believed that regulation is not necessary. *Missouri vs. Kansas Natural Gas Co., 265 U. S. 298, 301; Minnesota Rate Cases, 230 U. S. 352, 396, 401; Oregon-Washington Co. vs. State of Washington, 270 U. S. 87, 102; Welton vs. Missouri, 91 U. S. 275, 282.*

7. Corporate affiliation between appellant and the distributing companies is not material to a correct determination of the interstate commerce issue.

The Court of Civil Appeals discusses at length the corporate affiliation between the appellant and the distributing companies, constituted by the fact that

---

the Kansas Natural Gas Company." *State vs. Kansas Natural Gas Co., 111 Kan. 809.* The decision was reversed in this Court, *265 U. S. 298.* Appellants in support of their claim that the rates were subject to local regulation relied on the same authorities that are cited by the appellees in the Court of Civil Appeals here, including, principally, *State vs. Flannelly, 96 Kan. 372,* and *Manufacturers' Light & Heat Co. vs. Ott, 215 Fed. 940.*

The non-action of Congress and the provision of the Interstate Commerce Act exempting pipe lines from the jurisdiction of the Interstate Commerce Commission was also made the basis for the decision of the Pennsylvania court in *Peoples Gas Co. vs. Public Service Comm., 279 Pa. 252.* The holding of the Pennsylvania court on that question was expressly disapproved by this Court. *Peoples Natural Gas Co. vs. Public Service Comm., 270 U. S. 550, 553, 554.*

they are subsidiaries of the same parent corporation. (V, R. 3338-3344.)* The point attempted to be made by the court in this connection is not plain; the materiality of the discussion, even from the court's viewpoint, is not apparent. Its ultimate conclusion was that corporate affiliation was not material in determining the question of interstate commerce. Said the Court:

"The fact that appellee and affiliated distributing companies may be engaged in the integrated but single business enterprise of producing, purchasing, transporting, and selling natural gas to the ultimate consumer or burner tip user is not of controlling importance on the commerce issue; because the commission did not fix the burner tip rate, nor did it require the distributing companies to pay appellee not in excess of the 32-cent city gate rate, and to pass the 8-cent reduction on to the ultimate consumer or burner tip user." (V, R. 3343.)

The total import of the opinion of the State court on the point of corporate affiliation is that corporate entities should be ignored for the purpose of proving that appellant and the distributing companies are conducting a "single business"; and that appellant is conducting merely a "department" of that business. The State court does not hold that separate corporate entities will be ignored in the application and enforcement of the rate order.

The order of the commission respects separate corporate entities. The commission proceeded under Article 6053, R. S. 1925 (*infra*, p. 85), directly

*Two of the distributing companies are independent concerns.

against the appellant pipe line company as a separate and distinct corporation and fixed, by its order, the rate that the appellant might charge and collect from the *distributing* companies, treated by the order as separate corporations.*

The order has been copied, *supra*, pp. 6-7. It recites that the commission had instituted the proceeding on its own motion to inquire into the rates charged by appellant for gas sold to distributing companies, and it directs that the prescribed rate should apply to all gas sold at the city gates to all distributing companies. (*Supra*, pp. 6-7.)

The commission's findings of fact, constituting a part of the order, show that the commission was proceeding against the appellant as a pipe line company and as a separate corporate entity subject to regulation under Article 6053. These findings recite that the appellant is engaged in the "sale at *wholesale*" of natural gas; and that it operates "an integrated pipe line system" and engages in "both interstate and intrastate commerce." It is further stated by the commission that the only question to be determined was what rate should be charged by appellant at the city gates. (I, R. 14-16.)

It thus appears that nothing was involved except the rate applicable to the *wholesale* city gate deliv-

*This is illustrated by the commission's and State court's discussion of the advertising expense item. The commission "reluctantly" allowed this item, referring to the fact that in its view this expense was incurred for the benefit of the distributing companies. (I, R. 23-24.) The item was disallowed by the State court; the court stating that it was properly chargeable only against the distributing companies. (V, R. 3365-3366.)

eries of the pipe line company. Burner tip rates were not involved. No evidence was offered relating to the reasonableness of burner tip rates or as to the value of the properties of the distributing companies served by appellant or as to their revenues and expenses.

The holding of this Court in *Smith vs. Illinois Telephone Co., 282 U. S. 133, 143*, is directly applicable. There it was contended that corporate entity should be ignored and the American Telephone Company should be treated as the real party at interest. Discussing this contention this Court said:

"Upon these facts the City attacked the standing of the Illinois Company as the real plaintiff in the case. The court overruled this contention, holding that the ownership of stock by the American Company, and its power to control the Illinois Company, did not destroy the distinct corporate identity of the Illinois Company. The court pointed out that the order of the Commission was directed against the Illinois Company, and that it was treated as a corporation for the purpose of compelling it to establish the prescribed rates for service furnished by the operation of the property to which it had legal title. No ground appears for assailing this ruling. The fact that the relation of the Illinois Company to the American Company may demand close scrutiny, in dealing with certain questions which bear upon the validity of the rate order, cannot obscure the essential basis of that order, that is, that the Commission was imposing its requirement upon a corporate organization engaged in an intrastate public service and, as such, amenable to a valid exercise of the Commission's authority."

See also *Cannon Mfg. Co. vs. Cudahy Pkg. Co., 267 U. S. 333, 336, 337.*

Here the commission's order was directed against the pipe line company and it "was treated as a corporation for the purpose of compelling it to establish the prescribed rates for service furnished by the operation of the property to which it had legal title." (282 U. S. 144.) If appellant's corporate entity is to be recognized for the purpose of enforcing the rate order against it, then its corporate entity must be recognized in support of its attempt to prove that the order is void.

It is next submitted that the corporate affiliation between appellant and the distributing companies (excepting two of them, V, R. 3340) is wholly without effect in determining whether the deliveries in question constituted interstate commerce. The uninterrupted transportation of the Wheeler County gas from the Panhandle gas field and through the State of Oklahoma to city gates in Texas and Oklahoma constitute interstate commerce without regard to the ownership of the facilities transporting it. The city gate deliveries in Texas are as much interstate commerce as are the city gate deliveries in Oklahoma. On the other hand, the distribution and sale of gas through the local pipes to the burner tips is intrastate commerce without regard to the ownership of the facilities engaged in such local business. Regardless of the relationship between appellant and the distributing companies, the two activities are separated and are different in character. The reasoning of the State court on this question is point-

less. The relationship between the pipe line company and the distributing companies, however close, does not unify the two activities or avoid the fact that the State, not being content to regulate only the local activity, is here attempting to regulate the national activity. That is made plain by the decisions of this Court, beginning with the decision in *Public Utilities Comm. vs. Landon, 249 U. S. 236*, and including the following cases: *Pennsylvania Gas Co. vs. Public Service Comm., 252 U. S. 23; Missouri vs. Kansas Natural Gas Co., 265 U. S. 298; Public Utilities Comm. vs. Attleboro Co., 273 U. S. 83, 90; State Corporation Comm. vs. Wichita Gas Co., 290 U. S. 561, 563.*

The issue of interstate commerce is settled by the facts showing how the gas was transported and handled, that is, by the "course of business," and not by the relation between the various persons or corporations handling it. It may be transported by one company or by more than one, and the companies may be related or unrelated; the transaction is still one in interstate commerce. *East Ohio Gas Co. vs. Tax Comm., 283 U. S. 465; State Corporation Comm. vs. Wichita Gas Co., 290 U. S. 561, 563; Public Utilities Comm. vs. Attleboro Co., 273 U. S. 83, 90; Eureka Pipe Line Co. vs. Hallanan, 257 U. S. 265; Western Union Tel. Co. vs. Foster, 247 U. S. 105.*

This Court has held that where corporate affiliation is present, the fixing of the city gate rate operates as a direct regulation of interstate commerce. *State Corporation Comm. vs. Wichita Gas Co., 290 U. S. 561, 563.* See also *State ex rel Cities*

Service Gas Co. vs. Public Service Comm., 337 Mo. 809 (writ of cert. denied, *296 U. S. 657).*

In *State Commission vs. Wichita Gas Company, 290 U. S. 561,** there existed corporate affiliation as between the pipe line company and the various distributing companies. The Court in its opinion said:

"The Kansas statutes empower its public service commission to regulate the service and to fix rates to be charged by public utilities, including the distributing companies. They prescribe heavy penalties for failure to comply with commission-made orders. But the sale, transportation and delivery of natural gas by the pipe line company to the distributing companies constitutes interstate commerce and therefore the State is without power to prescribe rates or prices to be charged therefor. *Missouri vs. Kansas Gas Co.*, 265 U. S. 298, 305, *et seq. Peoples Gas Co. vs. Pub. Serv. Comm'n*, 270 U. S. 550, 554. *Pub. Util. Comm'n v. Attleboro Co.*, 273 U. S. 83, 90. *Smith v. Illinois Bell Tel. Co.*, 282 U. S. 133, 148." (290 U. S. pp. 563, 564.)

Here the Texas statutes authorize separate regulation, at least in part, of pipe line companies and distributing companies. As pointed out in the commission's findings, local distributing rates of all cities and towns having a population exceeding 500 inhabitants are fixed by the local governing authori-

**State Commission vs. Wichita Gas Co., supra,* involved only an inquiry as to the reasonableness of the city gate rate, considered as an expense item that might be set up by the distributing companies on their books. The order did not purport to fix any city gate rate binding either on the pipe line company or the distributing companies.

ties. *Article 1119.** There is a right of appeal to the commission. *Article 6058.* The commission has original and exclusive jurisdiction to fix the city gate rates of pipe line companies. *Article 6053.*†

Appellant and the distributing companies, excepting the two independent concerns heretofore mentioned, *supra*, p. 4, are subsidiaries of the same parent corporation. This does not mean that they are agents each of the other. But even if the distributing companies were appellant's agents, the rate order could not stand because it fixes, not the burner tip rate, but the rate that may be charged by appellant for transporting and delivering the gas in interstate commerce; it regulates the national activity carried on by the principal, as distinguished from the local activity carried on by the agent. The transportation of the gas through more than one State constitutes interstate commerce, and delivery at the end of the journey is an essential part of that commerce There can be no interstate commerce without delivery. This gas is interstate gas when it arrives at the city gates for delivery, and the contract between the parties defining the conditions upon which the gas will be delivered, including the price that must be paid by the agent to the principal, may not be regulated by the State.

---

*The Court of Civil Appeals in its opinion directs attention to the fact that this population limit is 2000 inhabitants, the amendment reducing the limit to 500 having been held unconstitutional in *Texas-Louisiana Power Co. vs. City of Farmersville (Tex. Comm. App.), 67 S. W. (2d) 235.*

†The case of *United Gas Public Service Co. vs. State of Texas, et al.*, (unreported), decided by this Court on February 14, 1938, came before the commission on appeal under Article 6058.

The city gate deliveries to the distributing companies were made under term contracts specifying the rate applicable to wholesale deliveries. By its order the commission attempts to fix the terms and conditions under which these interstate sales and deliveries of gas may be made. This, the commission is powerless to do. *Shafer vs. Farmers Grain Co., 268 U. S. 189, 198; Lemke vs. Farmers Grain Co., 258 U. S. 50; Dahnke-Walker Co. vs. Bondurant, 257 U. S. 282, 290.*

Corporate affiliation of the parties to the contracts is not material. What is material and controlling is the fact that the parties have made contracts defining the terms and conditions under which these interstate deliveries of gas will be made.

The rate order, if valid, is binding whether corporate affiliation be present or not. The pipe line company would violate the order if it sold gas at a higher rate to any independent distributing company —and the record shows that two of the distributing companies are independent concerns. Will it be contended that the rate order is void as applied to the deliveries made to the two independent companies and valid as applied to the deliveries made in the same way to the affiliated companies?

The opposing argument, in effect, admits that if the gas were delivered to independent companies, the State regulation could not stand; the rate could be regulated only by the Congress. The authoritative pronouncement in *Missouri vs. Kansas Natural Gas Co., 265 U. S. 298*, requires this admission. The recognition of such a distinction would lead to anomalous and indefensible results. These results may

be illustrated by reference to the facts of this case. It appears from the evidence that there are two distributing companies doing business in the City of Waxahachie, Texas. One is the Municipal Gas Company, a corporation affiliated with appellant; the other is an "independent" corporation, the Waxahachie Gas Company. The appellant has contracts with and makes city gate deliveries of gas to each of these two distributing companies. (IV, R. 2312, 2342.) The contracts are substantially identical and the deliveries are made in the same way. Following appellees' contention as to the effect of corporate affiliation, the deliveries to the Municapal Gas Company, the affiliated distributing company, constitutes intrastate commerce, subject to State regulation. On the other hand, the deliveries to the Waxahachie Gas Company, the independent company, although made in the same way, constitute interstate commerce, to the extent that these deliveries include interstate gas, and are subject only to regulation by Congress. This difference in the exertion of regulatory authority is based, not upon any difference in the manner in which the gas was transported, sold and delivered, but upon the affiliation of the transporting company with one of the distributing companies.

Western Distributing Company vs. Public Service Commission, 285 U. S. 119, 124, is distinguishable because it did not involve any effort to directly fix the city gate rate. There was involved only the burner tip rate. The rate order here challenged applies directly against the interstate pipe line and prohibits it from charging any other rate. The Court

of Civil Appeals has held that if the prescribed rate is upheld, the adjudication will finally and conclusively determine its validity as against appellant. (V, R. 3349-3350.) In the *Western Distributing Company* case the Kansas Commission conceded that the city gate rate of the pipe line company was "an interstate rate and not the subject of regulation by any State authority." The parties to the contract were left free to perform the contract. Here the contract rate is stricken down and the commission's rate substituted for it.

Western Distributing Company vs. Public Service Commission, supra, merely holds that where corporate affiliation of the seller and the buyer exist and the rates of the buyer, a local distributing company, are under consideration, the regulatory authority, having admitted power to fix the local distributing rates, may properly consider and determine whether the rate paid by the distributing company to the affiliated pipe line company is a fair and reasonable rate for the gas delivered under the contract. This is done, not by way of regulating the pipe line company's rate, but by way of regulating the distributing company's rate; not by way of fixing the compensation of the pipe line company for transporting the gas in interstate commerce, but by way of fixing the compensation of the local distributing company; that is, by directly regulating that part of the business that is local in character, as distinguished from that part that is national in character.

Western Distributing Company vs. Public Service Commission, supra, merely follows and applies rules recognized in the decision of this Court holding that,

where corporate affiliation is present, contracts made between the affiliated parties will be scrutinized and will be upheld only upon a finding that they are reasonable. *Smith vs. Illinois Tel. Co., 282 U. S. 133, Columbus Gas Company vs. Public Utilities Comm., 292 U. S. 398, 400; Dayton Power & Light Co. vs. Public Utilities Comm., 292 U. S. 290, 295; United Gas Company vs. Railroad Commission, 278 U. S. 300, 320.* No decision of this Court lends any support to the contention that corporate affiliation in a case like this will be effective to change a given "course of business" into intrastate commerce where, but for the corporate affiliation, it would be interstate commerce.

Appellees emphasize *Pennsylvania Gas Co. vs. Public Service Comm., 252 U. S. 23.* The case involved only the burner tip rate. The business regulated was local and not national in character, and the regulation imposed was purely local in character. That is the ground upon which the decision must be upheld, if upheld at all, as was explained in *Missouri vs. Kansas Natural Gas Co., 265 U. S. 298, 309.* The decision in *Pennsylvania Gas Co. vs. Public Service Commission* was not based upon pipe line company ownership of the distributing facilities; correctly viewed, the decision would have gone the same way even if the distributing facilities had been owned by an independent company or by an affiliated company. Unifying the ownership of the pipe line and the distributing facilities, either directly or indirectly, would not change the character of the two businesses, one national and the other local. The facts of that case were controlled by the prior de-

cision of the Court in *Public Utilities Comm. vs. Landon, 249 U. S. 236.*

In *East Ohio Gas Company vs. Tax Comm., 283 U. S. 465, 472,* this Court said:

"It does not appear that there were presented, in *Pennsylvania Gas Co. v. Public Service Comm.*, to the state court or here the considerations on which it is held that interstate commerce ends and intrastate business begins when gas flowing through pipe lines from outside the State passes into local distribution systems for delivery to consumers in the municipalities served. But, however that may be, the opinion in that case must be disapproved to the extent that it is in conflict with our decision here."

In the same case the Court held that the transportation of gas from wells outside of Ohio in high pressure transmission lines to their connection with local systems "is essentially national—not local—in character and is interstate commerce within as well as without that State"; and, further, that the furnishing of gas to domestic consumers by means of distribution plants suitable for purely local service "is not interstate commerce but a business of purely local concern exclusively within the jurisdiction of the State. This was said in a case where the transporting pipe line company also owned the local distributing facilities.

It has been argued by the appellees that the commission is merely proceeding to do directly what it might have done indirectly by proceedings brought against the distributing companies and directly involving their burner tip rates. That in such proceedings the commission would have had the power to do

what was done in *Western Distributing Company vs. Public Service Commission, supra.* It is claimed, in effect, that the commission has arrived at the same result by a "short cut." As to this we submit:

(a) The commission has no *general* authority to *directly* fix burner tip rates. It has no jurisdiction of burner tip rates except as to towns whose population falls under the limit named in *Article 1119, supra.* As to other towns, its jurisdiction is simply appellate.

(b) As is admitted by the State court, the commission has not attempted to fix the burner tip rate. It is proceeding directly against the pipe line company and is attempting to do nothing except to fix the city gate rate.

(c) The power to fix the burner tip rate in a case where the pipe line company, transporting the gas to the city in interstate commerce, is also operating the distributing system within the city has been explained and upheld under the "original package" doctrine. The power was so explained in *East Ohio Gas Company vs. Tax Commission, 283 U. S. 465, 471.* See also *Public Utilities Comm. vs. Landon, 249 U. S. 236, 245,* and *Missouri vs. Kansas Natural Gas Co., 265 U. S. 298, 305.* The segregation of the gas in the local service lines where it remains awaiting the local demands for service is treated as a breaking of the "original package." "The treatment and division of the large compressed volume of gas is like the breaking of an original package, after shipment in interstate commerce in

order that its contents may be treated, prepared for sale, and sold at retail." *East Ohio Gas Co. vs. Tax Comm., supra.* But the regulation here attempted falls on the package before it has been broken. It therefore cannot be sustained. It will not do to say that the commission is merely proceeding to do directly what it might have done indirectly in an attempt to regulate burner tip rates—in an attempt to impose the regulation after the breaking of the package. To thus sustain the regulation would destroy the original package doctrine—the doctrine that protects the original package from direct regulation by State authority.

The decisions applying the original package doctrine draw a definite line. The national power exists on one side of the line and the State power on the other. The unbroken package is beyond, and the broken package within, the scope of the State power of taxation or regulation. It is immaterial that the line may be a narrow one.. That is true of all "lines" in the law. "The very meaning of a line in the law is that right and wrong touch each other and that any one may get as close to the line as he can if he keeps on the right side." (Per Mr. Justice Holmes in *L. & N. R. R. Co. vs. United States, 242 U. S. 60, 74.)*

8. The challenged rate order is an indivisible act of a legislative nature; and, being void as to the interstate city gate deliveries, it is also void as to the intrastate city gate deliveries.

That this rate order amounts to a direct and unconstitutional regulation of interstate commerce as

applied to the deliveries of the Wheeler County gas is clear. The next question involved is this: Is the order wholly or only partially void? Is the order divisible or indivisible?

(a) The order as written and as interpreted and applied by the Railroad Commission, and as upheld and enforced by the Court of Civil Appeals, applies to all city gate sales in Texas whether made in interstate or intrastate commerce. There was no attempted designation of certain cities and towns to which the rate should be applied, and no attempted limitation of the application of the order to city gate sales that might constitute intrastate commerce. It is plain that the commission was not willing to discriminate in imposing the regulation and in regulating the rate; it was not willing to leave unregulated certain city gate deliveries and to regulate others. It imposed a *uniform* state-wide city gate rate of 32¢ per MCF and made the rate applicable to all deliveries. The language of the order is:

"IT IS ORDERED, ADJUDGED AND DECREED that effective as of the next billing date the Lone Star Gas Company shall charge, bill and receive for domestic gas at the city gate from *all* distributing companies served by it, a rate not to exceed $0.32 per thousand cubic feet." (I, R. 116; our italics.)

The Court of Civil Appeals interpreted the order as applicable to all city gate deliveries in Texas without regard to any distinction between interstate and intrastate commerce. It held that if any of the city

gate deliveries constituted interstate commerce, they were nevertheless subject to State regulation provided the prescribed rate was a reasonable one. The opinion of the State court concludes:

"Judgment of the trial court declaring the rate to be unjust and unreasonable is reversed. The injunction granted by the trial court is dissolved, and the city gate rate of 32 cents fixed by the commission is declared to be just, reasonable and valid *in every* particular." (V, R. 3370; our italics.)

The operation of this order is defined in a single sentence and in general words. It applies to all deliveries made by appellant to "all distributing companies served by it." (I, R. 116.) What the Court said in *United States vs. Ju Toy, 198 U. S. 253, 262,* is directly applicable:

"But the relevant portion being a single section, accomplishing all its results by the same general words, must be valid as to all that it embraces, or altogether void. An exception of a class constitutionally exempted cannot be read into those general words merely for the purpose of saving what remains. That has been decided over and over again. *United States v. Reese,* 92 U. S. 214, 221; *Trade-Mark Cases,* 100 U. S. 82, 98, 99; *Allen v. Louisiana,* 103 U. S. 80, 84; *United States v. Harris,* 106 U. S. 629, 641, 642; *Virginia Coupon Cases,* 114 U. S. 269, 305; *Baldwin v. Franks,* 120 U. S. 678, 685, 689; *Smiley v. Kansas,* 196 U. S. 447, 455. It necessarily follows that when such words are sustained they are sustained to their full extent."

The rate order is an indivisible legislative act. It "is in terms single and indivisible." *Illinois Central*

R. Co. vs. McKendree, 203 U. S. 514, 529. The result is that the order may not be limited in its application to intrastate transactions. To do this would remake it—a legislative function. *Butts vs. Merchants, etc. Transportation Co., 230 U. S. 126, 135; Employers' Liability Cases, 207 U. S. 463, 502; Baldwin vs. Franks, 120 U. S. 678, 686, 688; James vs. Bowman, 190 U. S. 127; Trade-Mark Cases, 100 U. S. 82.* The order attempts an indiscriminate regulation of both interstate and intrastate commerce. It is therefore wholly void. *Cooney vs. Mountain States Tel. Co., 294 U. S. 384, 393.**

The Supreme Court of Texas, in dealing with legislative acts imposing, indiscriminately, a tax on or a regulation on both interstate and intrastate commerce, has held the acts to be entirely void. *Western Union Tel. Co. vs. Texas, 62 Texas 630; State vs. Humble Pipe Line Co., 112 Texas 375, 385, 386.*

In *Reagan vs. Farmers' Loan & Trust Co., 154 U. S. 362, 400,* this Court, discussing a rate schedule promulgated by the Railroad Commission of Texas, said:

---

*It is pertinent, we think, to point out that in Texas the courts do not participate in the rate making process; they have no power to revise the rate of the Railroad Commission or the findings made in support of it. Their power is simply that of judicial review. *Railroad Commission vs. Weld & Neville, 96 Texas 394, 403; Railroad Commission vs. Uvalde Construction Co., (Tex. Civ. App.), 49 S. W. (2d) 1113, 1114.* See also the opinion of the State court in this case, V, R, 3356. Judicial participation in rate making is not permitted under the Texas Constitution. *Daniel vs. Tyrrell & Garth Investment Co., 127 Texas 213, 220.*

"As we have seen it, it is not the function of the courts to establish a schedule of rates. It is not, therefore, within our power to prepare a new schedule or rearrange this. Our inquiry is limited to the effect of the tariff as a whole, including therein the rates prescribed for all the several classes of goods, and the decree must either condemn or sustain this act of quasi legislation."

(b) Holding the order void as applied to interstate deliveries and valid as applied to intrastate deliveries would remake not only the order but the commission's basic findings made to support the order. The Court would be compelled to reconstruct the rate base and the operating account as found and considered by the commission. It would be compelled to consider, and make judicial findings relating to the value of properties, and as to operating revenues and operating expenses, wholly different from the properties and operating revenues and operating expenses considered by the commission as set forth in its findings.

The commission included in its rate base the value it assigned to appellant's Wheeler County gas producing properties and the value it assigned to appellant's Line A used in transporting the Wheeler County gas, including even that part of Line A which is located in the State of Oklahoma. The commission's findings as to appellant's operating revenues and operating expenses and as to what was required to cover a reasonable annual accrual to the depreciation and amortization reserve were based upon the inclusion and consideration of Line A, including even that part of Line A located in Oklahoma. All of appellant's properties and operations both in

Oklahoma and Texas were considered as "an integrated operating system." (I, R. 14-16.) It is impossible to revise the commission's findings so as to exclude Line A and the operations conducted thereon; and even if this could be done, there would remain no commission finding that the prescribed rate, considered and supported in such a way, was reasonable.

It further appears that the inclusion of Line A and the revenues accruing from that line greatly influenced the holding of the State court to the effect that the prescribed rate was not confiscatory. The court in its opinion refers to the fact that the operations on that line made a relatively small addition to appellant's operating expenses and a large addition to appellant's revenues. It clearly appears that the inclusion of the Line A properties and operations had an important bearing on the State court's conclusion that the prescribed rate was reasonable. We quote from the opinion of the State court as follows:

"Clearly the difference in theory as to whether the gas produced or purchased by appellee in the Texas Panhandle field and transported by its private pipe line across a corner of Oklahoma and back into Texas, where it was intended at all times to be sold and used, accounts for most of the important difference with respect to the fair value of the property used in Texas public service, the annual depreciation thereof, and particularly as to the operating expenses and revenues. For instance, the Texas Panhandle gas cost appellee 2 cents per thousand cubic feet at the well; whereas, the gas from all other sources or fields cost from 6 to 10 cents per thousand cubic feet. The advantage in favor of appellee in excluding this gas from intrastate commerce is apparent. The cost of

the 2-cent gas would add only about $125,000 annually to Texas operating expenses, according to Appellee's Exhibit No. 46; whereas, according to the same exhibit, which shows the percentage of the total cost of gas transported from the Panhandle field and sold in Texas, the Texas revenue would have been increased for the 1929-1933 period more than $1,500,000 annually; and calculations show that if other proper operating expenses were included and charged against the Panhandle gas, still the profit in such gas was more than in other gas handled by appellee either in Oklahoma or Texas. Thus the double advantage to appellee in freeing this gas from intrastate commerce and from state regulation is shown." (V, R. 3362.)

Considering these findings of the commission and the State court, it cannot be assumed that, with the Wheeler County gas and Line A operations excluded, the commission would have prescribed the same rate, or that a rate so prescribed would have been sustained by the State court. The contrary very clearly appears from the findings of the commission and the court.

(c) An order of a board or commission made in consequence of assumption of powers not possessed by it is void and its enforcement will be restrained. *Southern Pacific R. R. Co. vs. Interstate Commerce Commission, 219 U. S. 433, 451; Atchison, etc. R. Co. vs. Interstate Commerce Commission, 190 Fed. 591.*

It affirmatively appears from the commission's order that it proceeded upon the assumption, in promulgating the order, that it had authority to regulate interstate deliveries. In these circumstances,

and it appearing from the evidence in this case as well as from the commission's findings that appellant is engaged, in part, in interstate commerce, the order must fall.

Point Two.

The transportation, sale and delivery in Texas of the gas produced or purchased by appellant in Oklahoma constitutes interstate commerce. The rate order as applied to this gas is unconstitutional because amounting to a direct regulation of interstate commerce.

The facts relating to the transportation, sale and delivery at city gates in Texas of gas produced or purchased by appellant in Oklahoma have been stated, *supra*, pp. 30-34. Some of the legal questions here involved are identical with the questions arising in connection with the Wheeler County gas transported through Oklahoma. The discussion here will be confined to the points of difference.

That this Oklahoma gas arrives in Texas as an article of interstate commerce cannot be disputed. It is transported to Texas without interruption of movement, in high pressure lines, from the gas fields in Oklahoma.* The only question to be determined is whether the gas is so handled after it arrives in Texas that it becomes an article of intrastate commerce before it arrives at the city gates where the prescribed rate is applied.

---

*The actual movement from one State to another is interstate commerce, notwithstanding the fact that both the gas and the pipe line are owned by appellant. *Pipe Line Cases, 234 U. S. 548 560, 561; Kelley vs. Rhoads, 188 U. S. 1, 8-9.*

1. The various points made by the State court in respect to this gas are untenable.

The various points made by the State court are now briefly considered:

(1) The State court first refers to the fact that after this Oklahoma gas arrives in Texas it is run through extraction plants "where the heavier hydrocarbons and volatile gasoline are extracted." (V, R. 3348.) In passing, we again direct attention to the fact that this statement is applicable only to the gas produced or purchased in Oklahoma. The Wheeler County gas is not run through a gasoline plant in Texas; all of it goes through an extracting plant at Hollis, Oklahoma.

What is done to the gas at these extracting plants very clearly appears from the testimony of the witness Schmidt, heretofore quoted, *supra*, pp. 31-32. It appears that the primary purpose of the appellant in running the gas through these gasoline stations is to eliminate operating troubles due to the freezing of the heavy hydrocarbons in the lines, and to put the gas in a more suitable condition for domestic consumption.

The uncontradicted testimony of the witness was to the effect that the forward movement of the gas was not interrupted at all by the process of running it through the extraction plants. (*Supra*, pp. 31-32.) *

*The rulings of the State court as to the effect of running gas through a gasoline absorption plant are inconsistent: The Wheeler County gas is run through such a plant at Hollis, Oklahoma, and is thereafter transported from Oklahoma to Texas and sold and delivered at city gates. If the running of the Oklahoma gas through the plants at

Under the decisions of this Court this handling of the gas is without effect on its character as a commodity transported in interstate commerce. *Carson Petroleum Co. vs. Vial, 279 U. S. 95; Southern Pacific Co. vs. Interstate Commerce Comm., 219 U. S. 498, 526; Ohio Railroad Comm. vs. Worthington, 225 U. S. 101; Stafford vs. Wallace, 258 U. S. 495; Heyman vs. Hays, 236 U. S. 178, 187;* see also *East Ohio Gas Co. vs. Tax Comm., 283 U. S. 465, 468.*

(2) The State court in its opinion says:

"At various points before delivery its pressure is reduced and the gas allowed to expand." (V, R. 3348.)

The expression "various points," considering the undisputed evidence, can only mean the city gates where the gas is delivered to the distributing companies. There is no evidence of any reduction in pressure except that effected by the regulators of the distributing companies. This reduction is made for the purpose of effecting delivery. There is, of course, a gradual and inevitable loss of pressure as the gas moves forward and the distance from the source of pressure increases. This is offset by the maintenance of compressor stations.

This Court has held that such a reduction in pressure as that here involved is immaterial in deter-

---

Petrolia and Gainesville is effective to bring the gas to rest in Texas, making it an article of intrastate commerce, then it would seem that subjecting the Wheeler County gas to the same process at Hollis, Oklahoma, would have the same effect, with the result that when the gas is later transported to Texas it is transported in interstate commerce.

mining the interstate commerce issue. *State Tax Comm. vs. Interstate Gas Co., 284 U. S. 41, 43-44.* The reduction of pressure is merely incident to the delivery of the gas—a method of delivery. A "mere method of delivery is a negligible circumstance" in determining whether a given transaction or course of business constitutes interstate commerce. *Heyman vs. Hays, 236 U. S. 178, 187.*

Reference has been made to the fact that a part of this gas is run through compressor stations. The sole purpose of this is to facilitate the forward movement of the gas. (Schmidt's testimony, *supra*, p. 27.) It is therefore without effect on the issue of interstate commerce. *Ozark Pipe Line Co. vs. Monier, 266 U. S. 555, 560; Peoples Gas Co. vs. Public Service Comm., 270 U. S. 550, 552; East Ohio Gas Co. vs. Tax Commission, 283 U. S. 465, 468.*

(3) The State court in its opinion, discussing this gas produced or purchased in Oklahoma, says:

"Large amounts of it are run through and stored in wells on the Miller farm near the extraction plant in Texas, continuously, and for use later as needed." (V, R. 3348.)

Under the evidence this statement is correctly applicable only to a part of the Oklahoma gas. The undisputed evidence shows that only a part of it is stored in wells on the Miller lease. This rate order applies to all of the gas delivered at city gates in Texas, including the gas that is not stored, as well as the gas that is stored, on the Miller lease. If the storing of some of the gas on the Miller lease is effec-

tive to bring it to rest in Texas and to make it an article of intrastate commerce, that can have no effect on the part of the gas that is not so stored. It remains an article of interstate commerce and is so delivered at the city gates.

The rate order, as we have before pointed out, is an indivisible act of a legislative nature. It applies to all gas deliveries made by appellant at city gates in Texas, whether delivered in interstate commerce or intrastate commerce. The result is that the order is void as applied to the Oklahoma gas that is not stored on the Miller lease and, being void as to this part of the gas, it is wholly void. (*Supra*, pp. 97-104.)

(4) The State court states in its opinion that the Oklahoma gas has "no particular Texas city gate destination" and that after it is run through the extraction plants it passes into the pipe line system and is mixed and commingled with Texas gas until it is impossible "to trace or identify it by volume at any city gate of delivery." (V, R. 3348.) The order prescribes a uniform rate applicable to all deliveries at all city gates in Texas. It is therefore obviously immaterial whether a given quantity of gas may be delivered at one city gate or at another; the point of delivery is wholly without effect in applying the rate. If this interstate gas is delivered at any city gate—and manifestly it must be delivered at some city gate—it is subjected to this rate.

The commingling is immaterial because the quantities commingled are known. Furthermore, as we have previously pointed out, even if the quantities commingled were not known, the regulation could

not stand. It is sufficient that a quantity of Oklahoma gas, delivered in interstate commerce, is unlawfully subjected to this rate regulation. This being true, the order must fall, although the court may be unable to determine the amount of gas subjected to unlawful regulation. *Alpha Cement Co. vs. Massachusetts, 268 U. S. 203, 217; Heisler vs. Thomas Colliery Co., 260 U. S. 245, 259; Looney vs. Crane Co., 245 U. S. 178, 190.* We again direct attention to the fact that this discussion by the court of commingling is wholly inapplicable to the Wheeler County gas delivered at Wichita Falls, Texas, and at the city gates of the Texas cities and towns lying north and west of Wichita Falls. All of these deliveries are of Wheeler County gas uncommingled with any other gas.

(5) The State court compares appellant's deliveries of Texas gas with its deliveries of Oklahoma gas at city gates in Texas, and concludes that the amount delivered is relatively unimportant. The finding of the court as to the amount of Oklahoma gas is erroneous, as we have already pointed out, *supra*, p. 33. But, although the amount may be small, still, since it is transported and delivered in interstate commerce, it may not be subjected to this State regulation. Its immunity from State regulation does not depend upon its amount as compared with the amount of Texas gas.

The State court undertakes to compare the amount of the *Oklahoma* gas sold by appellant at city gates in Texas with the amount of *Texas* gas sold by appellant at city gates in Oklahoma, and undertakes

to use the Oklahoma city gate deliveries of Texas gas as an offset against the Texas deliveries of Oklahoma gas. The view of the court seems to have been that appellant was engaged in interstate commerce in delivering the Oklahoma gas at city gates in Texas only to the extent that such deliveries might exceed in amount its deliveries of Texas gas at city gates in Oklahoma. Both deliveries constitute interstate commerce. It is so clear as hardly to require statement that the character of appellant's interstate business of selling and delivering Oklahoma gas in Texas is in no way affected by its business of selling Texas gas in Oklahoma.

(6) The State court upholds the rate order on the ground that, even if the Oklahoma gas is interstate gas, the prescribed rate "in no manner interfered with, impeded, or burdened the flow of gas from Oklahoma, but such gas may be freely transported to Texas and sold in the open market at the same reasonable rate fixed for Texas gas." (V, R. 3352.) We have already discussed this plainly untenable holding, *supra*, pp. 79-82. The order is not challenged on the ground that it effects a discrimination against interstate commerce but on the ground that it directly regulates interstate commerce. Equality of treatment is not sufficient to sustain such a regulation.

Point Three.

The State court's holding that appellant's evidence, relating to the value of the entire "integrated operating system" and the revenues accruing there-

from and operating expenses incurred in connection therewith, was not material and should not be considered because of appellant's failure to make a proper segregation of its properties and operations, as between interstate and intrastate commerce or between Oklahoma and Texas, is plainly wrong.

This point is directed to the State court's holding that appellant's evidence showing the value of its properties, as well as its over-all revenues and expenses, was not material to any issue in the case and not entitled to be considered because it was not based on a proper segregation of appellant's properties as between interstate and intrastate commerce or as between Oklahoma business and Texas business. (V, R. 3361-2.)

The commission's order recites that it was based on the findings of fact stated in the order and on "such other findings and statements of fact, as are set out in the opinion next preceding this order." (I, R. 116.)

In the findings thus referred to, the commission found that appellant's Oklahoma and Texas properties constituted an "integrated operating system"; and that appellant's properties and operations had been thus considered. (*Supra*, p. 8.) The commission then proceeded to make detailed findings with reference to appellant's integrated properties and operations. These findings have been heretofore summarized, *supra*, pp. 9-10.

Appellees having offered the order to make out a *prima facie* case, and appellant's request for a directed verdict having been overruled, appellant then

offered the opinion and order and findings of the commission as the basis for its attack thereon (I, R. 312); and thereafter introduced evidence showing the book cost, reproduction cost new, fair value, gross revenues, expenses, allowance for depreciation, depletion and amortization reserve accrual, and income available for return. This evidence was offered on the theory and basis followed by the commission's findings. It dealt with appellant's properties and business operations in Texas and Oklahoma as an "integrated operating system," just as the same properties and operations had been considered by the commission in fixing the rate. This evidence has been heretofore summarized, *supra*, pp. 34-43. This evidence was in direct rebuttal of the commission's findings. It cannot be doubted that this evidence, if accepted by the triers of fact, was amply sufficient to demonstrate that the commission's findings were wrong.

This evidence was followed by additional evidence, introduced by appellant, showing, and being based upon, a segregation of appellant's properties and operations as between interstate and intrastate commerce. Appellees then offered evidence showing a segregation of appellant's properties attributable to its Texas operations from those attributable to its Oklahoma operations. (*Supra*, pp. 44-50.)

Appellees' evidence showed, and the Court of Civil Appeals found, that 85% of the appellant's properties were located in Texas. (V, R. 3337.) It further appeared that approximately 28% of its annual gas deliveries were transported from and, in Line A, through, Oklahoma. (*Supra*, p. 28.)

The trial court admitted all of appellant's evidence dealing with its integrated properties and operations. Repeated objections were made on the ground that the evidence was immaterial because no segregation as between Texas and Oklahoma operations, or interstate and intrastate commerce, had been made. (Illustrative, I, R. 325-6.) But all of these objections were overruled and the case submitted to the jury for a finding by it on the ultimate issue of confiscation.

We have heretofore summarized the court's charge to the jury, accompanying the special issue that was submitted. (*Supra*, pp. 15-17.) Considering the charge, the jury's answer to the single special issue submitted imported a finding that the rate was confiscatory. (*United Gas Public Service Co. vs. State of Texas*, unreported, decided February 14, 1938.) And, considering the charge as a whole, it is clear that the jury must have understood that, in answering the special issues submitted, they were to find whether the rate was so low that it would not provide "for a fair return upon the fair value of defendant's property used and useful in supplying the service furnished by said defendant"; that service being described as the deliveries "*to points in Texas.*" (I, R. 194.) The charge clearly required the jury to identify the property that was used and useful in rendering the service "to points in Texas," and then to find whether the prescribed rate as applied to the Texas deliveries would yield a fair return on the fair value of that property. Presumptively the jury followed the charge.

The trial court rendered judgment on the verdict

of the jury finding the rate to be confiscatory and enjoining its enforcement. (I, R. 197-199.) On appeal, the Court of Civil Appeals held:

(a) That appellant had failed to make a proper segregation of its properties and operations as between interstate and intrastate commerce; and

(b) That, because of such failure, the evidence it offered on the issue of confiscation was immaterial, wholly lacking in probative force, and not entitled to consideration, and that a verdict should have been directed against it.

This holding was applied to appellant's alleged failure to make a proper segregation of its properties. (V, R. 3361-3362.) The segregation appellant made was condemned and it was held that, since appellant had offered "no other proof on segregation or allocation of the property," the trial court erred in failing to direct a verdict against it. (V, R. 3361.) Upon the same ground the State court condemned as immaterial appellant's evidence relating to operating revenues and expenses. (V, R. 3364.)*

The court's holding is now discussed under separately stated points.

*The court here, and in other parts of its opinion, refers to appellant's failure to make a segregation as between interstate and intrastate commerce. This is inconsistent with the court's prior holding that appellant was not engaged to any extent in interstate commerce in Texas. Apparently the court used the term "interstate commerce" as referring to the Oklahoma operations and "intrastate commerce" as referring to the Texas operations. Otherwise, the court's holding is in plain conflict with its holding on the interstate commerce question.

1. The ruling of the State court in this connection denied appellant a fair opportunity to prove that the rate was confiscatory and amounted to a denial of due process.

The commission's order shows that it was based on the commission's findings made a part of it. The trial court instructed the jury that they were entitled to consider these findings in determining whether the rate was "unjust and unreasonable"—and therefore confiscatory, considering the definitions contained in the charge. The trial court permitted appellant to introduce evidence assailing these findings as they were made; that is, evidence showing the value of the entire integrated properties and the revenues and expenses connected with the operation of these properties. The Court of Civil Appeals held that this evidence was immaterial and should not have been considered at all, and that a verdict should have been directed against appellant because it failed to make a proper segregation of its properties and operations as between interstate and intrastate commerce or as between Oklahoma and Texas.

This action amounted to a denial to appellant of a "suitable opportunity" to challenge the validity of the order in a judicial proceeding. It was a denial of fair play and therefore a denial of due process, violating the Fourteenth Amendment. A fair hearing is essential to due process. "The right to such a hearing is one of the rudiments of fair play." *Ohio Bell Tel. Co. vs. Public Utilities Comm., 301 U. S. 292.* "The fundamentals of a fair hearing were not

conceded to the company." *West Ohio Gas Co. vs. Public Utilities Commission, (No. 1) 294 U. S. 63, 70.*

Any evidence tending to show that the commission's findings, upon which the order was based, were erroneous was admissible. By the court's charge, the jury was given the right to consider the findings in determining whether the rate was confiscatory. In these circumstances, appellant had the right to attempt to rebut the findings.

If the findings were discredited as to over-all value, they might also be discredited, from the standpoint of the jury, when limited to the value of the property rendering the service "to points in Texas." If the jury believed that the commission's over-all valuation was too low, it might well have concluded that its valuation of the Texas part of the over-all, 85%, was also too low.

Here, the appellant occupied a different position from that occupied by a plaintiff, and the vice of the opinion of the Court of Civil Appeals lies in its failure to recognize the distinctive nature of this proceeding. Here, the combined legislative-judicial process was initiated by the commission. When the proceeding had reached the stage of judicial review, the commission had defined the issues. It had promulgated, not merely a naked order without findings, but an order based upon, and, by reference incorporating as an integral part of it, definite findings. This the commission had done in order "that the courts might (will) understand why it had acted as it had," in contemplation of the court

action that normally would follow. *Norwegian Nitrogen Co. vs. United States, 288 U. S. 294, 319.**

At the commission hearing the commission selected the field of contest and issued its order after the conflict had been waged on the ground that it had chosen. By its findings it undertook to define the ground. When the commission fortified its order by findings, it invited a challenge of the findings, if the appellant would challenge the order. The Court of Civil Appeals has ruled that even though the findings were shown to be wrong, the order will prevail in deference to blind presumptions having no support in the findings.

The practical effect is to require the enforcement against appellant of a rate presumptively valid only because of findings that appellant is not permitted to assail. The effect is to give to the findings of the commission not merely presumptive correctness but irrebuttable finality.

A denial of the right to assail and discredit the findings, made a part of the order and furnishing the sole support for the order, was a denial of the right to assail the order itself.

When appellant carried its case to court for the purpose of challenging the order, of which the findings were made a part, it there assumed the heavy burden of establishing the invalidity of the order by "clear and satisfactory" evidence. The failure to attack the findings, supporting the order, by evidence

---

*There is no need to consider whether the findings were indispensable. The order, however, was not "general legislation" but was "in the nature of a judgment directed against the individual concern." *Pacific States Box & Basket Co. vs. White, 296 U. S. 176, 186.*

directed to the issues tendered by the findings would have left them fully sustained by recognized presumptions. *Thompson vs. Consolidated Gas Co., 300 U. S. 55, 69.* In that state of the record, the appellant was entitled to challenge the order in a trial *de novo* in the State District Court by opposing the order with evidence directed to the findings. This was the order on which the commission had chosen to stand—an order of which the findings were a part.

Presumptively, the range of inquiry conducted by the commission and the scope of its hearing are aptly defined by the findings. The Court of Civil Appeals was not at liberty, in view of the Fourteenth Amendment, to uphold the order upon a presumption of validity that went beyond the evidence heard by the commission and the commission's findings. The holding of the Court of Civil Appeals amounted to a denial of "suitable opportunity through evidence and argument to challenge the result" of the commission's action. *West Ohio Gas Co. vs. Public Utilities Comm. (No. 1), 294 U. S. 63, 70.* The result, here, was the order and the findings. Without fair warning, the findings were, in effect, repudiated, and defense for the order was grounded on the assumption that the findings were of no importance. If the findings were of no importance, appellant was nevertheless entitled to show that they were *wrong*, in order to destroy the presumption that the order, resting upon the findings, was right. This appellant did to the satisfaction of the jury, and the court having control of the shaping of the issues at the trial. When the case came before the appellate court,

after it was too late to reshape the issues and when the appellant no longer had an opportunity to offer evidence and argument thereon, the Court held that the rebuttal of the findings was of no consequence and that the order should have been subjected to another and wholly different kind of test having no relation to the findings—a test that involved the segregated properties and operations, as distinguished from the integrated properties and operations.

In a constitutional sense, the case is no different from what it would have been if the District Court, after first ruling that appellant's over-all evidence was material and relevant, had at the close of the trial announced the opposing view and had then denied to appellant the right to offer additional proof to meet the exigencies of the new ruling. Such action, obviously, would have offended the rules of fair play. But the judicial process afforded by the State is to be tested in its totality. What boots it if the trial court accorded the appellant a fair trial when all that was done by the trial court has been nullified by the Court of Civil Appeals, and no opportunity afforded to meet the new ruling?

2. If a segregation was necessary, then the basis for a proper segregation was laid in the evidence and, presumptively, the jury, following the charge, made the segregation.

Evidence as to the over-all value of the entire "integrated operating system" was the essential basis for any segregation of property values as between the two States or as between interstate and

intrastate commerce. At all events, the reasonable way to proceed was to establish the over-all value and then apply a proper segregation factor to that value in order to arrive at the value of the property used in rendering the Texas service.

The commission's findings (*supra*, p. 9) and the appellant's evidence (*supra*, pp. 34-39) showed the over-all value. Appellees' evidence (*supra*, pp. 45-46) disclosed a basis for the segregation of the over-all value as between the two States. In this situation it was open to the jury to accept appellant's evidence showing the over-all value, as against the commission's findings as to over-all value.

The State court, accepting appellees' evidence, found that 85% of appellant's properties were assignable to Texas. (V, R. 3337.)

In this situation it was open to the jury to accept appellant's evidence showing the over-all value as against the commission's finding of over-all value. It was also open to the jury to accept appellees' evidence showing a segregation of the properties as between the two States and developing a percentage factor to be applied in making the segregation, and then to apply that percentage factor—85%— to the over-all value arrived at by the jury. So proceeding, the jury could have arrived at a reasonable and supportable conclusion that the rate was confiscatory even when considered in the light of the commission's findings relating to operating revenues and expenses or in the light of appellees' set-up of operating revenues and expenses.

Eighty-five per cent of the rate base, as shown by

appellant's evidence, would equal approximately $60,000,000.00. On that basis, and accepting even the appellees' evidence as to the operating revenues, expenses, and depreciation allowance, the rate of return would have been confiscatory, being approximately 4½%. Or, the jury could have found that the rate was confiscatory by accepting the rate base shown by the testimony of appellees' witnesses, $40,256,862.39, (III, R. 1900, V, R. 3360) and by accepting appellant's evidence as to what would be a *fair rate of return.* Thus it could have settled the issue of confiscation in appellant's favor by resolving in its favor the conflict in the testimony of the "equally well qualified experts" on the issue of fair *rate of return.* (*Supra,* p. 42.) The jury could have settled the confiscation issue in appellant's favor by taking appellees' segregated rate base of $40,256,862.39 and by adding thereto the value of appellant's production system properties, eliminated by appellees' expert witnesses, this amounting to more than $5,000,000.00. (*Infra,* pp. 162-165.) It will be noted that the trial court instructed the jury that in determining the confiscation issue they should consider the value of all of appellant's property "used and useful" in rendering the service in question, including its properties used in the "production * * * of natural gas." (I, R. 193-195.) If the jury followed the charge, it rejected appellees' elimination of the production system properties and put these values back into the rate base.

In these and other ways, the jury could have settled the confiscation issue in appellant's favor merely by exercising its undoubted power to select the evi-

dence satisfactory to it, regardless of its source. (*Infra*, pp. 159-170.) The jury was not required to accept appellant's evidence in its entirety or to accept appellees' evidence in its entirety.

The trial court did not hold that a segregation was unnecessary. It merely held that the evidence relating to the value and net operating revenues of the integrated properties—the very properties that had been valued and considered by the commission, as shown by its findings,—was admissible to be considered by the jury along with the commission's findings and all the other evidence in determining whether the rate was confiscatory. The trial court instructed the jury that they could consider the findings of the Railroad Commission for the purpose of assisting them in determining whether the rate order was "unreasonable and unjust to the defendant." (V, R. 194.) Manifestly, appellant had the right, in view of this charge, to have its over-all evidence considered in the same way, not as proving that no segregation was necessary, but as proving the value of the whole property, including the value of the part attributable to the Texas service.

None of the decisions of this Court hold that this evidence, relating to the "integrated operating system," was legally immaterial and inadmissible. These decisions merely hold that the basis for the segregation must be laid in the evidence; not necessarily in the evidence offered by the utility, considered alone, but in the evidence considered as a whole. That basis was laid in the evidence here. The jury were required by the charge, correctly construed, to make a segregation and to limit their consideration to the

property rendering the Texas service. The jury could have made the segregation on the basis shown in appellees' evidence, and then could have applied that segregation to any over-all rate base that the jury believed was established by the evidence.

Appellant's evidence can not be properly condemned because it did not include a segregation of properties and operations. It is sufficient that the evidence, considered as a whole, furnished a basis for the segregation which the jury must have made if it followed the court's charge. It can make no difference, as far as appellant's legal rights are concerned, who made the segregation. The ultimate question is not who made it but whether, once the segregation has been properly made, the fact-finding body has determined that the rate as applied to the segregated property is confiscatory.

Here the Court of Civil Appeals reverses the judgment apparently, not because a proper segregation was not made as a predicate for testing the rate, but simply because appellant's evidence failed to make the required segregation.

Smith vs. Illinois Telephone Co., 282 U. S. 133, is distinguishable. In that case there were no findings segregating the interstate from the intrastate properties and operations; there were no findings segregating the properties that were used in rendering the service to which the rate applied. Here there is evidence showing a segregation and there is a finding by the jury that the rate was confiscatory when tested by its application to the property "used and useful" in rendering the service "to

points in Texas." That finding supplies what was lacking in the Smith case.

Point Four.

The holding of the State court that the triers of fact were without power to settle conflicts in the evidence denied appellant an adequate judicial review of the rate order on the tendered issue of confiscation. It denied appellant due process.

The Court of Civil Appeals did not stop with its holding that a verdict should have been directed and judgment rendered against appellant, declaring the rate order "valid in every particular," (V, R. 3370) because of appellant's alleged failure to make a proper segregation of its properties and operations. It further held, in effect, that, at most, the evidence on the issue of confiscation was merely conflicting and that, in these circumstances, the law raised a barrier against appellant's attack on the rate in advance of an actual test.

On the issue as to the *value* of appellant's property, the State court said:

"At most, the evidence merely presented the difference of opinions of equally well qualified experts." (V, R. 3363.)

And again:

"Valuation of such public service property is in the main a matter of estimate or opinion, and closely resembles discretion as regards the finding of value by an administrative commission. In any event, a

scientific or statutory standard of absolute value is unattainable; and because of this uncertainty of value, except where the evidence clearly shows gross over or under valuation, or mistake, inequality or fraud in the appraisal, the finding of value by an administrative commission is generally given finality. Especially is this the rule in absence of an actual test under the new rate." (V, R. 3405-6.)

The conflicting evidence on the issue of value, to which the court refers is hereafter summarized, *supra*, pp. 34-50.

There was a clear conflict in the evidence as to what would be a proper *rate of return*. Even the Court of Civil Appeals conceded this. Referring to the fact that the commission had found 6% was a proper rate of return and to the conflict in the evidence as to what would be a proper rate of return, the State Court said:

"The burden was heavily upon appellee to show by clear and satisfactory evidence that such rate of return was confiscatory or unreasonable and unjust. To meet this test appellee was required to 'establish by evidence which leaves no reasonable doubt in the judicial mind that the rate or rule is unjust and unreasonable.' R. R. Comm. v. Galveston, etc., supra. It offered the testimony of an interested witness and the testimony of experts employed by it, to the effect that in their opinion an 8% or 10% rate of return would be reasonable. A disinterested expert testified that under present business conditions a 6% rate of return was entirely fa and reasonable. This evidence merely presented the difference of opinion of experts, and manifestly their opinion or opinions cannot be substituted for the finding of the Commission that a 6% rate of return was fair and

reasonable, which finding was based upon substantial evidence." (V, R. 3368.)

Considering the state of the evidence hereafter summarized, pp. 147-149, the whole issue as to whether the rate was confiscatory might have been settled by resolving the conflict in the evidence as to what would be a proper rate of return. Appellant's evidence on that important issue was condemned because it was merely in conflict with the opposing evidence offered by the appellees. Thus, it was definitely held that the reviewing court had no power to settle the conflicts in the evidence relating to a proper rate of return. According to the Court of Civil Appeals, the reviewing court was merely empowered to discover the conflicts and then sustain the rate order, leaving the conflicts unsettled.

The point here made is not based upon the failure of the Court of Civil Appeals to exercise an independent judgment as to the facts or its failure to make findings settling the conflicts in the evidence referred to. That court has no power under the State law to "set aside the verdict of the jury and substitute its finding, instead of the finding of a jury, and render judgment accordingly. * * * It has no power to make an original final determination of a question of fact." *Choate vs. S. A. & P. Ry. Co., 91 Tex. 406, 410; United Gas Public Service Co. vs. State of Texas, supra.*

Nor do we challenge here the proceedings in the State trial court as amounting to a denial of due process. There, the jury, as an arm of the court, exercised an independent judgment on the facts under a charge making it the exclusive judges "of the facts

proved, of the credibility of the witnesses, and of the weight to be given to their testimony"; (I, R. 192) and found the rate unjust, unreasonable, and confiscatory. This finding was made under the court's direction that such findings should be made only if the evidence in support of it was "clear and satisfactory." (I, R. 194.)

What we do complain of is the judgment of the Court of Civil Appeals, which, in effect, deprived appellant of the judicial review accorded it in the trial court and placed it in the same position as if that review had been denied by the trial court. Appellant's complaint is not that the Court of Civil Appeals has erroneously declared the State law applicable to the judicial review of rate orders. Appellant's complaint is that the procedure, provided by the State, as expounded and applied against it in the instant case, denies it an adequate judicial review of the rate order. What the Court of Civil Appeals said on the subject of judicial review of rate orders is the law of the State, at least for the purposes of this case. And appellant's complaint is that the law of the State, as thus declared and enforced against it, amounts to a denial of due process. The appellant challenges the correctness of the ruling that adequate judicial review is afforded where the reviewing court, discovering a conflict in the evidence, upon a trial *de novo*, must leave the conflict unsettled and render a judgment sustaining the rate order. This, in effect, amounts to a holding that the Fourteenth Amendment applies only to cases where the evidence is not conflicting. The rule thus declared is in clear conflict with the decisions of this Court. *Ohio Water*

Co. vs. Ben Avon Borough, 253 U. S. 287; St. Joseph Stock Yards Co. vs. United States, 298 U. S. 38, 51; Baltimore & Ohio R. R. Co. vs. United States, 298 U. S. 349, 368.

In *United Gas Public Service Company vs. State of Texas*, decided on February 14, 1938, this Court held that the complaining public utility had not been denied adequate judicial review of the challenged rate order. In that case, the evidence on the issue of confiscation was conflicting, in the view of this Court, and the conflict had been settled against the utility by the jury in the trial court. The trial court rendered judgment on the verdict sustaining the rate order, and that judgment was affirmed by the Court of Civil Appeals. This Court held that the utility had been accorded an adequate judicial review but had failed to obtain a verdict settling the issues of fact in its favor. This case stands in a wholly different light. Here, the jury settled the conflicts in the evidence in favor of appellant and found that the rate order was confiscatory. The trial court approved the verdict and rendered judgment annulling the rate order. The appellate court reversed the judgment of the trial court and rendered judgment declaring the rate order to be valid and directing its enforcement, and based its judgment, at least in part, on the view that the evidence being merely conflicting on certain vital points, was legally insufficient to sustain the rate order. The court, in effect, denied the right of the jury, or the District Court sitting without a jury, to settle conflicts in the evidence. According to the appellate court, the sole right and duty of the Dis-

trict Court was to ascertain the presence of a conflict in the evidence, and after finding the conflict, to render judgment sustaining the rate order.

It is true that in certain portions of its opinion the Court of Civil Appeals acknowledged the existence of the rule requiring a wider scope of judicial review than that just mentioned. Said the court in the course of a general discussion of the subject:

"The commission contends that the rate must be sustained against the attack that it is confiscatory and unreasonable and unjust because it does not yield a reasonable return on the fair value of the property when it is shown to be based upon substantial evidence adduced before the commission, and that only the evidence adduced before the commission on the rate hearing may be considered on appeal to the court. On the other hand, appellee contends that the hearing on appeal to the court of such issues is de novo and that 'due process of law requires submission to a judicial tribunal for determination upon its own independent judgment as to both law and facts according to the settled rules governing judicial action and decision. * * *' As regards the rate making power of the commission, the Texas courts have adopted this wider scope of review." (V, R. 3354.)

And again:

"But the questions of whether a rate is confiscatory or unreasonable and unjust have been held to be legal or justiciable questions of fact and as to which the wider scope of judicial appellate review seems to have been adopted by the Legislature and courts of this State." (V, R. 3357.)

What the court said must be distinguished from what it did. The requirement of due process,

recognized in the language just quoted, is denied effective operation in the court's statement and application of the rules governing the judicial review of rate orders in the District Court. This is apparent from the language we have previously quoted, *supra*, pp. 124-126, and from the action of the court in reversing the judgment of the trial court and rendering judgment against the appellant.

What the same court said in *United Gas Public Service Company vs. State of Texas, 89 S. W. (2d) 1094, 1102*, decided after the present case, is enlightening:

"* * * in advance of any actual test of the practical result of the new rate the court on appeal will not disturb the rate where it is based upon conflicting evidence as to valuations of property or as to any other item used as a basis for the calculation of the rate because to do so would likely substitute the finding of the court or jury upon conflicting evidence for that of the commission, and would therefore permit the court to exercise the legislative function of rate making."

Under the rules laid down and applied against the appellant in this case by the Court of Civil Appeals, the issue in a case like this is not whether the rate is confiscatory, but whether there is substantial evidence supporting it. The inquiry, according to the court, is directed, not to the validity of the rate, but to the existence of a conflict in the evidence relating to its validity. The rate must be upheld, not because it is reasonable, but because those supporting the rate say that it is.

And it is important to bear in mind that the con-

flicts which the court refers to are not the conflicts between the findings of the commission—which were abandoned and in effect repudiated by the appellees at the trial—and the testimony of appellant's witnesses. The conflicts to which the court gave conclusive legal effect in deciding the case against appellant are those between the testimony of appellant's witnesses and the testimony of appellees' witnesses at the trial. The evidence heard by the commission was not admitted in evidence in the trial court. The trial was entirely *de novo*. When the State court refers to the evidence sustaining the commission's order and findings, it is referring to the testimony heard *de novo* at the trial.

In the view taken by the State court, the evidence on the issue of confiscation in a rate case can never present an issue of fact. The question to be determined in every such case becomes solely one of law, depending for its solution on the presence or absence of a conflict in the evidence. In either instance, a verdict must be directed; in the one instance in favor of those supporting the rate because of a conflict in the evidence, and in the other, in favor of those assailing the rate because the evidence showing that it is confiscatory is undisputed. The practical operation of such a rule would mean that a rate can never be successfully attacked for there is always evidence "easily produced" in support of the "findings of the implicated board." *Chicago, etc., Ry. Co. vs. Osborne, 265 U. S. 14, 16-17.*

It is one thing to say that the reviewing court in a case like this must accept testimony that simply conflicts with the findings underlying the rate order

or with other testimony sustaining the rate order. It is quite a different thing to say that the reviewing court is not entitled to credit such testimony. In the case of a conflict in the evidence adequate judicial review requires the right of selection and that is wanting here.

The presumption of validity surrounding a rate order, properly promulgated by a duly authorized body, may be enough to cause a reviewing court with power to weigh the evidence and exercise its independent judgment as to the facts affecting the issue of confiscation, to accept the findings underlying the order if they are supported by substantial evidence. The point here is that the jury in this case did not see fit to do so. It settled the conflicts in the evidence against the validity of the rate order. What it has done, and the power to do it again, must be upheld if the right to an adequate judicial review is to remain. How can there be any adequate judicial review when there is no power to settle conflicts in the testimony; no power to determine what testimony constitutes evidence?

The existence of "substantial evidence" sustaining a rate order does not negative the existence of clear, definite and satisfactory evidence against the validity of the order. And the reviewing court, though having the right to credit the substantial evidence in favor of the order and sustain it, must also have the right to credit the clear, definite and satisfactory evidence against the order and strike it down. To say that a rate order is properly sustained when it is supported by substantial evidence does not mean that the order must be sustained if it

is supported by substantial evidence, without regard to the amount of evidence on the other side.

Much that has been said on this subject has been said in cases where the reviewing court had before it only the evidence heard by the commission, promulgating the rate, and the commission's findings based on the evidence heard by it. In every such case the conflicts in the testimony have been settled by the commission before the case reached the reviewing court, and the court was called upon, viewing the same record, to upset the action of the commission in settling the conflicts in a particular way. In Texas, judicial review of a rate order is *de novo;* and this order was thus reviewed. None of the evidence heard by the commission was placed before the jury. The jury, under the supervision of the trial court, was called upon to consider originally the conflicts in the evidence. In this situation conflicts must be settled in the District Court, or they cannot be settled at all.

The distinction here pointed out seems to have been recognized by this Court in *St. Joseph Stock Yards Co. vs. United States, 298 U. S. 38, 54.*

The practical result of the holding of the Court of Civil Appeals is that the rate order, duly challenged by appellant as being confiscatory, has been sustained and enforced against appellant notwithstanding the fact that admitted conflicts in the evidence, relating to matters affecting the issue of confiscation, were not settled and must remain unsettled. In these circumstances, of what value to appellant was the so-called *de novo* trial—a trial before a tribunal, empowered to hear evidence *de novo*, as

distinguished from the commission record, and yet without power to settle the conflicts in the evidence heard. This holding means that the reviewing court had the power to hear but no power to decide.

The holding of the Court of Civil Appeals means that while Texas has provided a tribunal empowered to find a conflict in the evidence, it has provided no tribunal empowered "to weigh the evidence and pass upon the issues of fact." *St. Joseph Stock Yards Co. vs. United States, 298 U. S. 38, 50.*

This Court, in *B. & O. R. R. Co. vs. United States, 298 U. S. 349, 368,* said:

"The due process clause assures a full hearing before the court or other tribunal empowered to perform the judicial function involved. That includes the right to introduce evidence and have judicial findings based upon it."

A decision in favor of the commission upon the trial *de novo*, merely because the evidence is conflicting, is no decision of the *case* at all. It is simply an announcement of judicial impotence, imposed on the reviewing court by the rule denying it the right to weigh the facts and settle conflicts in the evidence.

Point Five.

The finding of the jury that the rate was confiscatory is sustained by clear and satisfactory evidence. Therefore the judgment of the Court of Civil Appeals should be reversed and that of the district court affirmed.

What quantum and character of evidence is required to sustain a judgment setting aside a rate order, challenged as being confiscatory, is a matter of law—of Federal constitutional law. It is clear that this question has been erroneously decided by the State court.

The opinion of the State court discloses a failure on its part to understand the decisions of this Court, defining the test to be applied in determining whether a rate order is confiscatory. The Court of Civil Appeals announces that, where the evidence is conflicting and the conflict has been settled by the triers of fact against the validity of the order, their finding must be set aside and the rate sustained merely because of the presence of the conflict and without settling the conflict. There is no decision of this Court sustaining the ruling of the State court. The cases cited by the court involve entirely different states of fact.

The question involved here is what amount of evidence is sufficient to sustain a judgment invalidating a rate order as confiscatory. It is a case where the conflict in the evidence on vital points has been resolved *against* the order by the triers of fact.

The State court cites cases where the same kind of conflicts in the evidence were resolved in favor of the order by the triers of fact and where the utility on appeal was attempting to reverse the judgment. These decisions, correctly understood, apply here in support of, rather than against, appellant's position. For example, the State court and counsel for appellees greatly emphasize *Dayton Power & Light Co. vs. Commission, 292 U. S. 290, 299, 301,*

302. There the Supreme Court of Ohio, having full authority "to revise the findings of the commission in respect to fact and law" (292 U. S. 302), had settled the conflicts in the evidence in favor of the rate order and the question was whether this Court should overrule the findings of the State court. This Court in its opinion said:

"But plainly opinions thus offered, even if entitled to some weight, have no such conclusive force that there is error of law in refusing to follow them." (292 U. S. 299.)

"* * *

"Granting even that the testimony had an evidential value, it had that and nothing more. It had no such commanding quality as to apply coercion to the judgment of the appointed triers of the facts, and exclude every choice but one." (292 U. S. 301.)

Discussing the findings of the State court relating to the fair value of the utility's properties this Court said:

"Plainly in all this there has been no infringement of constitutional immunities unless a higher value has been made out by evidence too strong to be rejected. But for reasons already stated, the evidence is lacking in that high coercive power. Court and commission were free in their discretion to reject as unsatisfactory the conflicting opinions of a group of friendly experts." (292 U. S. 302.)

Here the independent triers of fact have resolved the conflicts in the evidence against the validity of the rate order. The conflicts in the testimony of the "equally well qualified experts" were settled

in favor of the appellant; and the rules announced in cases like the Dayton Power & Light Company case apply to sustain these findings.

The State court erroneously assumed that the rules announced in cases like the Dayton case apply only where the conflict is resolved in a particular way—that is, in favor of the rate order. These rules apply to sustain the findings without regard to the way in which the conflict was settled by the findings.

Other cases, similarly misapplied by the State court, are those where this Court has reviewed, on appeal, Federal equity cases, and where it was invested with the power to consider questions of fact as well as of law. Such a case was *St. Joseph Stock Yards Co. vs. United States, 298 U. S. 38, 50, 54.* In that case it was claimed that the order had not been properly reviewed in the lower Federal court. The Government, responding to this contention, invited this Court, sitting as an appellate court in a Federal equity case, to review the evidence under any proper test of judicial review. (298 U. S. 50.) This the Court did. See also *Lindheimer vs. Illinois Tel. Co., 292 U. S. 151.*

In a case appealed from the highest court of a State, this Court stands in a different position, the rule being settled that the findings of fact in the State court will not be re-examined on their merits in this Court. This rule has added force where the Court is called upon to examine a finding of fact made by a jury, because then the Seventh Amendment is applicable. *Dower vs. Richards, 151 U. S.*

658, 667; Jones National Bank vs. Yates, 240 U. S. 541, 552, 553.

However the opinion of the Court of Civil Appeals may be interpreted, appellant's right to an adequate judicial review was in practical effect denied. If the District Court had the power to adequately review the order, then appellant was wrongfully deprived of the result of that review by the judgment of the Court of Civil Appeals. It is not material whether the limitation on judicial review was stated by the Court of Civil Appeals as a rule specially limiting the judicial process locally provided in Texas for the review of such orders, or as a general rule of administrative and constitutional law limiting all courts in reviewing such orders. The result is the same: The order is to be enforced against appellant under the judgment of the State court without any provision for an adequate judicial review.

In determining whether the rate order has been proven to be confiscatory by clear and satisfactory evidence, the evidence must be viewed as a whole and must be considered in the light in which the triers of fact had the right to consider and blend it. It must be given the weight that the triers of fact were entitled to give it. In the instant case, the triers of fact, acting under a charge that affirmed their right to consider the credibility of the witnesses and the weight to be given their testimony, and that instructed them that the attack on the rate order must be sustained by clear and satisfactory evidence, have found that the rate order is confiscatory. If there is evidence in the record that they had a right to

accept, sufficient to constitute clear and satisfactory evidence, then their finding must be sustained.

We shall now review the evidence and undertake to demonstrate that when it is blended and considered as a whole in the way, in which the triers of fact were entitled to consider it, it shows in a clear and satisfactory way that the rate order is confiscatory.

1. The application of the rate considered in the light of the evidence as to appellant's integrated properties and operations.

The commission's order was shown by clear and satisfactory evidence to be confiscatory on the basis of appellant's evidence relating to its "integrated operating system"—the property and operations covered by the commission's findings. We have heretofore summarized this evidence; clearly the triers of fact were entitled to accept it. (*Supra*, pp. 34-43.)

Certain features of this evidence were specifically criticised by the Court of Civil Appeals. They are now discussed.

Federal Income Taxes. The court states that appellant claims between $300,000.00 and $400,000.00 a year for this item; that appellant has never paid any income tax, and that the only amount justified by the record is around $50,000.00 per annum. (V, R. 3364.) This is erroneous. The commission found "Federal income tax computed on the basis of 1931 actual earnings amounted to $302,302.41," (I, R. 104), but made no allowance for Federal income taxes in computing the amount available for return. (I, R. 105.) True, appellant

had not, for several years, paid income taxes directly. The payments were made by the parent company through a consolidated return. Since 1934 appellant has been required, by law, to make its own return and pay its own tax. The rate applicable, beginning January 1, 1934, was 13¾% of taxable income.

Appellees' witness estimated Federal income taxes payable on earnings from the Texas properties alone at $97,534.45 for the twelve-months period ended March 31, 1934, and $96,073.64 for the year 1933. (III, R. 1900.) There is no evidence in the record to support the court's statement that $50,000.00 would be an adequate allowance for the payment of Federal income taxes. Federal income taxes are proper deductions from earnings in computing the amount available for return. *Galveston Electric Co. vs. Galveston, 258 U. S. 388; Georgia Ry. & Power Co. vs. Railroad Commission, 262 U. S. 625.*

New Business Expenses. The Court of Civil Appeals says that appellant "proved only a small amount for advertising, nothing in proportion to the charges made by their experts in their accounts," and that the expense was "not supported by the quantum and character of evidence required." (V, R. 3365-3366.) The court was confused.

The amount claimed did not represent an expert's opinion; it was not an estimate, but an out-of-pocket operating expense. Appellees', as well as appellants', evidence shows the following sums actually expended for the item in question: For the year 1931, $126,125.98; 1932, $87,528.94; 1933, $99,793.94; and twelve-months period ended March 31, 1934,

$101,308.68. (Appellees' Ex. 5, III, R. 2131.) These outlays covered new business advertising salaries, new business solicitors and commissions, advertising supplies and expenses. The evidence shows that the expenses were incurred in good faith in the regular course of business and in the exercise of the management's best judgment.

"In all the pages of this record there is neither a word nor a circumstance to charge the management with fault." *West Ohio Gas Co. vs. Public Utilities Commission, 294 U. S. 63.* Appellant is as interested in increasing gas sales as the distributing companies. Reasonable sums expended for this purpose in the way of new business activities and advertising are legitimate charges to operating expenses. *West Ohio Gas Company vs. Public Utilities Commission, supra; Wichita Gas Company vs. Public Service Commission, 2 Fed. Supp. 792.* The court's criticism of the new business and advertising expenses is not justified by any of the evidence in the record.

Canceled and Surrendered Leases. The court's discussion of this item of expenses shows that the court was confused. (V, R. 3366.) It states that the undisputed evidence is that appellant's gas reserves are adequate for forty years to come. This is error. The only testimony in the record on this point is that they would last approximately twenty years. (I, R. 531; II, R. 1336.) The court says that the commission allowed appellant for gas produced from its wells the full prevailing price, eliminating production expenses, drilling and tool expenses, dry holes, canceled and surrendered leases,

and other items. This is error. The court confuses the commission with the experts who testified for appellees upon the trial. The commission made no such allowance, nor did it make such eliminations. It made an allowance for canceled and surrendered leases in promulgating the order. It said: "Cancelled and surrendered lease expense amounted to $239,230.96 for the year 1931. * * * Cancelled and surrendered lease expense is incurred whenever the company drills a dry hole on an undeveloped lease and decides that the whole lease is dry; whenever an undeveloped lease is proven dry by any other operation; whenever the company deems the prospective gas not worth the delay rentals; or whenever for any reason the company decides that the lease is not of sufficient value to continue to pay delay rentals; when an undeveloped lease is cancelled and surrendered, it is charged off at its original cost plus all delay rentals and any acquisition costs that have been set up on the books of the company." (I, R. 28.) The commission found that the average expense for canceled and surrendered leases for the five-year period ended December 31, 1931, amounted to $99,140.73 per annum, and allowed this amount for the year 1931, the year upon which it based its findings in computing its order. (I, R. 30, 104.) Appellees' own testimony showed actual charges for this item as follows: 1931, $239,230.96; 1932, $255,829.03; 1933, $188,629.92; and twelve months ended March 31, 1934, $169,362.09. (Appellees' Ex. 5, III, R. 2126A.) For Texas properties only, appellees' Exhibit 4 showed: 1931, $232,271.16; 1932, $245,103.65; 1933, $176,139.67; and twelve-

months period ended March 31, 1934, $166,304.21. (III, R. 2116A.)

The court also confused canceled and surrendered leases with gas reserves and depletion. Depletion expense is intended to provide for amortizing the producing leaseholds. The nature of canceled and surrendered lease expense is explained in the excerpt from the commission's opinion quoted above. Such expense may be handled in either one of two ways. It may be charged either to current operating expense or it may be provided for by reserve accruals. Both methods are recognized by the United States Bureau of Internal Revenue. In the instant case neither appellant nor appellee set up a reserve accrual for this purpose. In view of this fact it was proper to charge it as an operating expense. This is what appellant did. The amounts charged were reasonable. In any event, the commission's average was not assailed by appellees. Appellees' witnesses at the trial purported to include this expense in allowing the well head price for gas. Some allowance must be made if confiscation is to be avoided. What was a reasonable charge was not a matter of law, but a matter of fact for the jury.

Regulatory Commission and General Expenses. Speaking of this item, the Court of Civil Appeals said: "The experts employed by appellee charged in excess of $400,000.00 per annum for regulatory commission and general expenses." We cannot identify this figure in the record. Regulatory commission expense, however, does definitely appear. It is an out-of-pocket expense—not a matter of opin-

ion as the court's statement seems to imply. The commission allowed $17,695.86, this being the sum expended in 1931, saying: "Expenditures necessary for the preparation of inventories, for a reasonable number of evaluations, and for a presentation of all relevant facts to this commission and to the courts are properly chargeable to this account. The 1931 regulatory expense was not relatively large. Whenever such expense is relatively large, it should be amortized over a reasonable length of time, say ten years." (I, R. 22.) Appellee's accounting exhibit showed that the regulatory expenses were: 1931, $17,695.86; 1932, $163,739.01; 1933, $66,792.39; and for the twelve months ended March 31, 1934, $56,204.18, or a total of $304,431.44 for the four accounting periods. (Appellees' Ex. 5, III, R. 2131.) If amortized over a five-year period, it would amount to approximately $61,000.00 per annum, and $30,500.00 per annum if amortized over a ten-year period. It is uniformly recognized that reasonable regulatory commission expenses are a proper charge against operations. *West Ohio Gas Co. vs. Public Utilities Commission, 294 U. S. 63.*

Going Value. The only specific criticism made by the Court of Civil Appeals of the amount claimed by appellant as the fair value of its property related to going concern value. (V, R. 3367.) It rejected appellant's claim for going concern value because it had "not experienced any loss on account of inception costs, which are usually included in going value," and because "the reproduction cost new value, as determined in the instant case, allows for

all overhead expenses, which, together with the reasonable operating expenses allowed, fully compensate appellee for all development costs which have been incurred, and are ample cover items entering into and forming a part of what is referred to as 'going concern value.'" (V, R. 3367.)

Appellees included nothing in their appraisal for going concern value. Their expert testified as follows:

"Q. Well, did you include anything in your exhibit 6 for what is commonly known as going value, going concern value, or cost of reproducing the business?

"A. No." (III, R. 1793-94, 2108.)

The commission made no specific allowance for going concern value, and in our view it made no allowance whatsoever therefor. The commission thought that because it had allowed for all collateral construction costs and had not valued the property as junk, it had sufficiently compensated for the going concern value. (I, R. 66.) All parties admit that a going concern value inheres in appellant's property and business.

The amount claimed by appellant for going concern value was estimated by the witness Connor. Connor prepared and sponsored in evidence an exhibit which covered the subject exhaustively. (Appellant's Ex. 28, IV, R. 2914—V, R. 3006.) Connor based his estimate on a thorough study of the history and circumstances of appellant's property and business. He took into consideration that appellant's property and business was well established; that it

had been operating for approximately 24 years and was serving approximately 230,000 domestic and 1400 industrial consumers at the date of inquiry; that appellant, after much difficulty over a period of years, had secured and consolidated a diversified supply of gas ample to meet the maximum requirements of its consumers; that its property was well constructed, well maintained and so located as to meet the future growth of the territory that it serves. That appellant had a trained, efficient, operating personnel; that its credit was good; that there was demand for its service and that under reasonable rates it could earn a fair return on the fair value of its property. (II, R. 989.)

Connor showed in exhibit form the historical rate of business attachment on four of appellant's major pipe line systems. (Appellant's Ex. 48, V, R. 3318-3321.) He studied the history of business attachment to these pipe lines beginning with the date they were put in service and extending to the date of inquiry. He made a careful study of the existing system and markets and an analysis of the historical rate of business attachment for the cities and towns served by appellant. The way and manner in which appellant's witness arrived at going concern value meets controlling tests laid down by this court. It is fully explained in the record and need not be further detailed here. (II, R. 988-1013.)

That there is an element of value in appellant's assembled and established system which is doing business and capable of earning a reasonable return with reasonable rates, and that such value is a property right which should be considered in determining

the value of the property upon which appellant has a right to make a fair return, can not be doubted. *Los Angeles Gas & Elec. Corp. vs. Railroad Commission, 289 U. S. 287, 313-315.* There was no margin in the commission's rate base or appellees' appraisal for this property right.

We submit that a reasonable allowance should have been made to cover this item. What was a reasonable allowance was a question of fact for the jury.

Rate of Return. In disposing of appellant's contention that the jury may have found that a 6% rate of return was confiscatory or unreasonable and unjust, the Court of Civil Appeals said:

"We are clear in the view that the evidence adduced by appellee (appellant here) did not raise a jury question as to whether a 6% rate of return was either confiscatory or unreasonable and unjust."

The court then referred to the conflicting evidence and concluded that "this evidence merely presented the difference of opinion of experts, and manifestly their opinion or opinions can not be substituted for the finding of the commission that a 6% rate of return was fair and reasonable, which finding was based upon substantial evidence." (V, R. 3368.)

What annual rate will constitute just compensation depends on many circumstances and must be determined by the exercise of a fair and enlightened judgment having regard to all relevant facts. It involves a determination of what rate of return will be reasonably sufficient to assure confidence in the financial soundness of the enterprise and be adequate under efficient and economical management to main-

tain and support appellant's credit and enable it to raise the money necessary for the proper discharge of its public duties. *Bluefield Waterworks & Improvement Co. vs. Public Service Commission, 262 U. S. 679, 692, 693; Los Angeles Gas & Elec. Corp. vs. Railroad Commission, 289 U. S. 287, 319, 320.* It is clear that the question presents a fact issue determinable by the jury in this case.

Appellant offered the testimony of two experienced bankers, Messrs. Thornton and Florence, who testified that a return of 8% would be reasonable. Other witnesses testified to the same effect. These witnesses gave the basis of their conclusions. (Page 42, *supra;* also, Thornton, III, R. 1960-1965; Florence, III, R. 1965-1977.)

Appellees' principal witness on rate of return, a University professor, testified that at the date of inquiry no return at all would be reasonable, but that over a period of ten years 5% would be exceedingly liberal. (III, R. 1815-1816.) This witness gave no satisfactory basis for his conclusion. There are other facts to support a finding that a 7% or 8% rate of return would be reasonable.

The jury were clearly entitled to accept the testimony of appellant's witnesses on the issue of *fair rate of return* as against the testimony offered by appellees' witnesses on the same issue. That this testimony when accepted by the jury would constitute clear, definite and satisfactory evidence of confiscation cannot be denied.

What we have said here is correct without regard to the decision that may be made concerning the alleged failure of appellant to properly segregate its

properties and business as between Oklahoma and Texas, or interstate and intrastate commerce. If the jury resolved the conflict in the testimony of these "equally well qualified experts" on the issue of fair return in favor of appellant, then the rate was shown by clear and satisfactory evidence to be confiscatory even on the basis of the commission's own findings as well as on the segregation of properties and operations sponsored by appellees' witnesses at the trial. A determination of the issue of fair rate of return in favor of the appellant would necessarily have determined in its favor the entire issue of confiscation under any possible view of the evidence.

Depreciation, Depletion and Amortization Reserve Accruals. The Court of Civil Appeals compares appellant's estimate of $3,465,123.36 with appellees' estimate of $831,946.08 for annual reserve accruals for depreciation, depletion and amortization. (V, R.. 3363.) It also compares appellant's estimate with the actual charges against the reserve for the years 1927 through 1933. Upon the basis of these comparisons it concludes that appellant's estimate is at war with experience and plainly excessive. It concludes that appellant's estimate was of no probative force. In making these comparisons, statements and conclusions, the court states that the commission made certain estimates. The court is here actually referring to appellees and not to the commission. The commission allowed $968,066.98 for annual reserve accruals, whereas appellees estimated only $831,946.08 for depreciation.

Appellant's estimate is based upon the straight line

method, the method employed by appellant over a period of approximately twenty-five (25) years in its reserve accrual accounting. (II, R. 1260.) The straight line method is quite generally used and preferred for properties with units of varying life such as those involved in this case. *Lindheimer vs. Illinois Bell Telephone Co., 292 U. S. 150; Clark's Ferry Bridge Company vs. Public Service Commission, 291 U. S. 227.*

The estimates of appellant and appellees are not comparable. The differences in methods employed call for different rates and different annual amounts. Appellees' witness testified that if he had employed the straight line method he would have used 4.205% of the reproduction cost new of the depreciable property and 3.09% of the total rate base (III, R. 1874) instead of 2.11% which he used under the sinking fund method. (III, R. 1843.)

The estimates are not comparable for other reasons. Appellees' estimate included nothing for depreciation and depletion on appellant's Texas production system properties. (III, R. 1795.) Appellees' estimate covers only the properties located in Texas, exclusive of the production properties, whereas appellant's estimate covers the integrated operating system. Appellant's estimate provides $146,000.00 per annum for depletion of gas reserves, (V, R. 3055, 3196), and $421,316.00 for depreciation of gas well construction and equipment. (V, R. 3141.) Appellees' estimate makes no provision for depletion and depreciation on this type of property, which is admittedly the most highly depreciable item of property in appellant's system. (III, R. 1874.) It

is clear, therefore, that without regard to the basic differences in the calculations between appellant and appellees, a comparison of their respective estimates for reserve accruals is unsound because appellees' estimate includes only a part of the integrated operating system, whereas appellant's estimate includes all of the property in the system.

The court's comparison of the actual charges against reserve with appellant's estimate and its conclusion that because the estimate exceeds the charges it is "speculative, at war with actual experience, and plainly excessive" is fallacious. It is an accepted fact that reserve accruals should consist of uniform charges against operating revenues to meet the impact of increasing and fluctuating costs of replacements, removals and abandonments of capital items used in the service. *Lindheimer vs. Illinois Bell Telephone Co., 292 U. S. 150.* In the case of natural gas reserves, wasting assets, the accruals must provide for final exhaustion thereof. *Columbus Gas & Fuel Company vs. Public Utilities Commission 292 U. S. 398.*

As respects appellant's property, it is important to bear in mind that it has had a rapid growth in recent years. At the date of inquiry it was not the same property that was in existence when charges against reserves were made in past years. It was a larger and newer property at the date of inquiry because of large extensions and additions in recent years. At the date of inquiry its weighted age was only twelve years. (Page 39, *supra.*) As the pipe lines and other depreciable property grow older, the mortalities occasioned by depreciation, depletion,

public requirements and changed operating conditions will increase. The Court of Civil Appeals failed to consider the special conditions of a growing plant; that there are plant groups in operation upon which depreciation is accruing, but which are not yet represented or are but slightly represented in the retirement losses. The court has failed to consider that "where, as in this instance, there has been a rapid growth, retirements at one point of time will relate for the most part to the smaller preceding plant, while the depreciation reserve account is currently building up to meet the 'increased eventual retirement liability' of the enlarged plant." *Lindheimer vs. Illinois Bell Telephone Co., 292 U. S. 150.*

If proper recognition be given to the fact that the rate of replacements, removals and abandonments in a property such as that under consideration increases with age and use, then it becomes apparent that an estimate of the average future rate of these occurrences can not properly be assumed to be "at war with realities" by reason of the fact that it exceeds the past rate of mortalities. It is axiomatic that the converse is true; that where a variable rate of occurrences which increase with age and use are involved an estimate of the future average rate that did not exceed the past rate would be contrary to the basic principle that the rate was an increasing variable.

Another reason why charges against the reserve are not comparable with appellant's accrual estimate is that the estimate provides for amortizing certain classes of property, whereas no charges have

been made against reserve for property which is still in service, but which is yearly approaching the end of its life and for which an amortization accrual must be currently made. Appellant's estimate includes $350,515.00 for amortization. (Exhibit 42, V, R. 3192.)

Appellant's estimate was predicated in every particular upon its actual experience from the beginning of operations, after giving effect to every factor which would tend to insure accuracy and after testing the accuracy of the conclusions reached by every available check. (Pages 37-39, *supra.*)

In the final analysis, the weight that should be given an estimate or determination of annual accruals for depreciation, depletion and amortization must largely depend upon the qualifications and experience of the individuals making the estimate, the extent and accuracy of the available historical data and the interpretation of the data and their application to the property. Appellant's witness Connor was well qualified and thoroughly experienced. He had access to and analyzed an impressive amount of historical data. (Pages 37-39, *supra.*) Appellees' estimate would have provided for only 61.8% of the removals and replacements actually made by appellant up to the date of trial. (III, R. 2000-2001.) If appellees' rate of accrual had been applied to the property in service each year prior to the date of inquiry, rather than the property in service at the date of inquiry, it would have been inadequate to meet actual requirements. (III, R. 2027-2033.) Appellees' estimate was admittedly inadequate to meet the calculated future mortalities

unless supplemented by the existence and use of a credit balance in reserve account at the date of inquiry of $5,000,000.00 for transmission lines alone. (III, R. 1861.)

It was for the jury to resolve the conflicting evidence on the subject and to weigh the opposing contentions and conflicts, and to pass upon the credibility of the witnesses. In doing so they had a right to reach a conclusion favorable to appellant. The evidence clearly supports such a conclusion. "The question of the amount which should be allowed annually for depreciation is a question of fact." *Clark's Ferry Bridge Company vs. Public Service Commission, 291 U. S. 227.* The jury had a right to say in the light of all the circumstances what amount should be allowed for annual reserve accruals. *Columbus Gas & Fuel Company vs. Public Utilities Commission of Ohio, 292 U. S. 398, 406.*

The amounts available for depreciation, depletion, Federal income tax and return under the 32 cent rate, after adjusting operating expenses in accordance with the findings of the commission, were: For the year 1931, $3,765,160.24; 1932, $3,908,663.51; 1933, $2,997,969.38; and the twelve-months period ended March 31, 1934, $3,191,162.50. (III, R. 2270-2271.) These figures eliminate controversial items of expenses. Management fees and other expenses eliminated by the commission have been eliminated in arriving at them. The jury may have accepted these figures. If they had agreed to the inclusion of expenses eliminated by the commission, the amounts available for depreciation, depletion, Federal income tax and return would have been less than is shown

by these figures. They are being used, however, for the purpose of demonstration.

The actual costs of the property are set out at pages 36-37, *supra*. These costs include nothing for cash working capital. The commission estimated cash working capital at $1,488,369.91. If this amount be added to the actual cost and the accrued depreciation be deducted therefrom as determined by appellant's experts, this determination as shown in appellant's Exhibit 34 (V, R. 3037) being undisputed and unchallenged, the following amounts would represent actual costs depreciated rate bases:

	Before Deducting Accrued Depreciation	Percent Condition of New	Actual Cost less Accrued Depreciation
12-31-31	$49,265,119.54	94.26	$46,437,301.67
12-31-32	51,522,801.61	94.26	48,565,392.79
12-31-33	51,325,395.97	94.26	48,379,318.23
3-31-34	51,361,131.00	94.26	48,413,002.08
Average	50,868,612.03	94.26	47,948,753.70

If the 5% annual rate for depreciation and depletion determined by appellant's expert be applied to the actual costs depreciated rate bases, it results in the following amounts for reserve accruals:

12-31-31	$2,321,865.08
12-31-32	2,428,269.64
12-31-33	2,418,965.91
3-31-34	2,420,650.10

If these amounts are deducted from the sums available for depreciation, depletion, Federal income tax and return shown above, there remains available

for Federal income tax and return on the depreciated actual costs rate bases the following percentages:

12-31-31	3.11%
12-31-32	3.05%
12-31-33	1.20%
3-31-34	1.59%

If the jury had accepted the testimony of appellees' expert that in estimating annual reserve accruals by the straight line method he would use 3.09% on the total property, both physical and non-physical, and this percentage had been applied to the actual costs depreciated rate bases, it would result in the following reserve accruals:

12-31-31	$1,434,912.62
12-31-32	1,500,670.64
12-31-33	1,494,920.93
3-31-34	1,495,961.76

After these amounts are deducted from the sums available for depreciation and return shown above, there remains available for return on the depreciated actual costs rate bases the following percentages:

12-31-31	5.02%
12-31-32	4.96%
12-31-33	3.11%
3-31-34	3.50%

If the jury had accepted appellant's reproduction cost new estimate for the physical properties in the amount of $60,054,589.57 and appellant's determination of their percent condition of new, which was the only evidence introduced on this point, they

would have found a present value of $55,809,205.16. (V, R. 3037.) This figure does not include preliminary and organization expense, working capital or going concern value. Adding to this figure, as the jury may well have done, the commission's allowance for preliminary and organization expense in the amount of $231,555,30, and cash working capital in the amount of $1,488,369.91 (I, R. 52), they would have arrived at a present value of $57,529,130.37, exclusive of going concern value.

Appellant's expert estimated this annual requirement at $3,465,123.36, or approximately 5% on the total value ascribed to the property by appellant. (Page 37, *supra.*) This estimate was based on the straight line method and requires a depreciated rate base. If the 5% be applied to $57,529,130.37 suggested above, which was determined after deducting accrued depreciation, $2,876,456.51 results. This amount should be deducted from the amounts shown above to be available for depreciation, depletion, Federal income tax and return. When this is done, the following amounts are available for Federal income tax and return on the rate base of $57,529,130.37:

12-31-31	1.54%
12-31-32	1.79%
12-31-33	.21%
3-31-34	.55%

On the other hand, the jury may have accepted the testimony of appellees' expert that in estimating annual reserve accruals by the straight line method 3.09% of the total property, both physical and non-physical, should be used. If this percentage be

applied to the rate base of $57,529,130.37, it results in an annual accrual of $1,777,650.12. The following amounts are available for return on the rate base of $57,529,130.37: 1931, 3.45%; 1932, 3.70%; 1933, 2.12%; and twelve-months period ended March 31, 1934, 2.46%.

Facts set out under statement of the evidence show that even if the jury had accepted the commission's findings as to the rate base, annual depreciation reserve accrual, and operating expenses, they would have found that the 32 cent rate yielded 5.56% for 1931, 5.76% for 1932, 3.97% for 1933, and 4.31% for the twelve months ended March 31, 1934, or an average of 4.89% for return. (Page 41, *supra.*) It is apparent from the foregoing illustrations that if the jury found that appellant was entitled to a higher annual reserve accrual than the commission allowed or a minimum rate of 6%, as the commission found, or a rate of 7% or 8% for return, they were bound to find, as they did find, that the order of the commission was confiscatory and unjust and unreasonable as to appellant.

2. The application of the rate to appellant's intrastate operations, as determined by its segregation.

The only objection which the Court of Civil Appeals leveled at appellant's segregation was directed to the asserted error in treating the transportation of gas through Line A as interstate commerce. We have shown that the court's view in this regard was erroneous. (Pages 65 *et seq, supra.*) Whatever appli-

cation the court's criticisms of appellant's evidence in relation to its integrated operating system may have to appellant's segregation has already been sufficiently answered in the foregoing discussion. It has been sufficiently demonstrated, we think, that, in the exercise of their power to blend and weigh the evidence, the jury had a right to conclude that the commission's order was unjust and unreasonable as to appellant and that the rate prescribed by the order was confiscatory if applied alone to appellant's intrastate property and business.

The return yielded under the 32 cent rate, when applied to appellant's intrastate property and business, was shown to be 4.65% on the actual cost and 3.78% on the fair value (exclusive of going concern value) of appellant's intrastate properties, for the year 1933, after allowing for reserve accruals at the commission's rate of 2% per annum. (Pages 43-44, *supra.)*

3. The application of the rate to appellant's Texas properties and operations as segregated by the appellees.

Appellees introduced no evidence in relation to appellant's integrated operating system. The evidence which they introduced at the trial was based upon a segregation of the property and business between Texas and Oklahoma. This segregation in the main was based upon the geographical location of the property. (For discussion of appellees' segregation, see pages 44-47, *supra.*)

Appellees' expert found a reproduction cost new of appellant's integrated operating system of

$53,005,251.39 at December 31, 1931. He allocated $47,355,114.77 of that amount to the Texas properties. (III, R. 1797.) This is approximately 89.34% of the total value. This appraisal was not introduced in evidence by appellees, but was used by appellant at the trial for impeachment purposes. The jury had a right to take this figure into consideration in determining the value of the Texas properties if they felt the segregation formula employed by appellees at the trial was reasonable and proper. At the trial of this case the same expert testified to an evaluation of $40,256,862.39, (Appellees' Ex. 6; III, R. 2143) for the Texas properties alone, as of June 15, 1934. There is a difference between the two evaluations made by the same alleged expert of over $7,000,000.00 for Texas properties. Appellees' Exhibit 4 shows that from January 1, 1932, to March 31, 1934, the net capital additions to public service property in Texas alone amounted to $1,500,843.28. (III, R. 2125.) Prices for material and labor were higher as of June 15, 1934, than at December 31, 1933, the date of appellees' appraisal in this case. Thus, it is patent that the value ascribed to the Texas property by appellees' expert at June 15, 1934, is inconsistent with his prior determination. The pertinent facts would indicate a higher value at the later date because of net capital additions and increases in material prices and labor rate. The jury may have taken into consideration the disparity between the two appraisals by the same alleged expert and they may have given more weight to his first than to his second appraisal.

In passing upon the weight to be given appellees' evaluation of the Texas property which they submitted in this case, the jury had a right to take into consideration the following additional facts in reaching their conclusion as to the value of the Texas properties. Appellees' alleged expert, who made the evaluation, used prices prevailing as of January 1, 1933. He admitted that the net increase in prices from January 1, 1933, to June 15, 1934, on transmission line equipment alone amounted to $1,269,688.28. His appraisal does not give effect to this increase. (III, R. 1745-1746.) The witness could not give a breakdown of his cost in respect of the pipe lines. (III, R. 1769-1770.) He relied on information furnished by contractors in respect of the cost of hand excavation. (III, R. 1771-1772.) He had never had any experience in welding pipe lines, (III, R. 1778) or laying threaded and coupled pipe. (III, R. 1776-1777.) His appraisal did not include appellant's gas wells, gas well equipment, gas leaseholds, gas reserve or other production system property. (III, R. 1795-1796.) His appraisal did not represent his independent judgment based upon experience. (III, R. 1760-1762.) He had had no actual experience in designing, constructing or operating properties such as were included in his appraisal. (III, R. 1735, 1775-1776.) He had had no experience in laying natural gas pipe lines. (III, R. 1762.) The excavation costs which he used in preparing the appraisal were based on $.375 per cubic yard for machine excavation, whereas appellant's actual costs for machine excavation amounted to $.4646 per cubic yard. (III, R. 1923; Appel-

lant's Ex. 47, V, R. 3317.) Appellant's excavation costs were based on a labor rate of 35 cents per hour, whereas the rate prevailing at the date of inquiry was 40 cents per hour. (III, R. 1923-28.) The overhead or collateral construction costs applied in appellees' appraisal amounted to approximately 11.8%, (III, R. 2023), whereas experience shows such costs to run approximately 18%. (III, R. 2010.) The excavation costs used by appellees were 36.4% under excavation costs experienced by appellant. (Appellant's Ex. 47, V, R. 3317; III, R. 1925, et seq.)

The production system properties in Texas and which appellees eliminated from their appraisal in this case had an actual cost of $5,191,539.42. Not only were these properties eliminated from the appraisal, but the expenses incurred in their operation were also eliminated; and no sum was provided for depreciation and depletion thereon in the exhibit upon which appellees attempted to support the commission's order. The effect of these eliminations is discussed under the statement of the evidence, pages 46-50, *supra*.

The undisputed evidence showed the Texas production system properties to be used and useful in the Texas public service. (III, R. 2060.) Under the court's charge the jury were required to consider these properties in determining the rate base. The court instructed them that by the term "used and useful" was meant property of appellant's actually being used in the *production*, transportation, delivery and sale of natural gas to its customers. (Page 121, *supra*.) If the production system prop-

erties in Texas be added to appellant's appraisal at actual cost, it will result in a total value of $45,448,401.81. The jury could have properly adopted this figure as the rate base for Texas properties.

Appellee's witness testified that the actual cost of the Texas properties, as reflected by appellant's books, was $44,053,612.30 (Page 46, *supra*), exclusive of cash working capital, material and supplies, or going concern value. Appellees' appraisal included $1,289,000.00 for working capital on the Texas properties. (III, R. 2143.) If this sum be added to the actual cost, it results in a total of $45,342,612.30, exclusive of going concern value. Appellees' expert testified that $831,946.08 was a proper amount for annual depreciation reserve accruals. After correcting an error in his calculations, this amount was increased $16,600.00 (III, R. 1843), making a total of $848,546.08.

Appellees' estimate did not include any allowance for depreciation or depletion on the production system property. Appellees' witness testified that approximately $94,000.00 per annum should be allowed for this purpose. (III, R. 1913.) This makes a total annual reserve accrual on the basis of appellees' testimony, including the production system properties, of $942,546.08, which is 2.07% on appellees' appraisal, plus production system properties at cost. The jury may have accepted this figure. However, the jury may have accepted any of the other higher figures that we have heretofore referred to in discussing this subject.

The results obtained by blending appellees' evidence, to which we have just referred, are thus shown: The only exhibit relied on by appellees to show that the commission's order was reasonable and the rate prescribed thereby compensatory, was their Exhibit 8. (III, R. 2163-2174.) This exhibit shows $3,420,665.19 for the year 1933, and $3,608,172.77 for the twelve months ended March 31, 1934, available for depreciation, Federal taxes and return on the Texas properties under the 32 cent rate. These amounts were obtained by taking the actual revenues derived from Texas operations under the 40 cent rate as shown in appellees' Exhibit 4, and deducting therefrom the reduction occasioned by application of the 32 cent rate. The operating expenses used in this exhibit cover Texas operations only. None of the production system expenses are included. (III, R. 1903-1904.) The production system expenses amounted to $232,758.70 for 1933, and $222,752.66 for the twelve months ended March 31, 1934. (III, R. 2116-A.) After accounting for the production system expenses, there remained $3,187,906.49 for the year 1933, and $3,385,420.11 for the twelve months ended March 31, 1934, to provide for depreciation, Federal taxes and return. If the amount estimated by appellees' experts for depreciation and depletion reserve accruals be deducted from these amounts, there remains available for Federal taxes and return $2,245,360.41 for the year 1933, and $2,442,874.03 for the twelve months ended March 31, 1934.

Appellees estimated Federal income tax requirements for Texas operations alone at $96,073.64 for

1933, and $97,534.45 for the twelve months ended March 31, 1934. (Appellees' Ex. 8, III, R. 2174.) After deducting these amounts for Federal income taxes, there remains available for return $2,149,286.77 for 1933, and $2,345,339.58 for the twelve-months period ended March 31, 1934. In determining the weight to be given appellees' estimate for annual reserve accruals, the jury may have taken into consideration that the estimate was based upon the sinking fund method and presupposed the existence and use of a credit balance in the reserve account of $5,000,000.00 at the date of inquiry for transmission lines alone. (III, R. 1860-1861.) (Page 48, *supra.*)

When expressed as a percentage of a rate base determined by (1) taking appellees' appraisal of the Texas properties and adding the production system properties, and (2) a rate base determined by using the actual cost of the Texas properties plus cash working capital, the following is shown: (1) On the appraisal: 4.73% for the year 1933, and 5.16% for the twelve months ended March 31, 1934, for return; and (2) On basis of actual cost 4.74% for the year 1933, and 5.17% for the twelve months ended March 31, 1934, for return.

4. The application of the rate to appellant's Texas properties and operations, these properties being identified by applying appellees' formula of segregation to the entire integrated operating system; and discussion of the application of the rate to various bases of fact supported by the record.

The following computations are based on the finding of the Court of Civil Appeals that 85% of appellant's property is located in Texas. (V, R. 3337.) This finding conforms to appellees' segregation of the property between Texas and Oklahoma public service, appellees having determined that approximately 85% of the physical property is located in Texas. (III, R. 1748-1749.) Operating revenues and expenses have been allocated to Texas public service on the basis set up and used by appellees in their Exhibit 4. (III, R. 2116-A.)

Gross revenues under the 32¢ rate for Texas operations only have been determined by applying the 32¢ rate to the gas sales at Texas city gates, shown in Appellees' Exhibit 4. Expenses for the Texas operation alone have been taken from Appellees' Exhibit 4. In this manner the net amounts available for Federal income tax, depreciation, depletion and return for Texas operations alone were determined to be as follows:

12-31-31	$3,451,191.26
12-31-32	3,604,611.08
12-31-33	3,114,869.32
3-31-34	3,310,034.06

The depreciated actual book cost for the integrated operating system have heretofore been shown. (Page 155, *supra.*) Application of the finding that 85% of the property is located in Texas, gives a depreciated actual book cost for Texas properties of:

12-31-31	$39,471,706.42
12-31-32	41,280,583.87
12-31-33	41,122,420.50
3-31-34	41,151,051.77

If the 5% rate estimated by appellant's witness Connor for annual reserve accruals be applied to these depreciated book costs and deducted from revenues, the following percentages remain available for Federal income tax and return on Texas operations:

12-31-31	3.74%
12-31-32	3.73%
12-31-33	2.57%
3-31-34	3.04%

If the 3.09% estimated by appellees' witness for reserve accruals on the straight line method be applied to the depreciated book costs for the Texas properties, the following percentages remain available for Federal income tax and return on Texas operations:

12-31-31	5.65%
12-31-32	5.64%
12-31-33	4.48%
3-31-34	4.95%

We have heretofore shown that by taking appellant's determination of the fair value of the physical properties only in the integrated operating system and accepting the commission's findings for preliminary and organization expense and cash working capital on these properties, it results in a fair

value of $57,529,130.37, exclusive of going concern value. (Pages 156-7, *supra.*)

If the 85% factor be applied to this figure, it results in $48,899,760.81 for the fair value of the Texas properties only.

After applying the 5% rate estimated by appellant's witness for depreciation, depletion and amortization to these amounts, there remains available for Federal income tax and return on Texas operations the following percentages:

12-31-31	2.06%
12-31-32	2.37%
12-31-33	1.37%
3-31-34	1.77%

If the estimate of appellees' expert of 3.09% for depreciation, depletion and amortization be applied, there remains available for Federal income tax and return on Texas operations, the following percentages:

12-31-31	3.97%
12-31-32	4.28%
12-31-33	3.28%
3-31-34	3.68%

If the 85% factor be applied to appellant's determination of fair value for the integrated operating system in the amount of $69,738,021.16, it results in $59,277,317.99 for the fair value of the Texas property.

After applying appellant's estimate of 5% for annual depreciation reserve accruals, the following

percentages remain available for return on Texas operations:

12-31-31	.82%
12-31-32	1.08%
12-31-33	.25%
3-31-34	.58%

If the estimate of appellees' expert of 3.09% for depreciation, depletion and amortization reserve accruals be applied, the following percentages remain available for Federal income tax and return on Texas operations:

12-31-31	2.73%
12-31-32	2.99%
12-31-33	2.16%
3-31-34	2.49%

The foregoing computations exhibit reasonable and supportable blendings of the evidence that the triers of fact in any court empowered to adequately review the rate order might have applied to the evidence after determining the credibility of the witnesses and the weight to be given to their testimony. Thus we think it is clearly demonstrated that there was evidence in the record that the triers of fact in the District Court were entitled to credit and accept as constituting clear and satisfactory proof that the rate was confiscatory. If we be correct as to this, then their finding should stand. If it is not permitted to stand, then the decision to that effect must be based upon the rule announced by the Court of Civil Appeals denying the right of any court re-

viewing a rate order to settle conflicts in the evidence relating to matters and issues vitally affecting any correct decision of the issue of confiscation.

VII.

The judgment of the Court of Civil Appeals sustaining the rate order, challenged by appellant as being repugnant to the Constitution of the United States, should be reversed and the rate order adjudged to be void.

Respectfully submitted,

ROY C. COFFEE,
MARSHALL NEWCOMB,
OGDEN K. SHANNON,
BEN H. POWELL,
CHARLES L. BLACK,
Counsel for Appellant.

APPENDIX A.

(These articles are extracted from Texas Revised Civil Statutes, 1925.)

Art. 6053. Regulation of utilities.—The Commission after due notice shall fix and establish and enforce the adequate and reasonable price of gas and fair and reasonable rates of charges and regulations for transporting, producing, distributing, buying, selling and delivering gas by such pipe lines in this State; and shall establish fair and equitable rules and regulations for the full control and supervision of said gas pipe lines and all their holdings pertaining to the gas business in all their relations to the public, as the Commission may from time to time deem proper; and establish a fair and equitable division of the proceeds of the sale of gas between the companies transporting or producing the gas and the companies distributing or selling it; and prescribe and enforce rules and regulations for the government and control of such pipe lines in respect to their gas pipe lines and producing, receiving, transporting and distributing facilities; and regulate and apportion the supply of gas between towns, cities, and corporations, and when the supply of gas controlled by any gas pipe line shall be inadequate, the Commission shall prescribe fair and reasonable rules and regulations requiring such gas pipe lines to augment their supply of gas, when in the judgment of the Commission it is practicable to do so; and it shall exercise its power, whether upon its own motion or upon petition by any person, corporation,

municipal corporation, county, or commissioner's precinct showing a substantial interest in the subject, or upon petition of the Attorney General, or of any county or district attorney in any county wherein such business or any part thereof may be carried on.

Art. 6054. Orders, etc., reviewed.—All orders and agreements of any company or corporation, or any person or persons controlling such pipe lines establishing and prescribing prices, rates, rules and regulations and conditions of service, shall be subject to review, revision and regulation by the Commission on hearing after notice as provided for herein to the person, firm, corporation, partnership or joint stock association owning or controlling or operating the gas pipe line affected.

Art. 6059. Appeal from orders.—If any gas utility or other party at interest be dissatisfied with the decision of any rate, classification, rule, charge order, act or regulation adopted by the Commission, such dissatisfied utility or party may file a petition setting forth the particular cause of objection thereto in a court of competent jurisdiction in Travis County against the Commission as defendant. Said action shall have precedence over all other causes on the docket of a different nature and shall be tried and determined as other civil causes in said court. Either party to said action may have the right of appeal; and said appeal shall be at once returnable to the appellate court, and said action so appealed shall have precedence in said appellate court of all causes of a different character therein pending. If the court

be in session at the time such right of action accrues, the suit may be filed during such term and stand ready for trial after ten days notice. In all trials under this article the burden of proof shall rest upon the plaintiff, who must show by clear and satisfactory evidence that the rates, regulations, orders, classifications, acts or charges complained of are unreasonable and unjust to it or them.

Art. 1119. Rates prescribed, etc.—The governing body of all cities and towns in this State of over two thousand population, incorporated under the general laws thereof, shall have the power to regulate, by ordinance, the rates and compensation to be charged by all water, gas, light and sewer companies, corporations or persons using the streets and public grounds of said city or town, and engaged in furnishing water, gas, light or sewerage service to the public, and also to prescribe rules and regulations under which such commodities shall be furnished, and service rendered, and to fix penalties to enforce such charges, rules and regulations. The governing body shall not prescribe any rate or compensation which will yield less than ten per cent per annum net on the actual costs of the physical properties, equipment and betterments.

LONE STAR GAS CO.
PIPE LINE SYSTEM
LEGEND
WHEELER CO. TEXAS
SHAMROCK FIELD
PURCHASED & PRODUCED
6 448 138 M C F
(PART OF TEXAS PANHANDLE FIELD)
OKLAHOMA
TEXAS
LINE "A"
OKLAHOMA-TEXAS STATE LINE
HOLLIS
206 258 M C F
SNYDER
13 610 M C F
Line "A-1"
TIPTON
24 080 M C F
MANITOU
2 977 M C F
FREDERICK
75 756 M C F
DAVIDSON
6 474 M C F
MISCELLANEOUS
34 964 M C F
WEST TEXAS UTIL
1 713 035 M C F
CHILLICOTHE
27 845 M C F
TOLBERT
607 M C F
VERNON
35 414 M C F
OKLAUNION
4 458 M C F
HARROLD
3 753 M C F
ELECTRA
15 750 M C F
SHASTA OIL CO
139 107 M C F
IOWA PARK
24 341 M C F
WICHITA FALLS
672 149 M C F
MOUNTAIN PARK
4 880 M C F
LINE H & 2ND H
GAS CITY COM STA
27 764 M C F
CHICKASHA FIELD
PURCHASED & PRODUCED
734 629 M C F
DUNCAN FIELD
PURCHASED & PRODUCED
54 312 M C F
WALTERS
36 177 M C F
TEMPLE
22 077 M C F
MISC
18 641 M C F
HASTINGS
3 974 M C F
WAURIKA
35 730 M C F
BYERS
12 181 M C F
RYAN
32 120 M C F
PETROLIA
11 604 M C F
HENRIETTA
NET DEL AT PETROLIA 588 673 M C F
(LINES "H" & 2ND H)
NET DEL AT PETROLIA
3 381 496 M C F
(LINE A)
BELLEVUE
BOWIE
SUNSET
ALVORD
DECATUR
BRIDGEPORT
NEWARK
RHOME
SAGINAW
FT WORTH
DALLAS
PURCELL
MAYSVILLE
WYNNEWOOD
SULPHUR
LINE "G"
MARIETTA
DURANT
86 787 M C F
CADDO
5 231 M C F
Line "E-5"
Line "E-16"
ACHILLE
3 682 M C F
HUGO
40 590 M C F
GAINESVILLE
DENISON
SHERMAN
Line "E"
PARIS
TIOGA
McKINNEY
DENTON
SULPHUR SPRINGS
GREENVILLE
TERRELL
ATHENS
CORSICANA
MEXIA
WACO
CLEBURNE
GATESVILLE
ROSEBUD
CAMERON
COLLEGE STATION
ROUND ROCK
HAMILTON
VALLEY MILLS
SNYDER
ALBANY
ABILENE
SWEETWATER
COLORADO
CISCO
LAWN
WINTERS
BALLINGER

BLANK

PAGE

FILE COPY

Office - Supreme Court, U. S.
FILED
MAR 9 1938
CHARLES ELMORE CROPLEY

SUPREME COURT OF THE UNITED STATES

October Term, 1937

No. 313

LONE STAR GAS COMPANY, *Appellant*,

v.

STATE OF TEXAS, ET AL., *Appellees*

Appeal from the Court of Civil Appeals, Third Supreme Judicial District of Texas

APPELLANT'S BRIEF OPPOSING APPELLEES' MOTION TO DISMISS

ROY C. COFFEE,
MARSHALL NEWCOMB,
OGDEN K. SHANNON,
BEN H. POWELL,
CHARLES L. BLACK,
Counsel for Appellant.

BLANK

PAGE

SUBJECT INDEX.

	Pages
1. The Question Raised by the Motion Has Been Settled by Prior Decisions of This Court	1-6
2. The Order Refusing Application for Writ of Error Does Not Appear "on the Face of the Record" to Be a Judgment of the Supreme Court of Texas on the Merits	7-12
3. The Court of Civil Appeals Has the Record and for That Reason the Appeal Was Properly Taken From That Court	12-14
4. Under the State Law an Order of the Supreme Court Refusing Writ of Error Is Not a Judgment Disposing of the Case on Its Merits	14-24
5. Appendix	25-28

AUTHORITIES.

	Pages
Texas Constitution:	
Article I, Section 2	15
Texas Statutes:	
Article 1728, Section 6, R. S. 1925	9, 19, 20
Article 1739, R. S. 1925	25
Article 1740, R. S. 1925	25
Article 1743, R. S. 1925	13, 25
Article 1748, R. S. 1925	26
Article 1750, R. S. 1925	18, 27
Article 1756, R. S. 1925	19, 28
Article 1773, R. S. 1925	19
Article 1864, R. S. 1925	18, 19, 28
Sec. 1, Ch. 2, Acts 5th Called Session, 41st Leg., p. 112	16, 26
Sec. 5, Ch. 2, Acts 5th Called Session, 41st Leg., p. 113	16, 26
List of Cases:	
Adams v. Saenger, No. 197, October Term, 1937	20
American Railway Express Co. v. Levee, 263 U. S. 19, 21	8, 10
Atherton v. Fowler, 91 U. S. 143, 146	13
A. T. & S. F. Ry. Co. v. Sowers, 213 U. S. 55	3
Bacon v. State, 168 U. S. 207	2
Barwise, et al, Trustees, v. Sheppard, 299 U. S. 33	4
Brackenridge v. Cobb, 85 Texas 448	20
Carey v. Looney, 113 Texas 93	23
City National Bank v. El Paso & N. E. R. Co., 262 U. S. 695	4
Cobb Brick Co. v. Lindsay, 275 U. S. 491	4
Danciger & Emerick Oil Co. v. Smith, 276 U. S. 542	4
Downman v. Texas, 231 U. S. 353	3
Gaar, Scott & Co. v. Shannon, 233 U. S. 468	3
G. H. & S. A. Ry. Co. v. Crow, 223 U. S. 481	3
G. H. & S. A. Ry. Co. v. Wallace, 223 U. S. 481	3
Gammel-Statesman Publishing Co. v. Ben C. Jones & Co., 206 S. W. 931	5, 21
Gatz v. City of Kerrville, 121 Texas 92, 93	15, 17, 19

	Pages
Greer County v. Texas, 197 U. S. 235	3
G. C. & S. F. Ry. Co. v. McGinnis, 228 U. S. 173	3
G. C. & S. F. Ry Co. v. Texas, 246 U. S. 58, same case, 107 Texas 544	4, 9, 10
G. C. & S. F. Ry. Co. v. Texas Packing Co., 244 U. S. 31	3
G. C. & S. F. Ry. Co. v. Vasbinder, 245 U. S. 635	4
Hart v. West, 92 Texas 416	12
Hodges v. Snyder, 261 U. S. 600	13
H. & T. C. Ry. Co. v. Mayes, 201 U. S. 321	3
I. & G. N. R. Co. v. Anderson County, 246 U. S. 424	4
I-G. N. R. Co. v. R. R. Comm., 275 U. S. 503	4
Knights of Pythias v. Mims, 241 U. S. 574	3
Lee v. Johnson, 116 U. S. 48, 49	13
Louisiana Nav. Co. v. Oyster Comm., 226 U. S. 99, 101	9
McDonald v. Massachusetts, 180 U. S. 311, 312	13
M. K. & T. Ry. Co. v. Bailey, 220 U. S. 608	3
M. K. & T. Ry. Co. v. Cassady, 242 U. S. 611	3, 9
M. K. & T. Ry. Co. v. Ferris, 179 U. S. 602	3
M. K. & T. Ry. Co. v. Harriman, 227 U. S. 657	3
M. K. & T. Ry. Co. v. Richardson, 220 U. S. 601	3
M. K. & T. Ry. Co. v. Texas, 245 U. S. 484, same case, 107 Texas 540	4, 9
M. K. & T. Ry. Co. v. Texas, 275 U. S. 494	4, 10
M. K. & T. Ry. Co. v. Ward, 244 U. S. 383	3
Morgan's La. & T. R. & S. S. Co. v. Street, 217 U. S. 599	3
Norfolk & Suburban Turnpike Co. v. Virginia, 225 U. S. 264, 269	7, 8, 11
Pacific Exp. Co. v. Rudman, 234 U. S. 752	3
Pardee v. Aldridge, 189 U. S. 429	3
Paris & Gt. North. R. Co. v. Boston, 231 U. S. 742	3
Polleys v. Black River Imp. Co., 113 U. S. 81	13
Roller v. Holly, 176 U. S. 398	3
St. L. S. F. & T. Ry. Co. v. Seale, 229 U. S. 156	3, 5, 7
St. L. S. F. & T. Ry. Co. v. Smith, 243 U. S. 630	3
S. A. & A. P. Ry. Co. v. Blair, 108 S. W. 434, 438, 439	14, 16, 17, 19
S. A. & A. P. Ry. Co. v. Waggoner, 241 U. S. 476	3
Sioux Remedy Co. v. Cope, 235 U. S. 197, 200	13
Smith v. St. L. & S. W. Ry. Co., 181 U. S. 248	3
Southern Pac. Co. v. Berkshire, 254 U. S. 415	4
Stanley v. Schwalby, 162 U. S. 255 (1895)	2, 13-14

	Pages
Stephens County v. Mid-Kansas Oil & Gas Co., 113 Texas 160, 167	23
T. & N. O. R. Co. v. Gross, 221 U. S. 417	3
T. & N. O. R. Co. v. Miller, 221 U. S. 408	3
Texas & N. O. R. Co. v. Neill, 301 U. S. 674 (granting certiorari); same case, 128 Texas 580, 100 S. W. (2d) 348	4, 9
T. & N. O. R. Co. v. Sabine Tram Co., 227 U. S. 111	3
T. & P. R. Co. v. Guidry, 280 U. S. 531	4
United Gas Public Service Co. v. Texas (the Laredo gas case), 301 U. S. 667 (overruling motion to dismiss appeal)	4, 5, 7
Van Huffel v. Harkelrode, 284 U. S. 225, 230	14
Virginia Railway Co. v. Mullins, 271 U. S. 221, 222	8
Waggoner v. Flack, 188 U. S. 595	3
Waters-Pierce Oil Co. v. Texas, 177 U. S. 28	3
Waters-Pierce Oil Co. v. Texas, 212 U. S. 86	3
Weatherly v. Jackson, 128 Texas 213	23
Western Union Tel. Co. v. Crovo, 220 U. S. 364, 366	8
Western Union Tel. Co. v. Priester, 276 U. S. 252	8
York Mfg. Co. v. Colley, 247 U. S. 21	4
Zucht v. King, 260 U. S. 174	6

SUPREME COURT OF THE UNITED STATES

October Term, 1937

No. 313

LONE STAR GAS COMPANY, *Appellant*,

v.

STATE OF TEXAS, ET AL., *Appellees*

Appeal from the Court of Civil Appeals, Third Supreme Judicial District of Texas

---

APPELLANT'S BRIEF OPPOSING APPELLEES' MOTION TO DISMISS

I.

The Question Raised by the Motion Has Been Settled By Prior Decisions of this Court.

The motion to dismiss is grounded, in main, upon the statement (p. 9) that "the rule observed by this Court in appeals from Texas is in direct conflict with its rule observed in appeals from the State of Ohio,

and perhaps other states." Appellees have accurately stated that the Court has observed a rule in cases brought up from Texas. They concede that the action of the Court in allowing the appeal in this case accords with that rule. That explains the absence of reference by them to any case decided by this Court originating in Texas. Indeed, they say (p. 9) "that the Court has, in several instances, retained jurisdiction of appeals prosecuted from our Courts of Civil Appeals in the circumstances here involved." The statement is a conservative one.

As showing that the rule applicable to cases coming from Texas is more firmly established than is indicated by the above statement, we give below a list of cases that have come to this Court directly from Courts of Civil Appeals of Texas after the Supreme Court of Texas had refused writ of error. We do not list the larger number of cases in which certiorari has been denied, not dismissed. The list does not include any case in which petition for writ of error has been dismissed by the Supreme Court of Texas, for want of jurisdiction, or otherwise.

We hardly see how uniformity may be achieved by dismissing an appeal that has been brought here from Texas in conformity with a test of jurisdiction that has been applied to Texas cases invariably since 1893, as witness the following cases:

Stanley v. Schwalby, 162 U. S. 255;*
Bacon v. Texas, 163 U. S. 207;

---

*This was the first case, thus originating, to be decided by this Court but it was in fact the second case brought to this Court directly from a Texas Court of Civil Appeals. The first case was *Bacon v. Texas, supra*, in which the Court

Roller v. Holly, 176 U. S. 398;
Waters-Pierce Oil Co. v. Texas, 177 U. S. 28;
M. K. & T. Ry. Co. v. Ferris, 179 U. S. 602;
Smith v. St. L. & S. W. Ry. Co., 181 U. S. 248;
Waggoner v. Flack, 188 U. S. 595;
Pardee v. Aldridge, 189 U. S. 429;
Greer County v. Texas, 197 U. S. 235;
H. & T. C. Ry. Co. v. Mayes, 201 U. S. 321;
Waters-Pierce Oil Co. v. Texas, 212 U. S. 86;
A. T. & S. F. Ry. Co. v. Sowers, 213 U. S. 55;
Morgan's La. & T. R. & S. S. Co. v. Street, 217 U. S. 599;
M. K. & T. Ry. Co. v. Bailey, 220 U. S. 608;
M. K. & T. Ry. Co. v. Richardson, 220 U. S. 601;
T. & N. O. R. Co. v. Gross, 221 U. S. 417;
T. & N. O. R. Co. v. Miller, 221 U. S. 408;
Gaar, Scott & Co. v. Shannon, 223 U. S. 468;
G. H. & S. A. Ry. Co. v. Crow, 223 U. S. 481;
G. H. & S. A. Ry. Co. v. Wallace, 223 U. S. 481;
T. & N. O. R. Co. v. Sabine Tram Co., 227 U. S. 111;
M. K. & T. Ry. Co. v. Harriman, 227 U. S. 657;
G. C. & S. F. Ry. Co. v. McGinnis, 228 U. S. 173;
St. L. S. F. & T. Ry. Co. v. Seale, 229 U. S. 156;
Downman v. Texas, 231 U. S. 353;
Paris & Gt. North. R. Co. v. Boston, 231 U. S. 742;
Pacific Exp. Co. v. Rudman, 234 U. S. 752;
S. A. & A. P. R. Co. v. Waggoner, 241 U. S. 476;
Knights of Pythias vs. Mims, 241 U. S. 574;
M. K. & T. Ry. Co. v. Cassady, 242 U. S. 611;
St. L. S. F. & T. Ry. Co. v. Smith, 243 U. S. 630;
M. K. & T. Ry. Co. v. Ward, 244 U. S. 383;
G. C. & S. F. Ry. Co. v. Texas Packing Co., 244 U. S. 31;

---

reviewed a case from a Texas Court of Civil Appeals decided in the State court on December 6, 1892, within four months of the date of organization of the Courts of Civil Appeals pursuant to amendment of the Texas Constitution and enabling legislation of that year.

G. C. & S. F. Ry. Co. v. Vasbinder, 245 U. S. 635;
M. K. & T. R. Co. v. Texas, 245 U. S. 484;
G. C. & S. F. Ry. Co. v. Texas, 246 U. S. 58;
I. & G. N. R. Co. v. Anderson County, 246 U. S. 424;
York Mfg. Co. v. Colley, 247 U. S. 21;
Southern Pac. Co. v. Berkshire, 254 U. S. 415;
City Nat. Bank v. El Paso & N. E. R. Co., 262 U. S. 695;
Cobb Brick Co. v. Lindsay, 275 U. S. 491;
I-G. N. R. Co. v. R. R. Comm., 275 U. S. 503;
M. K. & T. R. Co. v. Texas, 275 U. S. 494;
Danciger & Emerick Oil Co. v. Smith, 276 U. S. 542;
T. & P. R. Co. v. Guidry, 280 U. S. 531;
Barwise, et al, Trustees, v. Sheppard, 299 U. S. 33;
Texas & N. O. R. Co. v. Neill, 301 U. S. 674 (granting certiorari);
United Gas Public Service Co. v. Texas (the Laredo Gas case), 301 U. S. 667 (overruling motion to dismiss appeal).

At the last term of this Court two similar motions to dismiss cases, appealed directly to this Court from Courts of Civil Appeals after the Supreme Court of Texas had refused a writ of error, were filed and overruled. *United Gas Public Service Co. v. State of Texas* (the Laredo gas rate case), 301 U. S. 667, and *Texas & New Orleans R. R. Co. v. Neill*, 301 U. S. 674 (certiorari granted).* These

*Motion to dismiss this case was overruled by this Court on June 1, 1937. We are unable to find any report of the Court's order overruling the motion. After hearing argument the writ of certiorari was dismissed on October 25, 1937, because the only substantial question involved was one of local practice.

motions were based upon the grounds now presented by appellees and were supported by the same points of argument. The Texas statutes were elaborately reviewed. The statutory change affecting the Supreme Court of Texas, made in 1927, was greatly emphasized. In the Laredo case the Court was furnished a printed copy of the opinion of the Commission of Appeals of Texas in *Gammel-Statesman Publishing Co.* v. *Ben C. Jones & Company*—the same opinion that is attached to the present motion. The motion in the Laredo case was filed by the counsel presenting the present motion. And in the present motion (p. 9) it is admitted that the question raised was "briefed somewhat more in detail on both sides" in the Laredo case.

The Court's decision *per curiam* on the motion filed in the Laredo case is quoted:

"No. 807. UNITED GAS PUBLIC SERVICE CO. v. TEXAS ET AL. Appeal from the Court of Civil Appeals, Third Supreme Judicial District, of Texas. May 17, 1937. The motion of the appellee to dismiss the appeal is denied. *Norfolk Turnpike Co.* v. *Virginia*, 225 U. S. 264, 269; *Second National Bank* v. *First National Bank*, 242 U. S. 600, 602; *Western Union* v. *Priester*, 276 U. S. 252, 258." (301 U. S. 667, Preliminary Print).

A similar motion to dismiss was made and overruled in 1913 in *St. L. S. F. & T. R. Co. v. Seale*, 229 U. S. 156, 157, as being "plainly untenable."

It would seem that in discharging the responsibility that rested upon counsel for appellant, in attempting to determine from what court the appeal

should be taken, they would hardly have been warranted in disregarding the authoritative precedents, as found in the decisions of this Court in cases thus brought here from Texas. And, in view of the guide furnished by the decisions of this Court reviewing final judgments of the Courts of Civil Appeals, in which writs of error had been refused by the Supreme Court of Texas, we submit that it is beside the point to inquire whether the established practice in cases brought to this Court from "Ohio and perhaps other states" is consistent or inconsistent with that in respect of cases coming from Texas. This consideration derives added force from the circumstance, naturally deemed significant, that among the cases referred to by this Court in its Rules of Court is one that was brought here by writ of error directed to a Texas Court of Civil Appeals after the Supreme Court of Texas had refused writ of error. (Amended Rule 12, 297 U. S. 733, citing *Zucht v. King*, 260 U. S. 174.) That the writ of error in that case was ultimately dismissed by this Court for the want of a substantial Federal question does not detract from, but rather adds force to, the point now made. It indicates that the question of jurisdiction was carefully considered by the Court. It is hardly to be supposed that the Court would have been silent in respect of the point now advanced by the appellees if the Court had then been of the view that it made against jurisdiction. The question of jurisdiction was rendered even more conspicuous by the circumstance that a writ of certiorari had previously been dismissed in the case for failure to comply with the rules of court.

II.

The Order Refusing Application for Writ of Error Does Not Appear "on the Face of the Record" To Be a Judgment of the Supreme Court of Texas on the Merits.

The motion to dismiss invites this Court to go into the intricacies of the State law to determine the nature of the action taken by the Supreme Court in refusing the application for writ of error. The Court has many times held that it will not do this. The settled rule, from which there has been no departure, is that announced in *Norfolk & Suburban Turnpike Co. v. Virginia*, 225 U. S. 264, 269. It was there held that where the court of last resort of a State declines to allow a writ of error or an appeal from a lower State court, this Court will not treat such action as an affirmance on the merits of the judgment or decree of the court below except where this plainly appears "on the face of the record * * * * in express terms of the judgment or decree sought to be reviewed."

The rule there declared was announced as a rule "for the guidance of suitors in the future." (229 U. S. 269.) It has been consistently applied to cases coming to this Court from Texas. The Norfolk & Suburban Turnpike Company case was cited as applicable authority in overruling the motion to dismiss in *St. L. S. F. & T. Ry. Co. v. Seale*, 229 U. S. 156; and in overruling the motion to dismiss *United Gas Public Service Co. v. Texas*, 301 U. S. 667 (Preliminary Print).

The rule announced in the Norfolk & Suburban Turnpike Company case was reaffirmed and restated in *Louisiana Nav. Co. Oyster Comm.*, 226 U. S. 99, 101, decided at the next term of the Court. In that case it was declared that, "this court cannot for the purpose of determining whether its reviewing power exists be called upon to disregard the form of the judgment in order to ascertain whether a judgment which is in form not final might by applying the state law be treated as final in character." And it was further declared that "the confusion and contradiction which inevitably arose from resorting to the state law for the purpose of converting a judgment not on its face final into one final in character was the dominating reason leading to the establishment of the principle that the form of the judgment was controlling for the purpose of ascertaining its finality. *Norfolk Turnpike Co. v. Virginia*, 225 U. S. 264, 268."

In *Western Union Tel. Co. v. Priester*, 276 U. S. 252, the Court granted a writ of certiorari to an Alabama intermediate appellate court because "the Supreme Court of Alabama, by denying the petition for certiorari, on the face of the record did not pass on the merits."

The fact that a State Supreme Court may state, as a reason for its refusal to review the judgment or decree of a lower State court, that it believes that the decision of the lower court is correct does not "take from the refusal its ostensible character of declining jurisdiction." *American Railway Express Co. v. Levee*, 263 U. S. 19, 21; *Western Union Tel. Co. v. Crovo*, 220 U. S. 364, 366; *Virginia Railway Co. v. Mullins*, 271 U. S. 221, 222.

If this Court should now decide (*Louisiana Nav. Co. v. Oyster Comm.*, 226 U. S. 99, 101, and the other cases referred to, to the contrary) to test the question by importing into the face of the record the provisions of the Texas statute (Article 1728), the Court of Civil Appeals would nevertheless remain the highest court of the State that could decide this case. The play of the statute upon the order refusing the writ can hardly be regarded as a higher token of approval than would be an accompanying opinion of the Supreme Court in terms declaring that the application was refused because the court believed that the decision below was correct. This Court has repeatedly taken jurisdiction of cases coming directly from the Courts of Civil Appeals where the Texas Supreme Court has accompanied its order of refusal by an opinion stating its reasons for refusing to review the case and showing its concurrence with the views of the court below. The following cases are examples: *M. K. & T. R. Co. v. Texas*, 245 U. S. 484 (same case, 107 Texas 540); *G. C. & S. F. Ry. Co. v. Texas*, 246 U. S. 58 (same case, 107 Texas 544); *M. K. & T. R. Co. v. Cassady*, 242 U. S. 611 (same case, 108 Texas 461); *T. & N. O. R. Co. v. Neill*, 301 U. S. 674 (same case, 128 Texas 580, 100 S. W. (2d) 348). The motion to dismiss in *T. & N. O. R. Co. v. Neill* was grounded in part on the fact that the State Supreme Court had written an opinion assigning as the reason for its refusal of a writ the fact that it believed the decision below was correct.

If authority were needed to show that appellees are mistaken in ascribing to inadvertence (motion, p. 9) the repeated action of this Court, in cases com-

ing here from Texas, it would be sufficient to refer to the opinions by Mr. Justice Holmes in *M. K. & T. Ry. Co. v. Texas, supra,* and *G. C. & S. F. Ry. Co. v. Texas, supra,* and to his later opinion in *American Express Co. v. Levee,* 263 U. S. 19, where the point was specifically dealt with, at p. 21.

It expressly appears from the record that the order of the State Supreme Court refusing the application for writ of error was not a judgment on the merits. Appellant in its application requested the State Supreme Court "to issue its writ of error * * * directed to the Court of Civil Appeals * * * to the end that this case may be removed from said Court of Civil Appeals to this Court and the record and proceedings herein may be fully reviewed by this Court and the judgment of the said Court of Civil Appeals rendered herein may be reversed and that of the District Court affirmed." (V, R. 3407.)

The order of the Supreme Court of Texas refusing the application reads:

"This day came on to be heard the application of plaintiff in error for a writ of error to the Court of Civil Appeals for the Third District, and the same having been duly considered, it is ordered that the application be refused; that applicant, Lone Star Gas Company, pay all costs incurred on this application. (No opinion filed.)" (V, R. 3435.)

Appellant then, as permitted by the rules of the State Supreme Court, filed its motion for rehearing and therein prayed "that the order of the Court refusing said Application be set aside and that the Application be granted on rehearing * * *." (V, R. 3436.)

On December 30, 1936, the State Supreme Court entered its order that said motion for rehearing "be and it is hereby in all things overruled"; the order further reciting that this was done "after due consideration of same." (V, R. 3456.)

The clerk of the State Supreme Court has certified that on the date the motion was overruled, he returned to the clerk of the Court of Civil Appeals "the entire record in said cause," excepting only the papers constituting the record made on the application for the writ. (V, R. 3457.) And the clerk of the Court of Civil Appeals has certified that on the same date the clerk of the State Supreme Court returned to the Court of Civil Appeals "the entire record in said cause," excepting only the record made in the Supreme Court on the application for the writ; and further, that said record "now permanently remains" in the Court of Civil Appeals. (V, R. 3489.)

The original record forwarded to the Supreme Court of Texas in connection with the application for writ of error, and later returned to the Court of Civil Appeals, has been filed in this Court under a stipulation of the parties and an order of the Court of Civil Appeals. (V, R. 3485.) The order referred to was omitted in printing, but it appears in the original record, at p. 340.

There is nothing here plainly showing "on the face of the record, by an affirmance in express terms of the judgment or decree sought to be reviewed, that the refusal of the court to allow an appeal or writ of error was the exercise by it of jurisdiction to review the case upon the merits." *Norfolk & Suburban Turnpike Co. v. Virginia, supra.*

The order of the court did not dispose of the case but only of the application for the writ. No judgment was entered setting forth and establishing the rights of the parties. That such was the character of the State Supreme Court's action is further indicated by the fact that on the day that its action became final, (Dec. 30, 1936) it caused the entire original record, excepting only the record made on the application, to be returned to the court that rendered the judgment which it had declined to review. It hardly can be supposed that it would have permanently surrendered the record in a case decided on the merits. Under a standing rule of the court, enforced by it "without exceptions," no record in a case already decided on the merits may be taken from the office of its clerk. *Hart v. West*, 92 Texas 416. In contrast, Rule 4 of the court requires its clerk, after its action in refusing a writ of error has become final, to return to the Court of Civil Appeals "the papers which belong to that court," retaining the petition for writ of error. Supreme Court Rules, 121 Texas 748. These rules clearly recognize that the court's refusal of a writ of error is not a decision of the case on the merits. If it were, the record, under the court's rules, would remain in the office of its clerk.

III.

The Court of Civil Appeals Has the Record, and for That Reason the Appeal Was Properly Taken From That Court.

By the law of the State, the record in a case decided by the Court of Civil Appeals is returned to

the Court of Civil Appeals when the Supreme Court refuses an application for writ of error, and it permanently remains in that court. An applicant for the writ is required to deposit with the clerk of the Court of Civil Appeals, at the time the application is filed, a sufficient amount to cover the cost of transporting the record to and from the Supreme Court. Article 1743, R. S. 1925; Appendix, p. 25. Rule 4 of the Supreme Court above referred to provides that, after the court's refusal of a writ of error has become final, its clerk shall return to the Court of Civil Appeals "the papers which belong to that court," retaining the petition for writ of error. (121 Texas 748.)

The applicable statutes and rules were followed in this case. As expressly appears from the certificate of the clerk of the Supreme Court of Texas and of the clerk of the Court of Civil Appeals, (*supra*, p. 11), "the entire record," other than that made on the application for writ of error, was returned to the Court of Civil Appeals "where it now permanently remains." (V, R. 3489.)

Since, under the State law and in fact, the record permanently remains in the Court of Civil Appeals, the appeal was properly taken from that court. *Atherton v. Fowler*, 91 U. S. 143, 146; *Polleys v. Black River Imp. Co.*, 113 U. S. 81; *Hodges v. Snyder*, 261 U. S. 600; *McDonald v. Massachusetts*, 180 U. S. 311, 312; *Sioux Remedy Co. v. Cope*, 235 U. S. 197, 200; *Lee v. Johnson*, 116 U. S. 48, 49.

In *Stanley v. Schwalby*, 162 U. S. 255, 269, Mr. Justice Gray, writing the first opinion of this Court

in a case coming from a Texas Court of Civil Appeals, said:

> "A petition for writ of error to the Court of Civil Appeals having been presented to the Supreme Court of the State, and denied, the present writ of error from this Court was properly directed to the Court of Civil Appeals, in which the record remained."

The rule laid down in the earlier cases was approved in *Van Huffel v. Harkelrode*, 284 U. S. 225, 230.

IV.

Under the State Law an Order of the Supreme Court Refusing Writ of Error Is Not a Judgment Disposing of the Case on Its Merits.

If resort properly may be had to the State law to determine the nature of the action taken by the State Supreme Court in refusing a writ of error, then it is submitted that, under the State law, such an order is not a judgment of the State Supreme Court disposing of the case on the merits. It represents, not a review and decision of the case on the merits, but a refusal to thus review it. Such an order disposes, not of the case, but of the party's asserted right to further appeal the case. As declared by the State Supreme Court, it is a discretionary denial of "the right to entrance" to the Supreme Court of Texas. *S. A. & A. P. Ry. Co. v. Blair*, 108 Texas 434, 439.

The decision of the court in that case was later followed in the case of *Gatz v. City of Kerrville*, 121 Texas 92.

The Constitution of Texas provides:

"The Supreme Court shall consist of a chief justice and two associate justices, any two of whom shall constitute a quorum, and the concurrence of two judges shall be necessary to the decision of a case." *Article 1, Section 2.*

It is obvious that if the refusal of an application for writ of error constituted the "decision of a case," the power could be exercised only by the Supreme Court itself and with the concurrence of two of the judges. The Supreme Court of Texas has held that the refusing of an application for writ of error is not the "decision of a case" and that the power to act on such application may be devolved by the Legislature upon other and special agencies created by it.

In 1917 the Legislature authorized the Chief Justice of the Supreme Court of Texas, or the two associate justices, to appoint a committee of three justices selected from the Courts of Civil Appeals, and authorized this "committee of judges" to pass upon applications for writs of error filed in the Supreme Court of Texas. This statute as it appears in the Texas Revised Civil Statutes of 1925 is copied in the appendix, p. 26. The validity of the act was challenged upon the ground that the refusing of an application for writ of error constituted the "deci-

sion of a case" and that such power could be exercised only by the Supreme Court. The act was upheld by the Supreme Court upon the ground that it regulated merely "the right of appeal to the Supreme Court," that is, the "right to entrance" to the Supreme Court; and that the Legislature had the power to vest in the Supreme Court itself "or in some other authority the discretionary power of deciding whether the appeal shall lie." *S. A. & A. P. Ry Co. v. Blair*, 108 Texas 434, 439. The court compared the statute to the Federal statute "which empowers the chief justice of a State Supreme Court to grant a writ of error in a certain class of cases as a means for their review by the United States Supreme Court." *108 Texas 434, 438.*

In 1930 the Legislature enacted another statute authorizing the State Supreme Court to appoint a commission consisting of six commissioners to assist the court in disposing of its work. Pertinent parts of this statute are copied in the appendix, pp. 26-7. These commissioners are not members of the Supreme Court and have no vote on any "decision of a case" by the Supreme Court. But this Act provided that any two of the commissioners appointed, "acting with one member of the Supreme Court, shall be authorized to pass on all applications for writs of error presented from the Courts of Civil Appeals and that action of said two commissioners and one member of the Supreme Court in passing upon such applications shall be given the same force and effect as if the same were passed upon by the Supreme Court itself."

This statute was passed, as will be noted, three years after the Legislature, by the act of 1927, had

provided that the refusing of a writ of error by the Supreme Court should evidence its approval of the judgment and opinion of the Court of Civil Appeals. The act of 1927 is the statute upon which appellees ground their claim that the Supreme Court's refusal of a writ of error is a "decision of a case" on the merits. The act of 1930 was challenged on the ground that the refusal of a writ of error was a "decision of a case" on the merits and that, under the State Constitution, such decision could be made only by the Supreme Court itself; that the power to decide a case on the merits could not be given to one judge of the Supreme Court and two commissioners. The act was upheld by the Supreme Court in *Gatz v. City of Kerrville, 121 Texas 92*, upon the ground that it merely prescribed "the method of admitting cases to the Supreme Court." *S. A. & A. P. Ry. Co. v. Blair*, 108 Texas 434, was expressly approved and the court declared that that case "applies with equal force to the act now under review." (121 Texas 93.)

It thus appears that the Supreme Court of Texas has expressly held that the act of 1927, upon which the appellees here rely, was not effective to convert an order refusing a writ of error into a judgment of the Supreme Court disposing of a case on the merits.

The provision of the act last referred to, to the effect that the action of the special agency, composed of one Supreme Court judge and two commissioners, in passing upon such applications "shall be given the same force and effect as if the same were passed upon by the Supreme Court," clearly points to the nature of the action of the court itself in refusing

an application for writ of error. By force of the statute, the refusal of the writ by the court is of no higher dignity than is a refusal by a single judge of the court and two commissioners. They are reduced to a common level. That could not be true if the refusal of the writ amounted to a decision of the case on its merits, for under the Constitution only the Supreme Court itself may decide a case on the merits.

It thus appears that in the Texas judicial system there are five agencies empowered to pass upon applications for writs of error: (1) The Supreme Court itself; (2) a committee of judges from the Courts of Civil Appeals; and (3) Three committees or commissions, each composed of one Supreme Court judge and two of the six commissioners aiding the Supreme Court. The effect of the action is the same in each case. The action determines in a discretionary way the applicant's "right to entrance" to the Supreme Court. *Railway Company v. Blair*, 108 Texas 434, 439.

The effect of refusing an application for writ of error is described in Article 1750; "The refusal or dismissal of an application shall have the effect of denying the admission of the cause into the Supreme Court." (Appendix, p. 27.) The filing of the application stays the enforcement of the judgment of the Court of Civil Appeals only pending the Supreme Court's action on the application. Article 1864, R. C. S. 1925.

When the Supreme Court's action in refusing the writ becomes final, certified copies of the order of the court are forwarded to the Court of Civil Appeals and the record is returned; and then the clerk

of that court is empowered to issue the mandate of that court to enforce its judgment. (Article 1864; Rule 66, of the Courts of Civil Appeals, 102 Texas xxxvi.) The mandate of the Supreme Court will issue, not to enforce its orders refusing writs of error, but only its final judgments. (Article 1773, R. C. S. 1925.)

Article 1756 provides that trials in the Supreme Court "shall be only upon the questions of law upon which the writ of error was allowed"—this clearly showing that a trial on the merits takes place in that court only after action on the application and only if it is granted.*

No change in the established Texas practice has been worked by the amendment of the Texas statute (Article 1728, R. C. S. 1925) referred to in the motion to dismiss (pp. 5-6). The Supreme Court of Texas has so held. *Gatz v. City of Kerrville*, 121 Texas 92. In that case it declared that the rule laid down in *Railway Company v. Blair*, *supra*, was still applicable; that these statutes merely relate to the "method of admitting cases to the Supreme Court," and that the reasoning in the Blair case "applies with equal force to the act now under review."

The last three cases listed above (p. 4) were brought to this Court after the effective date (June 15, 1927) of the statute upon which appellees ground their motion. Certiorari has been denied, not dismissed, in a larger number of cases sought to be brought up during the same period.

---

*The court maintains two dockets; one, the application docket and the other, the cause docket. No case is docketed as a cause until the application is granted. Rules 2, 8, 121, Texas 747, 750.

The fact that under the act of 1927 the refusal of a writ imports an approval of the opinion of the Court of Civil Appeals as a precedent as well as an approval of its judgment is without effect. Since 1893 the refusal of an application has amounted to an approval of the judgment. *Brackenridge v. Cobb*, 85 Texas 448, 450. The approval of the opinion as a precedent, implied under the force of the present statute, is immaterial in determining the jurisdiction of this Court. That jurisdiction exists and is exercised to review the "final judgment" of the highest court of the State to which the case could be taken. This Court has no concern with the opinions of the State court except as they may explain the reasons underlying its judgments. Furthermore, as we have pointed out, many cases have been brought here where the State Supreme Court had written opinions approving the decisions of the court below. Appellees would ascribe greater effect to the approval of the opinion of the court below, implied by force of the statute, than to an express approval evidenced by an opinion of the State Supreme Court.

Counsel have conceded that in the case of *Adams v. Saenger* (No. 197, October Term, 1937) the appeal was correctly taken from the Court of Civil Appeals because the Supreme Court of Texas in that case dismissed the application for want of jurisdiction, as authorized by Article 1728 (Appendix, p. 27.) Under that statute such dismissal imports an approval of the judgment of the Court of Civil Appeals but not an approval of its opinion. Such an order is indistinguishable from an order refusing writ of error in so far as either of them express an

approval of the judgment below. In either event this Court reviews the judgment of the Court of Civil Appeals and not its opinion. In neither instance does it plainly appear on the face of the record "by an affirmance in express terms of the judgment" that the refusal or dismissal amounted to an exercise by the State Supreme Court "of its jurisdiction to review the case on the merits," under the rule laid down in the Norfolk Turnpike Company case; and in neither case does the record remain in the possession of the Supreme Court.

Cases coming up from Ohio are cited in the motion, p. 5. As to these, it should be sufficient to say that the rule applicable to Texas cases is settled, and whether it is consistent or inconsistent with the rule applicable to Ohio cases is not material. But we think the Ohio cases are distinguishable. In Ohio, review of cases by the Supreme Court is a matter of right—right of the litigant and not discretion of the court. The action of the Supreme Court here is discretionary; the applicant is not entitled to have his case reviewed on the merits as a matter of right. Furthermore, in the Ohio cases, the statements, importing the consideration and decision of the case on the merits, were found in the judgment of the court. In each instance the proceedings had the form of a final judgment rendered by the Supreme Court of Ohio. Here, we have merely orders denying the party's right "to entrance" to the Supreme Court of Texas.

Appellees strongly rely on the opinion of the Commission of Appeals in *Gammel-Statesman Publishing Co. v. Ben C. Jones & Company*, 206 S. W. 931,

copy of which was attached to the motion to dismiss in the Laredo Gas Rate case. The case is clearly distinguishable. The facts were that the Court of Civil Appeals, after the expiration of the term at which it had rendered judgment and after the Supreme Court had refused a writ of error, attempted to set aside its judgment, already final, and to substitute another and different judgment for it. The aggrieved party then applied for a writ of error, contending that the second judgment of the Court of Civil Appeals was void because entered after the first judgment had already become final and beyond its control. That, as stated by the court, was "the only question presented for review." (206 S. W. 932.)

The case is authority for the proposition that the second judgment, rendered after the first judgment had become final and when the court no longer had authority to change it, was void, and that the Supreme Court had jurisdiction on writ of error to adjudge that it was void.

Nothing else was decided in the Gammel-Statesman Publishing Company case. We respectfully submit that the opinion does not hold what it is construed as holding on pages 6 and 7 of the motion. It does not hold that an order refusing writ of error is a judgment of the Supreme Court disposing of the case on the merits.

Furthermore, it will be noted that while the Supreme Court approved the "holding" of the Court of Civil Appeals on the single question presented for review, it did not approve everything said in the opinion. That explains the fact that the opinion was not reported in the official reports of the Supreme Court of Texas.

Adopted opinions are officially reported. Examples are *Weatherly v. Jackson*, 123 Texas 213, *Carey v. Looney*, 113 Texas 93. The limited effect, as authoritative precedents, of opinions not adopted by the Supreme Court and, in consequence, not officially reported, was explained in *Stephens County v. Mid-Kansas Oil & Gas Co.*, 113 Texas 160, 167.

The Court has adopted in respect of cases from Texas the only practicable rule. If this Court should attempt to review the judgment of the Supreme Court of Texas in the instant case (assuming the existence of such a judgment) and should conclude that the reversal of the trial court judgment was wrong, how would this Court proceed to correct it? Presumably, by reversing the action of the Texas Supreme Court in refusing writ of error and by sending the case back to that court for further proceedings not inconsistent with the opinion of this Court. What, then, could the Texas court do? Only set aside its order refusing writ of error and substitute one granting writ of error, and requiring the Court of Civil Appeals to send up the record to the State Supreme Court, to the end that the latter court might proceed to reverse the judgment of the Court of Civil Appeals. This would be to invoke needlessly the offices of the State Supreme Court in reaching the result desired, namely, the reversal of the judgment of the Court of Civil Appeals. Why should this Court adopt such cumbersome, indirect methods to accomplish the reversal of the judgment of the Court of Civil Appeals?

As we have before pointed out, the Supreme Court of Texas has held that the refusing of a writ of error

does not constitute a judgment of the Supreme Court. It constitutes merely the action of the judges who sit in passing on the application, and determines only the right of the party to have his case reviewed in the Supreme Court of Texas. This being true, the effect of this Court's judgment of reversal, if the case had been taken from the Supreme Court of Texas, would be to compel the Supreme Court to render a judgment in a case in which theretofore none had been rendered by it. This would not be to *review* a judgment of the highest court of the state under Section 237 of the Judicial Code, but would be to reverse the *action* of the *judges* who refused the writ in not functioning in such a way as to bring into play the Supreme Court's jurisdiction over the case.

The motion to dismiss is without merit. Appellant prays that it be denied.

ROY C. COFFEE,
MARSHALL NEWCOMB,
OGDEN K. SHANNON,
BEN H. POWELL,
CHARLES L. BLACK,
Counsel for Appellant.

APPENDIX.

Applicable Texas Statutes.

(These statutory provisions, unless otherwise indicated, are copied from Texas Revised Civil Statutes of 1925, with the latest amendments. Only relevant portions of each article or section are included.)

"Art. 1739. **Good cause to be shown.**—The Supreme Court may review final judgments of Courts of Civil Appeals upon writ of error, when good cause therefor be shown by application for such writ, as hereinafter required, the sufficiency of such cause to be determined as herein provided."

"Art. 1740. **Petition for writ of error.**—A writ of error before the Supreme Court may be applied for by petition addressed to said Court, stating the nature of the case and the grounds upon which the writ of error is prayed for, and showing that the Supreme Court has jurisdiction thereof; and the petition shall contain such other requisites as may be prescribed by the Supreme Court."

"Art. 1743. **Petition with record.**—The petition with the original record in the case, and the opinions of the Court of Civil Appeals, and the motion filed therein, and certified copies of the judgments and orders of the Court of Civil Appeals and copy of the appeal or supersedeas bond shall be filed with the Supreme Court. The party applying for the writ of

error shall deposit with the clerk of the Court of Civil Appeals a sum sufficient to pay the expressage or carriage of the record to and from the clerk of the Supreme Court, which sum shall be charged as costs in the suit."

"Art. 1748. **Designation of Civil Appeals Justices.**—The Chief Justice of the Supreme Court or any two Justices thereof may, by a writing recorded in the minutes of the Supreme Court, designate three of the Justices of the Courts of Civil Appeals to act as hereinafter provided. Such powers may be exercised from time to time in the same manner as long as reason therefor may exist, and the personnel of the designated Justices of the Courts of Civil Appeals may be changed as often as may be advisable, by relieving one, or more, and designating another, * * * * *."

Act of 1930—* * * "The Supreme Court of this State is hereby authorized to appoint a Commission, to be composed of six attorneys at law, having those qualifications fixed by the laws and Constitution of this State for the judges of the Supreme Court of Texas, which Commission shall be for the aid and assistance of said court in disposing of the business before it; and such Commission shall discharge such duties as may be assigned it by said Court. * * * *" (Sec. 1, Ch. 2, Acts 5th Called Session, 41st Leg., p. 112.)

"Two of said Commissioners designated by the Supreme Court acting with one member of the Supreme Court shall be authorized to pass upon all

applications for writs of error presented from the courts of civil appeals, and the action of said two Commissioners and one member of the Supreme Court in passing upon such applications shall be given the same force and effect as if the same were passed upon by the Supreme Court; provided, upon any application in which the three judges are not unanimous, the same shall be determined by the Supreme Court." (Ibid, Sec. 5, p. 113.)

"Art. 1750. **Effect of granting or denying writ.**—The granting of an application shall admit the cause into the Supreme Court to be proceeded with by the Court as provided by law. The refusal or dismissal of an application shall have the effect of denying the admission of the cause into the Supreme Court, except that motions for rehearing may be made to such designated justices in the same way as such motions to the Supreme Court have been heretofore allowed. The refusal or dismissal of any application shall not be regarded as a precedent or authority."

"Art. 1728. * * * *

"In all cases where the judgment of the Court of Civil Appeals is a correct one and where the principles of law declared in the opinion of the court are correctly determined, the Supreme Court shall refuse the application; in all cases where the judgment of the Court of Civil Appeals is a correct one but the Supreme Court is not satisfied that the opinion of the Court of Civil Appeals in all respects has correctly declared the law, it shall dismiss the case for want of jurisdiction. * * * *"

"Art. 1756. **Trial on questions of law.**—Trials in the Supreme Court shall be only upon the questions of law upon which the writ of error was allowed, or which were certified to the Supreme Court from a Court of Civil Appeals. * * * *"

"Art. 1864. **Mandate issued when.**—If no writ of error be sued out, or motion for rehearing be filed, within thirty days after the decision of the court has been entered in a Court of Civil Appeals, the clerk of the court shall, upon application of either party and the payment of all costs, issue a mandate upon said judgment."

BLANK

PAGE

BLANK

PAGE

SU

No.

LONE STAR GAS COMPANY, Appellant

v.

STATE OF TEXAS, et al., Appellees

Appeal from the Court of Civil Appeals, [illegible]
Judicial District of Texas

MOTION TO DISMISS APPEAL

BLANK

PAGE

INDEX.

DIVISION ONE	Pages
The Interstate Commerce Questions	1-3
I. Reliance by Appellees on Matters Outside the Record	3-7
(1) The Railroad Commission Record	3-5
(2) "Statement of Facts of Hearing on Plea in Abatement and Pleas to Jurisdiction	5-7
II. Discussion of Contention That Appellant Is Estopped to Assert Its Interstate Commerce Defense	7-9
III. The Wheeler County Gas Is Interstate Gas and the Rate Order Is Void as Applied to It	10-18
(1) The Handling of this Gas Constitutes Interstate Commerce	10-12
(2) Inasmuch as the Order Amounts to a Direct Regulation of Interstate Commerce, the Non-Action of Congress Is Not Material	12-17
(3) The Alleged Fraud in Constructing Line A	17-18
IV. Gas Produced or Purchased in Oklahoma—Discussion of Appellees' Points X to XIV, Inclusive	18-22
V. Discussion of Various Matters Relied Upon by Appellees as Being Sufficient to Deprive the Oklahoma and Panhandle Gas of Its Interstate Character	22-33
(1) Withdrawals from Line	22-23
(2) Fort Worth Distributing System	23-24

Pages

(3) Other Deliveries from Trunk Pipe Line 24-26
(4) Storage of Gas 26-27
(5) Use of Regulators and Meters 27-29
(6) Gasoline Extracting Plants 29
(7) Shifting Flow of Gas by Appellant 30-33

VI. Corporate Affiliation—Reply to Appellees' Points IV to VI, Inclusive 33-36

DIVISION TWO

The Segregation Issue—Discussion of Appellees' Points XX to XXIV, Inclusive 36-41

DIVISION THREE

Denial of Adequate Judicial Review 41-43

DIVISION FOUR

I. The Confiscation Issue—Discussion in Reply to Division C of Appellees' Brief, pp. 85 to 206 44-66
(1) Appellees' Table I (Brief, 196) 53-55
(2) Appellees' Table II (Brief, 197) 56-58
(3) Appellees' Table III (Brief, 198) 58-59
(4) Appellees' Table IV (Brief, 199) 59-60
(5) Appellees' Table V (Brief, 200) 60-66

II. Reply to Various Contentions and Statements of Appellees 66-82
(1) Depreciation Reserve Accruals 67-72
(2) Questioned Operating Expenses 72-73
(3) Rate Base 73-77
(4) Temperature Adjustments 77-78
(5) Fair Rate of Return 79

	Pages
(6) Criticism of Computations in Appellant's Main Brief	79-80
(7) Appellees' Statement as to the Holding Company's Books	80-81
(8) Claim of Appellant's Non-Cooperation	81
(9) Appellees' Claim of Misrepresentation as to the Inclusion of Gas Reserves in the Appraisal	82

AUTHORITIES.

	Pages
United States Constitution:	
Seventh Amendment	50
Fourteenth Amendment	48
Texas Statutes:	
Article 6053, R. S. 1925	35
Article 6062, R. S. 1925	35
List of Cases:	
Baldwin v. Seelig, Inc., 294 U. S. 511	16
Bluefield Waterworks & Improvement Co. v. Public Service Commission, 262 U. S. 679	58
Board of Commissioners of New York v. New York Telephone Co., 271 U. S. 23, 31, 32	43, 58, 68
Bradley v. Public Utilities Commission, 289 U. S. 92	15
Briscoe v. Bright's Adm'r, 231 S. W. 1084, 1085	45
Buck v. Kuykendall, 267 U. S. 307, 315, 316	12, 16
Chicago, etc., Ry. Co. v. Chicago, 166 U. S. 226, 246	50
Choate v. San Antonio & A. P. Ry. Co., 91 Texas 406, 410	46
Cooney v. Mountain States Telephone Co., 294 U. S. 384, 392	13, 17
Creswill v. Grand Lodge K. of P., 225 U. S. 246	46
East Ohio Gas Co. v. Tax Commission, 283 U. S. 465, 468, 470	2, 3, 27, 28
Ewing v. City of Leavenworth, 226 U. S. 464	10
Hanley v. Kansas City Southern Railway Co., 187 U. S. 617	10
Interstate Busses Corporation v. Holyoke Street Ry. Co., 273 U. S. 45, 51	16
Jones National Bank v. Yates, 240 U. S. 541	47, 49
Kirmeyer v. Kansas, 236 U. S. 568	18, 20
Lehigh Valley R. Co. v. Pennsylvania, 145 U. S. 192	10
Lehigh Valley Ry. Co. v. Board of Public Utility Commissioners, 278 U. S. 24, 73 L. Ed. 161	73

List of Cases (continued):

	Pages
Los Angeles Gas & Electric Co. v. Railroad Commission, 289 U. S. 287, 313	58, 78
Minnesota & S. L. R. Co. v. Bombolis, 241 U. S. 211	50
Missouri v. Kansas Natural Gas Co., 265 U. S. 298	2, 3, 16, 23, 26
Northern P. R. Co. v. North Dakota, 236 U. S. 585	46
Pacific Telephone & Telegraph Co. v. Washington, 297 U. S. 403, 416	13, 16
Patrick v. Smith, 90 Texas 267, 274	46
Peoples Natural Gas Co. v. Public Service Commission, 270 U. S. 550, 553	3
Post v. State of Texas, 106 Texas 500	46
Public Utilities Commission v. Attleboro Co., 273 U. S. 83, 90	3
Pullman Company v. Adams, 189 U. S. 420	16
Smith v. Illinois Telephone Co., 282 U. S. 133, 143-144	36, 39
South Carolina State Highway Department v. Barnwell Bros., decided February 14, 1938	15
Southern Natural Gas Corporation v. Alabama, 301 U. S. 148, 155 (Preliminary Print)	3, 25
Southwestern Bell Telephone Co. v. Public Service Commission of Missouri, 262 U. S. 276, 67 L. Ed. 981	73
Sprout v. South Bend, 277 U. S. 163	16
State v. Kansas Natural Gas Co., 111 Kan. 809	2
State Corporation Commission v. Wichita Gas Co., 290 U. S. 561, 563	3
State Commission of Mississippi v. Interstate Natural Gas Co., 284 U. S. 41	2, 23, 26, 27
Thompson v. Consolidated Gas Co., 300 U. S. 55, 59	17
United Gas Public Service Co. v. Texas, decided February 14, 1938	43, 46, 47, 50, 51
Union Pacific R. Co. v. Huxoll, 245 U. S. 535	47
United States Express Co. v. Minnesota, 223 U. S. 335	10
Wabash, etc., Ry. Co. v. Illinois, 118 U. S. 557	16
West Ohio Gas Co. v. Public Utilities Commission, (No. 1), 294 U. S. 63, 79 L. Ed. 761	73
West Ohio Gas Co. v. Public Utilities Commission, (No. 2), 294 U. S. 79, 81-83	78, 80

List of Cases (continued):

	Pages
Western Distributing Co. v. Public Service Commission, 285 U. S. 119, 124-125	14
Western Union Telegraph Co. v. Speight, 254 U. S. 17	18, 20
Wilcox v. Consolidated Gas Co., 212 U. S. 19, 41	43
Wilmington Transportation Co. v. California Railroad Commission, 236 U. S. 151	10, 11-12

SUPREME COURT OF THE UNITED STATES

October Term, 1937

No. 313

LONE STAR GAS COMPANY, *Appellant*,

v.

STATE OF TEXAS, ET AL., *Appellees*

Appeal from the Court of Civil Appeals, Third Supreme Judicial District of Texas

---

REPLY BRIEF FOR APPELLANT

Not perceiving how the Court will be aided by appellees' Introductory Statement (1-4) especially their general characterizations of our brief, we attempt no reply in kind, and immediately take up specific points.

DIVISION ONE.

The Interstate Commerce Questions.

With a few unimportant exceptions, every point of argument presented by the appellees in their dis-

cussion of the interstate commerce defense was presented to this Court in *Missouri v. Kansas Natural Gas Co.*, 265 U. S. 298, as the Court will see from an examination of the reported brief for the appellant in that case (265 U. S. 299, 304). This applies to the point that appellant's business is essentially a local business, properly subject to local regulation (265 U. S. 299, 302); and to the points of argument based upon the maintenance of delivery facilities, including regulators and meters at the city gates (265 U. S. 300, 302); and to the points of argument based upon the fact that the destination of any particular part of the gas is not known by the pipe line company in advance and deliveries are made *instanter* in response to the demands created by local consumption (265 U. S. 300-301); and to the point based upon the non-action of Congress (265 U. S. 302-303).

These points of argument were sustained by the decision of the State court in that case *(State v. Kansas Natural Gas Co.*, 111 Kan. 809). That decision was unanimously reversed in this Court.

And most of the points of argument presented by the appellees here were also presented to this Court in *State Commission of Mississippi v. Interstate Natural Gas Co.*, 284 U. S. 41, as appears from the report of appellant's brief in that case. This applies to the nature of the contracts, reliance on deliveries as "breaking the original package" and the local maintenance and use of "taps, regulators, thermometers, and meters" (284 U. S. 41-42).

We refer also to *East Ohio Gas Co. v. Tax Commission*, 283 U. S. 465, 468, 470; *Public Utilities*

omm. v. Attleboro, 273 U. S. 83, 90; *Peoples Natural Gas Co. v. Public Service Comm.*, 270 U. S. 550, 53; and *State Corporation Comm. v. Wichita Gas o.*, 290 U. S. 561, 563. The recent decision of this ourt in *Southern Natural Gas Corporation v. Alaama*, 301 U. S. 148, 155, is not in conflict with the ecisions referred to. In that case the company as maintaining not only local delivery facilities but ocal supply lines designed and installed to meet ocal consumer demands. The decision merely fols the rule announced in *East Ohio Gas Co. v. ax Commission* and earlier cases, and holds that the upplying of the demand of local consumers, howver conducted, is essentially a local business. Here, contrast, appellant, in making city gate delivries, is selling gas, not to ultimate consumers, but o retailers who, in turn, sell to ultimate consumers. ts delivery facilities and other activities are only uch as are appropriate to the conduct of its wholeale business. And the burner tip rates of the local etailing companies are not involved.

Appellees are, in effect, inviting the Court to reiew anew and reverse *Missouri v. Kansas Natural Gas Co., supra,* and the other cases referred to that ollow that decision.

I.

Reliance by Appellees on Matters Outside the Record.

(1) *The Railroad Commission Record.*

On page 3 of their brief appellees refer to the Railroad Commission record that was excluded from

evidence in the State District Court, and also to the fact that appellant has not designated any part of this excluded record for printing. This excluded record could not be considered by the Court of Civil Appeals or the Supreme Court of Texas except for the purpose of reviewing the alleged error of the District Court in excluding it from evidence—and it was not held that the District Court had committed any such error. It was before the State appellate courts only as a part of a bill of exceptions complaining of its exclusion from evidence. It is here in the same way, but it cannot be considered here for any purpose because no one is now complaining of the action of the District Court in excluding it from evidence.

Since this excluded Railroad Commission record was not considered by the State courts in testing the validity of the rate order, appellant did not designate any part of it for printing. Under the Texas review procedure a trial like this is *de novo* with all that that term imports. But this does not mean that the same evidence heard by the Railroad Commission may not be heard by the reviewing court. It means only that the evidence must be heard *de novo*. Either party is free to produce the same witnesses and offer the same evidence in open court instead of a transcript of their testimony given before the Commission. There is no evidence, or even contention, that the appellees were denied in the District Court the right to place the same witnesses on the stand and offer *de novo* their testimony and other evidence previously offered before the Commission.

On pages 32 and 33 of their brief appellees refer to this Commission record and invite the Court to consider it in support of their Point I. It is obvious that this excluded Commission record cannot be considered for any purpose. It is true that appellant stipulated with appellees that the original excluded record might be brought up to this Court, but this was done only after appellees in their State court praecipe had called for the inclusion of this Railroad Commission record as a part of the record to be forwarded to this Court. (V, R. 3485-3487.) By thus bringing here something that was by the State court excluded, and no part of the Statement of Facts on which the rate order was reviewed, appellees are unable to convert it into something else. Authentication denied in the State courts can not be supplied here.

(2) *"Statement of Facts of Hearing on Plea in Abatement and Pleas to Jurisdiction."*

The record shows that appellant filed in the State District Court certain pleas to the jurisdiction and plea in abatement and that a hearing was had before the court on these pleas before the beginning of the trial on the merits. (I, R. 123-133; 171; 301.) Evidence was heard on these pleas, and it appears in the printed record, having been designated for printing by the appellees (I, R. 215-300); it appears under the heading "Statement of Facts of Hearing on Plea in Abatement and Pleas to Jurisdiction" (I, R. 215). These pleas were addressed to the court and there was of course no jury trial. The pleas

were overruled on May 30, 1934 (I, R. 171). The trial on the merits was begun before a different judge and a jury on June 11, 1934—after the plea in abatement had been overruled (I, R. 197, 301). The evidence heard by the court and jury on the merits begins in the printed record in Volume I, page 301, under the heading "Statement of Facts of Trial on the Merits." The evidence heard on the pleas to the jurisdiction and in abatement was not offered in evidence on the trial on the merits. It was never placed before the court and jury that settled the issues of fact relating to the validity of the challenged order. In these circumstances, the Statement of Facts introduced before the judge who heard these pleas constitutes no part of the evidence heard by the court and jury on the merits.

An examination of appellees' brief will show that a large number of the references made to the record, especially in the discussion of the interstate commerce questions, are to this plea in abatement record. Illustrating, we refer to pages 34, 35, 36, 54, 55 and 56 of appellees' brief.

It is true that appellant joined appellees in stipulating that the "entire State court record" might be certified by the clerk of the State court to this Court, but this was done only after appellees had filed a counter praecipe in the State court that designated the "entire State court record" (V, R. 3485-3487). This stipulation did not and could not make the record of the evidence heard on the pleas to the jurisdiction and in abatement a part of the evidence heard in testing the validity of the rate order. The evidence heard on the pleas referred to is a part of

the "entire State court record," but it is not a part of the evidence heard in the State court on the trial on the merits. So to consider it would be to change the "State court record."

It thus appears that appellees have designated for printing and are relying upon the evidence heard on these pleas to the jurisdiction and in abatement—evidence that relates only to the legal issues tendered by the pleas referred to and that was heard by a different judge, and without a jury, more than a week before the trial on the merits was begun (V, R. 171, 301).

II.

Discussion of Contention That Appellant Is Estopped to Assert Its Interstate Commerce Defense.

Appellees assert that in the proceedings before the Railroad Commission appellant made no objection to the proposed rate grounded on the Commerce Clause of the Federal Constitution and that appellant "is now thereby estopped to assert such attack or defense in any form for the first time in a judicial review of the Commission's order." (Brief, 4, 5; also 32, 33.) As to this Appellant submits:

(1) The Commission record was excluded from evidence, as appellees admit. (Brief, 3.) Counsel for appellees go outside the record on the merits when they invoke it as they do. They invite this Court to decide the merits of the interstate commerce

issue by considering an alleged fact not in evidence before any one of the State courts.

(2) The theory of estoppel here set forth is asserted originally in this Court. In the State District Court appellant pleaded its interstate commerce defense against the rate order. (I, R. 136-138, 147, 148, 150.) Appellees filed their supplemental petition by way of reply to this defense but wholly failed to plead the estoppel or waiver that is now asserted by them in this Court (I, R. 153, 161). There is no reference to any failure on the part of appellant to assert the interstate commerce defense before the Commission.

If appellees had believed that appellant was estopped to assert the interstate commerce defense, the estoppel should have been pleaded in the court in which the defense was first asserted—the State District Court. Appellees were in no way prevented from pleading this estoppel and offering evidence *de novo* in support of it. This right was not denied by the District Court's exclusion of the Commission record. Notwithstanding the exclusion of that record, either party was given the right to offer any and all material evidence *de novo* and if this estoppel theory had any material bearing on the interstate commerce issue it was open to the appellees to plead it in their reply pleading, as the state practice requires, and offer evidence *de novo* in support of it.

(3) The estoppel here asserted is grounded upon the assumption that appellant knew at the beginning and during the progress of the Commission hearing

what kind of findings and order would be made and promulgated at the end of the hearing. There is of course no basis for this assumption. Appellant did not know that the Commission would attempt to exercise a power it did not possess until the findings were filed and the order promulgated. It appears from the record that the Commission hearing was concluded on the 29th day of June, 1933, and the order was not promulgated and the findings filed until the 13th day of September, 1933 (III, R. 1608.) Immediately thereafter appellant filed its suit assailing the Commission's order and invoking the protection of the Commerce Clause. Appellant acted as soon as the nature of the order was known.

Furthermore, the trial in the District Court was *de novo* and the failure of a party to assert a given defense before the Commission has no effect on his right to assert that defense in the reviewing court.

(4) It is asserted by appellees that appellant "lay in ambush for the Commission" and permitted the Commission to promulgate the order without "the slightest hint of the claimed defense of interstate commerce." (Brief, p. 5.) The record shows that the Commission knew that appellant was engaged in interstate commerce. The Commission at the conclusion of the hearing and in its findings made a part of the order found as a fact that appellant was engaged in interstate and intrastate commerce "in the selling of gas to some 300 cities and towns in the States of Oklahoma and Texas."

III.

The Wheeler County Gas Is Interstate Gas and the Rate Order Is Void as Applied to It.

(1) *The Handling of this Gas constitutes Interstate Commerce.*

Appellees declare that the gas transported through Line A is not "inherently interstate gas but is in fact and in law intrastate commerce since both termini are in Texas" (Brief, p. 13). They cite *Lehigh Valley R. Co. v. Pennsylvania*, 145 U. S. 192, and later cases following that decision. (Explained, appellant's brief, 69-70.)

United States Express Co. v. Minnesota, 223 U. S. 335 is cited. That case involved a gross receipts tax apportioned in accordance with line mileage located within and without the State, and no attack was made on the method of apportionment. The case therefore is distinguishable upon the grounds pointed out by Mr. Justice Holmes in the *Hanley* case.

Ewing v. City of Leavenworth, 226 U. S. 464, involved a tax levied solely upon business done in the City of Leavenworth "in receiving packages from points within the State and in transporting packages to like points." The tax levied was a flat license tax of $50.00, and the ordinance levying it excluded interstate and Government business. The Court in its opinion distinguished the *Hanley* case because it involved the fixing of a rate, and not the levying of a tax (226 U. S. 468, 469).

Wilmington Transportation Co. v. California Railroad Commission, 236 U. S. 151, is not in point. In

that case, the Transportation Company was engaged as a common carrier of passengers and goods by sea between San Pedro, on the mainland, and Avalon, on Santa Catalina Island, both places being within Los Angeles County, California. The California Commission undertook to prescribe its rates. The vessels used by the company in direct passage between the two ports traversed the high seas for a distance of 20 miles. They did not touch at any other port of either the United States or any foreign country. They did not on the voyage take on or put off any article of commerce. The rate making authority of the Commission was sustained upon the ground that jurisdiction to fix the rates was vested either in Congress or in the State of California, and Congress had not acted. The *Hanley* case was distinguished on the ground that the line of railway passed through the territory of another State. As to the *Hanley* case the Court said:

"The regulation of such rates cannot be 'split up' according to the jurisdiction of the respective States over the track; there must be one rate fixed by one authority. *Hanley v. Kansas City Southern Ry.*, 187 U. S. 617, 620."

The Court further said:

"We are not here dealing with the case of property which is in course of continuous transportation to another State or to a foreign country. (Citing cases.) It must be assumed upon this record that the State claims the right to exercise its authority only as to transportation between the mainland and the island, and solely with respect to such shipments over this route as are local to the State, both as to

the beginning and the end of the transportation. There is no passage through the territory of another State; the transportation, in its entire course, is subject to a single authority—either that of Congress or that of the State—and the latter would yield to the exercise of the former. The sovereignty of no other jurisdiction is encountered." (236 U. S. 156.)

Here the facts are entirely different. The pipe line is located in both States. Deliveries of gas are made in both States on the main line as well as on the branch line running north of Oklaunion, Texas. The right of Oklahoma to fix rates applicable to the Oklahoma deliveries stands on as strong a footing as does the right of Texas to fix the rates applicable to the Texas deliveries. Both States have statutes authorizing their regulatory commissions to fix rates and to regulate conditions of service, including the apportioning of an inadequate supply. The probability of a conflict in the exercise of regulatory power is obvious. *Buck v. Kuykendall*, 267 U. S. 307, 315, 316.

(2) *Inasmuch as the order amounts to a direct regulation of interstate commerce, the non-action of Congress is not material.*

This Court in some of its later decisions has declined to give controlling effect to descriptive words such as "direct" and "indirect" in determining whether a given State regulation operates as a "regulation" of interstate commerce "in a constitutional sense." But however the burden or restraint here imposed may be described, it is clear that no burden

or restraint could be more immediate or direct in its effect.

If the challenged regulation levied a gross receipts tax indiscriminately on appellant's interstate and intrastate business, it would not stand; under the decisions of this Court, it would be regarded as imposing a "direct" and prohibited burden on interstate commerce. *Cooney v. Mountain States Tel. Co.*, 294 U. S. 384, 392. Compare *Pacific Telephone & Telegraph Co. v. Washington*, 297 U. S. 403, 416. Is there any factual difference, favoring the validity of the exercise of State authority, between a regulation that would exact 20 per cent of appellant's gross receipts from sales of gas in the form of a tax, to be paid into the state treasury, and another regulation that would prevent appellant from collecting the 20 per cent at all? It is plain, whether viewed from a practical or legal standpoint, that the second regulation is not less "direct" in its restraint than is the first. Both subtract 20 per cent from appellant's receipts—the first by taking the 20 per cent after it has been collected and the second by denying the right to collect it at all.

The order indiscriminately limits the amount of the gross receipts of appellant's business, the interstate part as well as the intrastate part. The restraint is more direct than would be the case if a gross receipts tax had been levied on appellant's interstate business. Such a tax would leave it still free to control its business and to make its own contracts in an attempt to make the business yield a profit notwithstanding the tax. Here appellant's contracts are stricken down by the challenged regulation and

it is told that it will not be permitted to earn more than a given amount from its interstate business. Its interstate business is placed in a legislative strait-jacket along with its intrastate business.

The 32¢ per MCF rate is not merely the price of the gas owned and sold by appellant. This rate also represents the value, fixed by the State Commission, of the use of appellant's properties, including its interstate transportation system, in the rendering of a service to the public. The record shows that appellant's transportation lines and facilities constitute 90 per cent in value of its total properties. This rate, as fixed by the State Commission, affords the only source from which appellant may obtain compensation for the use of its transportation system in making the city gate deliveries involved. The rate in large part is a transportation rate. The statute under which the Commission is acting authorizes the Commission to fix "transporting" rates, and that is what the Commission has done by the challenged order. (Appellant's main brief, p. 171.)

The applicable Texas statutes authorize the Commission to directly and separately fix city gate rates of transporting trunk pipe line companies. (Main Brief, pp. 171-173.) The Commission is not limited to the indirect consideration of pipe line charges as reasonable expense items. Compare *Western Distributing Co. v. Public Service Commission*, 285 U. S. 119, 124-125. It has the power to proceed independently and fix a pipe line rate wholly apart from the fixing of any burner tip rate, and that is the way that it has here proceeded. It has proceeded against appellant as a trunk pipe line transporter of gas for

the purpose of fixing the amount of compensation to which appellant is entitled for producing or purchasing, and transporting and delivering the gas to the city gates.

Viewing the prescribed rate as simply the price of the gas fixed by State authority, the regulation nevertheless imposes a direct burden on interstate commerce. If interstate prices are to be regulated, the regulation must come from Congress. The power to regulate the prices that may be charged upon original sale and delivery of commodities in a State, in interstate commerce, is the power to dictate the terms upon which interstate commerce may be conducted. It is plainly the power to "regulate" interstate commerce "in a constitutional sense."

We do not think it necessary to review at length the many cases cited by appellees upholding "indirect" or "incidental" regulations of interstate commerce. They may be distinguished by referring to typical cases. This is not a case like *Savage v. Jones*, 225 U. S. 501, where a State regulation was upheld which was broad enough to apply to interstate sales as well as to local sales, and was designed directly to prevent fraud in the making of sales of merchandise. It is not a case like *Bradley v. Public Utilities Commission*, 289 U. S. 92, or *South Carolina State Highway Department v. Barnwell Bros.*, decided Feb. 14, 1938, where State regulations designed to promote safety in the use of the public highways were upheld. In all of these cases and in many similar cases, the burden validly imposed caused a loss consequential in nature. There was no direct purpose or effort to regulate interstate commerce as such.

This case clearly falls within the rule laid down in *Buck v. Kuykendall*, 267 U. S. 307; *Baldwin v. Seelig, Inc.*, 294 U. S. 511; *Wabash, etc. Ry. Co. v. Illinois*, 118 U. S. 557; *Missouri v. Kansas Natural Gas Co.*, 265 U. S. 298.

In the case last cited an attempt was made to distinguish a case like this from cases involving transportation rates of railroad companies. See the appellant's brief in that case, 265 U. S. 300, 303. The attempt failed there, and for like reason it should fail here.

The case is not like *Pacific Telephone & Telegraph Co. v. Washington, supra*, where a State statute imposed an occupation tax on the intrastate part of the business; where the only direct burden imposed was on intrastate commerce; the burden of the interstate end of the business being an indirect one. In that case it was open to the complaining taxpayer to discontinue its intrastate business and thus be relieved of the indirect burden imposed on the interstate end of its business. Compare *Interstate Busses Corporation v. Holyoke Street Railway Company*, 273 U. S. 45; 51. Here it is not open to appellant to discontinue the intrastate end of its business; it owes a duty in law to continue that business. *Pullman Co. v. Adams*, 189 U. S. 420; *Pacific Telephone & Telegraph Co. v. Washington, supra*, p. 414. And if it did, that would not relieve it of the burden imposed by the State regulation on its interstate business because the rate order is inseparable and the prescribed rate falls indiscriminately on the entire business. *Sprout v. South Bend*, 277 U. S. 163. However inseparable may be the two parts of appellant's busi-

ness, the prescribed rate falls on both—on the entire business as a unit. *Cooney v. Mountain States Telephone Co., supra.*

If the suggestion should be made that it is appellant's duty to discontinue its operations on Line A entirely and attempt to supply the demand in Texas by resort to its intrastate gas, the answer is twofold:

(a) The evidence shows that appellant's intrastate gas is inadequate to supply the demand. In the gas business the demand that must be supplied is the *peak demand;* and the undisputed evidence shows that all of appellant's lines must be operated at capacity in order to supply the peak demand. (Schmidt testimony, II, R. 1490-1492.) The evidence further shows that the demands on the supply available from Line A are growing. That line is connected with the "largest natural gas field in the United States, an enormous reservoir * * * * with a width of from ten to twelve miles." *Thompson v. Consolidated Gas Co.*, 300 U. S. 55, 59.

(b) To require appellant to discontinue its interstate business in order to escape State regulation would impose a direct burden on interstate commerce. That expedient is always available where a tax burden or other regulation is imposed on interstate commerce.

(3) *The alleged fraud in constructing Line A.*

Appellees assert that a glance at the map showing Line A will disclose that the appellant had no pur-

pose in locating that line as it was located "except to attempt evasion of State regulation." (Brief, 46.) The reasons moving appellant in locating this line as it was located are detailed by the witness Schmidt (II, R. 1472-1474; 1487-1490). The witness' testimony may be summarized in his own statement: "That line was constructed entirely on engineering principles and nothing else" (II, R. 1475).

Appellees criticise the opinion of Mr. Justice Holmes in *Western Union Telegraph Co. v. Speight*, 254 U. S. 17, claiming that only two cases are cited in the opinion and "neither case is in point." Two questions were involved in the Speight case: The first question was whether the movement through more than one State is interstate commerce. That question was decided in the Hanley case, cited by Mr. Justice Holmes. The second question was whether fraud in conducting the business in a particular way was material. That question was decided in *Kirmeyer v. Kansas*, cited by Mr. Justice Holmes. The two cases are precisely in point in support of the decision announced in the Speight case.

IV.

Gas Produced or Purchased in Oklahoma—Discussion of Appellees' Points X to XIV, Inclusive.

Appellees in their Point X assert that the Oklahoma produced gas "is unnecessarily imported" into Texas; that there is "ample Texas gas available to appellant from its own reserves and from its existing and potential purchase connections in Texas to meet all of its Texas demands." In the same con-

nection it is asserted that "the continued importation" of Oklahoma gas is only an "obviously fraudulent subterfuge to avoid state regulation in Texas." (Brief, 15.)

Point XI is to the effect that "the relatively small and rapidly diminishing volume of Oklahoma-produced gas" transported into Texas is practically offset by the Texas gas transported to Oklahoma, with the result that "the interstate commerce" question is thereby eliminated. (Brief, 16.)

Point XII is to the effect that the Oklahoma importations are too small to be noticed. (Brief, 16.)

Point XIII is to the effect that the order does not require appellant to transport Oklahoma gas to Texas and that it can just as easily and as cheaply obtain Texas gas; hence, that the Oklahoma gas is subject to Texas control. (Brief, 17.)

Point XIV is to the effect that the rate order, although applying to the Oklahoma gas, does not restrict, impede or directly burden the free importation of such gas into the State of Texas.

These points follow the reasoning of the State court, which was to the effect that appellant's gas reserves in Texas "are more than sufficient to supply all Texas needs, and the gas supply of Oklahoma will likewise supply all of its needs," with the result that appellant's interstate transportation of gas between Texas and Oklahoma should be ignored (V, R. 3337, 3347).

With respect to these Points it is submitted:

(a) These Points and the rulings of the State court, substantially to the same effect, are sufficient to suggest the necessity for congressional regulation

as against State regulation of interstate commerce in natural gas. The contentions here presented show the probability of conflicting State regulations. Appellees assert that the Oklahoma consumers are not entitled "as a legal or moral right to the same rates for natural gas as are the consumers in Texas." (Brief, 63.) They assert, in effect, that appellant is discriminating in favor of Oklahoma consumers and its Oklahoma properties and operations. They would deny to appellant the right to engage in interstate commerce upon the ground that it would be just as easy for appellant to conduct its business wholly in intrastate commerce. In other words, appellant's interstate business is to be eliminated because of an alleged lack of necessity to engage in that business. Appellant is even charged with being guilty of fraud because of its transportation of gas from Oklahoma (Brief, 15).

These various contentions in this connection are answered by the decisions of this Court in *Kirmeyer v. Kansas*, 236 U. S. 568 and *Western Union Tel. Co. v. Speight*, 254 U. S. 17.

(b) None of the contentions here advanced have any application to the Line A gas. Appellees apparently admit the necessity for the transportation and use of that gas (Brief, 51).

(c) The figures submitted by appellees deal with annual averages in the transportation and use of Oklahoma gas. This is not the proper way to determine whether it is necessary for appellant to transport Oklahoma gas to Texas. *The proper test is peak demand.* The uncontradicted evidence shows that in

times of peak demand these Oklahoma lines are operated to capacity. The capacity of Line H is 50,000,000 cubic feet per day. Line 2nd H has the same capacity. Line G has a capacity of 55,000,000, making a total daily capacity of 155,000,000 (II, R. 1490). The witness Schmidt testified as to the peak demand use of these lines:

"Q. Has the Company actually transported that amount of gas through those lines in recent years?
"A. They have.
"Q. On a daily basis?
"A. Yes, sir.
"Q. Has the utilization of Line A, Line H, Line 2nd H, and Line G been necessary to enable the Lone Star Gas Company to supply the gas required for industrial and domestic consumption by consumers in the numerous towns and cities supplied at wholesale by it in the State of Texas?
"A. They certainly are.
"Q. In times of extreme cold weather are all of those facilities needed to supply the demands put upon the public service facilities of the Company?
"A. In times of severe cold weather those lines are carried to capacity." (II, R. 1490-1491.)

In view of this undisputed testimony it is clear that appellees have wholly failed to convict appellant of being engaged unnecessarily and even fraudulently in interstate commerce in connection with its transportation from Oklahoma to Texas.

Appellees in their discussion of this subject travel outside the record and state that one of the Oklahoma lines has been taken up since the trial in the State court (Brief, 49-50); and also that appellant has constructed certain new lines (Brief, 52). We

will not reply to these obviously improper statements.

The Court will further note that in their discussion of this subject appellees repeatedly refer to the Plea in Abatement Record—a record that constitutes no part of the statement of facts heard at the trial on the merits. All references to pages 215 to 230 are to that record.

V.

Discussion of Various Matters Relied Upon by Appellees as Being Sufficient to Deprive the Oklahoma and Panhandle Gas of Its Interstate Character.

Appellees in their Points XVI and XVII assert that, even if the Oklahoma and Wheeler County gas is transported to Texas in interstate commerce, "yet the treatment of such gas by appellant" in certain particulars, after it arrives in Texas "constitutes a breaking of the original package" and "the bringing of the interstate movement to a rest" (Brief, 21; also 55, 61). The various points here made will be briefly discussed.

(1) *Withdrawals from line.*

Appellees refer to the withdrawals from the main trunk line as constituting what they call a "breaking of the original package" with the result that when the first withdrawal takes place the remaining mass constitutes a "broken package" brought to rest within the State of Texas. (Brief, 59-60.) Referring to

Line A, appellees point out that the first Texas delivery made out of Line A after it reenters Texas is the delivery made to the West Texas Utilities Company (III, R. 1693, 1695). They assert that the delivery "breaks the original package" and brings to rest in Texas not only the gas thus delivered but all of the other gas remaining in the trunk pipe line and moving forward under high pressures to Texas city gates for delivery. (Brief, 60.)

If appellees are right in their contention that the making of a single city gate or other wholesale delivery brings to rest, not only the gas delivered to the distributing company or other wholesale buyer, but also the gas remaining in the trunk pipe line, then *Missouri v. Kansas Natural Gas Co.*, 265 U. S. 298, was wrongly decided. And the same is true of *State Tax Commission v. Interstate Natural Gas Co.*, 284 U. S. 41, and the other cases that have followed *Missouri v. Kansas Natural Gas Company;* supra, p. 2. This is in effect what the appellees contend. Under this line of argument the first city gate delivery would be an interstate delivery, while all the subsequent city gate deliveries, although made in the same way, would constitute intrastate deliveries.

(2) *Fort Worth Distributing System.*

Appellees also refer to the reduction of pressure that takes place in the local distributing system at Fort Worth—the only distributing system operated by appellant (Brief, 59). It is asserted that the local service at Fort Worth necessitates pressures as low as 4 to 6 ounces per square inch (Brief, 59), and this is referred to as a fact showing that all of ap-

pellant's pipe line gas is brought to rest in Texas. As to this it is submitted:

(a) Appellant's local distributing operations at Fort Worth are not involved in this proceeding; only its pipe line operations are involved. Its local distributing system and operations at Fort Worth were expressly excluded from consideration by the Commission. (I, R. 15.)

(b) The reduction in pressures here referred to takes place in the local distribution system and not in the trunk pipe line. The gas that remains in the trunk pipe line is not reduced in pressure.

(3) *Other Deliveries from Trunk Pipe Line.*

In the same connection appellees refer to the commercial and industrial sales made by appellant from its trunk pipe line and to the sales at farm taps (Brief, 59). The prescribed rate does not apply to these sales; it applies only to the city gate deliveries intended for domestic consumption. Even if it be assumed that appellant is engaged in intrastate commerce in making any or all of the sales mentioned that does not mean that appellant is also engaged in intrastate commerce in making the city gate wholesale deliveries to the distributing companies in the manner shown by the evidence.

It appears to be appellees' position that appellant has assumed the burden of showing that it is not conducting any intrastate activities in Texas. Appellees assert that appellant is conducting numerous intrastate activities and refer to the maintaining of a general office at Dallas, Texas. Appellees' position is plainly shown by its repeated citation of and reli-

ance on the opinion of this Court in *Southern Natural Gas Corporation v. Alabama*, 301 U. S. 148, Preliminary Print. That case is not applicable here because there the Gas Company was assailing a tax levied against it for the privilege of doing a local business in Alabama measured by the property it owned in that State, and the question was whether the business thus conducted in Alabama was "entirely an interstate business." (301 U. S. 154, Preliminary Print.) Here the question is whether a part of appellant's business done in Texas constitutes interstate commerce. If so, the order is void because it is inseparable and indivisible in form and in substance, and in virtue of the findings purportedly sustaining it. (Appellant's main brief, 97-104.) It may be assumed that appellant is engaged in intrastate commerce in carrying on the local business of selling and distributing gas to consumers in Fort Worth; and even that it is engaged in intrastate commerce in making the industrial and other sales along its line referred to by the appellees. This does not change the fact that appellant is also engaged in interstate commerce in transporting gas in high pressure trunk pipe lines through and from the State of Oklahoma for sale and delivery in wholesale quantities at city gates in Texas and Oklahoma.

These various withdrawals from the line are effective to bring to "rest" the gas withdrawn from the trunk line, but they are without effect on the gas remaining in the trunk line. These withdrawals do not even stop the movement of that gas. If appellees are right, then if an interstate car of wheat were shipped to Texas, parts of it being consigned to pur-

chasers at different cities, the entire mass of wheat would be brought to "rest" upon making the first delivery from the car within the State.

Missouri v. Kansas Natural Gas Co., supra, and *State Tax Commission v. Interstate Natural Gas Co., supra,* are both distinguished by appellees upon the untenable ground that in both cases "the whole volume of gas was transported from another State" (Brief, 41). Here it is sufficient that a part of the gas sold and delivered at city gates in Texas, and affected by the challenged order, is transported through or from another State. That appellant may be making other sales in a different way and, in virtue of such sales and other activities, may be engaged in part in intrastate commerce is beside the issue.

(4) *Storage of Gas.*

Appellees refer to the storage of gas by appellant on the Miller Farm lease near Petrolia (Brief, 60-61). This is discussed in appellant's main brief, 107-108. It may be assumed that this stored gas is brought to "rest" in Texas, but that is not the question involved here. The question is whether the gas that is not stored is also brought to rest so as to become intrastate gas. In discussing this stored gas, appellees ignore the fact that none of the gas from Line G is stored; as well as the fact that only a small part, if any, of the Line A gas is stored (II, R. 1478); and the fact that approximately one-half of the Line A gas is consumed by deliveries made by appellant at city gates in Texas north and west of the Miller Farm Lease—that lease being located near Petrolia.

The rate order applies to all of the gas delivered at city gates in Texas, including the gas that is not stored as well as the gas that is stored and including even the gas that is consumed before arriving at Petrolia.

The rate order, as we have pointed out in the main brief (93-104), is an indivisible legislative act. It is clearly void as to gas that is not stored, and, being indivisible, it is entirely void.

(5) *Use of regulators and meters.*

Appellees refer to the use of regulators by the appellant in making deliveries to the distributing companies, whereby the pressures are reduced from the high trunk line pressures of 150 to 350 pounds to low pressures of 20 to 30 pounds per square inch (Brief, 21).

The manner in which the pressures are reduced, as well as the purpose of the reduction made in delivering the gas at the city gates, is correctly detailed in the undisputed testimony of the witness Schmidt, quoted in appellant's main brief, 24-26. The reduction is made for the purpose of effecting delivery; for the purpose of reducing the pressures to a point where a delivery into the smaller distributing lines will be safe. The reduction is merely an incident to the delivery of the gas. Such a reduction in pressure was held to be without effect in *State Tax Commission v. Interstate Natural Gas Co.*, 284 U. S. 41, 43, and also in *East Ohio Gas Co. v. Tax Commission*, 283 U. S. 465, 468, 470. The purpose of the reduction is explained in the East Ohio Gas Company opinion, 283 U. S. 468. In *State Tax Commission v. Interstate Natural Gas Company, supra*, the reg-

ulators and meters were owned and operated by the pipe line company. An argument like the one here presented was grounded on that fact. (284 U. S. 41, 42.)

There can be no interstate transportation without delivery at the end of the journey, and a reduction in pressures does not change the interstate character of the gas.

Appellees refer to contractual provisions which they interpret as requiring a reduction in pressures before the gas is delivered (Brief, 58). These provisions, thus interpreted, merely emphasize the purpose of the reduction—to effect a safe and suitable delivery.

Appellees refer to an inaccurate statement made on page 106 of appellant's brief in respect to the ownership of the regulators used in reducing pressures. This statement gives undue effect to the language of the contracts between appellant and the distributing companies requiring the distributing companies to install and maintain regulators and authorizing appellant to make deliveries at operating pressures. (These provisions are quoted in appellant's brief, 24.) Appellees now point out that there is a prior reduction made by the appellant immediately before the gas is metered. See the testimony of the witness Schmidt (appellant's main brief, 24-26). We accept Mr. Schmidt's testimony as correct, as apparently do the appellees. In making the criticised statement we did not intend that it should be construed as being in conflict with his testimony. At all events, the error in the statement criticised is an immaterial one. The record shows without

conflict that any reduction in pressures made by the appellant is made in connection with the act of delivering the gas and only for the purpose of effecting the delivery.

(6) *Gasoline Extracting Plants.*

As to the effect of the running of the Oklahoma gas through gasoline plants at Gainesville and Petrolia, we refer to our main brief, 105-106. The uncontradicted evidence shows that this process does not interrupt the movement of the gas (Schmidt's testimony, quoted in appellant's main brief, 32).

Appellees state that the witness Schmidt admitted that "the extraction process changes the B. T. U. content of the gas." (Brief, 57.) This is a partial interpretation of the testimony of the witness on the point. He testified:

"The heating value is lowered by possibly three per cent, but that is not the entire facts of the matter, because most of these hydro-carbons would condense in the lines anyhow, and you would have the same condition, besides giving us considerable operating troubles; these gases freeze up and cause stoppages in the line." (II, R. 1479.)

On the same point see his testimony, II, R. 1591-2.

Appellees state that the gas "coming through Line A is run through a gasoline extraction plant at Hollis, Oklahoma." (Brief, 57.) If running a gas through such plant brings it to rest, as appellees now contend, then all of this Line A gas is brought to rest and becomes intrastate gas at Hollis, in the State of Oklahoma, and then moves forward to Texas city gates as interstate gas.

(7) *Shifting of Flow of Gas by Appellant.*

In Proposition XVI appellees contend that when the gas leaves the Wheeler County field and the various fields in Oklahoma its destination is not known or determined in advance, and that it may be "shifted at the will of appellant to whatever destination may suit its own whim and fancy," and that appellant is in a position to thus defeat all regulatory authority (Brief, 20).

It is true that appellant does not know what destination in Texas or Oklahoma will be reached by any particular identified unit in quantity of the gas. But it does know that all of the gas not consumed in Oklahoma will be transported through and from Oklahoma into Texas, and that the city gate deliveries will be made in wholesale quantities with no reduction in pressure except that needed to effect the delivery.* Taking the Line A gas: Appellant knows the quantity going into the line and the quantity arriving in Texas, as well as the quantity delivered at every city gate in uncommingled state from the time it reaches Texas until it arrives at Petrolia, where it is there commingled with Oklahoma gas. This commingling is immaterial to a correct determination of the commerce issue (appellant's main brief, 74-76).

Of what effect is the fact that the exact quantity

*The argument here made by appellees, as well as that grounded on the fact that the title does not pass until the gas arrives at the city gates, was made in *Missouri v. Kansas Natural Gas Co.*, 265 U. S. 300, 301, 306, and in *State Tax Comm. v. Interstate Natural Gas Co.*, 284 U. S. 41, 42.

delivered at any particular city gate is not known? The prescribed rate is uniform and it is known that all of the gas will be delivered at some city gate and will be subjected to the prescribed rate.

There is no "shifting back and forth" of gas in appellant's lines, except in rare cases of line breakage or other emergency.* In the general course of business, gas in a gas pipe line moves forward in a single direction. The witness Schmidt was interrogated by the District Court on this point. We quote as follows from his testimony:

"The Court: Now, so everybody will understand me, I understand you to say now, as far as you know, there is no line in which and through which gas some days moves south into Texas and on other days in the same line is moved north into Oklahoma?

"A. That is correct.

"Q. Of course, in the case of a line break or an emergency gas can be transported north through the pipe line?

"A. Yes; it can move in any direction in the case of an emergency." (II, R. 1471.)

Schmidt also testified:

"Q. Now, then, Mr. Schmidt, is it your testimony that no gas ever travels north from Texas into Oklahoma in either Line H or Line Second H?

"A. That is correct.

"Q. Never does?

"A. Except under extreme conditions or emergencies; such as a break in the line some place north of the river; and we have to take gas up there to

*It will be noted that some of the record references made by appellees are to the "Plea in Abatement Record," Brief, pp. 55-56, supra, pp. 5-7.

supply perhaps Temple, or some town in the south of the state of Oklahoma.

"Q. There have been times, have there not, when gas has moved North into Oklahoma from Texas thru those lines?

"A. To my knowledge, that has never happened.

"Q. Do you know about it?

"A. Yes, I know.

"Q. Are you positive what you are talking about?

"A. Yes.

"Q. And you are willing to say that at no time has there ever been a movement in either Line H or Line Second H, north from Texas into Oklahoma?

"A. That's right.

"Q. Now, on Line G, which is the next line east of H and Second H, I believe you say that gas has passed from Texas into Oklahoma through that line?

"A. Well, the same thing is true there as of Line H. It would only be in the case of an emergency.

"Q. Well, has there ever been any movement of gas from Texas into Oklahoma?

"A. Well, I believe on that line there has been at times, when gas moved into Oklahoma.

"Q. There has been on Line G?

"A. Yes, but it was only in case of a break, and lasted for a very short time." (II, R. 1475-1476.)

Appellees state that the witness Dunn testified "that he is the sole person who determines where the supply of gas shall be withdrawn or purchased, and where it shall be directed to in the 4,000 mile system of the company," and they assert that this gives the company, acting through him, the power "to shift its withdrawals and transportation from day to day, and from hour to hour" (Brief, 56). The testimony of the witness does not support this statement. We quote:

"Q. Mr. Dunn, as Production Engineer, are you primarily responsible for the proration of production in the field and proration of purchases in the field, and, in the last analysis, for the amount of gas taken from the several fields which supply the Lone Star Gas Company's pipe line system?

"A. Yes, sir, that is part of my duties. I am responsible for the amount of gas which is produced, when applied to the requirements. In other words, I have no control over the demand, but I am responsible for the production of the gas to meet that demand, as obtained from the separate fields and the separate wells, and so forth, which includes the proration of that gas in the individual fields and from the separate sources of supply." (I, R. 531.)

The entire import of this is that Mr. Dunn is charged with the responsibility of producing or purchasing enough gas to meet the demand. There is no support here for the statement that he or any other officer of the company may shift its withdrawals and transportation back and forth (Brief, 56). It is a matter of common knowledge that it is impossible from a practicable standpoint to transport and handle gas in the manner described by appellees.

VI.

Corporate Affiliation—Reply to Appellees' Points IV to VI, Inclusive.

Appellees contend that appellant pipe line is not engaged in interstate commerce in transporting gas through and from Oklahoma for sale and delivery in wholesale quantities at city gates in Texas because it is affiliated with all of the distributing companies

excepting two (Brief, pp. 7-12). The State court held that corporate affiliation was of no controlling importance in determining the commerce issue (V, R. 3343).

This contention is discussed in appellant's main brief, 83-97. We briefly supplement what is there presented.

Appellees admit that the Commission, for obvious reasons of convenience, elected to proceed separately and independently against appellant pipe line company in order that it "could in one hearing, fix a final uniform gate rate for the entire system in Texas, and later build the burner tip rates upon same after hearings as to the distribution operations only" (Brief, 38), instead of proceeding separately against the distributing companies to fix burner tip rates, in which proceedings the pipe line rate would have been only indirectly involved as an expense item. They admit that the order in question "is a final, binding and conclusive legislative act fixing the rate to be charged by the pipe line company and paid by the distributors of gas delivered at the city gates" (Brief, 38).

The State court found that the rate order in question was "a final appealable order" (V, R. 3345) and that if the prescribed rate "is declared valid herein" appellant can have no further interest in any order the Commission may make "in requiring the distributing companies to pass the reduction to the consumers" (V, R. 3349-3350). The Commission asserts that in fixing burner tip rates it will insist "that the applicable gate rate has been finally and conclusively fixed by the present order" (Brief, 39).

An applicable statute subjects appellant pipe line company to heavy penalties for failing to obey the order, the penalties amounting to not less than $100.00 nor more than $1,000.00, each violation being regarded as a separate offense and each day calling for a separate penalty. *Article 6062, Texas Revised Statutes of 1925.*

It thus appears that the Commission has made and proposes to enforce the order against appellant as a separate corporate entity engaged in the gas pipe line business and subject to the statutes that apply to gas pipe line companies, including the statute that authorizes the Commission to fix their transportation rates. *Article 6053, Texas Revised Statutes of 1925.* The Commission has elected to proceed separately against the distributing companies in fixing burner tip rates.

It is true that the State court held that appellant and its affiliated distributing companies were engaged in an "integrated but single business enterprise of producing, purchasing, transporting, delivering and selling natural gas for domestic or other use to the ultimate consumer" (V, R. 3342). But the State court further held that this single business enterprise was divided into "departments" and that appellant, separately organized as a pipe line corporation, was operating one of the departments and the affiliated distributing companies another and different department. It held that appellant in its department was "engaged in producing and purchasing natural gas and in transporting same by its 4,000 mile pipe line system from the point of production to the city gates of some 270 cities and

towns in Texas, where the gas is delivered to one and the other affiliated distributing companies." (V, R. 3340.) It held that the distributing companies in their "department" were "engaged in selling and delivering the gas to the burner tips of the consumers" (V, R. 3340).

Accordingly, the Commission proceeded against the appellant as a separate "department"—that is as a pipe line company. It asserts that it proposes to proceed against the distributing companies operating their separate department—and as distributing companies.

In these circumstances, it is manifest, as was declared by the State court in its opinion, that corporate affiliation "is not of controlling importance on the commerce issue" (Appellant's brief, 84). See *Smith v. Illinois Tel. Co.*, 282 U. S. 133, 143-144. For further discussion see appellant's brief, pp. 83-97, inclusive.

Appellees, on page 39 of their brief, refer to certain contentions which it is claimed appellant has made in other suits and hearings after this suit was tried. These statements are outside the record and for that reason are not discussed.

DIVISION TWO.

The Segregation Issue—Discussion of Appellees' Points XX to XXIV, Inclusive.

Appellees in their discussion of the segregation question wholly fail to meet the issues tendered by the appellant—issues that clearly arise because of the rulings made by the State court (Appellant's

main brief, 110-124). Instead, appellees discuss issues that are clearly immaterial in view of the rulings made by the State court. Appellant is content to stand on the discussion presented in its main brief supplemented by the following:

(1) At the outset it may be pointed out that the entire argument here, as elsewhere, is grounded upon the assumption that appellant is not entitled to the benefit of any evidence in the record except that sponsored and offered by the appellant. It assumes that the rate order must stand if appellant failed to offer evidence sufficient to show that the rate was confiscatory, even though evidence showing that it was confiscatory, and coming from some other source, is in the record. As to this, see, for example, appellees' "General Thesis" on page 85 of their brief.

Appellees cite no authorities in support of their contention that the evidence supporting a judgment annulling a rate must come from the party who assailed the rate. It is clearly sufficient, we submit, that the invalidating evidence is in the record. In this case evidence and computations based thereon, covering various phases of the confiscation issue, came from three sources: First, the Commission's detailed findings were put in evidence for the consideration of the jury; next, there was evidence offered by the appellant; and, finally, evidence offered by the appellees. It was clearly open to the jury, in dealing with any particular phase of the confiscation issue—for example, with the fair value of appellant's public service properties—to accept all or any part of the evidence coming from any one

of these sources and to blend that evidence with other evidence coming from a different source.

(2) Appellees criticise at length appellant's segregation of its properties and business as between interstate and intrastate commerce (Appellees' brief, 65-76). The criticism is pointless because appellees claim that their segregation, in effect approved by the Court of Civil Appeals, was a proper one (Appellees' brief, 75); and appellant has demonstrated that when the validity of the rate order is tested on the basis of that segregation and in the light of other evidence that the jury was entitled to accept, and presumptively did accept, the rate order is clearly confiscatory (Appellant's main brief, 119-124).

It will be noted that appellees make no effort to answer that argument.

(3) In this case the State court ruled that appellant was not engaged in interstate business at all in making the city gate deliveries in Texas. It further ruled that appellant's confiscation evidence was legally worthless because of its alleged failure, by its evidence, to make a proper segregation as between its interstate and intrastate operations. These two rulings are obviously inconsistent; both cannot stand. If the Court of Civil Appeals meant that appellant was engaged in intrastate business in Texas and in intrastate business in Oklahoma and that it was necessary to make a segregation as between the Texas properties and operations and the Oklahoma properties and operations, then it is sufficient to point out that that segregation was made by the

appellees and was accepted by the State court and that the prescribed rate, when considered in the light of that segregation and other evidence that the jury was entitled to accept, is clearly confiscatory. (Main Brief, 121-124.)

(4) Here the prescribed rate applies to all of the Texas business. The order as drawn is indivisible and inseparable (Appellant's main brief, 97-104). Appellees assume that it was appellant's duty to segregate its city gate deliveries in Texas so as to separate and identify the interstate deliveries and the intrastate deliveries at all the city gates in Texas (Appellees' brief, 27, 30-31). No such burden devolved upon appellant. It was not the duty or even the right of appellant to rewrite the rate order. The order applied to all of the deliveries in Texas and the appellant is entitled to have the validity of the order tested in the light of that fact. If appellant had made the segregation, the order would have stood unmodified.

This is not a case like *Smith v. Illinois Telephone Co.*, 282 U. S. 133, 148. There, the order as drawn was divisible and separable in its operation. It expressly applied only to the intrastate part of appellant's business. The question, therefore, was simply one of segregating, not the order, but the properties and operations, in order to test the reasonableness of the rate that was properly limited in its application to the local business. That was also true in the other cases cited by the appellees: The rate as prescribed was a local rate, and the segregation required was of the properties and op-

erations. None of these cases hold that the party assailing a rate must assume the burden of offering evidence that would enable the reviewing court to rewrite the order.

The necessity for a segregation of properties and operations in any case is to identify the property used and useful in rendering the service to which the rate applies, to the end that it may be determined whether the revenues accruing under the prescribed rate will afford a fair return on the properties used in rendering the service. The rate order here applies to all of the city gate deliveries made in Texas. There was therefore no necessity that appellant, disregarding the terms of the order, should separate the property used in making these deliveries into two parts on the theory that part of the deliveries were interstate deliveries.

(5) Appellees refer to the map appended to appellant's brief and make the charge that this is the same map that was appended to appellant's brief in the Court of Civil Appeals and to its application for writ of error in the Supreme Court of Texas, but with certain colored zoned areas and delineations thereon obliterated; and the Court is invited by appellees to examine the map to determine if this is not true (Appellees' brief, 73-74). The map appended to appellant's brief is the same map that was appended to the briefs referred to by appellees and the colored zoned areas and other delineations have been removed. This was done because the present map is presented for a wholly different purpose. It is presented and is referred to in the brief

solely for the purpose of showing "the location of appellant's lines in Oklahoma and Texas" (Appellant's brief, 5). On the other hand, the map appended to the State court briefs was presented to show by colored zones and delineations a segregation of appellant's properties and operations as between interstate and intrastate commerce. These colored zones and delineations were eliminated because they had no relation to the purpose for which the present map is tendered; it is tendered merely to show the geographical location of appellant's lines. This map is also based on two other maps introduced in evidence and appearing in the record (V, R. 3206A and 3208A). Many maps are in the record, including one designed to show a segregation of appellant's properties and operations. The record affords ample basis for the preparation of a map designed to serve the limited purpose of the map attached to appellant's brief. We were there discussing simply the question of whether appellant was engaged in interstate commerce and endeavoring to show nothing except the location of its lines with reference to the State line between Oklahoma and Texas.

DIVISION THREE.

Denial of Adequate Judicial Review.

(1) Appellees assert that appellant, on page 126 of its brief, has admitted that it was not denied an " 'independent judgment as to the facts' by the District Court, or by the Court of Civil Appeals." (Appellees' brief, p. 76.) Appellant submits that nothing contained in its brief warrants this statement.

(Appellant's main brief, 126-127.) Appellant's complaint, as stated in its brief, is that the procedure provided by the State, as expounded and applied against it in the instant case, denied it a judicial review of the rate order. It specifically complains of "the judgment of the Court of Civil Appeals, which, in effect, deprived appellant of the judicial review accorded to it in the trial court and placed it in the same position as if that review had been denied by the trial court." (Appellant's brief, 127.)

(2) Appellees undertake to interpret the opinion of the Court of Civil Appeals and to restate its rulings on the question of judicial review. (Appellees' brief, 77-81.) The opinion speaks for itself. The court clearly held that the conflicting testimony of "equally well qualifitd experts" was insufficient as a matter of law to sustain a judgment setting aside a rate order as confiscatory, and that this is true even where the conflicts have been settled by the verdict of a jury or other fact finding agency. In this case the State court expressly found that the evidence on vital phases of the confiscation issue was conflicting. (Appellant's main brief, 124-125.) Because of the existence of these conflicts, it held that the verdict and judgment of the district court, settling the conflicts against the validity of the order, should be reversed and judgment should be rendered sustaining the rate order, this being upon the theory that conflicting evidence is insufficient as a matter of law to sustain an attack on a rate order. The court cited in support of its ruling cases decided by this Court, holding that a judgment *sustaining* a

rate order will not be set aside where the evidence for and against the order is conflicting and the conflicts have been settled in favor of the order. It is manifest that the decisions cited by the court, instead of supporting its conclusion, are in conflict with its conclusion. (Appellant's main brief, 131-132; also 135-136.)

(3) It is asserted by the appellees that this case differs from *United Gas Public Service Co. v. State* (the Laredo case), decided February 14, 1938, because there the jury finding imported that the rate was not confiscatory; whereas, here, the verdict does not import that the rate is confiscatory. (Appellees' brief, 84.) It is pointed out in this connection that there is a difference between an unreasonable rate an a confiscatory rate. (Brief, 84.) That such a difference exists is true, but that fact is immaterial here. The State District Court required the jury to find whether the prescribed rate as applied against appellant was "*unreasonable and unjust*" to the appellant. The jury was charged in this connection that an unreasonable and unjust rate was one "so low as to have not provided for a fair return upon the fair value of defendant's property used and useful in supplying the service furnished by said defendant." (Appellant's main brief, 16.) The jury's answer in the affirmative, interpreted in the light of the charge, means that the prescribed rate was so low that it would not yield a fair return on the fair value of appellant's property, and was therefore confiscatory. *Board of Public Utility Commissioners v. New York Tel. Co.*, 271 U. S. 23, 31; *Wilcox v. Consolidated Gas Co.*, 212 U. S. 19, 41.

DIVISION FOUR.

I.

The Confiscation Issue—Discussion in Reply to Division C of Appellees' Brief, pp. 85 to 206.

Appellant in Point V, submitted in its brief and the discussion thereunder, attempted to demonstrate that the finding of the jury that the rate was confiscatory is sustained by clear and satisfactory evidence—evidence that the jury was entitled to accept, and presumptively did accept, as true. Further, that the Court of Civil Appeals, without making any contrary finding of fact on the issue of confiscation, set aside the verdict of the jury and the judgment of the District Court approving the verdict and rendered judgment sustaining the rate order; and that this ruling of the Court of Civil Appeals was based simply on an erroneous conclusion upon a question of Federal constitutional law. The question of law erroneously decided by the court related to the quantum and character of evidence that is required to sustain a judgment setting aside a rate order challenged as being confiscatory (Appellant's main brief, pp. 134, 135-170).

In discussing this point appellant referred to many bases of fact, supported by evidence in the record, that the jury was entitled to accept, and presumptively did accept, and showing that the rate was confiscatory (Appellant's main brief, pp. 147-170; also 34-50).

Appellees make no attempt to meet the issue thus tendered. Instead, they have gone over the record

and selected other and different items of evidence and have presented these in their discussion and in the attached tables for the purpose of showing that the rate was not confiscatory. They ignore the fact that the work of selecting and blending different parts of the evidence had already been done by the jury. They have hand picked the evidence, ignoring the fact that it has already been hand picked by the jury. They have selected parts of the evidence unfavorable to the verdict and presumptively rejected by the jury, and blended these rejected parts in an effort to show that the rate was not confiscatory. The proper approach to this problem, as we believe, is to determine whether there is substantial evidence in the record that the jury was entitled to credit and then to select and blend in such a way as to support its finding that the rate was confiscatory. We approached the problem in that way in our main brief and we think our approach was correct.

The only findings of fact made on the confiscation issue in this case were made by the jury, with the approval of the District Court. The Court of Civil Appeals made none. Where the Court of Civil Appeals reverses the judgment of the District Court based on a finding of fact and renders judgment, it determines, not a question of fact, but a question of law. "Its ruling is therefore one purely upon a question of law—whether there be any evidence under the quantum of proof required which will support the jury's finding. *Tweed v. Telegraph Co.*, 107 Tex. 255, 166 S. W. 696, 177 S. W. 957." *Briscoe v. Bright's Adm'r.*, 231 S. W. 1084, 1085 (Tex. Com. App.). This was said in a case where an applicable

rule of law required that the evidence should be "clear and satisfactory." The court held that the conclusion of the Court of Civil Appeals that the evidence was not "clear and satisfactory," followed by the rendering of final judgment, amounted to no more than an erroneous conclusion on a question of law.

This results from the fact that the Court of Civil Appeals has no power "to make an original final determination of a question of fact." *Choate v. San Antonio & A. P. Ry. Co.*, 91 Texas 406, 410. It is because "it is not the province of the Court of Civil Appeals to determine a question of fact in the first instance." *Patrick v. Smith*, 90 Texas 267, 274. The Supreme Court of Texas has defined the fact finding power of the Court of Civil Appeals in *Post v. State of Texas*, 106 Texas 500, followed by this Court in *United Gas Public Service Co. v. Texas*, decided February 14, 1938. We quote as follows:

"The province of determining questions of fact is in the trial court. The Court of Civil Appeals has the power to set aside its finding and remand the cause for a new trial. Where the evidence is without conflict, it may render judgment. But where there is any conflict in the evidence upon a material issue, it has no authority to substitute its findings of fact for those of the trial court. Choate v. San Antonio & A. P. Ry. Co., 91 Texas, 406, 44 S. W. 69."

This is in line with the generally accepted rule that a holding that there is "no evidence" or no legally sufficient evidence is a holding on a question of law; it is not a finding of fact. *Creswill v. Grand Lodge K. of P.*, 225 U. S. 246; *Northern P. R. Co. v.*

North Dakota, 236 U. S. 585; *Union Pacific R. Co. v. Huxoll*, 245 U. S. 535; *Jones National Bank v. Yates*, 240 U. S. 541; *United Gas Public Service Co. v. State*, decided February 14, 1938.

All that the Court of Civil Appeals did here was to determine what "quantum and character" of evidence is legally sufficient to support a judgment setting aside a rate order as being confiscatory. Its holding on that question of law was to the effect that conflicting evidence is not enough. It was to the effect that where the evidence sustaining a judgment, annulling a rate order, consists merely, as the court described it, of the "conflicting testimony of equally well qualified experts" on the issue of fair value of the utility's property and other vital issues, it is insufficient as a matter of law to sustain the judgment, even though such evidence may have been accepted as true by the triers of fact. The Court, without denying the right of the jury, well established under the Texas rule, to resolve the conflicts in the evidence in the ordinary case, held that, under a general rule of law, claimed by the court to be supported by the decisions of this Court, this function cannot be exercised by any court in a rate case; and that its exercise by the jury in this case should be ignored. The Court held that the presence of conflict required that the issue of confiscation be decided against the complaining party without settling the conflict.

The Court does not find that the verdict of the jury was wrong on the facts. The Court had no power to make a finding of fact contrary to that made by the jury and then render final judgment, and did not

claim or attempt to exercise such power. All the Court did was to apply a wrong legal test in determining the legal sufficiency of the evidence on which the jury verdict was based.

The question of law thus determined is one arising under the Fourteenth Amendment. It is plain, we submit, that the question was erroneously decided. The decisions of this Court were erroneously interpreted and applied (Appellant's main brief, 135-139). The State court erroneously assumed that because conflicting evidence is not enough to require the reviewing court to set aside a rate order that conflicting evidence is also not enough, even when the conflicts have been settled by the triers of fact, to support a judgment annulling the order. No applicable decision of this Court supports this ruling.

The State court cites decisions of this Court holding that it will not reverse a judgment sustaining a rate order where the evidence as to the validity of the order is conflicting. These decisions fall short of holding that where the conflicts in the evidence have been resolved by the triers of fact against the validity of the order, their action will be reversed and the order sustained, notwithstanding their findings, merely because the evidence is conflicting.

We submit that the findings of fact made by the jury in this case, with the approval of the trial court, should be accepted in this Court if they are sustained by clear and satisfactory evidence that the jury was entitled to accept. The record should be reviewed solely for the purpose of determining whether it contains such evidence; and if such evidence is found, then it should be conclusively presumed that it was

accepted by the jury. The action of the Court of Civil Appeals in reversing the judgment of the District Court should be ignored because it is based, not on a contrary finding of fact, but only on an erroneous ruling on a question of constitutional law.

The ruling of this Court in *Jones National Bank v. Yates*, 240 U. S. 541, is applicable. In that case, as in this one, the findings and judgment of the trial court were overturned and reversed by the appellate court of the State. In that case it was "apparent that there were no findings of fact by the Supreme Court of the State," (p. 551). The court said that "the questions of fact, so far as they arose upon a substantial conflict in the evidence, were for the trial court." That it was not necessary for the court to review the evidence in detail, it being "sufficient to say that our examination of it has convinced us that the findings of the trial court at least with respect to the last mentioned reports had substantial support; and, in this view, we must conclude that the reversal of the judgments, as entered in the trial court, upon the ground of the legal insufficiency of the plaintiffs' case when tested by the Federal statute, was error." (P. 563.)

Here the Court of Civil Appeals has expressly held that the evidence was conflicting on vital issues relating to the ultimate issue of confiscation (Appellant's main brief, 124-125.) These conflicts have been settled by the jury. The Court of Civil Appeals has not denied the right of the jury to settle the conflicts, but has announced and applied as a general rule of constitutional law, that conflicting evidence

is insufficient as a matter of law to support a judgment annulling a rate order.

A jury verdict entered in a State court falls under the Seventh Amendment when a Federal court is invited to re-examine the findings of fact evidenced by the verdict. *Chicago, etc., Ry. Co. v. Chicago*, 166 U. S. 226, 246. The case of *Minnesota & S. L. R. Co. v. Bombolis*, 241 U. S. 211, cited by the appellees is not in point because the re-examination of the verdict in that case was in a State court, and the Seventh Amendment does not apply to a re-examination by a State court.

In *United Gas Public Service Co. v. State*, decided February 14, 1938, this Court, in defining the scope of its review of the evidence, said:

"This court will review the findings of fact by a State court (1) where a federal right has been denied as the result of a finding shown by the record to be without evidence to support it, and (2) where a conclusion of law as to a federal right and findings of fact are so intermingled as to make it necessary, in order to pass upon the federal question, to analyze the facts."

The court further said:

"We make that anlaysis, not to determine issues of fact arising on conflicting testimony or inferences, and thus to usurp the function of the State court as a trier of the facts, but to perform our own proper function in deciding the question of law arising upon the findings which the evidence permits. Kansas City Southern Ry. Co. v. Albers Commission Co., supra.

"Here, the issues of fact were determined in the

trial court. Counsel agree that under the state practice the Court of Civil Appeals had no authority to make findings of fact. 'Where the evidence is without conflict, it may render judgment. But where there is any conflict in the evidence on a material issue, it has no authority to substitute its findings of fact for those of the trial court.' "

Applying the rule thus announced, we understand that this Court will, in passing upon the ruling of the Court of Civil Appeals, review the findings of fact made by the State trial court. It will do this because the legal conclusion of the Court of Civil Appeals as to appellant's Federal right and the findings of fact of the District Court are so intermingled at to make it necessary to a proper determination of the Federal question to consider the facts. But in analyzing the facts, the Court will not determine the issues of fact that arise on conflicting testimony. It will not usurp the function of the jury and trial court as the triers of fact.

In discussing the confiscation issue in our main brief, we proceeded in the light of these rules that we believed to be correct. We have not supposed that this Court would review the evidence *de novo* for the purpose of determining whether the conflicts in the evidence may be settled in some way different from the way in which they were resolved by the jury. We have attempted in the main brief to show that there was substantial evidence in the record sustaining the jury's finding—evidence that, if accepted by the jury as true, would satisfy the test of being "clear and satisfactory" (Appellant's main brief, 154-170).

Appellees have proceeded in an entirely different way. They present points of argument that properly could have been addressed to the jury. They discuss alleged fallacies in "appellant's evidence" and emphasize the merits of "appellees' evidence." They proceed upon the theory that the evidence as a whole was divided into two separate and independent parts; and that the jury had no right to take evidence offered by appellant and blend it with evidence offered by the appellees.

Presumptively, the jury heard and considered the criticisms of appellant's evidence now offered by appellees. It determined that these criticisms were without merit or that, if any particular part of the evidence was not entitled to be accepted there was other evidence coming from other sources that properly could have been accepted.

Appellees assail appellant's reproduction cost new estimate and its evidence on reserve accruals for depreciation, depletion and amortization, and other items. It is sufficient to point out that the jury was not bound by any of this evidence. The jury was entitled to consider appellant's evidence, appellees' evidence, the findings of the Commission, and other relevant facts in arriving at its ultimate conclusion on the issue of confiscation. What parts of the evidence, whether sponsored by appellants or by appellees, were accepted by the jury and what weight the jury gave to any particular evidence is unknown. The nature of the charge submitted to the jury makes it impossible to determine now what particular phase or phases of the evidence influenced the jury in arriving at its verdict. But this fact is im-

material. What is material is that the jury's conclusion is supported by a reasonable interpretation and possible blending of all of the evidence introduced before it.

The five tables attached to appellees' brief illustrate very clearly the erroneous way in which they have considered the evidence in connection with the jury's verdict. These tables are plainly based upon a selection of items of evidence that the jury was entitled to reject, and presumptively did reject, to the extent that any particular item may be in conflict with the verdict.

What appellees have done is to demonstrate quite clearly that there were conflicts in the evidence to be resolved by the jury, and therefore that there was sufficient evidence of probative force and effect to justify submitting the case to the jury and to support the verdict of the jury finding that the rate was confiscatory.

We submit therefore that appellees' computations prove nothing material here (1) because of the fact that there is other evidence in the record which sustains the verdict of the jury rejecting the theories outlined in these computations; and (2) because of errors inherent in the computations.

We now briefly consider appellees' tables:

(1) *Appellees' Table I (Brief, 196).*

Under column 1 of this table appellees attempt to show that appellant from 1927 through 1933 would have received an average rate of return of 8% on the rate base adopted by the Commission, as shown by its findings. It is obvious that these figures are

based upon a hand picked selection of certain parts of the evidence that the jury possibly had the right to accept but presumptively did not accept. In preparing this and the other tables appellees blend the different parts of the evidence in a way not favoring the verdict, ignoring the right of the jury to blend the evidence in a way favoring the verdict.

In respect to each of the items shown on this table there was evidence of different items more favorable to the verdict. For example, the rate base is taken from the Commission's findings. There was evidence upon which the jury could have based a finding of a much higher rate base (Appellant's brief, 166-170).

The computations presented in Table I are based upon an allowance of reserve accruals approximating 2% a year, ignoring the fact that there was evidence favoring a larger allowance.

The rate base which the Commission found for the year 1927 through 1930 ranged from $29,517,879.08 to $46,745,646.84. This accords with the book costs for those years as appears under item 5, appellees' Table II (Appellees' brief, 197). The evidence shows that the book costs do not include cash working capital and going concern value. It also shows that all overhead construction costs were not capitalized. The record shows that the books understated the actual costs of the property (Appellant's brief, 37). The book costs ranged from $48,409,002.24 in 1931 to $50,399,110.82 for the twelve months ended March 31, 1934 (Appellees Table II, brief, 197), whereas the rate base figures used in Table I, $46,246,617.53 for 1931 and

$46,520,137.06 for 1932, represent the Commission's determination (I, R. 110-111). If the book costs be used as the rate base for the years 1931 and 1932 and the Commission's allowance for annual reserve accruals in the amount of 2.09% be used, the amounts available for Federal taxes and return would be 5.66% for 1931 and 5.84% for 1932, instead of the figures shown in Tables I for those years (I, R. 110-111).

For the year 1933, Table I shows 5.20% available for Federal income taxes and return. This figure was arrived at by adding to the actual revenues received during that year the sum of $441,240.12, which admittedly appellant did not receive but which appellees claim would have been received if weather conditions had been normal and more gas had been sold. It is obviously improper to test the effect of the 32 cent rate when applied to the year 1933 by anything other than the actual experience—actual revenues and expenses. *West Ohio Gas Co. v. State Tax Commission*, 294 U. S. 79. If the $441,240.12 thus added to actual revenues be eliminated and only the actual revenues used, the amount available for Federal taxes and return will be 4.29% on the rate base used in Table I instead of 5.20%. When applied to the actual cost of the property for the year 1933, the amount available for Federal taxes and return would be 4.11%.

Column 2 of Table I purports to include earnings from Government and Northern Natural Gas Company. None of the accountants who testified in this connection included such alleged revenues in their accounting exhibits.

(2) *Appellees' Table II (Brief, 197).*

It is at once apparent that the amounts shown to be available for return on this table were arrived at after allowing only *$344,871.84* for annual reserve accruals to provide for depreciation, depletion and amortization. This amounts to .71% for 1931, .70% for 1932, and .68% for 1933, on the book costs. This figure is 65% below the amount allowed by the Railroad Commission. The Commission allowed $983,698.43 for depreciation and depletion on the sinking fund basis, which requires an undepreciated rate base (I, R. 97, 98, 99). Appellees' alleged expert estimated $848,546.48 for depreciation and admitted that at least $94,000.00 for depletion of the production system properties would be required on the Texas properties alone, making a total of $942,546.48 (Appellant's brief, 47-48). This estimate was made on the sinking fund basis and he testified that with the application of this rate an undepreciated rate base should be used (III, R. 1829). This is the lowest figue suggested by any witness or shown by any evidence in this case for reserve accruals. The amount used in Table II for depreciation, depletion and amortization is 63% of the above figure. It is apparent that appellees themselves in the District Court trial did not rely on the figure $344,871.84 for depreciation reserve accruals. They should not now ask this Court to accept a figure which they themselves did not rely upon.

By the use of this figure of $344,871.84, appellees show 6.77% for the year 1931, 6.90% for the year 1932, and 5.46% for the year 1933, available for return on the book costs. If the Commission's allow-

ance for depreciation, depletion and amortization be used for the years 1931, 1932 and 1933, the following percentages are available for return on the book costs shown in Table II, to-wit; 1931, 5.45%, 1932, 5.61%; 1933, 4.19%.

Appellees have deducted the figure $344,871.84 for reserve accruals in computing the amount available for return for each year from 1927 through 1933, inclusive, although their own table shows that the book costs of the property increased from $29,517,879.08 for the year 1927 to $50,399,110.82 for the year 1933, an increase of $20,881,231.74. This increase represents additions to property over a seven-year period. It is obvious that depreciation, depletion and amortization requirements will increase as the property account increases. Appellees give no consideration to this elementary fact. Appellees also ignore the important fact that mortalities on the new property afford no measure of the requirements for reserve accruals to meet the increasing mortalities as the property grows older. They entirely disregard the newness of the property and the fact that reserve charges in past years are no measure of future requirements for which a reserve must be currently built up. (See facts mentioned in Appellant's main brief, 149-154.)

In the above computation Federal income taxes have been calculated on the basis used by appellees in their Table II. This basis is in fact erroneous. In computing Federal income taxes appellees have used a rate of 5% per annum for depreciation (see Note 4, Table II, Appellees' brief, 197). But in computing amounts available for return they used

.71% for 1931, .70% for 1932, and .68% for 1933, for depreciation reserve accruals. The inconsistency in using one rate for depreciation in computing return and another rate in computing Federal income taxes is obvious.

The result shown by application of the 32¢ rate for prior years is immaterial. The rate was promulgated September 13, 1933, and was based upon appellant's operating experience for the year 1931. Its effect, when applied to actual operating experience, is fairly and adequately demonstrated when applied to the years 1931 through March 31, 1934. Appellant claims that the 32¢ rate would not have afforded it a reasonable return at the date of its promulgation and for a reasonable period of time in the future. Earnings of the past cannot be used to support the rate. If it be confiscatory at the date of promulgation and when applied to the future, it is unconstitutional. *Los Angeles Gas & Electric Co. v. Railroad Commission*, 289 U. S. 287, 313; *Board of Com. of New York v. New York Telephone Co.*, 271 U. S. 23, 31, 32; *Bluefield Water Co. v. Public Service Commission*, 262 U. S. 679.

(3) *Appellees' Table III (Brief, 198).*

What has been said above with respect to appellees' Table II is applicable, in principle, to Table III. In Table III appellees allow $296,589.78 as a deduction from operating revenues for annual accrual to reserves for depreciation, depletion and amortization. Appellees' expert at the trial in the District Court admitted that $942,546.48 would be required for the Texas properties alone.

If depreciation reserve accruals be computed at the $942,546.48 figure, the amounts available for return on the basis shown in Table III would be 5.97% for 1931, 6.10% for 1932, and 5.10% for 1933.

(4) *Appellees' Table IV (Brief, 199).*

Appellees' Table IV is a reproduction of their Exhibit 8 (III, R. 2164). This is the exhibit and showing upon which appellees ultimately relied in the District Court trial in an effort to support the Commission's order.

The fallacies of this exhibit have been alluded to in appellant's main brief, pp. 47-50, 159-165.

This table represents, as do the others, a selection by the appellees of certain phases of the evidence and is based upon the assumption that the jury was compelled to make this particular selection as against some other selection in harmony with and supporting the verdict.

If Table IV, being appellees' Exhibit 8, is corrected so as to provide for actual expenses of operation on the Texas properties, exclusive of management fees, and if appellant's appraisal is corrected to include the production system properties in Texas at actual cost, and increases in prices for material on the transmission line equipment alone, as admitted by appellees' expert, be allowed for in the rate base, and if an allowance is made for depletion in the amount admitted by appellees' expert, the amounts available for return for 1933 would be 4.60% and for the twelve months ended March 31, 1934, 5.02%. The following tabulation demonstrates these results:

	3-31-34	12-31-33	
Net Revenues	$ 3,608,172.77	$3,420,665.19	(1)
Exp. (Prod. Sys.) III, 2116A	222,752.66	232,758.70	(2)
Available for Depr. Fed. Tax and Return	3,385,420.11	3,187,906.49	
Depr. & Depl. ($48,-546.08, incl. correction & $94,000 depletion, B.163)	942,546.08	942,546.08	(3)
Avail. for Fed. Tax and Return	2,442,874.03	2,245,360.41	
Fed. Income Tax	97,534.45	96,073.64	(4)
Available for Return	2,345,339.58	2,149,286.77	
Rate Base	$40,256,862.39		(5)
Increase in prices 1-1-33 to 6-15-34	1,269,688.28		(6)
Prod. System prop. in Texas	5,191,539.42		(7)
TOTAL rate base	46,718,090.09		
Percentage	5.02%	4.60%	

(1) Appellees' Ex. 8, Table IV, Brief 199.
(2) Expenses, production system, Appellees' Ex. 4, III, R. 2116A.
(3) Depreciation and depletion. (See Appellant's main brief, 163.)
(4) Federal income tax, Appellees' Brief, 199.
(5) Rate base, Appellees' Ex. 8, Table IV, Brief, 199.
(6) Increase in prices, Appellant's main brief, 161.
(7) Production system properties at cost, Appellees' Ex. 4, III, R. 2125.

(5) *Appellees' Table V (Brief, 200).*

The computations in this table, like those in the other tables, are not reliable. It is apparent therefrom that appellees have added to actual revenues

for the entire system $441,240.12 as "temperature correction." This temperature correction means that appellees have added to actual revenues the sum stated on the theory that the weather in the year 1933 was warmer than usual, and that if it had been normal appellant would have earned that much more money. There is deducted from the amount shown in the table to be available for depreciation and return, the sum of $848,466.08 for annual reserve accruals. This is appellees' estimate for depreciation reserve accruals on the Texas properties alone, and includes nothing for depletion of and depreciation on the production system properties in Texas. Appellees allow for reserve accruals on the entire integrated operating system estimated for the Texas properties alone. (Appellant's main brief, 163.) The actual cost rate base used in the table includes production system properties but the amount allowed for annual reserve accruals provides nothing for depreciation and depletion on these properties. On this basis appellees show a return of 5.55% on the integrated operating system. If they had used the actual revenues, eliminating the $441,240.12 added as temperature correction, and had used the Commission's allowance for annual depreciation reserve accruals for the entire system, the amount available would have been 4.35% instead of 5.55%.

The allocation to "D" operations of 6.63% for return shown in the table, was arrived at by the application of some sort of percentage formula. Appellant did not make its segregation between interstate and intrastate commerce on the basis of an arbitrary formula, or by the application of ratios or percent-

ages. Its segregation was based upon the way and manner in which the property was used and operated. (Appellant's main brief, 43.) Appellant's Exhibit 46 shows 3.78% available for return on the fair value of the property allocated to intrastate operations, exclusive of going value, after allowing for reserve accruals at the rate of 2% per annum, being the approximate rate allowed by the commission. (Appellant's main brief, 43-44.) Management fees were included in the calculation of expenses by which this percentage was determined. If the management fees be eliminated, the amount available for return is 3.99% instead of 3.78%.

All of the tables presented in appellees' brief (196 to 200, incl.) represent appellees' blending of various and sundry phases of the evidence in an effort to show that the 32¢ rate is compensatory. Appellees nowhere attempt to demonstrate in connection with any of these tables that the jury was compelled to select and blend the evidence in the way represented by these tables, or any one of them. The very fact that appellees have presented five blendings of the evidence is enough to suggest that probably other blendings were available, and this is affirmatively shown in appellant's main brief, pp. 164-170. At most, appellees have done no more than to show that probably a verdict and judgment in their favor might have been sustained. They have wholly failed to show that there is no "clear and satisfactory" evidence showing that the rate order was confiscatory. They have wholly failed to show that the state of the evidence was such that the jury was compelled to accept one of the blendings of the evi-

dence now brought forward by the appellees. We think it should now be assumed, in deference to the jury's verdict, that these same blendings of the evidence were put before the jury and the trial court by the appellees. The verdict should be interpreted as the definite rejection of these blendings of the evidence in favor of other blendings of it that will support the verdict.

When appellees' criticisms are considered in the totality of their consequences, the evidence still clearly supports the conclusion that the 32¢ rate is confiscatory. Granting these criticisms, for the sake of argument only, we shall now demonstrate by the following table of figures that, upon the basis of the evidence in the record, other than that assailed by appellees', the rate is shown to be confiscatory.

REVENUES, EXPENSES AND AMOUNTS AVAILABLE FOR RETURN

Based on 32¢ Domestic Gate Rate and Operating Expenses as Set Out by Commission

Depreciation and Depletion as Testified to by Appellees' Witness

	Dec. 31, 1931	Dec. 31, 1932	Dec. 31, 1933	Mar. 31, 193
Amount Available for Depreciation, Depletion, Federal Income Tax and Return (Note 1)	3,765,160.24	3,978,890.81	3,093,567.60	3,293,167.05
Depreciation and Depletion (Note 2)	942,546.08	942,546.08	942,546.08	942,546.08
Amount Available for Federal Income Tax and Return (Note 3)	2,822,614.16	3,036,344.73	2,151,021.52	2,350,620.97
Federal Income Tax (Note 4)	216,627.86	256,841.59	145,744.27	175,769.90
Amount Available for Return (Note 5)	2,605,986.30	2,779,503.14	2,005,277.25	2,174,851.07
Rate Base No. a (Note 6)	48,506,490.31	50,764,182.38	50,566,776.74	50,602,511.77
Rate Base No. b (Note 7)	50,252,481.96	50,252,481.96	50,252,481.96	50,252,481.96
Amount Available for Return (Note 8)				
Base a	5.37	5.48	3.97	4.30
Base b	5.19	5.53	3.99	4.33

Note 1. Appellant's Ex. 13 (III, R. 2283-2285; also 2297-2303). The revenues are based on the 32¢ rate and the operating expenses have been adjusted to conform to the Commission's eliminations, averages and adjustments. Management fees have been excluded. Donations allowed by the Commission have been included. Regulatory expenses have been amortized over a ten-year period. Dry hole and canceled and surrendered lease expenses have been amortized as the Commission amortized them.

Note 2. Appellees' estimate for annual reserve accruals. See appellant's main brief, 163. This figure covers the amount appellees' witness admitted would be required for depreciation and depreciation reserve accruals on the Texas properties only. It is applied here to the integrated operating system because it is the estimate made by appellees at the trial in the District Court. It is less than the Commissions' allowance for the whole property. The Commission allowed $968,066.98 for depreciation and $15,631.45 for depletion. (I, R. 97-99.)

Note 3. Calculation.

Note 4. Federal income taxes calculated at prevailing rates, after deduction of interest payments. Depreciation and depletion have been taken at the rate estimated by appellees' witness. See Note (2).

Note 5. Calculation.

Note 6. Actual book cost as shown at pp. 36-37 of appellant's main brief, less actual cost of the Petrolia field property, in the amount of $758,619.23 (Appellees' Ex. 4, III, R. 2125). This book cost includes general construction costs in the amount of $739,958.75 as of 12/31/33. All of such costs were not capitalized on the books (I, R. 348-351). The Commission allowed $4,528,968.30 for construction overheads, being administration and legal expense, engineering and supervision during construction, taxes during construction, interest during construction, and preliminary and organization expense (I, R. 47-52). Cash working capital has been added to

the actual book cost in the amount allowed by the Commission, $1,488,369.91 (I, R. 52.)

Note 7. This represents appellants' appraisal of the physical properties, less accrued depreciation, in the amount of $55,809,205.16 (Ex. 37, V, R. 3037); from which undistributed general costs and general supervision in the total amount of $8,932,012.77 have been eliminated (Ex. 37, V, R. 3038-3039). There is also excluded appellant's appraisal of the Petrolia field in the amount of $687,781.13. Collateral construction costs and working capital have been included in the amount allowed by the Commission, being $6,017,337.16 (I, R., 47-52). Developed leaseholds have been included at actual cost less depletion, as allowed by the Commission, in the amount of $727,442.54 (I, R. 71-72). Undeveloped leases have been included at actual cost, as included in appellant's appraisal, in the amount of $893,291.28 (V, R. 3038).

Note 8. Calculation.

The above is not presented on the theory that the jury and trial court were compelled to accept these figures. In every instance there was evidence in the record, more favorable to the verdict, that the jury might have accepted.

II.

Reply to Various Contentions and Statements of Appellees.

To specifically answer all the various points of argument presented by appellees would unduly extend

the length of this brief. We shall attempt to discuss only a few of the points made by appellees. Notwithstanding our inability to cover all of the points, we do not wish to be understood as assenting to appellees' interpretations of the evidence or the conclusions they draw therefrom.

Appellees assail principally "the item of depreciation reserve; next, the questioned items of operating expense; then the elements in the rate base; the rate of return; and, last, the operating computations submitted by the company and compared with those in * * * * our tables I to V, inclusive." (Appellees' brief, 100.)

We now discuss some of the points made by the appellees.

(1) *Depreciation Reserve Accruals.*

Appellees enter upon a lengthy discussion of the annual accruals to depreciation, depletion and amortization reserves in an effort to show that the allowances claimed by appellant's witnesses were unreasonable and their testimony incredible (Appellees' brief, 103-116). We might dismiss this subject by simply pointing out that the computations submitted by appellant's witnesses on this phase of the confiscation issue might be rejected and the computations submitted by appellees' witnesses accepted and still there would be ample evidence in the record clear and satisfactory in nature and showing that the prescribed rate is confiscatory. This has been fully demonstrated in our main brief, as hereinbefore pointed out.

This argument rests upon the unsupported assumption that if the jury was not entitled to accept the evidence offered by appellant on this issue, it was not entitled to accept evidence on any other issue. Appellees' points made here are more or less abstract. Everything they say could be admitted and still the verdict would find ample support in the evidence.

In the interest of an accurate presentation of the facts we will briefly reply to appellees' discussion of this question. We have set out in our main brief (149-158) facts and reasons which refute the argument now presented by appellees. We now supplement that discussion.

Appellees compare appellants' determination of per cent condition of new of the property with the balance in the reserve account at December 31, 1933 (appellees' brief, 104-105). They refer to the fact that appellant determined the over-all per cent condition to the 94.26%. They overlook the important fact that the per cent condition of the physical properties was 92.93%. This was equivalent to approximately 7% at the date of inquiry, or $4,245,384.00, being the difference between the reproduction cost new of the physical properties and the present value at January 1, 1933 (appellants' Exhibit 37, V, R. 3037). The balance in the reserve account must provide for this loss in value and represent free capital available to appellant. *Board of Public Utility Commissioners v. New York Bell Telephone Co.*, 271 U. S. 23, 70 L. Ed. 808.

Appellees' argument ignores the important fact that reserve accruals must provide for mortalities

brought about by causes other than decline of per cent condition. The reserve accruals must provide for removals, replacements, abandonments and amortization of property. In a natural gas producing and pipe line property, removals are occasioned by changes in sources of supply, changes in operating conditions and other factors which cannot be definitely anticipated. The Commission, with respect to the appellant's depreciation reserve, said that: "Inasmuch as the depreciation reserves actually set up by the company are substantially in the correct amount and are substantially the same as the sinking fund method of handling depreciation requires, the ratio of the book value to the book cost may serve as a fairly accurate basis of correcting the return above 6% to a depreciated rate base." (I, R. 114-115.)

Although the first property was installed in 1909, at the date of inquiry it had a weighted age, owing to the installation of a large percentage of new property in recent years, of only twelve years (III, R. 1860, 2041-2042). Other facts pointed out in appellants' original brief show the newness of the property at the date of inquiry. (Appellant's brief, 38-39.) Appellees argue that at the date of inquiry and notwithstanding the newness of the property, it had reached a static age (appellees' brief, 106). The record which is cited in support of this statement does not, in our opinion, support it (appellees' brief, 106, II, R. 1142-1143, 1171, 1183, V, R. 3037).

Appellees' own evidence disputes this contention. Appellees Exhibit No. 7 (III, R. 2160) shows a rate for replacements of 1.01% at the twelfth year.

The replacement rate is shown to increase from 1.01% in the 12th year to 3.43% in the 42d year. If the property was in the 12th year at the date of inquiry, it is obvious that the replacement rates or mortality rates had not become static. This is evident from appellees' own evidence. The 33 1/3 year average life curve shown in appellees' Exhibit No. 7 (III, R. 2162 C) and upon which appellees base their estimate for reserve accruals, shows that the peak in replacements is scarcely approached at the twelfth year. Hence, it cannot be plausibly argued that mortalities of the past and charges against reserve occasioned thereby are a fair measure of the mortalities which will be experienced as the property grows older.

Appellees say that appellant's witness in making his estimates for annual reserve accruals gave no consideration to credit balances currently building up during the earlier life of the property (appellees' brief, 106-108). This is an inaccurate and erroneous statement. In appellant's Exhibit No. 42 Connor states that "as in the case of the calculations from main lines and tap lines, a uniform annual accrual designed to provide the necessary annual funds indicated by the application of the adjusted total annual rates to the reproduction cost of field lines and well lines will create a credit balance during the earlier years of the accrual. The use of this credit balance, and the interest earned upon it, will tend to reduce the indicated amount of the uniform annual accrual." (V, R. 3123.)

The method employed by appellant's witness in estimating depreciation and depletion reserve ac-

cruals for gas reserves and gas well equipment is not open to the criticisms leveled thereat by appellees (Appellees' Brief, 110-112). The explanation made by the witness Connor in appellant's Exhibit 42 is sufficient to refute appellees' claims. (V, R. 3131, 3153.) Appellees vigorously assail the estimate of 20,000,000 M. cubic feet as the average annual rate of future deliveries from appellant's gas reserves. This estimate has a factual basis (V, R. 3136-3140).

Total gas deliveries by years were as follows, to-wit:

Year	M. cu. ft.
1927	38,469,319
1928	36,692,761
1929	42,777,847
1930	40,916,774
1931	34,628,020
1932	33,191,917
1933	30,838,394
1934	31,874,619

(Appellees' Ex. 5, III, R. 2126B.)

In view of appellant's total annual deliveries since 1927, we do not agree with appellees that it is unreasonable to suppose that in the future appellant will use 20,000,000 M. cubic feet per annum from its own reservoir.

Although appellant has not in the past obtained that high a percentage of its total gas deliveries from its own reserves, the facts set out in appellant's Exhibit No. 42 show why it will be necessary for appellant to draw more heavily upon its own reserves in the future. As illustrative, in 1927 appellant

obtained 17,641,453 M. cubic feet of gas from casinghead gasoline plants. Gas available from this source has declined from 100% maximum delivery in 1925 to 30.9% in 1932. In 1932 the deliveries of gas obtained from these casinghead gasoline plants were only 10,324,783 M. cubic feet. Other factors making for a decline in the amount of gas obtained from sources other than appellant's own reserves are shown in the record (V, R. 3135-3143).

(2) *Questioned Operating Expenses:* Appellees eliminate from the operating expenses or criticize various items which were included by the Railroad Commission and which were not assailed at the trial in the District Court (Appellees' brief, 116-130). They eliminate from their various computations management fees and charitable donations, and criticise the inclusion in the expense account of uncollectible bills, regulatory commission expense, dry hole expense, canceled and surrendered leases, new business expenses and Federal income taxes. These expenses are proper and were incurred in good faith by the management. (Appellant's main brief, 40.) The only item of expense excluded by any witness produced by appellees at the trial were the management fees. The reasonableness of none of the other items of expense now challenged by appellees was assailed in the District Court. "In all the pages of this record, there is neither a word nor a circumstance to charge the management with fault." There is no basis in the record for the elimination of the small expenses for donations, uncollectible bills and the reasonable sums expended for dry hole expense, cancelled and surrendered leases and new business ex-

pense. "Good faith is to be presumed on the part of the managers of a business * * *. In the absence of a showing of inefficiency or improvidence, a court will not substitute its judgment for theirs as the measure of a prudent outlay * * *." *West Ohio Gas Co. v. Public Utilities Commission (No. 1)*, 294 U. S. 63, 79 L. Ed. 761; *Southwestern Bell Telephone Co. v. Public Service Commission of Missouri*, 262 U. S. 276, 67 L. Ed. 981; *Lehigh Valley Ry. Co. v. Board of Public Utility Commissioners*, 278 U. S. 24, 73 L. Ed. 161.

(3) *Rate Base:* Appellant disagrees with appellees' statement that it did not use quoted prices for pipe and material and deduct all available discounts in the preparation of its appraisal (I, R. 640-641; II, R. 842-843). Appellees state that immediately after the date of appellant's appraisal, appellant purchased eleven carloads of pipe at prices very substantially lower than were used in the appraisal (appellees' brief, 132-133). Appellees make no reference to the record in support of this statement. The record does show that in 1933, appellants purchased 6,300 feet of 24-inch pipe at $2.0328 per foot (II, R. 902). The pipe thus purchased was not included in appellants' inventory and appraisal. It was purchased at a distress sale (II, R. 905-906). This pipe was not in standard condition when it was purchased and appellant was required to recondition it (III, R. 2045-2046). Appellees point to none of these important facts. They say that a striking example of the inflation injected into the prices used by appellant in its appraisal was the purchase of the aforesaid pipe "of the highest quality" at prices very

substantially lower than those used in the appraisal (Appellees' Brief, 132).

Appellees say "that the company and the commission included in the rate base all production system properties, when plainly a very large part thereof was not actually used and useful in the present public service, and would not become useful at any reasonable or near period in the future * *" (appellees' brief, 145).

We think it obvious that the producing leaseholds, that is, leases which are actually producing gas, are used and useful in the public service. Appellant included undeveloped leaseholds in its appraisal at $893,291.28 (Appellant's Exhibit 38, V, R. 3038). This sum is reasonable on its face when the magnitude of appellant's system is considered. The evidence on this point is that in proportion to the investment and the volume of business done by appellant, the amount of its undeveloped leaseholds was relatively very small and barely sufficient to insure adequacy of supply. This evidence showed that the undeveloped leaseholds could be utilized in the future by appellant and that they may be regarded in the nature of working capital. They were included in the appraisal at actual cost (I, R. 654-655). The undisputed evidence shows that appellant's production system properties were used and useful in the public service (III, R. 2044, 2060).

Appellees state that appellant's developed reserves are sufficient at past rates of withdrawal to last from forty to sixty years. The evidence shows that appellant's gas reserves would last approximately twenty years (I, R. 531, 564).

Developed leaseholds were included in the Commission's rate base at actual cost less depletion (I, R. 69-72) and not at actual cost, as stated by appellees. (Appellees' Brief, 150.)

At page 153 of their brief, appellees invite us to include undeveloped and developed leaseholds in capital account at actual cost and include the cancelled and surrendered leases and dry hole expenses in operating expenses. Under appellant's method of handling dry hole and cancelled and surrendered lease expense they are charged to operating expenses, as suggested by appellees, and no reserve is created therefor. Developed and undeveloped leaseholds are capitalized on appellant's books at actual cost. This method of handling leaseholds, cancelled and surrendered leases and dry hole expense seems to conform to appellees' suggestion, although this method is criticized in other places of appellees' brief. This method received the approval of the Commission (I, R. 28-29; Leaseholds, Method 2, I, R. 69-72.) It is true that in its appraisal appellant included the developed leases at their appraised value in the amount of $2,681,689.00. (V, R. 3038, Appellant's Ex. 37.) Undeveloped leaseholds were included at actual cost in the amount of $893,291.28 (V, R, 3038; 3034-3034A). This makes a total value ascribed to leaseholds in appellant's appraisal of $3,574,980.28. If they be included in the appraisal on the basis used by the Commission in the amount of $1,991,613.92 (I, R. 69-72), being actual cost with the developed leaseholds depleted, it will occasion a reduction in appellant's appraisal of $1,583,366.36.

Appellees state that the Meridian Gas Company

properties, which were purchased by appellant January 1, 1932, at a cost of $1,338,406.21 (I, R. 460) were appraised by appellant in the present case at $173,079.00, which included gas reserves, gas well equipment, production property of every kind, and including all recovery operating costs. After this statement, appellees then conclude that it "clearly shows that the Lone Star Gas Corporation sold the properties to its subsidiary, the Lone Star Gas Company, for $1,300,000.00 plus, for the simple purpose of putting these properties in appellant's rate base * * *." (Appellees' brief, 155-156.) The statement is misleading. The evidence shows that the properties were purchased from Meridian Gas Company at the actual cash cost paid therefor by the Meridian Gas Company. (I, R. 460-461.) That these properties were purchased in good faith at a fair and reasonable price is not disputed by any evidence in the record. Appellant did not appraise the property at $173,079.00 as stated by appellees. This figure represents the appraised value of the reserves alone. The various items making up the properties so purchased are scattered throughout the appraisal and we have been unable, within the time available, to identify all of them. It seems sufficient to point out that of the properties purchased from Meridian Gas Company, gas reserves were appraised in the present case at $173,079.00 (V, R. 3032); gas well equipment at $578,148.78 (IV, R. 2369); gathering system rights-of-way at $702.00 (IV, R. 2378); Field measuring station structures at $3,473.48 (IV, R. 2371); measuring station equipment at $12,905.92 (IV, R. 2374); and field line equipment at $63,691.04

(IV, R. 2377), making a total of $832,000.22 for these items alone.

Appellees charge us with "affirmatively and deliberately misrepresenting to the court what the testimony was with respect to appellees' allowance for going concern value." (Appellees' Brief, 174.) It seems to us that the testimony quoted at pages 174 to 177 of their brief shows the correctness of the statement at page 145 of our brief. At page 176 appellees quote the testimony of their expert as follows:

"Q. If the property of the Company were to be reproduced as of June 15, 1934, and there was no business attached whatsoever, wouldn't your reproduction cost be the same as set forth in plaintiff's Exhibit No. 6?

"A. Yes, and that would be true whether it was 100 per cent saturation or whether there was no saturation at all, in view of the history of the Company, the way it was actually produced and the way it could be produced from the beginning again. There was no loss of return on idle plant during the history of the Lone Star Gas Company."

We think it apparent from this testimony, as well as other testimony referred to by us and set out in appellees' brief that no allowance for going concern value was included in appellees' appraisal. We therefore adhere to our original statement (Appellees' brief, 185).

(4) *Temperature Adjustments.* Appellees attribute to appellant, as regards the matter of temperature adjustments, a position inconsistent with the

decision of this Court in *Los Angeles G. & E. Corp. v. R. R. Comm. of California*, 289 U. S. 287. (Appellees' Brief, 185.) Such is not the case. Appellant does not challenge the right of the Commission to take into consideration abnormal weather conditions, as well as abnormal conditions of any kind as a basis for making its prophecy as to what a particular rate will yield in the future. It does object to what was done by appellees' witness in this case. Appellees' witness added to revenues actually received by appellant during periods when experience had spoken, $268,829.64 for the year ended March 31, 1934, and $441,240.12 for the year ended December 31, 1933, on the theory that if the temperature had been normal appellant would have received these additional estimated amounts which actually it did not receive. (III, R. 2165.) We do not understand that the Los Angeles case sanctions any such adjustment or is authority for the proposition that a rate shown to be confiscatory upon the basis of actual experience during the particular accounting period as to which the rate is sought to be enforced may be made compensatory by adding hypothetical revenues to revenues actually received. This Court has held that to shut one's eyes to actual revenues and to build a schedule upon guesswork with evidence available is an arbitrary action. It has said that: "A forecast gives one rate. A survey gives another. To prefer the forecast to the survey is an arbitrary judgment," and that, "present confiscation is not atoned for by merely holding out the hope of a better life to come." *West Ohio Gas Company v. Public Utilities Comm. of Ohio, (No. 2)*, 294 U. S. 79, 81-83.

(5) *Fair Rate of Return.*

Appellees' discussion of the evidence relating to a fair rate of return discloses the weakness of their position in respect to the verdict of the jury. (See appellees' brief, 180-183.) Appellees discuss the credibility of the witnesses who testified on this issue. They point out that two of the witnesses were agents of the company and that two were Dallas bankers, who, at different times, had made loans to the appellant. It is plain that all of these matters, affecting only the credibility of the witnesses, were to be determined by the jury.

As pointed out in the main brief, the entire issue of confiscation can be settled in favor of the verdict, by considering the conflict in the evidence on this issue and by recognizing the power of the jury to settle that conflict. (Appellant's main brief, 121.)

(6) *Criticism of Computations in Appellant's Main Brief:*

Appellees criticise the computations in appellant's brief, pp. 186-187, on the general grounds that they fail to take into consideration temperature corrections for alleged abnormal temperature periods, and fail to take into account increased consumption which would result from putting the reduced rate into effect. We have already pointed out the impropriety of considering other than actual revenues in testing the effect of the rate during the years to which it is applied and sought to be enforced.

It would be impossible on this record to take into

account any alleged increased consumption under the reduced rate. There is no evidence in the record upon which such an assumption could be based. Appellees themselves refer to no such evidence in the record. Such evidence as the record affords on this subject consists of an unsupported conclusion of appellees' witness. It affords no basis for an estimate or prophesy (III, R. 1813-1815). Upon the record as it comes to this Court, this would be guess work, and no more. "There has been no attempt to measure the possible enhancement by appeal to the experience of other companies similarly situated or by any other line of proof. Present confiscation is not atoned for by merely holding out the hope of a better life to come." *West Ohio Gas Co. v. Commission (No. 2)*, 294 U. S. 79, 82-83.

(7) *Appellees' Statement as to the Holding Company's Books.*

Appellees state that access to the holding company's books has always been denied the regulatory authorities of Texas. (Appellees' brief, 34.) Appellees' accounting witness testified that he was "afforded access to every book, record and account" of appellant; that he had never made any requests of the personnel of appellant in respect to the examination of its books which had been refused. (III, R. 1661.) This same witness testified under examination by his own counsel that he was refused access to the books of the holding company (III, R. 1880). He did not state what requests were made, nor to whom they were made. Appellees made no demands

upon appellant during the trial for the holding company's books and they issued no subpoenas or process therefor. He did not testify that his ability to ascertain all relevant facts concerning appellant's business and operations was prejudiced by his inability to examine the books of the holding company. We think it manifest from the record that no such prejudice resulted. Appellees' witness stated that he wanted to look at the books of the holding company in connection with the management fee charge (III, R. 1880). The only possible relevancy that an examination of the holding company's books could have to the issues in this case would be with respect to the item of management fees. These management fees were eliminated by the Commission (I, R. 25-28) and they may be eliminated from appellant's expenses of operation without altering the results.

(8) *Claim of Appellant's Non-Cooperation.*

Appellees claim that appellant's attitude "has been one of studied concealment and distortion of the facts, and non-cooperation, rather than one of candid revelation." (Appellees' brief, 96.) They say that an examination of the entire record will show this to be true. Our examination of the entire record fails to show any support for the claim. The testimony of appellees' witness above referred to, to the effect that he was afforded access to every book, record and account of appellant, refutes the claim. (III, R. 1661.) The Commission's findings negative the claim (I, R. 14-18).

(9) *Appelless' Claim of Misrepresentation as to the Inclusion of Gas Reserves in the Appraisal.*

Appellees state that appellant included in its appraisal all developed and undeveloped gas reserves and leasehold and that appellant's statement to the contrary on page 36 of its brief is "absolutely unfounded." (Appellees' brief, p. 144). Appellant's statement on page 36 of its brief was directed solely to appellant's Exhibit 30. In this exhibit appellant estimated gas reserves underlying "only proven and developed reserves." The statement is correct and has manifestly been misinterpreted by the appellees.

Respectfully submitted,

ROY C. COFFEE,
MARSHALL NEWCOMB,
OGDEN K. SHANNON,
BEN H. POWELL,
CHARLES L. BLACK,
Counsel for Appellant.

BLANK

PAGE

BLANK

PAGE

FILE COPY

Office - Supreme Court, U. S.
FILED
APR 11 1938
CHARLES ELMORE CROPLEY
CLERK

SUPREME COURT OF THE UNITED STATES

October Term, 1937

No. 313

LONE STAR GAS COMPANY, *Appellant*,

v.

STATE OF TEXAS, ET AL., *Appellees*

Appeal from the Court of Civil Appeals, Third Supreme Judicial District of Texas

APPELLANT'S REPLY TO APPELLEES' SUPPLEMENTAL BRIEF

ROY C. COFFEE,
MARSHALL NEWCOMB,
OGDEN K. SHANNON,
BEN H. POWELL,
CHARLES L. BLACK,
Counsel for Appellant.

BLANK

PAGE

INDEX.

	Pages
I. Asserted Estoppel to Urge Interstate Commerce Defense	1-3
II. Appellant's Line A Business Constitutes Interstate Commerce	4-10
III. The Confiscation Issue	10-17
IV. Discussion of Other Points and Statements Made by Appellees	18-24
(1) Appellant's alleged failure to submit segregation evidence to the Commission	18-20
(2) The quantity of Oklahoma gas transported to Texas	20-21
(3) Average operating results	21-23
(4) Canceled and surrendered leases and Federal income taxes	23-24

AUTHORITIES.

	Pages
Texas Statutes:	
Article 6059, R. S. 1925	14
List of Cases:	
Angelina, etc., R. R. Co. v. Railroad Commission, (Tex. Com. App., writ of error refused), 212 S. W. 703	16
Borden's Farm Products Co. v. Baldwin, 293 U. S. 194, 209	16
Cincinnati, N. O. & Tex. Pac. R. Co. v. Interstate Commerce Comm., 162 U. S. 184	3
Cooney v. Mountain States Telephone Co., 294 U. S. 384, 392	19
Gibbons v. Ogden, 9 Wheaton 1, 194	7
Hanley v. Kansas City Southern Ry. Co., 187 U. S. 617, 620	4-5, 9
Interstate Commerce Commission v. Alabama M. R. Co., 168 U. S. 144, 175	3
Jones National Bank v. Yates, 240 U. S. 540, 563	17
Meeker v. Lehigh Valley R. Co., 236 U. S. 412, 430	16
Minnesota Rate Cases, 230 U. S. 398, 401	6-7, 10
Missouri v. Gehner, 281 U. S. 313, 320	2
Missouri v. Kansas Natural Gas Co., 265 U. S. 298, 299-301	5, 6, 8, 9
Oklahoma v. Kansas Natural Gas Co., 221 U. S. 229	5
Pacific Telephone & Telegraph Co. v. Washington, 297 U. S. 403, 416	19
Railroad Commission v. Rau, 45 S. W. (2d) 413, 415	3
St. Louis, etc., Ry. Co. v. State, (Tex. Comm. App.), 255 S. W. 390	16
South Carolina State Highway Department v. Barnwell Brothers, No. 161, October Term, 1937, decided February 14, 1938	10
Swift v. United States, 196 U. S. 375, 398	6
Texas & Pacific Ry. Co. v. Interstate Commerce Comm., 162 U. S. 197	3
United Gas Public Service Co. v. State of Texas, decided February 14, 1938	2

List of Cases (continued):

	Pages
Wabash, etc., Ry. Co. v. Illinois, 118 U. S. 557, 575	10
Western Livestock, etc., Co. v. Bureau of Revenue, No. 322, October Term, 1937, decided February 28, 1938	10
Western Union v. Speight, 254 U. S. 17	9

BLANK

PAGE

SUPREME COURT OF THE UNITED STATES

October Term, 1937

No. 313

LONE STAR GAS COMPANY, *Appellant*,

v.

STATE OF TEXAS, ET AL., *Appellees*

Appeal from the Court of Civil Appeals, Third Supreme Judicial District of Texas

---

APPELLANT'S REPLY TO APPELLEES' SUPPLEMENTAL BRIEF

I.

Asserted Estoppel to Urge Interstate Commerce Defense.

In their Supplemental Brief appellees renew their claim that appellant is estopped to urge its interstate commerce defense (pp. 2-5). This contention is fully discussed in appellant's Reply Brief, pp. 7-9. Supplementing what is there presented we submit:

(1) The contention that appellant is not entitled to now rely upon its interstate commerce defense, because that defense was not pleaded before the Railroad Commission, is but another way of saying that this Federal defense was not seasonably raised by the appellant. The Court of Civil Appeals held that this defense was seasonably raised (V, R. 3334-3336). It considered and decided this defense on the merits (V, R. 3336-3352).

It must be said here as it was in *Missouri v. Gehner*, 281 U. S. 313, 320, that "upon the facts disclosed by this record, it is clear that appellant sufficiently raised in the highest court of the State the Federal questions here presented and is entitled to have them considered." Estoppel will not lie in this Court to prevent consideration here of a constitutional defense that is held by the State court to have been seasonably raised in the highest court of the State.

Appellees claim that the present record shows that this defense was not raised before the Commission. The record references made on page 2 of the Supplemental Brief are to statements in the pleadings and statements made by appellant's counsel during the trial of the case in substance making the point that the Commission's opinion and order did not show that the Commission would have promulgated the 32¢ rate and made it applicable to only the intrastate deliveries.

(2) As held by this Court in the Laredo gas case (*United Gas Public Service Co. v. State of Texas*, decided Feb. 14, 1938), and as, in effect, held by the Court of Civil Appeals in the present case (V, R.

3354), the scope of the District Court trial is not limited either by the pleadings or the evidence adduced at the hearing before the Railroad Commission. The order and findings of the Commission are subjected to a review under a trial *de novo*.

The judicial review proceeding is more like that which was provided for in the original Interstate Commerce Act than it is like the judicial review provided for by the Interstate Commerce Act now in effect. As illustrated in *Cincinnati, N. O. & Tex. Pac. R. Co. v. Interstate Comm.*, 162 U. S. 184, and in *Texas & Pacific Ry. Co. v. Interstate Commerce Comm.*, 162 U. S. 197, and as held in *Interstate Commerce Comm. v. Alabama M. R. Co.*, 168 U. S. 144, the trial court, in reviewing an order of the Commission under the original Interstate Commerce Act, was required "to proceed, as a court of equity, to hear and determine the matter and in such manner as to do justice in the premises" (p. 174). There it was held that the parties were free to formulate pleadings in the Circuit Court and to adduce evidence in that court not limited to the evidence previously heard by the Commission. (168 U. S. 175.) That is the Texas rule, as was declared by the Court of Civil Appeals from which the present appeal was taken in *Railroad Commission v. Rau*, 45 S. W. (2d) 413, 415:

"Each party is permitted to introduce such evidence as is pertinent to the controversy, regardless of whether it had been introduced before the Commission, as in all other de novo trials."

II.

Appellant's Line A Business Constitutes Interstate Commerce.

(1) Appellees again contend that the wholesale deliveries made on Line A do not constitute interstate commerce "as a matter of fact." The contention is clearly without merit. Appellant's Line A business constitutes commerce "which concerns more States than one"; it constitutes commerce "among the several States" in a constitutional sense. The express holding of this Court to that effect in *Hanley v. Kansas City Southern Railway Co.*, 187 U. S. 617, has not been departed from in any later case. In that case the Court said:

"The transportation of these goods certainly went outside of Arkansas, and we are of opinion that in its aspect of commerce it was not confined within the State. Suppose that the Indian Territory were a State and should try to regulate such traffic, what would stop it? Certainly not the fiction that the commerce was confined to Arkansas. If it could not interfere the only reason would be that this was commerce among the States. But if this commerce would have that character as against the State supposed to have been formed out of the Indian Territory, it would have it equally as against the State of Arkansas. If one could not regulate it the other could not.

"No one contends that the regulation could be split up according to the jurisdiction of State or Territory over the track, or that both State and Territory may regulate the whole rate. There can be but one rate, fixed by one authority, whether that authority

be Arkansas or Congress. *Wabash, St. Louis & Pacific Railway Co. v. Illinois*, 118 U. S. 557; *Covington & Cincinnati Bridge Co. v. Kentucky*, 154 U. S. 204; *Hall v. De Cuir*, 95 U. S. 485. But it would be more logical to allow a division according to the jurisdiction over the track than to declare that the subject for regulation is indivisible, yet that the indivisibility does not depend upon the commerce being under the authority of Congress, but upon a fiction which attributes it wholly to Arkansas, although that fiction is quite beyond the power of Arkansas to enforce." (187 U. S. 620.)

If Oklahoma could not regulate the movement and delivery of gas over Line A "the only reason would be that this was commerce among the States." And if this commerce had that character as against Oklahoma, then it would likewise have that character as against Texas. "If one could not regulate it," because of the interstate character of the movement, then "the other could not."

It cannot be doubted that the city gate deliveries at Hollis, Oklahoma, constitute interstate commerce. *Missouri v. Kansas Natural Gas Co.*, 265 U. S. 298. Why is it that the Texas deliveries have a different character? No reason can be assigned except the fact that the gas is produced in Texas. That fact is important in considering the power of the State of Texas to regulate the production of the gas to promote conservation of natural resources; but it is wholly without effect on the interstate commerce question. *Oklahoma v. Kansas Natural Gas Co.*, 221 U. S. 229.

Appellant, in affirming that its Line A business constitutes interstate commerce, is not relying upon

"a technical legal conception, but a practical one, drawn from the course of business." *Swift v. United States*, 196 U. S. 375, 398. Its Line A business, as actually conducted, is conducted in two States, and, apart from the Commerce Clause, is subject to the regulatory jurisdiction of two States, in the same way and with the same effect as if the line originated in one of the States and simply extended into the other without passing through it. If Line A originated in Oklahoma at the point, say, where it enters the State and otherwise continued, as it does, through Hollis, thence into Texas along its present route, there would hardly be a doubt that the business carried on through that line would be interstate commeree. *Missouri v. Kansas Natural Gas Company, supra.* It does not become internal commerce by adding the segment from Wheeler County, Texas, to the Oklahoma line at its north entrance. If the one is commerce that concerns two States so is the other.

The source of the gas supply is not the distinguishing feature. If it were, then the delivery at Hollis would be interstate and the other deliveries on Line A would be local. The business transacted is not that of selling gas at the well; it is that of transporting to and selling gas at city gates. The service appellant performs is a process that extends into and through two States.

In delivering its judgment in the *Minnesota Rate Cases*, 230 U. S., at page 398, the Court said:

"The words 'among the several States' distinguish between the commeree which concerns more states

than one and that commerce which is confined within one state and does not affect other states."

In *Gibbons v. Ogden*, 9 Wheaton 1, 194, Chief Justice Marshall said:

"The word 'among' means intermingled with. A thing which is among others, is intermingled with them. Commerce among the States, cannot stop at the external boundary line of each State, but may be introduced into the interior.

"It is not intended to say that these words comprehend that commerce, which is completely internal, which is carried on between man and man in a State, or between different parts of the same State, and which does not extend to or affect other States. Such a power would be inconvenient, and is certainly unnecessary.

"Comprehensive as the word 'among' is, it may very properly be restricted to that commerce which concerns more States than one."

The commerce here in question "concerns more States than one." Oklahoma is concerned in the same way and to the same extent that she would be concerned if Line A had its origin in Oklahoma and appellant were transporting gas from an Oklahoma gas field to city gates in Texas, serving Hollis, Oklahoma, in passing.

Here, if we put the Commerce Clause out of view, Line A is subject to the separate, equal and independent control of the two States. This applies not only to the rates that may be charged but also to the conditions of service. The Commerce Clause aside, Oklahoma and Texas have equal and independent power to regulate the kind and extent of

service rendered on Line A and the charges that may be exacted therefor. Every fact that supports the regulatory power of Texas exists as well to support the regulatory power of Oklahoma.

There is now only one Oklahoma delivery point on the main line, that at Hollis. But the Commerce Clause aside, Oklahoma may compel the establishing of other delivery points on the main line as well as on the branch line extending north from Oklaunion, Texas. The Oklahoma authorities may compel appellant to extend its lines and increase the service rendered in Oklahoma even to such an extent as will discriminate against the needs and demands of Texas consumers; and they may compel the rendering of this service at rates discriminating against Texas consumers. With the Commerce Clause put out of view, Texas may exercise like and equal authority.

Every probability of conflict in the exercise of authority, due to separate and independent regulation on the part of each of the two States, exists in this case to the same extent and in the same way as in the leading case *Missouri v. Kansas Natural Gas Co.*, 265 U. S. 298. Duality of control exists in the same way and to the same extent that it would exist if the movement of gas on Line A took the simplest form of interstate commerce, that is, a movement from one State to another. This duality of control and the resulting probability of conflict in the instant case, as in *Missouri v. Kansas Natural Gas Company*, are due to the fact that the appellant's properties are located in two States and its "integrated" business is being conducted in two States,

subject to the regulatory authority of both States; each being invested with power to regulate appellant's property and business for the purpose of protecting its local interests.

Appellees emphasize the difference between the pipe line transportation of natural gas and railroad transportation of other commodities. That difference is not related in any way to, nor does it grow out of, this "corner of a State" movement. The difference between the pipe line transportation of gas and the railroad transportation existed in *Missouri v. Kansas Natural Gas Company*, 265 U. S. 298, a case involving an ordinary interstate movement, in the same way and to the same extent as in the instant case. This difference was forcibly pointed out in the appellant's brief in that case (265 U. S. 299-301). Presumptively, this difference was carefully considered by this Court and held to be without effect in arriving at a proper determination of the interstate commerce question.

In *Western Union v. Speight*, 254 U. S. 17, the doctrine of the Hanley case was extended and applied to the transmission of intelligence (Main Brief, p. 66). If there be any difference between transportation of gas in a pipe line and transportation of commodities on a railroad, that difference is not so great as is the difference between the transportation of commodities on a railroad and the transportation of intelligence by a telegraph company.

(3) Appellees contend that the prescribed rate operates merely as an "indirect" burden on inter-

state commerce. As to this, we refer to appellant's main brief, p. 79, and its Reply Brief, pp. 12-18.

Nothing that this Court has since said or decided has modified the statement made in the *Minnesota Rate Cases* (p. 401), that "they (the States) have no power * * * * to prescribe the rates to be charged for transportation from one State to another, * * * * *." That has been settled law at least since *Wabash, etc., Ry. Co. v. Illinois*, 118 U. S. 557, was decided, if, indeed, the contrary view had ever theretofore been "the deliberate opinion of a majority of this court." (118 U. S. 575.) Decisions like *South Carolina State Highway Department v. Barnwell Brothers*, (No. 161, October Term, 1937, decided February 14, 1938,) upholding local highway regulation in the interest of public safety and preservation of highways, and *Western Livestock, etc., Co. v. Bureau of Revenue*, (No. 322, October Term, 1937, decided February 28, 1938), upholding a local privilege tax measured by gross receipts, apply other and distinct rules, else the expositions in such opinions were to no purpose. The application appellees attempt to make of the case last cited is wrong. It is obvious that, but for the protection of the Commerce Clause, the cumulative levies of gross receipts taxes mentioned in that case could be here made by the two States.

III.

The Confiscation Issue.

In their latest argument appellees wholly failed to meet the confiscation issue as it is presented in the record.

In appellant's main brief we have summarized the evidence offered by the parties, respectively, on the issue of confiscation (pp. 34-50). At the trial appellant first offered evidence relating to its over-all "integrated" properties and operations; this evidence being in direct rebuttal of the Commission's findings (Appellant's main brief, pp. 34-42). It then attempted to make a segregation of its Texas properties and operations as between interstate and intrastate business (pp. 42-44). The appellees contended that appellant was not engaged at all in interstate commerce in Texas. If appellees were right, then no segregation as between interstate and intrastate commerce was necessary, and the appellees made none. Instead, they offered evidence showing a segregation of appellant's properties and operations as between its business done in Oklahoma and its business done in Texas (Appellant's main brief, pp. 44-50). Under this segregation they assigned 85% plus of appellant's properties to its Texas business.

The Court of Civil Appeals held that appellant was not engaged in interstate commerce in Texas; that all of its Texas deliveries, subjected to the rate order, constituted intrastate commerce. Accordingly, it disapproved appellant's segregation, which was based upon the theory that some of the Texas deliveries were made in interstate commerce (V, R. 3361-2); and further held that, since appellant had failed to make a proper segregation, its evidence "proved nothing material to this case" and was insufficient as a matter of law to show that the rate was confiscatory (V, R. 3361-2). The Court of Civil Appeals fur-

ther held that 85% of appellant's properties were assignable to its Texas business; thus, in effect, approving the segregation made by appellees as between appellant's Oklahoma and Texas properties and operations.

In this state of the record it is manifest that the Court of Civil Appeals erred in holding that because appellant had failed to make a proper segregation as between interstate and intrastate commerce it had wholly failed to "adduce the quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory." (V, R. 3362). This ruling was erroneous for the two reasons pointed out in appellant's main brief, pp. 110-124:

(a) Appellant's evidence relating to its over-all "integrated" properties and operations was in direct rebuttal of the Commission's findings, and appellant was entitled to have its evidence considered as against the findings. If the findings were material, then appellant's evidence in rebuttal of the findings was also material. If appellant's evidence was insufficient as a matter of law, then the findings, following the same theory as did appellant's evidence, were also insufficient as a matter of law to sustain the order.

(b) Furthermore, as is pointed out in appellant's main brief, the evidence taken as a whole laid the basis for a segregation, and presumptively a segregation was made by the jury (Appellant's main brief, 119-124). The Court of Civil Appeals held that none of appellant's business done in Texas con-

stituted interstate commerce. In view of this ruling and the fact that the order applied to all of appellant's Texas deliveries, it was not necessary for appellant to divide its Texas business into two parts, interstate and intrastate. If any segregation at all was needed, it was a segregation between the Texas properties and operations on the one hand, and the Oklahoma properties and operations on the other. That segregation was made by the appellees' evidence. And the Court of Civil Appeals has approved that segregation, including the segregation factor of 85% shown by appellees' evidence. When this segregation factor is applied to the value of appellant's over-all "integrated" properties, as shown by appellant's evidence, the conclusion is inescapable that the rate is confiscatory (Appellant's main brief, 119-124).

Appellees have filed two briefs in this Court and have not noticed this point. Their "General Thesis," (Appellees' brief, 85), is that appellant's evidence considered by itself was insufficient. They, in effect, deny the right of the trial court and jury to consider the evidence offered by the appellees along with the evidence offered by the appellant and to determine from the whole of the evidence whether the prescribed rate was confiscatory.

In briefs previously filed the appellant has discussed the evidence viewed as a whole and has demonstrated that, in many and various ways, the jury might reasonably have interpreted and blended the evidence in such a way as to arrive at a supportable, if not necessary, conclusion that the prescribed rate was confiscatory. (Appellant's main

brief, 147-170; also 34-50; Appellant's Reply Brief, 53-66.) On pages 20 and 21 of their Supplemental Brief appellees state the confiscation issue that is properly before this Court and that "this Court has the undoubted power to determine," but nowhere do they present the pertinent facts, taken from the record as a *whole*, that will enable the Court to determine the issue. Instead, they invite the Court to make "a thorough review and analysis of the entire record" (p. 21). No such analysis of the "entire record" is made even in Appellees' Main Brief. The statement there made amounts to no more than a discussion of the credibility of witnesses and of the weight that may be attached to different phases of conflicting testimony. (Appellees' Main Brief, p. 98, *et seq)*. "Tables" are presented but, as pointed out in Appellant's Reply Brief, these admittedly exhibit only selections from conflicting evidence of certain bases of fact that the jury could have accepted but did not. It is not even claimed that the evidence, considered as a *whole*, was such as to compel the jury to accept as conclusive the interpretations of the evidence presented in these tables.

Appellees greatly emphasize the well known prima facie presumption of validity sustaining the order. This presumption is not irrebuttable. The applicable State statute (Art. 6059) provides how the presumption may be rebutted, that is, by the furnishing of "clear and satisfactory" evidence sustaining the attack on the order. The jury in this case were instructed that the burden devolved on appellant to furnish "clear and satisfactory" evidence showing that the rate was confiscatory (I, R.

194). "Clear and satisfactory" evidence is sufficient, under the State statute, to overturn any and every presumption sustaining the order. And the decisions of this Court show how the presumption of validity may be rebutted, that is, by the furnishing of "clear and convincing" evidence showing that the prescribed rate is confiscatory.

Appellant, in its briefs previously filed, has analyzed the evidence and has demonstrated that the finding of the jury is sustained by "clear and satisfactory" evidence, that is by "clear and convincing" evidence. Instead of attempting to analyze the evidence in an effort to overturn appellant's showing, appellees are content to make general assertions concerning the state of the evidence and to affirm that the evidence showing that the order is confiscatory "must be viewed in the light of the presumption" that sustains the order. The presumption cannot stand in the face of that "clear and satisfactory" evidence that, under the statute and the decisions of this Court, is sufficient to rebut it. If the rule were otherwise, the presumption would be irrebuttable.

The statute requires, in deference to the presumption, that the order must stand, unless overturned by clear and satisfactory evidence. But if there is in the record evidence of that nature that, if believed by the jury, shows confiscation, then the presumption no longer stands in the way of a finding of confiscation. In the face of the jury finding, amply supported by such evidence, the presumption, having spent its force, is now impotent. This Court has said in respect of such a presumption:

"It cuts off no defense, interposes no obstacle to a full contestation of all the issues, and takes no question of fact from either court or jury. At most, therefore, it is merely a rule of evidence. It does not abridge the right to a trial by jury or take away any of its incidents." *Meeker vs. Lehigh Valley R. Co.*, 236 U. S. 412, 430; *Borden's Farm Products Co. v. Baldwin*, 293 U. S. 194, 209.

Such also is the holding of the State courts in applying the State statute requiring clear and satisfactory evidence. *Angelina, etc., R. R. Co. v. Railroad Commission*, (Tex. Civ. App., writ of error refused), 212 S. W. 703; *St. Louis, etc., Ry. Co. v. State* (Texas Comm. App.), 255 S. W. 390. In the case last cited the Court said:

"Under article 6658 of the Revised Statutes of Texas, the burden of proof was on the railway companies to show by clear and satisfactory evidence that the apportionment of cost was unreasonable and unjust. But in this case the issue as to whether the apportionment of cost was unreasonable and unjust was one of fact, and not of law. The jury was instructed that before it could find that the order was unreasonable and unjust in this respect, it must so appear by clear and satisfactory evidence. It therefore follows that the trial court did not err in refusing to direct a verdict for the state. The Court of Civil Appeals was without authority to substitute its finding on this issue for that of the jury."

In this case the Court of Civil Appeals, admittedly having no power to substitute its findings of fact for those of the jury (Appellant's Reply Brief, 45-46), has held that as a matter of law the evidence is

insufficient to show confiscation. The question of law is open here as it was in the Court of Civil Appeals. Matters of weight and credibility were for the jury. The law question only is reviewable. The law question decided relates to the "quantum and character" of evidence that is legally sufficient to support a judgment setting aside a rate order as being confiscatory. That question is one arising under the Federal Constitution. It has been wrongly decided, and the decision should be corrected. The judgment of the State appellate court should be reversed, and that of the District Court affirmed, or the cause should be remanded with instructions to reinstate the judgment of the State District Court. *Jones National Bank v. Yates*, 240 U. S. 540, 563.

We wish to again point out that in respect of two of the main phases of the tendered issue of confiscation—the fair value of appellant's property and what would be a fair rate of return—the evidence was admittedly conflicting. The State court so found (V, R. 3363, 3368); and the State court further held that because this conflicting evidence consisted of the testimony of "equally well qualified experts," it was insufficient as a matter of law and of no probative force. With either of these two issues decided in appellant's favor by the jury, the conclusion that the rate was confiscatory was inescapable. This ruling of the State court relates to the quantum and character of evidence required to sustain an attack on a rate order challenged as confiscatory under the Federal Constitution. The ruling is clearly wrong and should be corrected.

IV.

Discussion of Other Points and Statements Made by Appellees.

(1) *Appellant's alleged failure to submit segregation evidence to the Commission.*

Appellees complain of appellant's alleged failure to submit evidence to the Commission upon which it could have made a segregation of the property and business between interstate and intrastate commerce or between Texas and Oklahoma public service, here again making a negative use of the excluded Commission record (Appellant's Reply Brief, 3-4). They say that the record shows that appellant was working "hammer and tongs" upon a segregation theory during the time the Commission's hearings were going on. (Appellees' Supplemental Brief, p. 8.) The record does not support the latter statement. In support of the statement, reference is made to page 71 of appellees' main brief. Appellees there state that the gravitometer readings were commenced in 1933 in preparation of the court hearing. The record does not support this conclusion. The record shows that appellant maintains and operates recording gravitometers for making continuous record of the specific gravity of the gas transported and sold by it. The dates upon which these various gravitometers were installed are not shown in the record. The function of these instruments was explained by the witness Schmidt. He testified that the charts are taken off the gravitometers and included in the com-

pany's records; and that those records are available to the State of Texas and the Railroad Commission. (II, R. 1505-1506.)

The Commission could have made the same character of segregation before promulgating the order that it made in the District Court in an effort to sustain the order. The basis of such a segregation was laid in the evidence as to the over-all property and business. Moreover, the Commission could have limited its order to gas delivered in intrastate commerce. If it had done this the issue would have been confined to the validity of the order when applied solely to the intrastate deliveries of gas. But the Commission made the order applicable to all deliveries of gas whether made in interstate or intrastate commerce. It was not open to appellant to control the drawing of the order. The evidence shows that the order was not drawn until long after the hearing was terminated.

In as much as the order in its operation is inseparable, it is not material that appellant's business may be separable into two parts, interstate and intrastate. *Cooney v. Mountain States Telephone Co.*, 294 U. S. 384, 392; *Pacific Telephone & Telegraph Co. v. Washington*, 297 U. S. 403, 416. The order is an indivisible legislative act. It has been so drawn, so interpreted and so enforced by the Commission and the State court (Appellant's main brief, 97-104).

This is a stronger case for the inseparability of the involved legislative act than is the ordinary case involving a statute. See *Cooney v. Mountain States Telephone Co., supra.* Statutes are not supported by findings of fact. This rate is purportedly supported

by elaborate findings of fact (I, R. 14-116). These findings include the Line A properties and operations. As we have already pointed out in detail, the findings of the Commission and those of the State appellate court show that, with the Line A properties and operations eliminated, the order would not have been promulgated by the Commission because, with Line A eliminated, the prescribed rate would not have yielded the 6% which the Commission found was the "minimum" rate to which the appellant was entitled. This clearly appears from the Commission's findings considered in the light of the trial evidence and the findings of the State appellate court (Appellant's main brief, 101-103).

(2) *The quantity of Oklahoma gas transported to Texas.*

Appellees say that the total volume produced from company reserves in Oklahoma and transported to Texas was only 613,780 MCF for the year 1933. They then make the point that for the same period approximately 500,000 MCF of gas from Oklahoma and the Texas Panhandle was stored in the Miller lease. (Appellees' Supplemental Brief, p. 9.) Appellees, on Exhibit 4 (III, R. 2124-A), show under the heading "Gas Purchased and Produced—Oklahoma" that the total gas transported from Oklahoma to Texas for 1933 amounted to 1,267,775 MCF of gas. The 613,780 MCF referred to in Appellees' Brief was gas produced from appellant's own reserves and excluded the gas *purchased* by appellant in Oklahoma and transported to Texas. The amount

of gas transported from Wheeler County, Texas, through Oklahoma and thence back into Texas and delivered at Texas city gates amounted to 6,113,200 MCF of gas for the year 1933. The amount transported for other years is shown in the record. (Appellant's Exhibit 44, V, R. 3201-3205.)

Here the appellees again refer to the alleged storage of the "smaller volume of Texas Panhandle gas coming through Line A" in the Miller lease (Brief, p. 9). The figures given by appellee show that the amount of Line A gas thus stored must be very small—negligible—when compared with the total deliveries on that line. Furthermore, as pointed out in our Reply Brief, this storage is, of course, without effect on the gas delivered on Line A and consumed long before the Miller lease is reached (Reply Brief, p. 26).

(3) *Average operating results.*

Appellees complain that the trial court did not specifically instruct the jury that they might take into consideration average operating results from January 1, ~~1937~~, to April 30, 1934, in arriving at their verdict on the issue of confiscation (Supplemental Brief, p. 18). This objection to the court's charge was not made in the trial court (I, R. 182-4); it is made for the first time in this Court. It therefore obviously comes too late. Furthermore, the objection is clearly without merit. The jury were permitted to consider the average operating results mentioned, as clearly appears from the record:

(a) Appellees' accounting Exhibit 4 shows appellant's earnings upon the Texas operations only from

1929 through March 31, 1934 (III, R. 2116-A). Appellees' Exhibit 5 shows the operating income, expenses and the net earnings for the years 1927 through March 31, 1934 (III, R. 2126-A). These exhibits were received in evidence and were available for consideration by the jury. The charge contained no instruction preventing the jury from considering this evidence. On the contrary, the jury was instructed that they should answer the single special issue submitted to them "from the evidence introduced before you" (I, R. 192); and in the special issue the jury was required to find "from the evidence in this case" whether the rate was confiscatory (I, R. 194). The exhibits referred to constitute a part of the evidence "introduced before" the jury and therefore a part of the evidence on which they were *required* by the charge to base their answer.

(b) The opinion and findings of the Railroad Commission were received in evidence and the jury were specifically instructed that they might consider the findings and conclusions of the Commission for the purpose of assisting them in determining whether the order was unreasonable and unjust (Charge, I, R. 194). The opinion and findings of the Commission set out in great detail the earnings of appellant for the years 1927 through 1932, and undertake to demonstrate the amount that would have been available to appellant for return under the 32¢ rate if it had been in effect during each of those years (Opinion and Findings, I, R. 105-106). The order was not applied to any period prior to its effective date, to-wit, September 13, 1933, but the jury were at liberty to take into consideration in determining

whether the order, when applied prospectively, would be confiscatory in the light of earnings for prior years. The earnings for these prior years were in evidence, and, presumptively, the jury gave them due and proper weight. It therefore affirmatively appears that appellees erroneously stated that,

"Thus, the jury's vision was limited strictly by the form of submission to the question whether the rate was unreasonable prospectively from the date of trial in 1934, forward, and the jury was not permitted to answer as to whether it was reasonable when considered in the light of the average operating results * * * * from 1927 to 1934, inclusive." (Appellees' Supplemental Brief, p. 18.)

The findings of the Railroad Commission, put in evidence before the jury, expressly showed that the Commission had considered the average operating results in question in testing the proposed rate and in determining whether, in the view of the Commission, it would operate in a reasonable way. The jury was expressly instructed that it could consider the findings of the Commission in connection with the trial evidence in deciding the ultimate issue as to whether the rate was confiscatory. In these circumstances, it must be presumed that the jury, following the charge, duly considered these average operating results in arriving at the conclusion that the rate was confiscatory.

(4) *Canceled and surrendered leases and Federal income taxes.*

Appellees erroneously state that in the table appearing on page 64 of Appellant's Reply Brief can-

celed and surrendered lease expense was not handled in the manner in which the Commission handled it. The Commission amortized this expense on a five-year basis. We have done likewise in the table referred to. (See note 1, p. 64, Appellant's Reply Brief.) In this table we have handled operating expenses in the same manner as the Commission treated them. The items eliminated by the Commission have been eliminated and the items amortized by the Commission have been amortized. (For details, see IV, R. 2297-2304.)

Federal income taxes have been correctly computed by appellant. Appellees' criticism is without merit (Appellees' Supplemental Brief, p. 23). The evidence shows that the amount of Federal income tax allocable to appellant upon the consolidated return amounted to $296,954.64 for 1931 and $234,312.46 for 1932 (I, R. 395).

Appellees' statement that "Hulcy testified that only an amount of approximately $52,000.00 would be due by the company for the year 1931 * * *" (Appellees' Supplemental Brief, p. 23) is inaccurate. The testimony here referred to was given in response to the cross-examination by appellees' counsel. The witness Hulcy stated that if the 32¢ rate had been in effect and appellant had been allowed five per cent of the rate base adopted by the Commission as depreciation and depletion reserve accruals, and the total amount paid for interest had been deducted, the income tax would have amounted to approximately $50,000.00 (I, R. 406).

Most of the contentions made in Appellees' Supplemental Brief have been anticipated and discussed in

Appellant's Reply Brief. We do not desire to repeat what has there been said; nor do we undertake herein to answer all of the statements made in Appellees' Supplemental Brief with which we do not agree. We think the appellant's position in respect to all material phases of the case have been sufficiently presented in the other briefs.

Respectfully submitted,

ROY C. COFFEE,
MARSHALL NEWCOMB,
OGDEN K. SHANNON,
BEN H. POWELL,
CHARLES L. BLACK,
Counsel for Appellant.

BLANK

PAGE

FILE COPY

Office - Supreme Court, U. S.
FEB 21 1938
CHARLES ELMORE CROPLEY
CLERK

IN THE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1937

NO. 313

LONE STAR GAS COMPANY,
Appellant

versus

STATE OF TEXAS, ET AL.,
Appellees

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF TEXAS

APPELLEES' MOTION TO DISMISS APPEAL

WILLIAM MCCRAW,
Attorney General of Texas
ALFRED M. SCOTT,
Assistant Attorney General
EDWARD H. LANGE,
Laredo, Texas
Attorneys for Appellees.

FIRM FOUNDATION - AUSTIN

BLANK

PAGE

IN THE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1937

NO. 313

LONE STAR GAS COMPANY,

Appellant

versus

STATE OF TEXAS, ET AL.,

Appellees

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF TEXAS

APPELLEES' MOTION TO DISMISS APPEAL

To the Honorable Supreme Court of the United States:

Appellees move that this appeal be dismissed, as having been improvidently granted, for the following reason:

PROPOSITION:

THIS COURT HAS NO JURISDICTION OF THIS CAUSE FOR THE REASON THAT THE

APPEAL WAS TAKEN SOLELY FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF TEXAS (AN INTERMEDIATE APPELLATE COURT) AND FROM THE FINAL JUDGMENT OF JULY 10, 1935, RENDERED BY SAID COURT, AND NOT FROM THE SUPREME COURT OF TEXAS (THE HIGHEST COURT OF THE STATE) OR FROM THE JUDGMENT OF SAID HIGHEST COURT, DATED OCTOBER 7, 1936, REFUSING WRIT OF ERROR AND THUS AFFIRMING ON ITS MERITS, WITHOUT OPINION, THE JUDGMENT OF THE COURT OF CIVIL APPEALS; AND THE APPEAL, THEREFORE, HAS NOT BEEN TAKEN FROM THE FINAL JUDGMENT OF THE "HIGHEST COURT OF A STATE IN WHICH A DECISION IN THE SUIT COULD BE HAD," AND WAS ACTUALLY HAD IN THIS CASE, AS PROVIDED BY SEC. 237 OF THE JUDICIAL CODE, U. S. C. TITLE 28, SEC. 344 (a).

The Court of Civil Appeals entered its judgment of reversal and rendition on July 10, 1935. (R. V, 3370). In due time the Company filed in the Court of Civil Appeals its motion for rehearing (R. V, 3371-3405), which motion was overruled on September 25, 1935, with supplemental opinion (R. V, 3405-3406). Thereupon within the time prescribed by the applicable statute the Company filed in the Court of Civil Appeals, as prescribed by the statutes, its application for writ of error; which application, together with the entire record in the cause and certified

copies of the orders entered by the Court of Civil Appeals, were transmitted to and filed in the Supreme Court of Texas on November 2, 1935, (R. V, 3407-3435). The Supreme Court of Texas on October 7, 1936, entered its order, "that the application be refused." (R .V, 3435). Thereafter within due time, and on October 22, 1936, the Company filed in the Supreme Court of Texas, and that Court overruled, its motion for rehearing. (R. V, 3456).

On February 9, 1937, the Company presented its petition for appeal (from the State Court to this Court) to Hon. Jas. W. McClendon, Chief Justice of the Court of Civil Appeals, praying for an order granting leave to appeal to this Court from the final judgment of the Court of Civil Appeals, and not from the final judgment of the Supreme Court of Texas. That petition for appeal was denied by the Chief Justice of the Court of Civil Appeals (R. V, 3457-3458).

Thereupon, and on February 12, 1937, the Company presented to Hon. Benjamin N. Cardozo, Associate Justice of this Court, assigned to the Fifth Circuit, its petition for leave to appeal to this Court from the said final judgment of the Court of Civil Appeals, of July 10, 1935 (R. V, 3457), which appeal was granted on the same date (R. V, 3468). Throughout said petition for appeal, assignment of errors and prayer for reversal accompanying same, (R. V, 3458) the Company sought to appeal from, and assigned errors in, and prayed for reversal of,

the final judgment of the Court of Civil Appeals only, and not that of the Supreme Court of Texas.

At page 1 of its printed jurisdictional statement, filed in this Court pursuant to Rule 12, the Company describes the judgment appealed from as being the final judgment of the Court of Civil Appeals, and this description is repeated on page 5, where the facts are affirmatively recited, showing the filing of the application and the refusal thereof by the Supreme Court of Texas. And throughout said jurisdictional statement it is made plain that the final judgment sought to be appealed from and reviewed is that of the Court of Civil Appeals and not that of the Supreme Court of Texas.

Appellant does not show that it has, and as an actual fact it has not, presented its petition for leave to appeal, from the final judgment of the Supreme Court of Texas as aforesaid, to the Presiding, or any, Justice of the Supreme Court of Texas, nor to any Justice of this Court, as prescribed by the applicable federal statutes and rules governing this Court's jurisdiction, and the procedure, in appeals from State Courts.

ARGUMENT

Section 237 of the Judicial Code, as amended, (U.S.C. Title 28, Sec. 344-a) provides that: "A final judgment or decree in any suit in the highest court of a State in which a decision in the suit could be had . . . may be reviewed by the Supreme Court."

This Court has held that where the state court of last resort is vested with appellate jurisdiction to review the judgment of an intermediate, appellate court, and the state court of last resort has declined to grant the appellate writ, this Court will accept the interpretation of the state court of last resort as to whether the denial of the appellate writ amounts to a total refusal to exercise any jurisdiction upon the merits at all, or whether it constitutes in effect an actual exercise of active appellate jurisdiction and is tantamount to an affirmance of the intermediate appellate court's judgment without written opinion. In the latter situation (which we say is presented by this appeal and record) the appeal properly lies from the judgment of the state court of last resort, and not from the judgment of the intermediate appellate court.

Norfolk & Southern Turnpike Co. v. Virginia, 225 U. S. 264, 267-269, 56 L. Ed. 1082;
F. S. Royster Guano Co. v. Virginia, 253 U. S. 412, 413, 64 L. Ed. 989;
Hetrick v. Lindsey, Ohio, 265 U. S. 384, 386, 68 L. Ed. 1065;
Matthews v. Huwe, 269 U. S. 262-266, 70 L. Ed. 266;
Tumey v. State of Ohio, 273 U. S. 510, 515, 71 L. Ed. 749;
Van Huffel v. Harkelrode, 284 U. S. 225, 230, 231, 76 L. Ed. 256;
Whitfield v. Ohio, 297 U. S. 431, 435, 80 L. Ed. 778, 782.

Article 1728, Revised Civil Statutes of Texas, 1925, fixes and defines the appellate jurisdiction of

the Supreme Court of Texas. The pertinent parts thereof, applicable here, are quoted in the margin.[1]

Other statutory articles pertaining to the practice of applying for writ of error, which is the exclusive applicable statutory mode of removing causes from the Court of Civil Appeals to the Supreme Court of Texas, are quoted in the margin also.[2]

The Supreme Court of Texas has held, in *Gammel Statesman Pub. Co.* v. *Ben C. Jones & Co.*, 206 S. W. 931, that the refusal of a writ of error by the Supreme Court of Texas, *as in this case*, necessarily

---

[1] "Appellate jurisdiction—The Supreme Court shall have appellate jurisdiction coextensive with the limits of the State, extending to all questions of law arising in the following cases when same have been brought to the Courts of Civil Appeals from final judgment of trial courts:

1. * * *
2. * * *
3. Those involving the construction or validity of statutes necessary to a determination of the case.
4. * * *
5. Those in which the Railroad Commission is a party.
6. * * *

"In all cases where the judgment of the Court of Civil Appeals is a correct one and where the principles of law declared in the opinion of the court are correctly determined, the Supreme Court shall *refuse* the application; and in all cases where the judgment of the Court of Civil Appeals is a correct one but the Supreme Court is not satisfied that the opinion of the Court of Civil Appeals in all respects has correctly declared the law, it shall *dismiss the case for want of jurisdiction.*"

[2] " 'Art. 1729—Writ of error or certificate.—All causes mentioned in the preceding Article (1728) may be carried to the Supreme Court either by writ of error or by certificate from the Court of Civil Appeals. * * *'

" 'Art. 1740.—Petition of writ of error.—A writ of error before the Supreme Court may be applied for by petition addressed to said Court and the petition shall contain such other requisites as may be prescribed by the Supreme Court; * * *

" 'Art. 1742.—Filing.—The petition shall be filed with the clerk of the Court of Civil Appeals within thirty days from the overruling of the motion for rehearing'."

volves and constitutes a consideration of the cause on its merits by the Supreme Court of Texas, and an actual exercise of active jurisdiction by that urt, and an affirmance by that Court, upon its erits, of the judgment of the Court of Civil Appals, even though no opinion be written, and even ough the legal effect of the refusal is not exessly recited in or written into the order refusing e application for writ of error; so that by virtue erely of the refusal of the application, the opinion d judgment of the Court of Civil Appeals become ose of the Supreme Court of Texas by adoption, d subject to its protection and enforcement by propriate process.

The holding of the above cited case is expressly nfirmed by statutory enactment, contained in ragraph 6 of Article 1728, quoted in footnote 1, pra, as follows: "In all cases where the judgment the Court of Civil Appeals is a correct one and here the principles of law declared in the opinion the Court are correctly determined, the Supreme urt shall *refuse* the application."

It is even apparent from Appellant's own motion r re-hearing on its application for writ of error the Supreme Court of Texas, R. V. 3444, that it, pellant, clearly acknowledged the taking of juris-

---

206 S. W. p. 932. "The motion in the case before us was filed and d upon by the Court of Civil Appeals after the Supreme Court had sed a writ of error in said cause, and by such action *affirmed* the inal judgment of the Court of Civil Appeals and that of the trial t."

diction of the cause by the Supreme Court of Texas, in the overruling of appellant's several assignments of error embraced in the said application.'

We think there cannot be the slightest doubt, that if an appeal could have been prosecuted to this Court at all by the Company in this case, it would, under the mandatory, clear, and inexorable provisions of Section 237 of the Federal Judicial Code, have had to be prosecuted from the final judgment of the Supreme Court of Texas affirming upon its merits without opinion the judgment and opinion of the Court of Civil Appeals, and not from the judgment of the Court of Civil Appeals itself.

In the case of *Adam* v. *Saenger* (No. 197, October Term, 1937)—U. S.—, recently decided by this Court, the appeal was correctly taken from the Court of Civil Appeals of Texas, because the Supreme Court of Texas in that case, "*dismissed the case for want of jurisdiction,*" as provided for in that part of paragraph 6 of Art. 1728 (Footnote 1, supra), reading as follows:

> "In all cases where the judgment of the Court of Civil Appeals is a correct one but the Supreme Court is not satisfied that the

---

' Appellant's motion for re-hearing of application for Writ of Error to the Supreme Court of Texas, R. V., 3436. . . :

"Twenty-fourth Assignment of Error.

"This Honorable Court erred in overruling the Seventeenth Assignment of Error presented in the application for Writ of Error *and in thereby holding* that the judgment of the Court of Civil Appeals approving and holding valid the rate prescribed in the order of the Railroad Commission did not take defendant's property without due process of law." . . . R. V., 3444.

> opinion of the Court of Civil Appeals in all respect has correctly declared the law, it shall *dismiss the case for want of jurisdiction.*"

This question has been briefed somewhat more in detail on both sides in No. 13, October Term, 1937, *United Gas Pub. Serv. Co., Appellant*, v. *State of Texas, et al, Appellees* (No. 807, Oct. Term, 1936), in which case this Court, as we conceive, erroneously overruled our motion to dismiss upon the grounds here urged, doubtless through a failure to understand, from our imperfect presentation, the state practice, statutes, and decisions.

We are fully aware that the Court has, in several instances, retained jurisdiction of appeals prosecuted from our Courts of Civil Appeals in the circumstances here involved, but we think the Court has clearly but inadvertently fallen into error in so doing, and that its error was probably due to a failure of the parties litigant heretofore to make plain to this Court the state law applicable.

As the matter now stands, the rule observed by this Court in appeals from Texas is in direct conflict with its rule observed in appeals from the State of Ohio, and perhaps other states, where the state practice, so far as material to this question, is identical with that in Texas. There certainly should be uniformity, and not conflict, in the application of the jurisdictional statute governing appeals to this Court from the state courts.

For the Court's convenience we attach as an Ap-

pendix hereto a copy of the entire opinion and certificates of the Supreme Court of Texas in the case of *Gammel Statesman Pub. Co.* v. *Ben C. Jones & Co.*, 206 S. W. 931, *supra*.

We, therefore, respectfully urge the Court to reconsider this question and to dismiss the appeal as not having been prosecuted from "the highest court of a state in which a decision of the suit could be had."

Respectfully submitted,

WILLIAM MCCRAW,
Attorney General of Texas
ALFRED M. SCOTT,
Assistant Attorney General
EDWARD H. LANGE,
Laredo, Texas
Attorneys for Appellees.

APPENDIX "A"

Commission of Appeals
Section A
No. 9

The Gammel Statesman Publishing Co., et al.,
Plaintiffs in Error,
vs.
Ben C. Jones & Co.,
Defendants in Error.

From Travis Co.
3rd Dist.

The judgment of the trial court in this cause was affirmed by the Court of Civil Appeals for the Third Supreme Judicial District on May 24, 1911. 141 S. W., 1048. On June 6, 1911, defendants in error filed their original motion for rehearing in said cause. The court adjourned without acting on this motion, but over-ruled same at its next term on December 6, 1911. On January 4, 1912, defendants in error filed their application for writ of error to the Supreme Court and the same was denied on February 7, 1912. On February 24, 1912, defendants in error filed in the Supreme Court their motion for rehearing on the refusal of their application for writ of error and said motion was over-ruled on February 28, 1912. On March 25, 1912, defendants in error filed in the Supreme Court an application for mandamus against the judges of the Court of Civil Appeals for the Third Supreme Judicial District to require the latter court to grant a rehearing and

reopen the case, and this was refused on April 3, 1912. Defendants in error next filed in the Supreme Court an application for mandamus against the Judge of the Trial Court and same was refused. On May 28, 1912, defendants in error filed in the Court of Civil Appeals a motion styled "motion to vacate judgment." This motion was refused by the court on October 12, 1912. On October 23, 1912, defendants in error filed in the Court of Civil Appeals what they termed "motion for rehearing of motion to vacate judgment" and this was over-ruled on January 8, 1913. On January 15, 1913, defendants in error filed in the Court of Civil Appeals a motion designated "supplemental motion for rehearing of motion to vacate judgment". The Court of Civil Appeals on February 19, 1913 granted this motion and entered judgment, setting aside its former judgment rendered May 24, 1911, affirming the judgment of the District Court and all other orders and decisions made by it subsequent to that time and reversed and remanded the cause for a new trial.

Plaintiffs in error contend that said court was without authority to grant the motion, because same was filed and acted upon at a subsequent term of the court to that at which its original judgment was rendered and after the Supreme Court had denied a writ of error in said cause. This is the only question presented for review.

We conclude, after a careful examination of the motion in connection with the record, that while not

so designated, it is in substance a motion for rehearing within the meaning of that term as used in articles 1633 and 1641, Revised Statutes, 1911. The Court of Civil Appeals so held in granting the motion. 156 S. W., 317.

The motion was not filed within the time allowed for the filing of motions for rehearing and was not acted upon at the term of the court at which the original judgment was rendered. This being true, the court was without authority to take any action on the motion and the judgment entered granting the motion and setting aside and vacating the original judgment rendered by said court in said cause and reversing and remanding the case to the trial court, must, we think, be held to be void and of no effect. Articles 1633 and 1641, R.S. 1911. McGhee v. Romatka, 92 Texas, 241. The original judgment of affirmance stands just as if the motion had not been filed.

It is contended that under the holding in the case of McGhee v. Romatka, supra, this court is without jurisdiction to review the action of the Court of Civil Appeals in granting the motion.

The motion in the case before us was filed and acted upon by the Court of Civil Appeals after the Supreme Court had refused a writ of error in said cause and by such action affirmed the original judgment of the Court of Civil Appeals and that of the trial court. The judgment of the Court of Civil

Appeals entered in granting the motion not only set aside and vacated its judgment rendered at a former term, but also in effect set aside and vacated the judgment of the Supreme Court in denying the writ of error in said cause. It is well settled that when the jurisdiction of the Supreme Court attaches, the court has full control of the cause and can make such orders concerning it as may be necessary to preserve the rights of the parties and enforce its mandates. Its jurisdiction continues until the case is fully determined by the court and its judgment is completely executed by the court below. For the purpose of enforcing its mandates, it may make any order and, if necessary, may resort to the writ of mandamus or any other appropriate writ known to our system of jurisprudence. Wells v. Littlefield, 62 Texas, 28. The action of the Supreme Court in refusing a writ of error in this cause was binding on the Court of Civil Appeals. The Court of Civil Appeals at the time the motion under review was filed and acted upon was without jurisdiction of the case and had no power to enter any order or judgment therein. To hold otherwise would be to deny to the Supreme Court its power as a court of last resort. The question of the power of the Supreme Court to enforce its own jurisdiction was not before the court in the case of McGhee v. Romatka.

We are of opinion that the motion to dismiss the application for writ of error should be overruled and that the order and judgment entered by the Court of Civil Appeals setting aside and vacating its former

judgment and reversing and remanding the cause for a new trial should be held to be void and of no effect.

Strong

Judge.

The judgment recommended by the Commission of Appeals is adopted and will be entered as the judgment of the Supreme Court. We approve the holding of the Commission on the question discussed.

Nelson Phillips

Chief Justice.

December 11th, 1918.

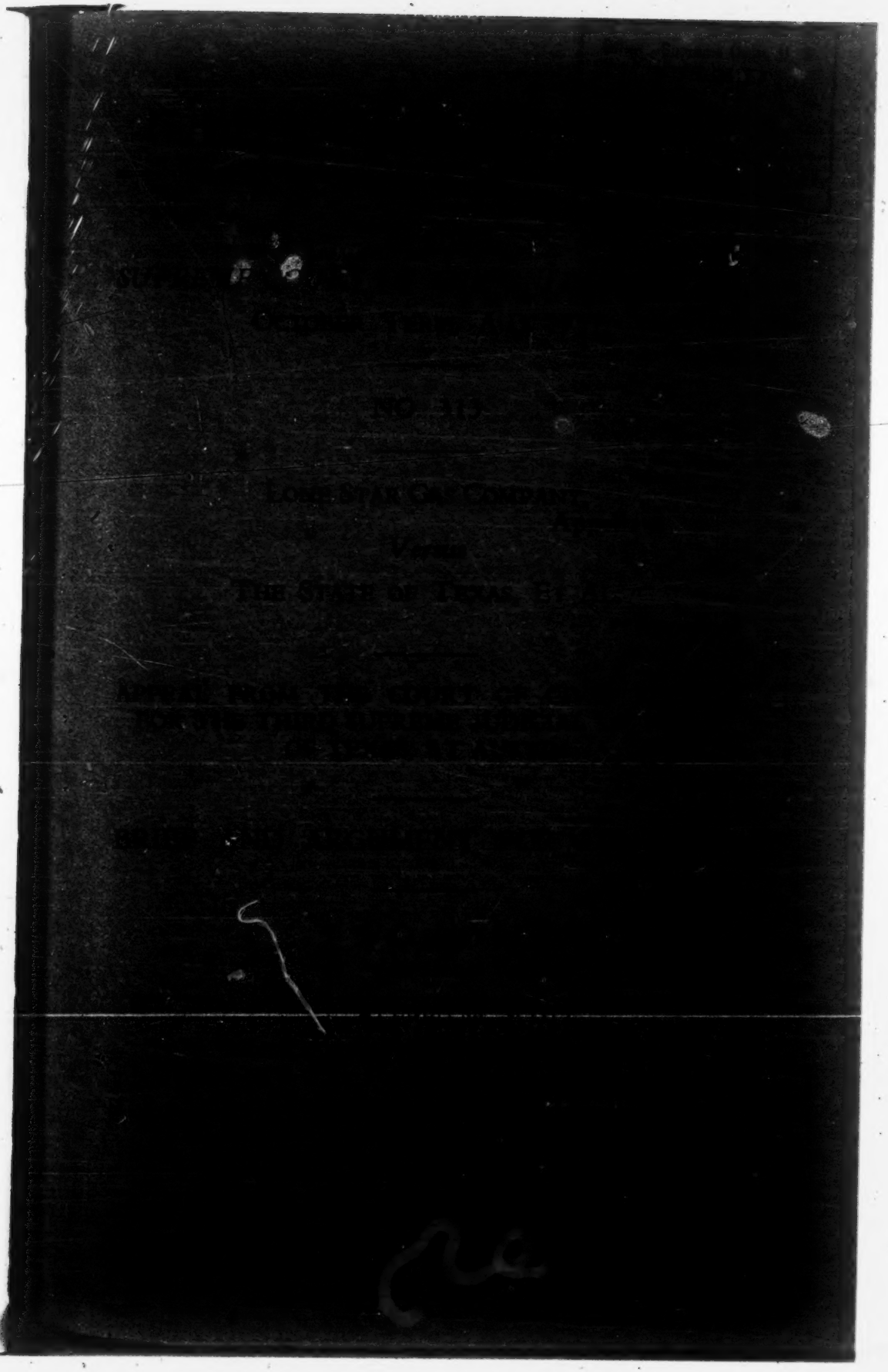
(ENDORSED)

No. 9 COMMISSION OF APPEALS Section A. No. 2572 The Gammel Statesman Publishing Company, et al., Plaintiffs in Error v. Ben C. Jones & Co., Defendant in Error. OPINION. Order of Crt. of Civ. App. vacating its original judgment remanding the cause to the Dist. Crt. is reversed and the cause is remanded to the Crt. of Civ. App. for the execution of its original judgment. Filed in Supreme Court Dec'r. 11, 1918. F. T. Connerly, Clk. by H. L. Clamp, Deputy.

Strong, Judge.

BLANK

PAGE



BLANK

PAGE

INDEX

	Page
Caption	1
I. Introductory Statement	1-4
II. Division A:	
INTERSTATE COMMERCE:	4-75
1. Point I: Company is estopped from raising interstate commerce defense, because Commission not apprised of same before order made, defense being asserted for first time in District Court	4-5
Statement and argument	32-33
2. Point II: Distribution of gas to local consumers in Texas is intrastate commerce	5-6
3. Point III: Commission empowered to fix rates in burner tip cases where gas in whole or in part is transported across State lines by circuitous process of conducting hearing on transmission phase in each of such burner tip cases	6-7
4. Point IV: State courts properly disregarded corporate fictions and treated Lone Star group of affiliated companies as an operating unit, under common ownership, management and control	7-8
Statement and argument	33-37
5. Point V: Lone Star group operations being under common ownership, management, and control, are subject to State regulation, even though gas in whole or in part imported into Texas from Oklahoma	8
6. Point VI: Result of Commission's order is to establish gate rate applicable only to domestic gas in cities and towns in Texas served by Company and is an essential step in fixing of burner tip rates in each of such cities and towns	8-12
Statement and argument	37-44
7. Point VII: If corporate fictions are disregarded, only commerce in which Lone Star system engages in Texas is intrastate business serving	

Page

natural gas to ultimate consumers at burner tips, and transportation of gas across state lines by owner is merely an incident of local commerce.... 12-13
Statement and argument 44-45

8. Point VIII: Gas transported through Line A from Wheeler County, Texas, across corner of Oklahoma and back into Texas for local Texas consumption, is not interstate commerce, since both termini of the line are in Texas 13-14
Statement and argument 45-46

9. Point IX: Transportation of gas through Line A not interstate commerce, because record discloses no necessity for construction of line through corner of Oklahoma, and further because line could have been built more economically if laid entirely in Texas, its construction through Oklahoma being only a device to avoid state regulation 14-15
Statement and argument 46-47

10. Point X: Only small and diminishing volume of Oklahoma produced gas transported by Company into Texas; importation of this gas unnecessary, for Company's Texas requirements, as Company has ample gas reserves in Texas..... 15-16
Statement and argument 47-54

11. Point XI: Excess of gas transported from Oklahoma into Texas is of small and diminishing volume over that of Texas gas transported by Company into Oklahoma, the gas flowing alternately in each direction across the State lines through Company's system and at Company's own operating convenience 16
Statement and argument 47-54

12. Point XII: Amount of gas transported by Company from Oklahoma into Texas has decreased each year and is now reduced probably to vanishing point, since Company in 1934 removed one

INDEX (Continued)

Page

of its main transmission lines through which gas had previously been transported across State line into Texas 16-17
Statement and argument 47-54

13. Point XVIII: Company owns ample gas reserves in Texas sufficient to supply all actual and potential Texas demand, making it unnecessary to import gas from Oklahoma 17
Statement and argument 47-54

14. Point XIV: Commission's order does not affect or burden importation or exportation of gas across state lines, nor discriminate against foreign gas in favor of Texas gas 17-18

15. Point XV: Commission's order effective only within Texas, does not directly burden interstate commerce, even if Oklahoma and Wheeler County, Texas, gas be considered as transported in interstate commeree 18-20
Statement and argument 54-55

16. Point XVI: Destination of Wheeler County, Texas, and Oklahoma gas not known or determined in advance, and shifted at will of Company 20-21
Statement and argument 55-56

17. Point XVII: Oklahoma gas after arriving in Texas (and Wheeler County, Texas, gas after crossing corner of Oklahoma) and before delivery to distributors is brought to rest and commingled with Texas gas, and subjected to other treatment depriving it of claimed interstate character 21-23
Statement and argument 57-61

18. Point XVIII: Absence of Federal legislation regulating interstate transportation of gas, leaves field to State regulatory authorities 23-26

19. Point XIX: Company engaged in numerous intrastate activities and is subject to State regulation 26-27
Statement and argument 61-62

INDEX (Continued)

Page

20. Point XX: Company failed to make requisite segregation between its Texas and Oklahoma properties and operations 27-28
Statement and argument 62-75

21. Point XXI: Company not having raised interstate commerce question before Commission, no duty devolved upon Commission to make segregation 28-29
Statement and argument 62-75

22. Point XXII: Burden on Company to make correct segregation between Texas and Oklahoma properties and operations, and Company failed to discharge this burden before Commission and District Court 29-30
Statement and argument 62-75

23. Point XXIII: Even if order in part void under Federal commerce clause, it is divisible and effective as to practically all of Company's operations in Texas 30
Statement and argument 62-75

24. Point XXIV: Company failed to discharge burden of proof of presenting clear and convincing evidence as to that portion of its business claimed not to be subject to Texas regulation 30-31
Statement and argument 62-75

III. DIVISION B:
CLAIMED DENIAL OF ADEQUATE JUDICIAL REVIEW:

Statement and Argument 76-84

IV. DIVISION C:
CLAIMED CONFISCATION: 85-194

1. Company's evidence was insufficient as a matter of fact and of law to show confiscation 85

2. Point XXV: Order is presumed prima facie to be non-confiscatory and valid 85-86
Statement and argument 98-194

INDEX (Continued)

Page

3. Point XXVI: Order has force of state statute 86
   Statement and argument 98-194
4. Point XXVII: Burden on Company to prove unconstitutionality by clear and satisfactory evidence 86-87
   Statement and Argument 98-194
5. Point XXVIII: No impossible burden placed upon Company 87-88
   Statement and argument 98-194
6. Point XXIX: Company does not sustain burden of proving confiscation by attacking Commission's evidence, but must, itself, submit evidence legally sufficient 88
   Statement and argument 98-194
7. Point XXX: Courts reluctant to find rate confiscatory where not put into actual effect 88-89
   Statement and argument 98-194
8. Point XXXI: Under actual test of 32c rate, increased consumption and increased net revenues probable, under record 89-90
   Statement and argument 98-194
9. Point XXXII: This Court not concerned with irregularities, erroneous methods, or reasoning by Commission or State courts, but only with overall result of rate fixed 90
   Statement and argument 98-194
10. Point XXXIII: If any finding or allowance by Commission be determined unjust to Company, complainant must prove that other liberalities in its favor have not offset errors 90-91
   Statement and argument 98-194
11. Point XXXIV: Company's claims of confiscation erroneously assumed Commission's findings, so far as favorable to Company, are minima below which the Commission is estopped to go in testing validity of rate 91-92
   Statement and argument 98-194

INDEX (Continued)

Page

12. Point XXXV: Issue here is confiscation, not reasonableness 92
    Statement and argument 98-194
13. Point XXXVI: Commission in fixing rate, and Courts in testing its validity, should use average operating results, computed over reasonable period of years 92-94
    Statement and argument 98-194
14. Point XXXVII: Order effective only within Texas, and burden on Company to submit requisite evidence for the making of segregation between its Texas and Oklahoma properties and operations 94-95
    Statement and argument 98-194
15. Point XXXVIII: Court will consider depressed economic conditions in determining line of confiscation 95
    Statement and argument 98-194
16. Point XXXIX: Courts will reject expert testimony as being without probative force where placed upon untenable grounds or methods of approach 95-96
    Statement and argument 98-194
17. Point XL: Company has not made frank disclosure of necessary data within its knowledge, or means of ascertainment 96-97
    Statement and argument 98-194
18. Point XLI: Company's computations have overshot the mark 97-98
    Statement and argument 98-194

Preliminary statement under "Confiscation," Points XXV to XLI, inclusive 98-103

ANNUAL ACCRUALS TO DEPRECIATION, DEPLETION, AND AMORTIZATION RESERVES 103-116

QUESTIONED OPERATING EXPENSES: 116-130
    Management fees 116-118
    Donations 118-119

INDEX (Continued)

	Page
Uncollectible bills	119-120
Regulatory Commission expense	120-121
Dry hole expense	121-122
Cancelled and surrendered leases	122-124
New business expense	124-127
Federal income tax	127-130
RATE BASE	130-179
Quoted prices	130-133
Divided responsibility of witnesses	133-135
Excavation costs	135-143
Gas reserves	143-156
Substitution of wellhead prices on Company produced gas	150-154
Petrolia field properties	154,156
Meridian and Southern Prod. Co., properties	154-156
Omissions, contingencies and duplications	157-161
Preliminary development and organization costs	161-165
Administrative and legal expense	165-166
General engineering costs	166
Final engineering records	166-167
General supervision of construction costs	167
General supervision allocated to specific property accounts	167-168
Taxes during construction	168-169
Interest during construction	169-170
Working capital	170
Going Concern value	170-177
Percent condition	177-179
NET RATE OF RETURN NECESSARY TO INSURE FINANCIAL SOUNDNESS	180-182
FUTURE REVENUES	182-183
Temperature corrections	182-183,185

INDEX (Continued)

Page

COMPUTATIONS BY PARTIES OF ACTUAL RETURN UNDER 40c RATE AND PROJECTED RETURN UNDER 32c RATE 184-192

Elements of error involved in Company's computations in brief 186-188
Commission's Table I 189,196
Commission's Table II 190-191,197
Commission's Table III 191,198
Commission's Table IV 191-192,199
Commission's Table V 192,200

CONCLUSION 192-194

PRAYER AND SIGNATURE 194

Appendix A, (Revised Civil Stats., Texas, 1925) 201-206
Map used by Company in its briefs in State Appellate Courts 207

INDEX TO AUTHORITIES

Acker v. United States, 298 U.S. 426, 80 L.Ed. 1257 94, 117
Alabama v. Southern Nat. Gas Corp., 170 So. 178 ..... 20, 22, 27, 62
Allen v. S. L. I. M. & S. R. Co., 230 U. S. 553, 57 L. Ed. 1625 88
Atlantic Coast Line R. Co. v. Florida, 295 U. S. 301, 79 L. Ed. 1451 88
Atlas Pipe Line Co. v. Sterling, 4 Fed. Supp. 441 20
American Steel & Wire Co. v. Speed, 192 U. S. 500, 48 L. Ed. 538 23
Austin v. Tennessee, 179 U. S. 343, 45 L. Ed. 224 ..... 14, 15
B. & O. R. Co. v. United States, 298 U. S. 349, 80 L. Ed. 1209 ..... 5, 76
B. & O. S. W. Ry. Co. v. Settle, 260 U. S. 166, 67 L. Ed. 189 ..... 14, 15
Bluefield Waterworks & Imp. Co. v. Public Serv. Comm., 262 U. S. 679, 67 L. Ed. 1176 76
Bradley v. Pub. Ut. Com. of Ohio, 289 U. S. 92, 77 L. Ed. 1053 25

INDEX TO AUTHORITIES (Continued)

	Page
Brown v. Houston, 114 U. S. 622, 29 L. Ed. 257	22
Brown v. Humble Oil & Ref. Co., 126 Tex. 296, 87 S. W. (2d) 1069	79
Brush Elec. Co. v. Galveston, 262 U. S. 443, 67 L. Ed. 1076	80, 81, 89, 90, 94
Carter v. Carter Coal Co., 298 U. S. 238, 80 L. Ed. 1160	25
Cedar Rapids Gas Co. v. Cedar Rapids, 223 U. S. 655, 56 L. Ed. 594	81, 89, 182
Central P. & L. Co. v. Purvis, 67 S. W. (2d) 1086	119
Central Vermont Ry. Co. v. Southern N. E. R. Corp., 1 Fed. Supp. 1004	7
Chicago & G. T. R. Co. v. Wellman, 143 U. S. 339, 36 L. Ed. 176	117
Chicago, etc. Ry. Co. v. Minneapolis Civic Assn., 247 U. S. 490, 62 L. Ed. 1229	7
C. M. & S. P. R. Co. v. Thompkins, 176 U. S. 167, 44 L. Ed. 417	87
Clark's Ferry Bridge Co. v. Public Service Comm. of Pa., 291 U. S. 227, 78 L. Ed. 767	108
C. N. O. & T. P. Ry. Co. v. Interstate Commerce Comm., 162 U. S. 184, 40 L. Ed. 935	5
C. R. I. & P. R. Co. v. Cole, 251 U. S. 54, 64, L. Ed. 133	83
Columbus G. & F. Co. v. Public Ut. Com. of Ohio, 292 U. S. 398, 78 L. Ed. 1327	6,7,8,92,96,145,150,177
Darnell v. Edwards, 244 U. S. 564, 61 L. Ed. 1317	80, 86, 88, 94
Davis v. Alexander, 269 U. S. 114, 70 L. Ed. 186	7
Davis v. Old Colony R. Co., 131 Mass. 258, 41 Am. Rep. 221	118
Dayton P. & L. Co. v. Pub. Ut. Com. of Ohio, 292 U. S. 290, 78 L. Ed. 1267	6,8,13,18,19,22,77,86,90 91,95,96,98,117,182
Denver Union Stockyards Co. v. United States, 57 Fed. (2d) 735	94
Des Moines Gas Co. v. Des Moines, 238 U. S. 153, 59 L. Ed. 1244	182

INDEX TO AUTHORITIES (Continued)

Page

East Ohio Gas. Co. v. Tax Com. of Ohio, 283 U. S. 465, 75 L. Ed. 1171 ..... 5, 8, 13, 18, 19, 22
Escanaba & L. M. Transp. Co. v. Chicago, 107 U. S. 678, 27 L. Ed. 442 25
Ewing v. City of Leavenworth, 226 U. S. 464, 57 L. Ed. 303 14
Federal Trade Comm. v. Smith, 1 Fed. Supp. 247 ..... 15, 16
Frank v. Mangum, 237 U. S. 309, 59 L. Ed. 969 83
Gallatin Nat. Gas Co. v. Public Serv. Com. of Mont., 79 Mont. 269, 256 Pac. 373 8
Galveston Elec. Co. v. Galveston, 258 U. S. 388, 66 L. Ed. 678 ..... 81, 94, 172
Gammel-Statesman Pub. Co. v. Ben C. Jones & Co. 206 S. W. 931 4
G. C. & S. F. Ry. Co. v. R. R. Comm. of Texas, 102 Tex. 338, 113 S. W. 741 ..... 79, 87
Georgia Power Co. v. R. R. Comm. of Georgia, 262 U. S. 625, 67 L. Ed. 1144 89
Great Northern Ry. Co. v. Weeks, 297 U. S. 135, 80 L. Ed. 532 ..... 28, 30
Gulf Fisheries v. McInerney, 276 U. S. 124, 72 L. Ed. 495 23
Hanley v. K. C. S. Ry. Co., 187 U. S. 617, 47 L. Ed. 333 ..... 45, 46
Hennington v. Georgia, 163 U. S. 299, 41 L. Ed. 166 25
Holt v. Winfield Bank, 25 Fed. 812 118
Houston C. of C. v. R. R. Comm. of Texas, 19 S. W. (2d) 583, aff. 78 S. W. (2d) 591 10
Houston v. S. W. Bell Tel. Co., 259 U. S. 318, 66 L. Ed. 961 ..... 28, 30, 173
Idaho Power Co. v. Thompson, 19 Fed. (2d) 547 118
Inter-City Coach Co. v. Atwood, 21 Fed. (2d) 83 ..... 15, 16
International Bridge Co. v. N. Y., 254 U. S. 126, 65 L. Ed. 176 25
Interstate Buses v. Holyoke St. Ry. Co., 273 U. S. 45, 71 L. Ed. 530 ..... 14, 15

INDEX TO AUTHORITIES (Continued)

Page

James v. Dravo Contracting Co., ____ U. S. ____, 82 L. Ed. (No. 3, Oct. Term 1937, L. Ed. Adv. Op. No. 5, p. 125) ____ 19, 24

Kelly v. Washington, ____ U. S. ____, 82 L. Ed. ____ (No. 2, Oct. Term 1937, L. Ed. Adv. Op. No. 3, p. 39) ____ 19, 24

Kings County Lighting Co. v. Lewis, 110 Miscl. Rep. 204, 180 N. Y. Supp. 570 ____ 94

Kirmeyer v. Kansas, 236 U. S. 568 ____ 46

Knott v. C. B. & Q. R. Co. (Missouri Rate Cases) 230 U. S. 474, 57 L. Ed. 1571 ____ 25

Knoxville v. Knoxville Water Co., 212 U. S. 1, 53 L. Ed. 371 ____ 87,88,90,94,96,97,106,182

Lehigh Valley R. R. Co. v. Pa., 145 U. S. 192, 36 L. Ed. 672 ____ 13, 46

Lincoln G. & E. Co. v. Lincoln, 250 U. S. 256, 63 L. Ed. 968 ____ 81,89,90,91,94

Lindheimer v. Ill. Bell Tel. Co., 292 U. S. 151, 78 L. Ed. 1182 ____ 29,66,85,90,91,92,94,96,98,100

Lone Star Gas Co. v. State of Texas, 86 S. W. (2d) 484 ____ 102

Los Angeles G. & E. Co. v. R. R. Comm. of Calif. 58 Fed. (2d) 256 (Aff. 289 U. S. 287) ____ 183, 185

Los Angeles G & E. Corp. v. R. R. Comm. of Calif. 289 U. S. 287, 77 L. Ed. 1180 ____ 86,90,91,94,96,109,163,177

Louisiana R. Comm. v. Cumberland Tel. & Tel. Co., 212 U. S. 414, 53 L. Ed. 577 ____ 89

Louisville v. Cumberland Tel. & Tel. Co., 225 U. S. 430, 56 L. Ed. 1151 ____ 80, 89, 93

Luria v. United States, 231 U. S. 9, 58 L. Ed. 101 ____ 84

M. K. & T. Ry. Co. v. Haber, 169 U. S. 613, 42 L. Ed. 878 ____ 25

M. P. R. Co. v. Stroud, 267 U. S. 404, 69 L. Ed. 683 45

Manufacturers L. & H. Co. v. Ott, 215 Fed. 940 ____ 6,8,13,18,19,26

Manufacturers R. Co. v. United States, 246 U. S. 457, 62 L. Ed. 831 ____ 5

INDEX TO AUTHORITIES (Continued)

	Page
May v. New Orleans, 178 U. S. 496, 44 L. Ed. 1165	23
Maxwell v. Dow, 176 U. S. 581, 44 L. Ed. 597	83
Minnesota v. Blasius, 290 U. S. 1, 78 L. Ed. 131	13, 23, 25
Minn. & S. L. R. Co. v. Bombolis, 241 U. S. 211, 60 L. Ed. 961	83
Missouri ex rel Barrett v. Kansas Nat. Gas Co., 265 U. S. 298, 68 L. Ed. 1027	40, 41
Mo. Pac. Ry. Co. v. Larabee Mills, 211 U. S. 612, 53 L. Ed. 352	25
Morris v. Duby, 274 U. S. 135, 71 L. Ed. 966	25
Municipal Gas Co. v. Comm., 225 N. Y. 89, 121 N. E. 772	94
Munn v. Illinois, 94 U. S. 113, 24 L. Ed. 77	20
McCaskill Co. v. United States, 216 U. S. 504, 54 L. Ed. 590	7
McCrorey v. Chambers, 48 Ill. App. 445	118
Natural Gas Pipe Line Co. v. Slattery, No. 230 Oct. Term, 1937, ____ U. S. ____, 82 L. Ed. ____ (L. Ed. Adv. Op. No. 5, p. 205)	19
Norfolk & Western Ry. Co. v. North Carolina, 297 U. S. 682, 80 L. Ed. 977	28,29,80,88
Northern Securities Co. v. United States, 193 U. S. 197, 48 L. Ed. 679	7
Northwestern Bell Tel. Co. v. Nebraska St. Ry. Comm., 297 U. S. 471, 80 L. Ed. 810	24
N. Y. N. H. & H. R. Co. v. N. Y., 165 U. S. 628, 41 L. Ed. 853	25
Ohio Valley Water Co. v. Ben Avon Borough, 253 U. S. 287, 64 L. Ed. 908	76
Pa. R. R. Co. v. Pub. Serv. Com. of Ohio, 298 U. S. 179, 80 L. Ed. 1130	13
Palko v. Connecticut, ____ U. S. ____, 82 L. Ed. ____ (No. 135, Oct. Term 1937, L. Ed. Adv. Op. No. 5, pp. 220-223)	83
Pacific States Box & Basket Co. v. White, 296 U. S. 176, 80 L. Ed. 138	86
Pa. Gas Co. v. Pub. Serv. Com. of N. Y., 252 U. S. 23, 64 L. Ed. 434	8,13,18,19,22,24

INDEX TO AUTHORITIES (Continued)

	Page
Pa. R. R. Company v. Pub. Serv. Comm. of Ohio, 298 U. S. 170, 80 L. Ed. 1130	13
Peoples Natl. Gas. Co. v. Pub. Serv. Com. of Penn., 270 U. S. 550, 70 L. Ed. 726	8,15,17,18,19,22
Penn. v. W. Va., 262 U. S. 553, 67 L. Ed. 1117	18
Penn. R. R. Co. v. Hughes, 191 U. S. 477, 48 L. Ed. 268	25
Port Richmond & B. P. Ferry Co. v. Board of Chosen Freeholders, 234 U. S. 317, 58 L. Ed. 1330	25
Prentis v. Atlantic Coast Line R. Co., 211 U. S. 210, 53 L. Ed. 150	92
Pub. Ut. Comm. of Kansas v. Landon, 249 U. S. 236, 63 L. Ed. 577	6, 19. 23
Reno P. L. & W. Co. v. Comm., 298 Fed. 790	94
R. R. Comm. of Calif. v. Pacific G. & E. Co., No. 804 Oct. Term 1937, ____ U. S. ____, 82 L. Ed. ____ (Adv. Op. No. 7, p. 327)	85,87,90,91
R. R. Comm. of Texas v. Galveston C. of C., 105 Tex. 101, 145 S. W. 537	79,87,90
R. R. Comm. of Texas v. Humble O. & R. Co, 101 S. W. (2d) 614	10
R. R. Comm. of Texas v. Shupee, 57 S. W. (2d) 295 (Aff. by Supreme Court of Texas, 123 Tex. 521, 73 S. W. (2d) 505)	78
R. R. Comm. of Texas v. Uvalde Construction Co., 49 S. W. (2d) 1113	86
R. R. Comm. of Texas v. Weld & Neville, 96 Tex. 394, 73 S. W. 529	79, 87
San Diego L. & T. Co. v. National City, 174 U. S. 739, 43 L. Ed. 1154	80, 87
Schechter Poultry Corp. v. United States, 295 U. S. 495, 79 L. Ed. 1570	20, 25
Silas Mason Co. v. Tax Comm. of Washington, ____ U. S. ____, 82 L. Ed. ____ (Nos. 7 & 8, Oct. Term 1937, L. Ed. Adv. Op. No. 5, p. 154)	19, 24

INDEX TO AUTHORITIES (Continued)

Page

Simpson v. Shepard (Minnesota Rate Cases), 230 U. S. 352, 57 L. Ed. 1511 20,24,28,30
Sligh v. Kirkwood, 237 U. S. 52, 59 L. Ed. 835 25
Smith v. Alabama, 124 U. S. 465, 31 L. Ed. 508 25
Smith v. Ill. Bell Tel. Co., 282 U. S. 133, 75 L. Ed. 255 24,28,29,30,66,106,117
Smyth v. Ames, 169 U. S. 466, 42 L. Ed. 819 25,28,30
Sonneborn v. Cureton (Keeling) 262 U. S. 506, 67 L. Ed. 1095 18,21,22
South Carolina Highway Dept. v. Barnwell Bros., ... U. S. ....., 82 L. Ed. ..... (No. 161 Oct. Term 1937, Feb. 14, 1938, L. Ed. Adv. Op. No. 10, p. 469) 11,19,24,42
South Carolina Power Co. v. South Carolina Tax Comm., 52 Fed. (2d) 515 (Aff. 286 U. S. 525, 76 L. Ed. 1268) 22
Southern Nat. Gas Corp. v. Alabama, 301 U. S. 148, 81 L. Ed. 970 19,22,27,62
Sou. Pac. Terminal Co. v. Interstate Commerce Comm., 219 U. S. 498, 55 L. Ed. 310 7
S. & N. Ala. Ry. Co. v. R. R. Comm. of Ala, 210 Fed. 465 ..... 89, 94
Sproles v. Binford, 286 U. S. 374, 76 L. Ed. 1167 26
Sprout v. South Bend, 277 U. S. 163, 72 L. Ed. 833 ..... 14, 15
State ex rel Caster v. Flannelly, 96 Kans. 372, 152 Pac. 22 13,19,22,26
State Corp. Comm. v. Wichita Gas Co., 290 U. S. 561, 78 L. Ed. 500 ..... 38, 44
State Tax Comm. of Mississippi v. Interstate Natl. Gas Co., 284 U. S. 41, 76 L. Ed. 156 ..... 41, 45
State of Texas v. Publ. Serv. Corpn. of Texas, 88 S. W. (2d) 627 (writ refused) 10, 43
State Tax on Railway Gross Receipts, 15 Wall. 284, 21 L. Ed. 167 ..... 20, 25
St. Joseph Stockyards Co. v. United States, 298 U. S. 38, 80 L. Ed. 1033 ..... 5,16,76,79,85,88,89,90,92,94, 96,105,172,177

INDEX TO AUTHORITIES (Continued)

	Page
Thompson v. Consolidated Gas Util. Corp., 300 U. S. 55, 81 L. Ed. 510	51
Townsend v. Yeomans, 301 U. S. 441, 81 L. Ed. 1210	24
United Fuel Gas Co. v. R. R. Comm. of Ky., 278 U. S. 300, 73 L. Ed. 390	7,8,13,18,19,28,30,86, 87,96,118 145,147
United Gas Pub. Serv. Co. v. State of Texas et al, 89 S. W. (2d) 1094	10
United Gas Pub. Serv. Co, v. State of Texas et al, ... U. S. ....; 82 L. Ed. ..... (L. Ed. Adv. Op. No. 10, 490, 500, 502, Feb. 14, 1938)	77,80,93,184
United States v. Delaware L. & W. Ry. Co., 238 U. S. 516, 59 L. Ed. 1438	7
United States Express Co. v. Minnesota, 223 U. S. 335, 56 L. Ed. 459	13
U. S. F. & G. Co. v. Kentucky, 231 U. S. 394, 58 L. Ed. 283	20
United States v. Del. L. & W. Ry. Co., 238 U. S. 516, 59 L. Ed. 1438	7
United States v. Lehigh Valley Ry. Co., 220 U. S. 257, 55 L. Ed. 458	7
United States v. Ohio Oil Co. (The Pipe Line Cases) 234 U. S. 548, 58 L. Ed. 1459	13
United States v. Powers Co., 211 Fed. 169	14
United States v. Reading Co., 253 U. S. 26, 64 L. Ed. 760	7
United States v. Union Pac. Ry. Co., 226 U. S. 61, 57 L. Ed. 124	7
Wabash Ry. Co. v. American Ref. Trans. Co., 7 Fed. (2d) 335	8
Wabash Valley Elec. Co. v. Young, 287 U. S. 488, 77 L. Ed. 447	28,30,75
Walker v. Sauvinet, 92 U. S. 90, 23 L. Ed. 678	83
West v. Kansas Natl. Gas Co., 221 U. S. 229, 55 L. Ed. 716	18

INDEX TO AUTHORITIES (Continued)

Page

Western Dist. Co. v. Pub. Serv. Comm. of Kans., 58 Fed. (2d) 241 (aff. 285 U. S. 119, 76 L. Ed. 655 5,6,8,13,18,19,22,117

Western Union Tel. Co. v. Speight, 254 U. S. 17, 65 L. Ed. 104 45

West Texas Compress Co. v. P. & S. F. Ry. Co., 15 S. W. (2d) 558 86

Whitfield v. Ohio, 297 U. S. 431, 80 L. Ed. 778 23

Willcox v. Consolidated Gas Co., 212 U. S. 19, 53 L. Ed. 382 80,86,89,182

W. Ohio Gas Co. v. Pub. Ut. Comm. of Ohio, (Kenton Case) 294 U. S. 79, 79 L. Ed. 773 94

W. Ohio Gas Co. v. Pub. Ut. Comm. of Ohio, (Lima Case), 294 U. S. 63, 79 L. Ed. 761 90,127

W. Va. & Md. Gas Co. v. Towers, 134 Md. 137, 106 Atl. 265 13,20,23

United States Constitution:

Commerce Clause, Art. I, Sec. 8, Ch. 3 ..... 23, 30

FEDERAL STATUTES:

U. S. C. A. Title 49, Ch. I, Sec. I, p. (1), subd. (b) Interstate Commerce Act 24

STATE STATUTES:

Article 1119, R.C.S. 1925 10

Article 1440, R.C.S. 1925 119

Articles 6050-6059, R.C.S. 1925 10

Article 6059, R.C.S. 1925 ..... 83, 86

IN THE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, A.D. 1937

NO. 313

LONE STAR GAS COMPANY,
Appellant

Versus

THE STATE OF TEXAS, ET AL,
Appellees

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF TEXAS, AT AUSTIN

BRIEF AND ARGUMENT FOR APPELLEES

INTRODUCTORY STATEMENT

The Company's contentions are, in their essence, but a challenge to the entire rate regulatory power of the State. The Company has chosen to make this case a war, to see which is the more powerful—the Company or the State. We have accepted the gage of battle upon that basis. The future of rate regulation in Texas depends upon the outcome.

Appellant has tersely set forth only such facts as it deems favorable to it; and in the light most favorable to it. The brief consists in part of half-truths, and on occasion, of affirmative mis-statement.

That method of briefing would be admirably adapted to Appellant's purpose, if such purpose were to present the case to this Honorable Court in a distorted and misleading light. The overall effect of the brief is to place upon Appellees the burden not only of briefing their own side of the case in the usual way, but of undoing the affirmatively and prejudicially erroneous work of Appellant. If Appellant were to be permitted to gain the natural advantage of such method, whether deliberately adopted or not, the net result would be to shift the well established legal burden from Appellant of showing by "clear and convincing evidence" that it is a victim of confiscation or has been deprived of other federal constitutional rights, and illegally to place upon Appellees the burden of sustaining the legality and non-confiscatory character of the order by evidence and other demonstration of their own.

Appellees do not wish to have such an unlawful and unjust onus placed upon them, though they are confident they could sustain it under compulsion; and they hope that this Honorable Court will hold Appellant strictly to the discharge of the burden which devolves upon it by law.

Nevertheless, Appellees wish to be of as much help to the Court in arriving at a correct decision of the case as may be possible to do.

As affirmatively appears in the record, the hearings before the Commission lasted almost continuously for a period of about seven months; and the record made before that body was considerably more voluminous

than the record before the District Court, which has been somewhat diminished in printing. (R. I, 16).

At the trial in the District Court Appellees proffered in evidence the entire record made before the Commission, including all oral testimony and exhibits, but upon the Company's objections thereto the trial court excluded it, and it went up with the record on appeal as a bill of exceptions and is now to be found *in toto* in the original typewritten record in this Court. It was at the insistence of Appellees that the stipulation was made (R. V, 3485-3487) that the entire original appellate record should be brought to this Court in lieu of the usual transcript, so that this Court might have access to the entire record if it wishes. In filing printing praecipes in this Court Appellant was very insistent that no part of the Commission record should be printed.

We desire to make plain our attitude upon this point, however: that if this Court discovers any necessity, or feels any desire, to examine the whole or any part of the Commission record, or any portion of the District Court record which was not printed, we not only willingly invite the Court to do so, but will if necessary have the desired additional portions of the record printed even yet. We are not only willing, but anxious, that the Court read and consider the whole of the printed record, and such remaining parts of the unprinted record as it sees fit.

Appellant's brief in a large part is addressed to attacks upon the *reasoning* of the Court of Civil Appeals in its opinion. The judgment of the Supreme Court of Texas, affirming upon its merits the judg-

ment of the Court of Civil Appeals, by the refusal of a writ of error,[1] is totally ignored. This Court reviews and corrects errors in federal questions committed only in the *judgments* of courts below, and not mere errors of reasoning in their opinions. Our contention is that the judgment rendered by the Court of Civil Appeals, and affirmed by the Supreme Court of Texas, was a correct one upon this record, irrespective of whether or not the *rationale* by which they arrived at their conclusions and judgments was in all respects irrefragible and above criticisms.

In Appellant's preliminary statement of the case, (p. 4 of its brief) it points out that all except two of the distributors to whom it sells in Texas are its own affiliates; but it very carefully omits to point out that Appellant itself also distributes gas in retail directly to approximately 33,000 domestic consumers in the important city of Fort Worth, Texas, (R. I, 15, 219, 388; R. III, 1896; R. V, 3288A, "Fort Worth Division") and also makes extensive domestic, commercial and industrial sales directly to the consumers along the rights of way all over its system as well as in the "Fort Worth Division" of Lone Star Gas Company.

DIVISION A

INTERSTATE COMMERCE

I. In all proceedings before the Commission Appellant made not the slightest objection or suggestion that the Commission, because of the claimed self-

[1]Gammel-Statesman Pub. Co. vs. Ben C. Jones & Co., 206 S. W. 931.

enacting force of the commerce clause of the federal constitution, had no power to fix a uniform gate rate applicable to all gas delivered by Appellant's pipe line system at all points served by it in Texas, but deliberately lay in ambush for the Commission and by its premeditated silence and acquiescence permitted the Commission to make such a gate rate without the slightest hint of the claimed defense of interstate commerce, and Appellant is now thereby estopped to assert such attack or defense in any form for the first time in a judicial review of the Commission's order:

B. & O. R. Co. vs. United States, 298 U. S. 349, 392, 80 L. Ed. 1209;
Western Dist. Co. vs. Pub. Serv. Comm. of Kans. 58 Fed. (2d) 241, 243, (aff. 285 U. S. 119, 76 L. Ed. 655);
St. Joseph Stockyards Co. vs. United States 298 U. S. 38, 47-48, 53-54, 80 L. Ed. 1033;
Manufacturers R. Co. vs. United States, 246 U. S. 457, 470, 488-490, 62 L. Ed. 831;
C. N. O. & T. P. Ry. Co. vs. Interstate Commerce Commission, 162 U. S. 184, 196, 40 L. Ed. 935.

II. Distribution of natural gas to local consumers in Texas is intrastate commerce, and of local concern only, even though the supply, in whole or in part, be transported across state lines:

East Ohio Gas Co. vs. Tax Commission of Ohio, 283 U. S. 465, 470-471, 75 L. Ed. 1171, 1175;
Western Distributing Co. vs. Pub. Serv. Com. of Kans., 285 U. S. 119, 124-125, 76 L. Ed. 655, 658;

Pub. Ut. Com. of Kans. vs. Landon, 249 U. S. 236, 245, 63 L. Ed. 577, 586;
Dayton P. & L. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 290, 306-308, 78 L. Ed. 1267, 1279;
Columbus G. & F. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 398, 399-401, 78 L. Ed. 1327;
Manufacturers L. & H. Co. vs. Ott, 215 Fed. 940, 944-945.

III. The Commission has undoubted power, effectually and for all *practical* purposes, to determine and fix in burner tip cases the gate rate to be *charged and collected* for natural gas by transmission companies to distributors, even though the supply be in whole or in part transported across state lines, by the circuitous process of conducting in each burner tip case a hearing upon the transmission phase of the business, and fixing the maximum charge which the distributors may set up as an operating expense for gas purchases at the city gates. The fixing of a maximum operating expense for gate purchases for the distributors is in practical effect the same as directly fixing the charge to be made by the pipe line company. This is true both as to independent and affiliated distributors, for reasons more fully pointed out hereinafter.

Western Distributing Co. vs. Pub. Serv. Com. of Kansas, 285 U. S. 119, 124-125, 76 L. Ed. 655, 658;
Dayton P. & L. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 290, 306-308, 78 L. Ed. 1267, 1279;

Columbus G. & F. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 398, 399-401, 414-415, 78 L. Ed. 1327;
United Fuel Gas Co. vs. R. R. Com. of Ky., 278 U. S. 300, 320-321, 73 L. Ed. 390, 401.

IV. The Court of Civil Appeals and the Supreme Court of Texas properly disregarded the corporate fictions and treated the Lone Star group of affiliated companies as being in legal contemplation one integrated system or operating unit engaged in operating, under one common ownership, management and control, all phases of the natural gas business, to-wit. purchasing, producing, transporting, and distributing locally natural gas to the consumers at the burner tips in Texas:

Chicago, etc. Ry. Co. vs. Minneapolis Civic Assn., 247 U. S. 490, 498, 500-502, 62 L. Ed. 1229;
United States vs. Delaware L. & W. Ry. Co., 238 U. S. 516, 529, 59 L. Ed. 1438;
United States vs. Lehigh Valley Ry. Co., 220 U. S. 257, 273-274, 55 L. Ed. 458;
McCaskill Co. vs. United States, 216 U. S. 504, 514-515, 54 L. Ed. 590;
Davis vs. Alexander, 269 U. S. 114, 117, 70 L. Ed. 186;
United States vs. Reading Co., 253 U. S. 26, 57-63; 64 L. Ed. 760;
Northern Securities Co. vs. United States, 193 U. S. 197, 341, 48 L. Ed. 679, 702;
United States vs. Union Pac. Ry. Co., 226 U. S. 61, 88, 89, 57 L. Ed. 124, 134;
Southern Pac. Terminal Co. vs. Interstate Commerce Commission, 219 U. S. 498, 521-522, 55 L. Ed. 310;
Central Vermont Ry. Co. vs. Southern N. E. R. Corp., 1 Fed. Suppl. 1004, 1005, 1006;

Wabash Ry. Co. vs. American Refg. Trans. Co., 7 Fed. (2) 335, 343-345;
Gallatin Nat. Gas Co. vs. Pub. Serv. Com. of Mont., 79 Mont. 269, 256 Pac. 373, 377, 378.

V. When the corporate fictions are disregarded and the system considered as an integrated whole, under common ownership, management and control, as was properly done herein, the situation is the same as if production (or purchase), transportation, and distribution were actually all conducted under a common ownership, management and operation; and all such operations are subject to state regulation even though the gas in whole or in part be imported from other states:

Authorities cited under Points II and III, above, and
Pa. Gas Co. vs. Pub. Serv. Com. of N. Y., 252 U. S. 23, 64 L. Ed. 434;
Western Dist. Co. vs. Pub. Serv. Com. of Kans., 285 U. S. 119, 76 L. Ed. 655;
Dayton P. & L. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 290, 78 L. Ed. 1267;
Columbus G. & F. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 398, 399-401, 78 L. Ed. 1327;
United Fuel Gas Co. vs. Ry. Com. of Ky., 278 U. S. 300, 320-321, 73 L. Ed. 390;
East Ohio Gas Co. vs. Tax Com. of Ohio, 283 U. S. 465, 75 L. Ed. 1171;
Peoples Gas Co. vs. Pub. Serv. Com. of Penn., 270 U. S. 550, 70 L. Ed. 726;
Manufacturers L. & H. Co. vs. Ott, 215 Fed. 940, 944-945.

VI. The result, and the only result, which the Commission intended and accomplished in promul-

gating the order, was to establish a compensatory and reasonable gate rate for application to all domestic gas delivered by Appellant at the cities and towns in Texas (approximately 275 in number) served by Appellant's pipe line system; upon which gate rate have been and are to be founded in separate and subsequent proceedings and orders the domestic burner tip rates for such towns. Approximately 125 of such domestic burner tip cases were pending before the Commission when it initiated its investigation, (R. I, 15). It is the plan and purpose of the Commission in all pending and subsequent burner tip cases involving such cities and towns to treat the present gate rate order as being final, binding, and conclusive, upon all distributors and others at interest, as to the price which Appellant may charge and collect from the distributors, and which the distributors may pay Appellant and set up on their books as an operating expense for gas purchases to be covered into their burner tip rates; thus obviating the necessity of fixing the gate rate over in a separate proceeding in each of the 275 burner tip cases at prohibitive and needless expense. Under the cases cited above under Points II and III, the fixation of such a gate rate is an essential step necessarily involved in the ultimate fixation of burner tip rates, and must be accomplished either directly or indirectly at some stage of the admittedly intrastate function of gas rate regulation as a whole, in order to arrive ultimately at reasonable burner tip rates. Under the state law, the Commission is not required to exhaust its entire jurisdiction in one proceeding and order, but it may lawfully accomplish the process of regulation by piece-

meal,[2] as it has started out to do in this case, by fixing the price which may be charged at the wellhead,[3] and the amount to be charged at the city gates,[4] and in separate and subsequent proceedings based upon the previously fixed wellhead and gate rates it may finally fix the ultimate burner tip rates,[4] either in the exercise of its original jurisdiction possessed concurrently with the incorporated cities and towns (see Art. 1119 as amended, quoted in appendix to Appellant's original brief) and under Arts. 6050-6059,[5] or its appellate jurisdiction on appeal from action of the cities under Art. 6058,[5] as done in *United Gas Pub. Serv. Co. vs. State,* 89 S. W. (2d) 1094, writ refused, affirmed by this Court Feb. 14, 1938, No. 13. So far as federal constitutional questions are concerned (which only are of interest to this Court) we must consider only the question whether, consistently with the federal commerce clause, the Commission may directly dispose of the production and transmission phases in one proceeding and order, as it has done here, as an indispensable step in the process of ultimate local burner tip regulation, or whether under the federal commerce clause it must accomplish identically the same ultimate result indirectly by trying the production and transmission phases in each of

---

[2]Houston Chamber of Commerce vs. R. R. Com. of Tex., 19 S. W. (2d) 583, 586, aff. 78 S. W. (2d) 591.

[3]R. R. Com. of Tex. vs. Humble O. & R. Co., 101 S. W. (2d) 614.

[4]State of Texas vs. Pub. Serv. Corpn. of Tex., 88 S. W. (2d) 627, writ ref.

[5]See appendix at end of this brief.

approximately 275 burner tip cases. Nothing in the letter or spirit of the federal commerce clause can reasonably be interpreted as prohibiting the pursuit of the first-mentioned course in the circumstances shown by this record. The federal commerce clause has not such self-enacting force that it precludes all state legislation affecting interstate commerce. The question of whether it precludes particular state regulation is not one for the judiciary but for the Congress.[6] The substance and not the form should be controlling. The important thing from the standpoint of the federal commerce clause is the substantial effect of the state regulation upon interstate commerce, and not the mere means by which the ultimate result is reached. There is no substantial difference, so far as the essential ultimate effect of the gate rate order upon interstate commerce is concerned, between the Commission's order here, and the situation as it would stand if the Commission should conduct 275 separate burner tip hearings, and in each case try the production and transmission phases over. If the essential ultimate result can be attained by the Commission through the indirect method of prescribing maximum gate rates for gas purchases by the distributors in burner tip cases, (and Appellant admits that this may be done, R. V, 3500-3501) then certainly the same end may be lawfully reached by the more expeditious and economical direct method here employed. The result ultimately to be obtained, and the essential

---

[6]South Carolina State Highway Dept. vs. Barnwell Bros., ... U. S. ..... 82 L. Ed. ..... (No. 161, Oct. Term, 1937, Feb. 14, 1938, Adv. Op. L. Ed. No. 10, 469, 473-477).

effect thereof upon interstate commerce, are identically the same in each instance. If the distributors be affiliated, the money all goes into and comes out of the same pocket anyway—that of the holding company, Lone Star Gas Corporation. If the distributors be non-affiliated they cannot long avoid financial ruin if they continue to pay more at the gate than they can cover into their rates; so in either event the amount fixed as the gate rate is for all practical purposes controlling as to the amount to be realized at the gate for the gas.

VII. Since the only "commerce" in which the integrated Lone Star system engages in Texas is the intrastate business of serving natural gas to the ultimate consumers at the burner tips (the corporate fictions being disregarded); and since such transportation of gas across state lines as occurs is purely an incident of such local commerce; the mere transportation by Appellant of its own gas across state lines into Texas, whether from Oklahoma or the Texas Panhandle field, for the sole purpose of there selling same in intrastate local distribution to Texas consumers, is not interstate commerce, but is only an incident of local commerce. Mere transportation, across state lines, of a commodity by its owner does not, of itself and abstractly considered, constitute "commerce" at all—much less "interstate commerce"—but the characterization of that transportation as an incident of interstate or intrastate commerce is conditioned by and depends solely upon what kind of "commerce" the owner is going to engage in with the commodity when it arrives at its destination in the receiving State:

United States vs. Ohio Oil Co. (the Pipe Line Cases), 234 U. S. 548, 561-562, 58 L. Ed. 1459, 1471;
Pa. R. R. Co. vs. Pub. Serv. Com. of Ohio, 298 U. S. 170, 80 L. Ed. 1130;
Pa. Gas Co. vs. Pub. Serv. Com. of N. Y., 252 U. S. 23, 64 L. Ed. 434;
Dayton P. & L. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 290, 78 L. Ed. 1267;
Western Dist. Co. vs. Pub. Serv. Com. of Kans., 285 U. S. 119, 76 L. Ed. 655;
East Ohio Gas Co. vs. Tax Commission of Ohio, 283 U. S. 465, 75 L. Ed. 1171;
United Fuel Gas Co. vs. R. R. Com. of Ky., 278 U. S. 300, 320-321, 73 L. Ed. 390;
Manufacturers L. & H. Co. vs. Ott, 215 Fed. 940, 944-945;
State ex rel Caster vs. Flannelly, 96 Kans. 372, 152 Pac. 22, 26-27;
W. Va. & Md. Gas Co. vs. Towers, 134 Md. 137, 106 Atl. 265, 267-269.

VIII. The gas transported through Line A from the Panhandle field in Wheeler County, Texas, across the southwest corner of Oklahoma and back into Texas for local Texas consumption is not *inherently* interstate commerce, but is in fact and in law essentially intrastate commerce, since both termini are in Texas. Whether its regulation is potentially within reach of congressional action as a part of the "current of interstate commerce," (see *Minnesota vs. Blasius*, 290 U.S. 1, 78 L. Ed. 131) is immaterial:

Lehigh Valley R. R. Co. vs. Pa., 145 U. S. 192, 201-202, 36 L. Ed. 672;
U. S. Express Co. vs. Minn., 223 U. S. 335, 341-342, 56 L. Ed. 459;

Ewing vs. City of Leavenworth, 226 U. S. 464, 467, 57 L. Ed. 303;
United States vs. Powers Co., 211 Fed. 169.

IX. The transportation of gas through Line A from the Panhandle field in Wheeler County, Texas, across the southwest corner of Oklahoma and back into Texas for local Texas consumption is not in fact or in law interstate commerce, in the circumstances revealed by this record, because the evidence plainly shows that there was no necessity or justification for running Line A into the State of Oklahoma, but the same could more economically and profitably have been laid entirely within Texas, and the placing of a short section of this line parallel to, and barely within, the Oklahoma line in barren country (destitute of markets except for Hollis, Oklahoma, which could more economically have been served by a tap line extending from a main line in Texas) and when Wellington, Texas, (a larger town than Hollis, Okla.) could have been served by such Texas line, was merely a fraudulent subterfuge or device for the purpose of giving the appearance of interstate commerce to that which in its essence is not such, and for the purpose of evading the lawful regulatory power of the Texas Commission:

Sprout vs. South Bend, 277 U. S. 163, 168, 72 L. Ed. 833;
Interstate Buses vs. Holyoke St. Ry. Co., 273 U. S. 45, 71 L. Ed. 530;
Austin vs. Tenn., 179 U. S. 343, 359-360, 45 L. Ed. 224;
B. & O. S. W. Ry. Co. vs. Settle, 260 U. S. 166, 168-169; 67 L. Ed. 189;

Inter-City Coach Co. vs. Atwood, 21 Fed. (2d) 83;
Fed. Trade Com. vs. Smith, 1 Fed. Suppl. 247, 253.

X. As to the relatively small and rapidly diminishing volume of Oklahoma-produced gas transported into Texas, the record shows obviously that this gas is unnecessarily imported, it being undisputed and indisputable that there is much more than ample Texas gas available to Appellant from its own reserves and from its existing and potential purchase connections in Texas to meet all of its Texas demands; and, further, that the Oklahoma-produced gas costs Appellant from 6 to 15 cents per MCF in Oklahoma, plus the cost of transportation to Texas, whereas the Texas gas can be bought in unlimited quantities for from 2 to 6 cents per MCF.

The continued importation of such small volumes of Oklahoma gas, and the interposition of such importations under the claimed defense of interstate commerce, are therefore only obviously fraudulent subterfuges to avoid state regulation in Texas.

Peoples Nat. Gas Co. vs. Pub. Serv. Com. of Pa., 270 U. S. 550, 70 L. Ed. 726;
Sprout vs. South Bend, 277 U. S. 163, 168; 72 L. Ed. 833;
Interstate Buses vs. Holyoke St. Ry. Co., 273 U. S. 45, 71 L. Ed. 530;
Austin vs. Tenn., 179 U. S. 343, 359-360, 45 L. Ed. 224;
B. & O. S. W. Ry. Co. vs. Settle, 260 U. S. 166, 168-169; 67 L. Ed. 189;

Inter-City Coach Co. vs. Atwood, 21 Fed. (2d) 83;
Fed. Trade Com. vs. Smith, 1 Fed. Suppl. 247, 253.

XI. As to the relatively small and rapidly diminishing volume of Oklahoma-produced gas transported into Texas, the record shows that the greater part of such volume is returned to Oklahoma in kind from Texas gas, and in the segregation between Texas and Oklahoma properties and operations made by the Commission in the District Court the small excess of Oklahoma-produced gas transported into Texas over the Texas gas transported into Oklahoma is adequately compensated for by the allowance of the average prevailing Texas sales price for gas, thus giving the Oklahoma gas virtually "free transportation" to Texas. The Company's evidence shows that the gas flows alternately in each direction across the Texas-Oklahoma line and throughout the system. In reality, therefore, this is but a temporary borrowing or exchange of gas between portions of Appellant's system located in the two States, adopted of the Appellant's own volition, for its own operating convenience, if not for fraudulent purposes, and is not interstate commerce.

XII. The amount of Oklahoma-produced gas transported into Texas, or at least the excess of such Oklahoma importations over Texas gas transported into Oklahoma, as compared with the total amount of gas sold on the Lone Star system in Texas, is so unsubstantial and negligible in amount, that it should be disregarded under the rule of *de minimis lex non curat;* especially since the record shows undisputably

that such importations, already small at the time of the District Court trial, were and are sharply and steadily declining, and have now probably reached the vanishing point; and in view of the fact that Appellants own testimony showed (R. II, 1417) that Line H was to be (and it actually has been) removed in 1934; so that now probably more Texas gas is transported to Oklahoma than vice-versa.

XIII. Since the evidence showed without dispute that Appellant owns ample gas reserves in Texas, and can easily and cheaply acquire unlimited additional gas reserves and gas purchase connections in Texas, to supply all of its actual and potential Texas demands for many years to come, the order does not require Appellant to use in Texas any gas imported from Oklahoma or elsewhere; and all of Appellant's Texas deliveries should therefore be treated as if they were Texas gas. If Appellant sees fit voluntarily to use in Texas any gas imported from Oklahoma in lieu of the ample Texas gas available, Appellant thereby subjects the same to Texas control:

Peoples Natural Gas Co. vs. Pub. Serv. Com. of Penn., 270 U. S. 550, 70 L. Ed. 726.

XIV. The order does not in any way prohibit, restrict, impede, or directly burden, the free importation or exportation of gas from state to state, nor does it discriminate against foreign gas in favor of Texas gas, but leaves the gas free to flow unrestrictedly both ways across the state line, and leaves all foreign and Texas gas upon an absolute equality of footing in Texas:

Sonneborn vs. Cureton (Keeling), 262 U. S. 506, 513-514, 67 L. Ed. 1095;
Peoples Nat. Gas Co. vs. Pub. Serv. Com. of Penn., 270 U. S. 550, 70 L. Ed. 726;
Penn. Gas Co. vs. Pub. Serv. Com. of N. Y., 252 U. S. 23, 64 L. Ed. 434;
Western Distr. Co. vs. Pub. Serv. Com. of Kans., 285 U. S. 119, 124-125, 76 L. Ed. 655;
Dayton P. & L. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 290, 306-308, 78 L. Ed. 1267, 1279;
United Fuel Gas Co. vs. R. R. Com. of Ky., 278 U. S. 300, 320-321, 73 L. Ed. 390, 401;
East Ohio Gas Co. vs. Tax Commission of Ohio, 283 U. S. 465, 470-471, 75 L. Ed. 1171-1175;
Manufacturers L. & H. Co. vs. Ott, 215 Fed. 940;
The instant case is to be distinguished from:
West vs. Kans. Nat. Gas Co., 221 U. S. 229, 55 L. Ed. 716;
Penn. vs. W. Va., 262 U. S. 553, 67 L. Ed. 1117.

XV. Even if it be conceded (as it is not) that both the Oklahoma-produced gas and the gas from the Panhandle field in Wheeler County, Texas, are transported in interstate commerce, yet the effect of the present order establishing a gate rate for application within Texas, is not a prohibited, direct and substantial burden upon interstate commerce, but has at most only an unprohibited, indirect, remote, unsubstantial, and incidental effect upon interstate commerce; and the fixation of such a gate rate, even applied to all the gas sold in Texas by Appellant, is within the legal power of the Texas Commission as one of the indispensable steps toward the exercise of its undoubted power to

fix reasonable ultimate burner tip rates even upon gas transported across state lines:

South Carolina Highway Dept. vs. Barnwell Bros., ____ U. S. ____, 82 L. Ed. ____, (No. 161, Oct. Term, 1937, Feb. 14, 1938, L. Ed. Adv. Op. No. 10, 469, 473-477);

Washington ex rel. Foss vs. Kelly, ____ U. S. ____, 82 L. Ed. ____, (L. Ed. Adv. Op. p. 39);

Natural Gas Pipe Line Co. vs. Slattery, No. 230, October Term, 1937, ____ U. S. ____, 82 L. Ed. ____, (L. Ed. Adv. Op. No. 5, p. 205);

James vs. Dravo Contracting Co., ____ U. S. ____, 82 L. Ed. ____ (No. 3, Oct. Term 1937, L. Ed. Adv. Op. No. 5, p. 125);

Silas Mason Company vs. Tax Comm. of Washington, ____ U. S. ____, 82 L. Ed. ____ (Nos. 7 & 8, Oct. Term, 1937, L. Ed. Adv. Op. No. 5, p. 154).

Southern Nat. Gas Corp. vs. Ala., 301 U. S. 148, 81 L. Ed. 970;

Western Distr. Co. vs. Pub. Serv. Com. of Kans., 285 U. S. 119, 124-125, 76 L. Ed. 655;

Dayton P. & L. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 290, 306-308, 78 L. Ed. 1267;

United Fuel Gas Co. vs. R. R. Com. of Ky., 278 U. S. 300, 401, 73 L. Ed. 390;

East Ohio Gas Co. vs. Tax Commission of Ohio, 283 U. S. 465, 470-471, 75 L. Ed. 1171;

Pub. Ut. Com. of Kans. vs. Landon, 249 U. S. 236, 245; 63 L. Ed. 577;

Penn. Gas Co. vs. Pub. Serv. Com. of N. Y., 252 U. S. 23, 29-30, 64 L. Ed. 434;

Peoples Nat. Gas Co. vs. Pub. Serv. Com. of Penn., 270 U. S. 550, 70 L. Ed. 726;

Manufacturers L. & H. Co. vs. Ott, 215 Fed. 940, 944-945;

State ex rel Caster vs. Flannelly, 96 Kans. 372, 152 Pac. 22, 26-27;

W. Va. & Md. Gas Co. vs. Towers, 134 Md. 137, 106 Atl. 265, 267-269;
Ala. vs. Southern Nat. Gas Corp., 170 So. 178;
United States F. & G. Co. vs. Kentucky, 231 U.S. 394, 397, 399, 58 L. Ed. 283;
Simpson vs. Shepard (Minnesota Rate Cases), 230 U. S. 352, 402-431, 57 L. Ed. 1152;
Atlas Pipe Line Co. vs. Sterling, 4 Fed. Suppl. 441;
Schechter Poultry Corp. vs. United States, 295 U. S. 495, 544-551, 79 L. Ed. 1570;
Munn vs. Illinois, 94 U. S. 113, 135, 24 L. Ed. 77;
State Tax on Railway Gross Receipts, 15 Wall. 284, 293, 294, 21 L. Ed. 167;

XVI. Considering the fact that when the gas leaves the Wheeler County field in Texas, and the various fields in Oklahoma, its destination is not known or determined in advance, and the fact that the same is, after arrival in Texas, shifted at the will of Appellant to whatever destination may suit its own whim and fancy, thus enabling Appellant by playing fast and loose through such continuous shifting, to defeat regulation by all competent authorities, both State and Federal; and the fact also that no orders are placed for, or sales made of, the gas before its entry into Texas, and no sale of any specific or particular identifiable volume thereof is ever made even after entry into Texas, but that in a part of the system's territory the same is drawn off from the mixture of Texas and Oklahoma gas only upon demand of, and as needed by, the affiliated distributors and the Texas consumers (including those in the Fort Worth Division) to whom it is ultimately sold, such Texas Panhandle and

Oklahoma gas is not moving in interstate commerce when it reaches the city gates in Texas:

Sonneborn Bros. vs. Cureton (Keeling), 262 U.S. 506, 67 L. Ed. 1095.

XVII. Even if it be conceded (as it is not) that both the Oklahoma-produced gas and the gas from the Panhandle field in Wheeler County, Texas, are transported in interstate commerce in such circumstances as to be originally beyond the regulatory power of Texas, yet the treatment of such gas by Appellant in the following particulars, after the gas arrives in Texas, and before delivery to the distributors, constitutes a breaking of the original package, and a commingling and amalgamation of the gas with the general mass of property in Texas, and the bringing of the interstate movement to a rest and end, in such a way and to such extent as to deprive the same of its claimed original interstate character and exemption from state control; namely: in extracting therefrom the gasoline and other volatile hydro-carbons; changing the chemical content, specific gravity, and BTU heating content thereof; reducing the pressure of same (through regulators owned, maintained and operated by Appellant) from high pressures of 150 to 350 pounds to low pressures of 20 or 30 pounds per square inch before delivery to distributors and industrial customers in Texas; reducing the same to pressures even as low as 4 to 6 ounces before service to numerous rural right-of-way customers and to approximately 33,000 retail domestic, commercial, and industrial customers in the City of Fort Worth; the breaking up of the larger streams of such gas in the high pressure transmission lines into many smaller

streams and lower pressures in tap and lateral lines; the storing of large volumes of the Texas Panhandle and Oklahoma gas for long periods in the underground Miller farm near Petrolia, Texas; and the commingling of such claimed interstate gas with much larger volumes of admittedly intrastate gas in such way that the same cannot be, or at least has not been in this record, definitely measured, identified, and segregated by volume and source in such way that it can be ascertained at any particular city gate what portion, if any, of the total delivery at any particular time is from Oklahoma and what portion, if any, is from the Texas Panhandle Field.

Southern Natural Gas Corp. vs. State of Alabama, 301 U. S. 148, 81 L. Ed. 970;
State of Alabama vs. Southern Nat. Gas Corp., 170 Southern 178;
State ex rel. Caster vs. Flannelly, 96 Kans. 372;
South Carolina Power Co. vs. South Carolina Tax Com., 52 Fed. (2d) 515, 523-525, Aff. 286 U. S. 525, 76 L. Ed. 1268;
Sonneborn Bros. vs. Cureton (Keeling), 262 U.S. 506, 513, 522, 67 L. Ed. 1095;
Brown vs. Houston, 114 U. S. 622, 632-634, 29 L. Ed. 257;
Penn. Gas Co. vs. Pub. Serv. Com. of N. Y., 252 U. S. 23, 64 L. Ed. 434;
Peoples Nat. Gas Co. vs. Pub. Serv. Com. of Penn., 270 U. S. 550, 70 L. Ed. 726;
East Ohio Gas Co. vs. Tax Commission of Ohio, 283 U. S. 465, 75 L. Ed. 1171;
Dayton P. & L. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 290, 78 L. Ed. 1267;
Western Distr. Co. vs. Pub. Serv. Com. of Kans., 285 U. S. 119, 76 L. Ed. 655;

Public Ut. Com. of Kans. vs. Landon, 249 U. S. 236, 63 L. Ed. 577;
May vs. New Orleans, 178 U. S. 496, 509-510, 44 L. Ed. 1165;
Amer. Steel & Wire Co. vs. Speed, 192 U. S. 500, 521-522, 48 L. Ed. 538;
Gulf Fisheries vs. McInerney, 276 U. S. 124, 72 L. Ed. 495;
Minn. vs. Blasius, 290 U. S. 1, 10-12, 78 L. Ed. 131;
Whitfield vs. Ohio, 297 U. S. 431, 438-440, 80 L. Ed. 778.
West Va. & Md. Gas Co. vs. Towers, 134 Md. 137, 106 Atl. 265, 267-269;

XVIII. Congress never having enacted any legislation toward regulating the interstate transportation of natural gas by pipe line, but having in the amendments to the Interstate Commerce Act expressly excepted that traffic from federal regulation, the undoubted congressional intent is evinced that this field of regulation shall be left to the respective states, in so far as same pertains to their local concerns. The fixing of a uniform gate rate for natural gas served by Appellant's pipe line system only to cities and towns in Texas, to the extent and in the circumstances shown by this record, only as a prelude and an indispensable step toward the fixing of ultimate burner tip rates in Texas, which the state has the undoubted power to fix, is not a subject of national character or concern requiring or even permitting convenient and practicable uniformity of regulation as between state and state, and it is, therefore, not forbidden to the state by the Commerce Clause of the Federal Constitution. This is a legislative matter in which the Congress alone has the power and discretion to determine as a legislative

policy (and not the courts as a judicial function) whether the states shall not be permitted to legislate, even though interstate commerce be affected. Texas is, therefore, left free to exercise regulatory control of that business by taking this necessary intermediate step toward fixing reasonable prices at which natural gas, even though imported from other States, may be sold to its own citizens in intrastate commerce to local consumers, this being a matter of local concern to Texas only, in no wise affecting Oklahoma or other states:

U. S. C. A. Tit. 49, Ch. 1, Sec. 1, Par. (1), Subdivision (b); (Interstate Commerce Act);

South Carolina State Highway Dept. vs. Barnwell Bros., ____ U. S. ____, 82 L. Ed, ____, (No. 161, Oct. Term, 1937, Feb. 14, 1938, L. Ed. Adv. Op. No. 10, 469, 473-477);

Kelly vs. Washington, ____ U. S. ____; 82 L. Ed. ____ (No. 2, Oct. Term, 1937, L. Ed. Adv. Op. No. 3, p. 39);

Townsend vs. Yeomans, 301 U. S. 441, 449, 450, 81 L. Ed. 1210, 1217, 1218;

James vs. Dravo Const. Co., ____ U. S. ____, 82 L. Ed. ____, (No. 3, Oct. Term, 1937, L. Ed. Adv. Op. No. 5, p. 125);

Silas Mason Co. vs. Tax Com. of Wash., ____ U. S. ____, 82 L. Ed. ____, (Nos. 7 and 8, Oct. Term, 1937, L. Ed. Adv. Op. No. 5, p. 154);

Penn. Gas Co. vs. Pub. Serv. Com. of N. Y., 252 U. S. 23, 29-31, 64 L. Ed. 434;

Northwestern Bell Tel. Co. vs. Nebraska St. Ry. Com., 297 U. S. 471, 477-480; 80 L. Ed. 810;

Simpson vs. Shepard (Minnesota Rate Cases), 230 U. S. 352, 399-400, 402, 431, 57 L. Ed. 1511;

Smith vs. Ill. Bell Tel. Co., 282 U. S. 133, 159-160, 75 L. Ed. 255;

Minn. vs. Blasius, 290 U. S. 1, 9, 78 L. Ed. 131;
Carter vs. Carter Coal Co., 298 U. S. 238, 297-307, 80 L. Ed. 1160;
Schechter Poultry Corp. vs. United States, 295 U. S. 495, 544-551, 79 L. Ed. 1570;
Bradley vs. Pub. Ut. Com. of Ohio, 289 U. S. 92, 95-96, 77 L. Ed. 1053;
Re State Tax on Railway Gross Receipts, 15 Wall. 293, 21 L. Ed. 167;
Escanaba & L. M. Transp. Co. vs. Chicago, 107 U. S. 678, 683, 687, 27 L. Ed. 442;
Smith vs. Alabama, 124 U. S. 465, 31 L. Ed. 508;
Hennington vs. Georgia, 163 U. S. 299, 317, 41 L. Ed. 166;
N. Y. N. H. & H. R. Co. vs. N. Y., 165 U. S. 628, 631, 41 L. Ed. 853;
Smyth vs. Ames, 169 U. S. 466, 522, 42 L. Ed. 819;
M. K. & T. Ry. Co. vs. Haber, 169 U. S. 613, 633-635, 42 L. Ed. 878;
Penn. R. R. Co. vs. Hughes, 191 U. S. 477, 487, 491, 48 L. Ed. 268;
Mo. Pac. Ry. Co. vs. Larabee Mills, 211 U. S. 612, 623, 53 L. Ed. 352;
Knott vs. C. B. & Q. R. Co. (Missouri Rate Cases), 230 U. S. 474, 496-497, 57 L. Ed. 1571;
Port Richmond & B. P. Ferry Co. vs. Board of Chosen Freeholders, 234 U. S. 317, 330, 58 L. Ed. 1330;
Sligh vs. Kirkwood, 237 U. S. 52, 61, 59 L. Ed. 835;
International Bridge Co. vs. N. Y., 254 U. S. 126, 132-133; 65 L. Ed. 176;
Morris vs. Duby, 274 U. S. 135, 143, 71 L. Ed. 966;

Sproles vs. Binford, 286 U. S. 374, 389-390, 76 L. Ed. 1167;
Manufacturers L. & H. Co. vs. Ott, 215 Fed. 940, 944-945;
State ex rel Caster vs. Flannelly, 96 Kans. 372, 152 Pac. 22, 27;

XIX. Appellant is shown to be engaged in intrastate activities in Texas to such extent as to subject it to the regulatory power of Texas in its entire business, in that it is engaged in substantial volumes of right-of-way retail sales of gas at reduced pressures to rural domestic customers; in the sale of gas at lowered pressures to numerous industries, many of them large, through tap lines, metering and regulating stations owned, operated, and maintained by Appellant at and on the properties of the industries; in the direct service, in retail distribution, of approximately 33,000 domestic, commercial, and industrial customers through local distribution properties, metering and regulating devices, owned, operated, and maintained by Appellant in the City of Fort Worth, Texas, in the maintenance of its general office building and principal place of business of the Lone Star group of affiliated companies in Dallas, Texas, where such group, including Appellant, receives and fills orders for gas, and other commodities and services handled by the group, issues checks in payment of all obligations, and carries on all of the general administration and other operations pertaining to the entire business of said affiliated group; and in the fact that through common stock ownership, affiliation, and control through common or interlocking directors, officials, and employees, both Appellant and its affiliated distributing companies are in reality the *alter*

egos of the Lone Star Gas Corporation (a Delaware holding company) engaged in local distribution in all Texas towns (approximately 275 in number) on the system, with the single exception of Gainesville:

Southern Nat. Gas Corp. vs. Alabama, 301 U. S. 148, 81 L. Ed. 970;
Alabama vs. Southern Nat. Gas Corp., 170 So. 178.

XX. Appellant having for the first time raised the claimed defense of interstate commerce before the District Court, and having made no such suggestion or defense before the Commission, this suggestion or claimed defense, (if same was to any extent well founded, which we do not concede), that some part of Appellant's properties and operations within Texas were exempt from Texas control, created for the first time, in the District Court, a necessity that a plain, definite, just, reasonable, and practical segregation as between Texas and Oklahoma properties and operations, and between that gas claimed by Appellant to be subject and not subject, respectively, to the regulatory control of Texas, should be made by Appellant, in order that both Texas and Oklahoma might justly and intelligently regulate those portions of Appellant's properties and business falling within their respective spheres of legislative regulation; and in order that Texas consumers might not be unjustly burdened by the more expensive intrastate operations in Oklahoma, and in order that the Commission might exempt from its order all gas, if any, properly beyond its regulatory control. In order to establish the defense, the burden of making such a segregation, and of supplying plain,

definite, and convincing evidence on which such a segregation could be made by the Commission and the reviewing courts, rested upon Appellant and not upon the Commission, and was not discharged by Appellant.

Norfolk & Western Ry. Co. vs. North Carolina, 297 U. S. 682, 688-689, 80 L. Ed. 977;
Smith vs. Ill. Bell Tel. Co., 282 U. S. 133, 146-151, 75 L. Ed. 255;
Simpson vs. Shepard (Minnesota Rate Cases), 230 U. S. 352, 435-436, 461, 465-466, 57 L. Ed. 1511;
Great Northern Ry. Co. vs. Weeks, 297 U. S. 135, 143-145, 80 L. Ed. 532;
Smyth vs. Ames, 169 U. S. 466, 540-542, 42 L. Ed. 819, 847;
Wabash Valley Elec. Co. vs. Young, 287 U. S. 488, 497-498, 77 L. Ed. 447;
Houston vs. S. W. Bell Tel. Co., 259 U. S. 318, 322, 66 L. Ed. 961, 964;
United Fuel Gas Co. vs. R. R. Com. of Ky., 278 U. S. 300, 73 L. Ed. 390.

XXI. It was not necessary that the Commission in its opinion and order make any express segregation between Texas and Oklahoma properties and operations, or between the gas subject to state regulation and that not so subject; especially in view of the fact that Appellant did not interpose any suggestion or claimed defense of interstate commerce before the Commission or submit any evidence upon which such segregations could be made; and it was, therefore, requisite only, and would have been sufficient, that Appellant (not Appellees) adduce before the District Court clear and satisfactory evidence which would have enabled that court and the appellate courts to make the necessary

segregation without the Commission having done so in its opinion and order. This latter burden was not discharged by Appellant:

Smith vs. Ill. Bell Tel. Co., 282 U. S. 133, 75 L. Ed. 255;
Lindheimer vs. Ill. Bell Tel. Co., 292 U. S. 151, 78 L. Ed. 1182.

XXII. Appellant did not discharge the burden which rested upon it under the law (if interstate commerce was directly burdened, which we deny) of making a reasonable, just, and practical segregation between Texas and Oklahoma properties and operations, or between the gas subject to state regulation and that claimed not to be so subject, either before the Commission or the District Court. Appellant made no suggestion or claimed defense of interstate commerce, and no segregation whatever, before the Commission; and before the District Court it made only a wholly untenable, unsound, impractical, unjustifiable, incomprehensible, unjust and erroneous attempt at segregation. Although no burden rested upon Appellees to do so, yet they voluntarily offered a segregation made upon just, reasonable, and practical bases in the District Court as between Texas and Oklahoma properties and operations which shows plainly that upon the basis of such segregation the order, as applied in Texas, is not confiscatory. Voluntary and unnecessary submission of such a segregation by Appellees, even if wholly unacceptable, did not lift from Appellant the burden of making a proper one:

Norfolk & Western Ry. Co. vs. North Carolina, 297 U. S. 682, 688-689, 80 L. Ed. 977;

Smith vs. Ill. Bell Tel. Co., 282 U. S. 133, 146-151, 75 L. Ed. 255;
Simpson vs. Shepard (Minnesota Rate Cases), 230 U. S. 352, 435-436, 461, 465-466, 57 L. Ed. 1511;
Great Northern Ry. Co. vs. Weeks, 297 U. S. 135, 143-145, 80 L. Ed. 532;
Smyth vs. Ames, 169 U. S. 466, 540-542, 42 L. Ed. 819, 847;
Wabash Valley Elec. Co. vs. Young, 287 U. S. 488, 497-498, 77 L. Ed. 447;
Houston vs. S. W. Bell Tel. Co., 259 U. S. 318, 322, 66 L. Ed. 961, 964;
United Fuel Gas Co. vs. R. R. Com. of Ky., 278 U. S. 300, 73 L. Ed. 390.

XXIII. Appellant was not in any event entitled to attack and strike down the order as being void *in toto*, and to prevent its operation as applied to the whole of Appellant's business and in all situations in Texas, even if (as is not admitted) under the Federal Commerce Clause the order could have been invalidated in part as applied to particular situations. The order is not indivisible or necessarily void as to all situations and business, even if shown to be void as to some, which latter we do not concede.

XXIV. Even if the order was, because of the claimed defense of interstate commerce, invalid in part as applied to particular portions of Appellant's property and business or as to particular situations (which is not conceded), the burden devolved upon Appellant (and was not discharged) of presenting clear, definite, and convincing evidence which would enable the reviewing courts to carve out such particular portions of Appellant's properties and business, and such particu-

lar situations, and to segregate same from the much greater properties and business, and the much more numerous particular situations, as to which the order was unquestionably valid and operative. If, for instance, the order was invalid as applied to the independent distributor at Gainesville (admittedly no interstate gas is served to the independent distributor at Waxahachie, R. V, 3006A, 3206A, I, 232-234, II, 1505) the attack should have been directed particularly at, and limited to, that particular situation; similarly, as to the towns where Appellant delivers at the city gates a mixture of gas from the Texas Panhandle, Oklahoma, and Central West Texas fields, Appellant should have directed its attack at, and limited it to, only that volume or portion of such gas at each particular city gate which came from a foreign state in interstate commerce and was, therefore, claimed to be exempt from state regulation; likewise, if the gas coming through Line A from the Panhandle field in Wheeler County, Texas, across the southwest corner of Oklahoma and back into Texas was gas moving in interstate commerce and, therefore, exempt from the regulatory control of Texas, as Appellant contends, before being commingled with Texas gas at various points in Texas, then the duty devolved upon Appellant to level its attack directly at, and limit it to, this particular volume of foreign gas at each city gate.

STATEMENT AND ARGUMENT UNDER POINT I

(Pp. 4-5, supra)

Throughout approximately seven months of hearings before the Commission, the Company deliberately and carefully abstained from every word and deed which would even suggest to the Commission any intention of the Company then, or later, to object that because of any claimed defense of interstate commerce the Commission was deprived of power to promulgate the order and make it applicable as it did. This fact is very plainly revealed by the statement of Appellant's counsel, (R. I, 305) that

> "It does not appear from the opinion and order of the Railroad Commission that the Commission would have found that 32c was a reasonable charge for gas moving throughout its entire transit up to the city gates in intrastate commerce, *had it been advised or had it known that it did not have the right to determine and enforce a rate applicable to all gas sold by the defendant.*"

This statement, it will be observed, was made not before the Commission, but in the District Court trial, *after* the Company had for the first time raised in its District Court pleadings (R. I, 124, 130, 136-137) the interstate commerce defense. Equivalent statements are made at R. II, 1496-1497.

The entire 11,232 pages of oral testimony adduced before the Commission, and all of the exhibits introduced before it, may be searched in vain for a single hint upon the Company's part to put the Commission upon guard that the Company intended then, or later, to raise any such objection. We have not seen fit to

incur an expense of $15,000.00 or $20,000.00 for having the Commission's record printed in this Court merely for the purpose of showing what it *does not* contain, but if the Company can point to anything in the Commission's record which would fairly put the Commission upon notice, or even upon reasonable suspicion, that the Company intended to raise any such objection or defense then or at any later stage, we will stand the expense of having such record excerpts printed as this Court may deem necessary.

This being true, we think the strongest possible case of estoppel is presented, to preclude the Company absolutely from attacking, or urging any defense against enforcement of, the order because of any claimed interstate commerce operations.

A defense of this character may be waived by the conduct, or silence and acquiescense, of the party litigant when under the duty to speak, the same as in the case of any other defense or ground of attack.

STATEMENT AND ARGUMENT UNDER POINT IV

(Pp. 7-8, supra)

See Commission findings, R. I, 25-28. Lone Star Gas Corporation owns in excess of 99 per cent of the voting stock of Lone Star Gas Company, (R. I, 235) and of the voting stock of every distributing company in Texas to whom Lone Star Gas Company sells gas, with the single exception of one independent distributor at Gainesville and one at Waxahachie, R. I, 235-237, 257. The volume of sales to the independent distributors at the two points mentioned are

relatively small; amounting to slightly over one per cent of total Texas deliveries, R. I, 297. Appellant and all of its affiliated companies maintain their general offices and places of business in two adjoining and interconnecting buildings in the city of Dallas, Texas, R. I, 237, 238, 250, 426-428. The completely interwoven and interlocking personnel and common members of the respective boards of directors and principal responsible officials of the various affiliated companies are shown in Chart R. III, 1917, 2175, and R. I, 235, 250, 314, 379-382, 238, 240-241, 245-246. Voting by proxy and power of attorney is done at stockholders and directors meetings, R. V, 3339, R. I, 249. Although Lone Star Gas Corporation has no permit to do business in Texas, (R. I, 235) it maintains in the Texas offices of its underlying affiliates a dummy or memorandum set of its books for the guidance and information of the affiliates, R. I, 428-429. Access to these Lone Star Gas Corporation books has always been denied the regulatory authorities of Texas, for the purpose of obtaining any information relative to the cost to the holding company of services claimed to have been rendered the affiliates by the holding company, or for any other purpose, R. III, 1880. The holding company habitually lends large sums of money to the underlying companies upon unsecured notes, at 6% annual interest, the money being advanced as and when needed. This indebtedness, in the case of Lone Star Gas Company, amounted to approximately $19,000,000.00 at its peak a few years before the hearing, but had been reduced to approximately $17,600,000.00 at the time of the hearing, R. I, 412. The unsecured advances to Community Natural Gas

Company amounted to $8,000,000.00 or $9,000,000.00, R. I, 242. All of the affiliated companies owed substantial unsecured amounts of money to the holding company with the possible exception of Municipal Gas Company, R. I, 243. Municipal Gas Company owed in excess of $100,000.00 to Lone Star Gas Company, unsecured, for city gate purchases, R. I, 245. Lone Star Gas Corporation is a Delaware corporation, with its nominal domicile in Wilmington, Delaware, but has its principal office at 800 Union Trust Building, Pittsburgh, Pennsylvania, R. I, 250. Lone Star Gas Corporation does most of its banking with the Union Trust Bank, of which bank G. W. Crawford, one of the principal stockholders, directors, and officials of the entire affiliated group, is also a director, R. I, 414, 472. The holding company is also a part owner of the Northern Natural Gas Company group, (R. III, 2058), consisting of 7 or 8 affiliated companies, of which D. A. Hulcy, one of the principal officials of the Lone Star group, is the common secretary-comptroller, R. I, 314.

The Lone Star group maintains common purchasing facilities in Pittsburgh, Pennsylvania, through the services of J. M. Simpson, Vice-president of Lone Star Gas Corporation, purchaser for the entire Lone Star group, and for the Columbia Gas and Electric Corporation group, a set-up controlling assets of about $600,000,000.00 to $700,000,000.00, R. I, 367, 417-418. The Lone Star group avails itself of the legal services of the General Counsel, who is a director, stockholder and official of various affiliated companies in the Lone Star group, in all rate litigation and other legal matters, R. I, 248. The Lone Star group also maintains a technical staff of rate litigation experts,

available to all companies in the group, consisting principally of the Company's principal witnesses in this cause, Hulcy, Biddison, Steinberger, and Connor.

The holding company has the right to select and control the selection of all members of the board of directors of each of the various affiliated companies in the group, and actually exercises such control, R. I, 377-378, 383-384. Hulcy testified in substance that he could not answer whether the directors of the underlying companies would be put off the boards if they failed to follow the wishes of the holding company, because such had never happened, R. I, 384.

In its attempt to justify payment of management fees to the holding company, the Appellant detailed much "advice" furnished it and the underlying companies, pertaining to all of Appellant's affairs, (but without even attempting to prove the cost to the holding company of such services); but to the discerning mind, the record reveals plainly that this is but an obvious camouflage of the absorption by the holding company of the profits of the Appellant, and that the "advice" would more appropriately be called "dictation" or "control" R. I, 239-244, 366-367, 411-413, 415-417, 419-420, 428-429, 434, R. III, 1640, 1880, 1902, 2126A. In addition to paying the holding company the management fees for such pretended "advice and services", Appellant also pays again for them, directly to the attorneys, engineers and auditors who furnish such "advice and services", R. I, 415-417.

Connor, (R. II, 1114-1115), for purposes of going concern value, considers the affiliates as being one integrated and commonly owned, controlled and op-

erated setup, from well to burner tip. But otherwise the Company insists they are all separate and independent entities.

If this record does not reflect a holding company which is not content merely to hold, we have never seen one.

In these circumstances we think there is not the slightest doubt that the highest state courts correctly disregarded the corporate fictions and treated the entire group as under a single ownership, management, and control, engaged in all three phases of the natural gas business in Texas.

STATEMENT AND ARGUMENT UNDER POINT VI

(Pp. 8-12, Supra)

The Company admits (R. I, 376) that it would not be practicable to segregate the properties, expenses, and revenues in such a way as to determine and fix a separate reasonable gate rate for application at each of the cities and towns, approximately 275 in number, served by its pipe line system in Texas. The Commission was thoroughly in accord with this view, and so are we. The only alternative was to fix a uniform gate rate for application at all Texas points upon the system. In order to accomplish its confessedly proper function of determining and fixing reasonable burner tip rates, the Commission had to pursue one of two methods: It could conduct 275 separate burner tip cases, and in each case hear full evidence upon the production and transmission phases (gate rate) and thus determine the reasonable cost of delivering gas to

the particular city gate; or it could in one hearing, fix a final uniform gate rate for the entire system in Texas, and later build the burner tip rates upon same after hearings as to the distribution operations only.

In view of the fact that the State has probably expended something in the neighborhood of $200,000.00 in the investigation, determination and defense of this 32c gate rate, and the Company has expended probably close to $1,000,000.00 in contesting the matter, the Court may gain some insight into the expense that would be involved in 275 repetitions of the gate rate case. And this is quite aside from the 6 years of time elapsed from the beginning of this proceeding to the present hearing.

We have stated frankly to the Court in Point VI the Commission's policy and intentions with respect to the treatment of the gate rate fixed in this proceeding. It is not a meaningless inquiry or quest after mere preliminary information, as this Court construed the gate rate inquiry and orders to be in *State Corporation Com. vs. Wichita Gas Company*, 290 U. S. 561, 78 L. Ed. 500, but is an indispensable step toward fixing ultimate burner tip rates, and is a final, binding and conclusive legislative act fixing the rate to be charged by the pipe line company and paid by the distributors for gas delivered at the city gates.

The Commission has expressly kept the proceeding open (R. I, 116) for further orders and modifications upon further appropriate application and proof by any interested party. That means that if, because of changed conditions or other reasons, the future should reveal that the 32c gate rate requires modification, the

Company or any other interested party may obtain it by due application and proof before the Commission in the gate rate cause, Gas Utilities Docket No. 75.

In all burner tip cases which have come before the Commission or the courts since the order, however, the Company has not chosen to so treat and accept the order as being final, binding, and conclusive upon the matters therein determined. In each of such burner tip cases the Company has insisted upon the privilege of introducing full evidence, and obtaining a complete *de novo* hearing, upon the entire production and transmission phases, as if the gate rate had never been heard or determined by the Commission. And this, notwithstanding the Company has never made application to the Commission in Gas Utilities Docket No. 75 for a modification of the gate rate fixed, but has chosen rather to defy and ignore it as a nullity and to attack it directly under the 14th Amendment in all the courts of the land, and to ignore and attack it collaterally in all burner tip cases based on the present order, both before the Commission and the reviewing courts. On the contrary, the Commission has insisted, and will continue to insist, both in fixing and defending burner tip rates in towns on Appellant's system, that the applicable gate rate has been finally and conclusively fixed by the present order, in Gas Utilities Docket No. 75.

Paradoxically, the Company has insisted that it is not permissible for the Commission to conduct any burner tip hearings, or enact any burner tip orders, or try any burner tip cases in the courts, until the final determination of this cause in this Court. If the Com-

pany's position be sustained, this Court can readily see what some of the consequent results would be. If the Commission had to suffer a period of six years to elapse from the initiation to the final determination of a gate rate, before even beginning the program of fixing burner tip rates based thereon, the process of rate making and ensuing litigation would be an endless one, and the entire program of rate regulation would be stymied pending perpetual litigation over the gate rate. If and when the Commission ever got around to the matter of fixing the 275 burner tip rates, each of these would require six years also to reach the stage of finality. Furthermore, the expense itself would be utterly prohibitive, considering that the gas consumers have to bear all the expense both on the State's and the Commission's side. This would result inevitably in a total break-down of the rate regulation program. And, doubtless, from the Company's standpoint that would be a "consummation devoutly to be desired."

Moreover, and more to the point, if the Company can defeat all state regulation merely by running one of its main transmission lines a few miles within Oklahoma, and by injecting a few atoms of Oklahoma gas into its 4,000 mile pipe line system, 86 per cent of which is located in Texas; and, retreating behind the bulwark of the federal commerce clause, establish that the state is entirely impotent to fix any gate rate at all, as the Company contends here, this would be even more effectively lethal to the state regulatory power than the Company's tactics above outlined.

Appellant relies especially upon *Missouri ex rel. Barrett vs. Kansas Natural Gas Company*, 265 U. S.

298, 68 L. Ed. 1027, and upon *State Tax Commission of Mississippi vs. Interstate Natural Gas Company*, 284 U. S. 41, 76 L. Ed. 156, as establishing that the Commission has not the power to do that which it has undertaken to do in this case. Both of those cases are plainly and readily distinguishable from this case upon several different grounds, the most obvious of which is that in those cases the whole volume of gas was transported from another state; the sales involved in those two cases were being made only at wholesale by an interstate transporter of gas to *independent and non-affiliated* distributing companies, and not to *alter egos* or affiliates owned, operated and controlled by the transporter or by a common holding company who owned and operated and controlled both the transporter and the distributor as is the case here; and further, the transporter was not there shown to be engaged in the numerous and extensive intrastate distribution and other activities that Appellant carries on in Texas, nor had the gas been subjected to the numerous methods of treatment and inextricable commingling shown here, which would deprive it of any interstate character it may ever have possessed.

Appellant has seemed especially to rely upon this Court's language in the *Barrett case* that "The paramount interest is not local but national,—admitting of and requiring uniformity of regulation. Such uniformity, even though it be the uniformity of governmental non-action, may be highly necessary to preserve equality of opportunity and treatment among the various communities and states concerned." That language, regardless of how appropriate it may have been to the

particular case there under consideration, can have no application to the situation here. In the first place, it is addressed to a question of legislative policy and not to a justiciable question of law or fact. *South Carolina State Highway Commission vs. Barnwell Bros.*, ——————U. S. ——————, 82 L. Ed.——————. In the second place, the State of Oklahoma and its communities can have no possible interest in what rates may be fixed by the State of Texas for the sale and distribution of gas in local commerce within the State of Texas. Likewise, Oklahoma can have no interest in what gate rate may be applied in Texas as a basis upon which to build local Texas burner tip rates.

Appellant's contention in this respect boils down to an insistence (R. V, 3500-3501) that although the state may admittedly, for all practical purposes, fix the rate to be *charged* by the Appellant and directly fix outright the amount which may be *paid to* Appellant by the distributors, at all city gates in Texas, even for interstate gas, by the indirect method of fixing in burner tip cases "what such companies may reasonably *pay and charge* for the gas sold to them by the defendant at the city gates," that it cannot accomplish the same result directly in a uniform gate rate case by ordering the affiliated pipe line company not to *charge and receive from* the distributors in excess of a certain sum. We submit that this is a distinction without a practical difference. The ultimate effect upon interstate commerce in either instance is identically the same.

Where the distributors and the pipe line company are affiliated with and controlled by, a common parent holding company, as is the case here, the situation

amounts to no more than this: That the entire system and operations from well to burner tip are owned, managed, and controlled by a single corporation, and the Commission has in this order merely fixed the price to be charged by that corporation—not upon a sale to someone else, for there is no sale possible from oneself to oneself—but a price to be set up as a reasonable charge for all operations by that single corporation up to and including deliveries at the city gates. *State of Texas vs. Public Service Corporation of Texas,* 88 S. W. (2d) 627, writ refused. In such case the money all goes into and comes out of a common pocket in any event—that of the holding company—and it makes no difference how the ultimate process of local burner tip regulation be accomplished—whether step by step or all at one fell swoop; whether directly or indirectly. In the case of sales to a non-affiliated distributor the fixing of a maximum operating expense which the distributor may set up for gas purchases at the city gate is equally effective for all practical purposes in determining the amount realized at the city gates for interstate importations of gas, because the independent distributor, in its desire to avoid certain and immediate financial bankruptcy, would be impelled by motives of self-preservation not to pay more to the independent pipe line company than it would be allowed to cover into its burner tip rates. In the present case there are involved sales of only relatively small volumes (R. I, 297) to only two independent distributing companies. Admittedly no gas claimed by the company to be transported in interstate commerce is delivered at the city gate of Waxahachie, R. II, 1505, R. I, 232-234; Map R. V, 3006-A,

The small volumes of sales to the independent distributing company at Gainesville are the only ones in which the interstate commerce question could have any possible application as to an independent distributing company.

Appellant cites only one case by this Court on the question of a state's power to fix a gate rate on interstate gas transported and sold to it *affiliates* in the receiving state. That was only a *dictum*, in *State Corpn. Commission vs. Wichita Gas Co.*, 290 U. S. 561, 563-564, 78 L. Ed. 500, 502. The statement is expressly admitted to be only dictum, (290 U. S. 568) where this Court states that it is unnecessary to pass upon the validity of the gate rate orders, there involved. None of the four cases cited supports the dictum.

STATEMENT AND ARGUMENT UNDER POINT VII

(Pp. 12-13, supra)

If the State appellate courts were correct (as we believe unquestionably they were) in holding that because of common ownership, operation, management, and control of all natural gas operations the Lone Star group of affiliated companies is to be considered in legal contemplation as a single unified owner, then in reality there are no sales at any city gate in Texas, where the interstate commerce question would have any possible application at all, with the single exception of the small volumes sold to the independent distributor at Gainesville, R. I, 257.

This being true, aside from said small sales to the Gainesville Gas & Electric Company there is no "commerce" carried on in the State of Texas by the Appellant or its affiliated group of companies save and

except the admitted intrastate commerce of sale and distribution of gas direct to its local consumers in Texas, and the sale of admittedly intrastate (West Texas) gas to Waxahachie Gas Company at the city gate of Waxahachie.

STATEMENT AND ARGUMENT UNDER POINT VIII

(P. 13, supra)

None of the cases cited by Appellant on page 65 of its brief is in point upon the operations here involved.

Hanley vs. K. C. S. Ry. Co., 187 U. S. 617, 65 L. Ed. 104, and *M. P. R. Co. vs. Stroud*, 267 U. S. 404, 69 L. Ed. 683, involved interstate carriage of freight, by common railroad carriers, between termini in the state of origin and destination, but over a route crossing state lines; which field of regulation had been expressly taken over and removed from the field of permissible state regulation by the terms of the interstate commerce act, which had the effect of broadening the scope of regulation beyond what otherwise would have been held to be interstate commerce, *per se*, immune from state regulation, in the absence of such a national statute.

State Tax Com. vs. Interstate Natural Gas Co., 284 U. S. 41, 76 L. Ed. 156, involved sales of gas by an interstate transporter to independent distributing companies at wholesale, the entire volumes having been imported from another state.

Western Union Telegraph Co. vs. Speight, 254 U. S. 17, 65 L. Ed. 104, was decided by this Court virtually by default, no brief or argument having been

submitted on behalf of the respondent. The terse opinion by Mr. Justice Holmes cites only *Hanley vs. K.C.S. Ry. Co. supra*, and *Kirmeyer vs. Kansas*, 236 U. S. 568, the latter a liquor case; and neither case is in point. The Court properly decided this question in *Lehigh Valley Ry. Co. vs. Pennsylvania*, 145 U. S. 192, 201-202, 36 L. Ed. 672, and the other cases cited by us under our Point VIII.

STATEMENT AND ARGUMENT UNDER POINT IX

(Pp. 14-15, supra)

A mere glance at the map of Line A, in the appendix to Appellant's brief, should be almost sufficient to convince the Court that the Company could have no purpose in detouring and extending that line a short distance within and parallel to the Western boundary line of Oklahoma, except to attempt evasion of state regulation. See Company map, R. V, 3009-3010, showing that there are no gas fields in Oklahoma within reach of Line A, and also that on the Texas side the terrain is smooth, level and free of obstructions, whereas the actual route of Line A in Oklahoma crosses many streams and much rough country.

Many other pertinent facts are reflected by the record, however, to reinforce that conclusion. The Commission's witness Freese testified (R. I, 269-272) that *Line A* could have been constructed as cheaply wholly within Texas as over the route chosen; that a smaller quantity of rock excavation would have been encountered; that the line would have been laid on a straight course instead of a curve; and would have been ap-

proximately five miles shorter than the existing line; and furthermore that it could have been routed through Wellington, a town of 1,968 population (not now served by the line) instead of Hollis, Oklahoma, with a population of 1,699, which is the only Oklahoma town served by Line A on the section within Oklahoma, and which town could as well be served by a slightly longer tap line from the main line wholly within Texas. The Commission's witness French had personally inspected the parallel transmission line of Northern Texas Utility Company, constructed at about the same time as, or later than, *Line A*, wholly within Texas, from the Texas Panhandle Field to the City of Wichita Falls, Texas, and intervening points; he testified that he made excavations and classified the soils on this line and checked them against the original field construction notes of the line; that on this line he classified 91.94 per cent as machine excavation, 1.53 per cent as loose rock, .45 per cent as solid rock, and 6.08 per cent as hand earth excavation; that he found no unusual difficulties on the Texas route; that the river crossings on the Texas route were not unusually difficult or expensive to construct, R. III, 1843-1851. Contrast Steinberger's classification (R. II, 1253) on that portion of Line A in Oklahoma only, as machine excavation 86.5, hand earth 5.3%, and rock 8.2%.

STATEMENT AND ARGUMENT UNDER POINTS X, XI, XII, and XIII

(Pp. 15, 16, 17, supra)

Prior to 1918, the tremendous natural gas deposits in Texas had not been discovered or developed. The

only extensive Texas field developed prior to that was the Petrolia Field. Upon incorporation of Lone Star Gas Company in 1909, certain leases in that field owned or controlled by the incorporators were transferred to Appellant in payment of a substantial amount of its original $2,500,000 capital stock, R. III, 1879. Its original line supplied gas only to Fort Worth and Dallas, Texas, and intermediate towns between those points and the Petrolia Field. About the year 1918, with the discovery of the Ranger Field in central west Texas extensive reserves were developed in that area and tapped by extensions of Appellant's system. In 1918, Appellant constructed Line G from the Fox, Loco, Palacine and other fields in Oklahoma. In 1918 Line H from Walters, Oklahoma, to Petrolia, Texas, was completed and joined with Appellant's system. In 1919, Line Second H, Walters, Oklahoma to Petrolia, Texas, was completed and connected with the system. In 1926-1927, Line A from the Panhandle Field in Wheeler County, Texas, to Petrolia, Texas, was constructed and connected, R. I, 368.

At the time of the trial, therefore, the Company was obtaining its supplies from three principal sources —Central West Texas Field from which the gas was transported eastward; the Texas Panhandle Field, in Wheeler County, from which it was transported south-eastward, through Line A; and the Oklahoma Fields, from whence it was transported southward, through Lines G, H, and Second H. According to the Company's computations at page 28 of its brief, it is deducible that the following percentages of Appellant's total deliveries in Texas and Oklahoma were ob-

tained for the following years from the three principal sources:

Year	From West Texas Fields	From Panhandle Fields	From Oklahoma Fields
1929	67.1 per cent	14.8 per cent	18.1 per cent
1930	69.3 per cent	16.5 per cent	14.2 per cent
1931	74.0 per cent	17.0 per cent	9.0 per cent
1932	70.4 per cent	23.3 per cent	6.3 per cent
1933	76.7 per cent	19.5 per cent	3.8 per cent

State's Exhibit No. 5 (R. I, 297) shows that Oklahoma produced gas, for the following years, constituted the following percentages of Appellant's total deliveries in Texas:

1931	10 per cent
1932	7 per cent
1933	4.5 per cent

As offsets against these quantities of Oklahoma gas consumed in Texas, it should be remembered that there were very large, rapidly and constantly increasing volumes of Texas gas being consumed in Oklahoma. Company witness Schmidt testified that if the past rate of decline in Texas consumption of Oklahoma gas from 1929 to 1933, inclusive, should continue there would be no Oklahoma gas consumed in Texas by the end of 1934, R. II, 1481, 1482-1487.

In the District Court trial, Company Witness Connor testified that the Company intended to take up and remove Line H, (from Oklahoma) during the year 1934, R. II, 1417. This line has now actually been removed in accordance with the Company's in-

tentions thus expressed; leaving only Line G and Line Second H to bring gas to Texas from Oklahoma. The system map (Appendix to Appellant's brief and record V. 3006A) show three main transmission lines extending from Petrolia, Texas, to the vicinity of Dallas and Fort Worth, Texas. These are lines B, Second B and the "Government 10-inch Line" (the last-named line being excluded from the appraisal and being the line used in carrying out Appellant's contract with the U. S. Government for supplying its helium plant from whence the helium contract revenues were derived which are segregated in the Commission's opinion, R. I, 20.) Line Second B has also now been taken up and removed.

Commission's Exhibit No. 4 (R. III, 2124 A) closely compared with Commission's Exhibit 5 (R. III, 2126 B) shows that after offsetting the deliveries of Texas gas as against Oklahoma gas delivered in Texas, there is a net balance in the exchange, favorable to Oklahoma, of the following percentages of the Company's total deliveries in both states:

Year	From Oklahoma Fields
1929	16.9 per cent
1930	13.0 per cent
1931	6.7 per cent
1932	4.2 per cent
1933	.4 per cent

The obvious reason for the continued sharp and steady decline of Texas importations of Oklahoma gas are the depletions and failure of the older Okla-

homa Fields and the simultaneous discovery and opening of the vast new fields in Texas. The Company's Line A now taps the Shamrock Field in Wheeler County, Texas, and in addition, its own evidence shows that it owns or controls vast undeveloped deposits in Gray and Carson Counties, Texas, west of Wheeler County, all being parts of the vast Texas Panhandle Field of the extent of which this Court took judicial notice in the recent case of *Thompson vs. Consolidated Gas Utilities Corporation*, 300 U. S. 55, 81 L. Ed. 510. The Company witness, Schmidt, recognizes (R. I, 222) that this is one of the largest gas reserves in the world.

The Company also admits that it possesses other vast developed and undeveloped gas reserves in the West Texas fields; and in the past it has produced from its reserves only about 20 per cent of its total deliveries, and has purchased the remaining gas, approximately 80 per cent of its deliveries. The prevailing wellhead price in the Texas Panhandle Field, observed by the Company since 1926, has been 2c per M C F, R. I, 581. In the West Texas Fields the prevailing price is approximately 6c per MCF R. I, 586. In Oklahoma the prevailing wellhead prices are as follows: Chickasha, 8c; Duncan, 10c; Loco, 6c; R. I, 593-594. The Company formerly purchased gas from its affiliate, Meridian Gas Company in the Chickasha, Oklahoma, Field, at 15c per M C F, R. I, 108. The average overall field prices paid by the Company in Texas and including much more expensive Oklahoma purchases, from 1920 to 1933, are shown at R. I, 606-607.

Appellant will not deny that since the close of the District Court record it has removed lines H and Second B, and has constructed two large transmission mains from the Long Lake and Cayuga fields in East Texas to points near Dallas and Waco, Texas, respectively, where said transmission lines connect with Appellant's pipe line system.

Dunn testified that the Company owned in total semi-developed and marketable gas reserves in proven areas, 367,362,084,000 cubic feet. R. I, 524, 525, 535.

Dunn further testified that the Company had in the semi-developed reserves a forty year supply based upon the 1933 production; testifying that in 1933 the Company produced from 7,000,000 to 9,000,000 M C F, R. I, 534.

Hulcy testified that if the withdrawals were 9,000,000 or 10,000,000 MCF a year, there was not any question but that it would be sufficient to last approximately forty years. R. I, 577.

It should be noted that the witnesses testified that the Company-produced gas was approximately 9,000,000 MCF for the year 1933. They did not point out, however, that this 9,000,000 MCF was considerably in excess of the actual withdrawals during that year from the Company's reserves, or that it included the volumes of inert gas introduced into the West Texas gas at the Joshua dilution plant just southwest of Fort Worth, Texas, R. II, 1571. The actual withdrawals from the Company reserves for

the years 1927 to 1932, inclusive, were as follows: R. I, 107.

1927	2,671,443 M Cubic Feet
1928	3,451,935 M Cubic Feet
1929	5,162,647 M Cubic Feet
1930	6,473,463 M Cubic Feet
1931	4,924,844 M Cubic Feet
1932	4,829,077 M Cubic Feet

The withdrawals from Company-owned reserves for 1933 were 6,046,035 M Cubic Feet, being 5,432,255 M cubic feet from Texas reserves, and 613,780 M cubic feet from Oklahoma reserves. R. III, 2165, 2124A.

Based upon actual withdrawals from the Company reserves for 1933, which are 6,000,000 MCF, it can readily be seen that the Company has a sufficient volume in its developed marketable reserves to last sixty years. Company Exhibit 30 (R. V, 3019), shows that by volume the Company's developed marketable reserves in Oklahoma are only 1.2% of those in Texas. Hulcy (R. I, 458-459) admits that 95% of the Company's entire business is in Texas against 5% in Oklahoma; while 13.8% of its pipe line mileage is in Oklahoma and the remainder in Texas.

These facts, and others appearing in the record, suffice to show clearly four things:

(1) That during and since 1933 there has been no necessity or occasion for the Company's importing a single cubic foot of gas from Oklahoma, or any other state, to meet the Company's Texas demands.

(2). That the Company's developed marketable reserves, aside from its undeveloped reserves and its unlimited purchase contracts and connections in Texas, are more than sufficient to meet its entire probable Texas demands for a period of many years in the future, and that this has been the situation for at least several years in the past.

(3) That instead of there being a net flow of gas from Oklahoma to Texas during and since 1934, there is in all probability now, and has been since 1934, and will continue to be in the future, a greater and increasing flow of Texas gas to Oklahoma than of Oklahoma gas into Texas. Company witness Schmidt himself testified (R. I, 225-226) that the gas at various times flowed in both directions in line G. Hulcy testified the same as to the whole system, R. I, 376. At Record I, 229, Schmidt attempted to modify his testimony in that respect, but still admitted that this occasionally happens. At R. II, 1470-1471, he finally denied belief that it has happened.

(4) That both because of the higher prevailing wellhead prices on gas purchased in Oklahoma, and because of the Company's greater investment per meter in Oklahoma than in Texas, the Company's operations in Oklahoma are very much more expensive and less profitable than those in Texas. The Company so admits, R. III, 1594.

STATEMENT AND ARGUMENT UNDER POINT XV

(Pp. 18-20, supra)

Under the Commission's order the Company is left free, as it has always been, to import as much gas into

Texas, and to export as much gas from Texas, as it pleases, and to permit a free interflow of gas from any and all sources within its lines as it may see fit. There is absolutely no prohibition, restriction, impediment or burden upon the free interstate flow of gas. The only effect of the order is that from whatever source the gas comes to the city gates in Texas it must all be sold at a reasonable price, including foreign and Texas gas alike. The effect of such an order upon interstate commerce, if any interstate commerce be involved at all, which we deny, is certainly not a direct and substantial burden upon the same, but is at most only an incidental, indirect, remote, unsubstantial and unprohibited burden. The order is made applicable in Texas only: R. I, 15.

STATEMENT AND ARGUMENT UNDER POINT XVI

(Pp. 20-21, supra)

The record shows that when the gas leaves the Texas Panhandle field through Line A, and the Oklahoma fields through lines G and Second H (line H having now been removed) the Company does not know what the ultimate destination of the gas is. It is not destined for any particular locality, but is only started off in a general direction destined for general commingling in the northern part of the system, R. I, 225-226, 376. No sales are made of the gas, or of any particular volume thereof, to any person prior to the time it arrives in Texas; and our view is that (corporate fictions disregarded) no sale is made of it to any person after its arrival in Texas, except to the ultimate consumers at the burner tips—with the single exception of the small sales to the independent distributors

at Gainesville and Waxahachie. The gas simply flows along its way until by fortuitous circumstance of load demand it is drawn out of the line.

Schmidt testified the direction of flow in Line G alternates (R. I, 225-226) and Hulcy says the same of the whole system. R. I, 376. Dunn testified (R. I, 531, 224) that he is the sole person who determines where the supply of gas shall be withdrawn or purchased, and where it shall be directed to in the 4,000 mile system of the Company. In these circumstances it will readily be seen that it lies easily within the power of the Company to shift its withdrawals and transportation from day to day, and from hour to hour, and from year to year, in such way as totally to evade and defeat effectual regulation by any and all state authorities and even by federal authority, if a federal regulatory body should be provided by Congress. See how the proportions of gas from the various sources may be shifted at any given point by the Company from day to day, R. V, 3241. When a proceeding should arise before any state body the Company would merely have to transport a little gas into its system from Oklahoma, and under its theory the entire operations would be exempt from state control in both states as interstate commerce. On the other hand if an inquiry should arise before a federal regulatory body next day, all the Company would have to do would be to shut off the supply of gas from Oklahoma and there would be no interstate commerce involved. The only practicable way in which any effective regulation can be provided at the present time in Texas is to uphold the Commission's right to regulate in the manner in which it has been done here.

STATEMENT AND ARGUMENT UNDER POINT XVII

(Pp. 21-23, supra)

The gas coming through Line A is run through a gasoline extraction plant at Hollis, Oklahoma. Schmidt describes the process. Similar treatment is given the gas coming through Lines H and Second H at the gasoline plant in Petrolia, Texas, and Line G at the gasoline plant at Gainesville, Texas. Schmidt testifies (R. II, 1479) that the extraction of these volatiles reduces by about 3% the BTU heating content of the gas. He also says (R. II, 1484) that in this extraction process the gas is allowed to expand somewhat from its higher pressures in a 30" diameter tank and filter through an extraction oil. He admits (R. II, 1591) that the extraction process changes the B. T. U. content of the gas. Schmidt pretends that the gasoline is extracted only to prevent line trouble, (R. II, 1479, Brief p. 32) but he admits the Company has made profits on the gasoline; and the Company repressures the gas into the "Miller Farm" near Petrolia, Texas, to absorb more gasoline and recover and extract same for profit, R. II, 1484.

Appellant, at p. 24 of its brief, quotes a provision said to be inserted in its gate rate contracts to the effect that the distributing companies shall install and operate "such regulators and regulator stations as it may require to regulate the pressure of the gas *after delivery thereof by vendor to vendee.*" The statement is ambiguous, and even misleading, unless one knows the significance of the language we have put in italics. The actual facts are that although the gas arrives at the city gate measuring stations at pressures ranging

from 100 to 350 pounds per square inch. Appellant itself owns, maintains and operates the first regulator or reducing mechanism through which the pressure is reduced to 25 or 30 pounds at the outlet side of the regulator before being metered and delivered to the distributors. At the next stage after this pressure reduction, the gas goes through the meter and is there measured and delivered to the distributors under this reduced pressure.

An examination of the Company's appraisal, Exhibit 28, will show that Appellant owns both the regulators and meters through which the gas is passed before delivery to the distributors. An example will be found at R. IV, 2386, and many others may be found in the record. The Company's witness Schmidt testified specifically (R. II, 1469-1470) that title to the gas does not pass to the distributors until it passes through the reducing regulator and is metered at low pressure and reaches the outlet side of the meter. At brief, p. 25, the Company states that this reduction in pressure "is done to accommodate the distribution plants in their operations" and solely for that purpose. It will be observed, however, that in the gate rate contracts the Company is specifically obligated thus to reduce the pressures before deliveries, a good example being found in the contract with the independent distributor Gainesville Gas & Electric Company (R. IV, 2325), requiring the Company to reduce the pressure to 20 pounds per square inch. For a similar provision in the contract between Lone Star Gas Company and Municipal Gas Company see R. IV, 2319. See also R. I, 219; R. II, 1470. Thus it will be seen that what the contract provision means, as quoted by the Com-

pany on page 24 of its brief, is that the distributing company shall install and operate only "such regulators and regulator stations" as the distributors may require to *further* reduce the pressures from 25 or 30 pounds to 4 or 6 ounces, after delivery to them, and before delivery to the retail domestic consumers. This shows clearly, also that the Company makes a gross mis-statement when, at p. 106 of its brief, it says, "There is no evidence of any reduction in pressure except that effected by the regulators of the distributing companies."

It is shown further that Appellant operates the retail distribution system in the important city of Fort Worth (shown in the exhibits and testimony as "Lone Star Gas Company, Fort Worth Division") where the local service necessitates that the gas be reduced to pressures as low as 4 to 6 ounces before delivery to the customers, and where approximately 33,000 customers are served (R. I, 219, 328; R. III, 1896).

The same situation prevails, as reflected by the Company's exhibits and testimony as well as those of the Commission, as to the retail domestic, commercial and industrial sales made by the Company on its rights of way over its entire system. In these cases the Company owns, maintains and operates the regulator equipment and the meter equipment. See for instance the item of gas connections $15,050.78 (R. I, 339), and also Company's Exhibit 5, R. III, 2211. For sales at farm taps on main lines see R. I, 407. For field and miscellaneous sales in Texas operations see R. III, 1641, 2116B. For list of numerous large industrial and commercial concerns served

directly by Appellant in Texas, see the following references: R. IV, 2393, 2406, 2407, 2409, 2414, 2415, 2428-2430, 2435, 2438, 2440, 2447, 2452, 2453, 2457-2459, 2464-2466, 2476-2477, 2492-2508, 2520-2522, 2525, 2535-2543, 2547-2556, 2558, 2560-2564, 2566-2589; R. III, 1693-1695.

A mere examination of the various system maps in the record, and the evidence generally, will disclose the even in the Company's transmission system, through its tap and lateral lines to retail domestic, commercial and industrial customers on its rights of way and in its tap lines to the city gates, the high pressure streams of gas in the main lines are broken up into much more numerous and minute streams.

See also the important industrial sales to West Texas Utilities Company, R. III, 1693-1695, shown by the map appendix to Appellant's brief, near the southwest corner of Oklahoma, as having been 1,713,055 MCF for 1933, out of a total production for that year from the Texas Shamrock Field of 6,448,138 MCF. The drawing off of this great quantity at that point to a single industrial customer in Texas necessarily "breaks the original package" even if the Line A gas be considered originally interstate gas. It will be seen that this is the first tap in Texas, as shown in map in Appellant's brief, and this takes place before any deliveries are made at any city gates; at each of which gates a further "breaking" takes place, of course.

Near Petrolia, in Texas, is located what is referred to in the record as the "Miller Farm," a depleted gas lease in which the Company for several years has been

repressuring or storing gas derived in part from Line A, (R. II, 1478, 1541), but mostly from Lines H and Second H coming from Oklahoma. The gas is there stored ordinarily in the summer time and withdrawn during the winter. The volumes so repressured or stored, in excess of the amounts withdrawn, are shown in Appellees' Exhibit 4, R. III, 2124-A. Since this table shows only the excess of volumes stored, over volumes withdrawn, the actual volumes stored greatly exceed the volumes shown by the table. Schmidt testified that 500,000,000 cubic feet were stored in this farm in 1933 alone, R.II, 1486-1487; R.I, 593; R.II, 1484-1485. It is obvious that gas stored in these sands is totally arrested in its movement for periods of six months or longer; nevertheless, Company witness Schmidt denies such fact, and states that it just "circulates through the sand", R. II, 1483. Schmidt's idea, thus expressed, as to what constitutes an "arrest" of movement of gas may explain his testimony, R. II, 1478-1484, that the forward movement of the gas is not arrested when it passes through the expansion tanks of seal oil in the gasoline extraction process.

In view of the decisions of this Court, cited under Point XVII, we believe it plain that the Company's entire business in Texas is intrastate, and subject to regulation by the Commission.

STATEMENT AND ARGUMENT UNDER POINT XIX

(Pp. 26-27, supra)

Statements and Arguments under Point XVII are adopted.

The record shows that in addition to the numerous other intrastate activities engaged in by the Company in Texas, and hereinbefore pointed out, the Company and all of its affiliates maintain their general offices in Dallas, Texas, where the entire business of said companies is transacted and carried on, R. I, 426-428, 237-238. We believe this brings the case squarely within the decision of this Court in *Southern Natural Gas Corporation vs. Alabama*, 301 U. S. 148, 81 L. Ed. 970, affirming *Alabama vs. Southern Natural Gas Corporation*, 170 S. 178.

STATEMENT AND ARGUMENT UNDER POINTS XX TO XXIV, INCLUSIVE

(Pp. 27-31, supra)

As shown under Point I, supra, Appellant did not raise the defense of interstate commerce before the Commission, nor was any segregation of any character made before the Commission in the evidence of either party. As a consequence the Commission received evidence from both parties as to overall property valuation and operations of the Company in both Texas and Oklahoma.

The evidence before the Commission, and District Court alike, discloses that because of the relative scarcity of gas in Oklahoma, and the consequent higher wellhead prices there prevailing, ranging from 6c to 15c per MCF, paid by the Company for gas purchased in Oklahoma, (R. I, 593-594, 108), and because the Company's investment per meter in Oklahoma was much higher than in Texas, the intrastate operations

in Oklahoma were very much more expensive and less profitable to the Company than those in Texas, R. III, 1594. This situation was not brought about by the State of Texas, the Commission or the consumers in Texas, but was a natural advantage bestowed by nature herself. This being true, we do not conceive that the consumers in Oklahoma, whose rates are to be fixed by the Corporation Commission of Oklahoma, are entitled as a legal or moral right to the same rates for natural gas as are the consumers in Texas.

Nevertheless, the Commission was fully cognizant of that situation, and took special note thereof, (R. I, 107-108) in pointing out the higher wellhead prices paid in Oklahoma; and also (R. I, 15) in stating that "the Company's Texas properties and its Oklahoma properties constitute parts of an integrated operating system. For that reason, *we have considered the Oklahoma properties and operations and the effect thereof on the revenues and the expenditures within Texas.*" The Commission realized, of course, that it had no jurisdiction to fix rates applicable in Oklahoma, so it continued: "On this basis we have fixed a rate for application *within the jurisdiction of Texas.*"

These markedly less profitable operations in Oklahoma were brought more sharply to the fore in the segregation made by Appellees before the District Court. The exhibits and testimony of Appellee's witness Phillips (R. III, 1667-1668, 2116-A, 2126-A) show that the net earnings, before providing for de-

preciation and depletion, attributable respectively to the Oklahoma and Texas operations, were as follows:

1931 - Texas	$4,758,714.46	= 96.9%
1931 - Oklahoma	150,456.67	= 3.1%
1932 - Texas	4,882,297.56	= 97.4%
1932 - Oklahoma	128,178.93	= 2.6%
1933 - Texas	4,185,327.48	
1933 - Oklahoma, a loss of	61,531.12	(red)

Year ending March 31, 1934, (overlapping nine months with 1933):

Texas	$4,416,571.74	
Oklahoma, a loss of	30,277.50	(red)

. The properties are 86% in Texas and 14% in Oklahoma, R. III, 1736-1737, 2142, 2157.

Although this great disparity in profit between Oklahoma and Texas operations was perfectly apparent to the Commission, it deliberately favored the Company, and the Oklahoma consumers, by fixing its rate at such a figure as that, if applied overall to the Company's entire operations in both Texas and Oklahoma, it would yield a reasonable net average return of 6%.

Totally ungrateful for this generosity, the Company immediately attempted to stab the Commission in the back by raising for the first time in the District Court the claimed defense of interstate commerce.

This new attitude upon the Company's part imposed upon it the burden of making before the District Court a segregation, first, as between its admittedly intrastate operations and the operations which it claimed were exempt from state control as inter-

state commerce, if it wished to sustain such defense; and, secondly, it thoroughly justified Appellees in insisting also that, if such a defense were to be interposed, there should be made also a segregation between Texas and Oklahoma properties and operations, so as to exclude the less profitable (and, for 1933, losing) Oklahoma business (R. III, 1594; 2116A, 2126A, 1667-1668) from consideration in determining whether the rate as applied only within Texas was unreasonable, unjust or confiscatory.

From the beginning of the District Court trial, however, until practically its close, the Company insisted that no segregation upon either basis was necessary or permissible, but that it was entitled to attack the order upon the same overall basis in Texas and Oklahoma as the Commission had used in fixing the rate. Appellees were firm in their insistence, however, that segregations should be made by the Company upon both bases, as part of the burden of proof devolving upon the Company, if in fact there were any interstate commerce involved.

The Company apparently was not very confident of its position, however; and finally yielded to the insistence of Appellees, to the extent of submitting a purported segregation as between what it chose to call "interstate and intrastate operations." R. II, 1500. The Company insisted that if any segregation were necessary or proper at all, the burden was upon the state, and not upon the Company, to make it, R. II, 1496-1497; also see R. I, 325-327, 376, 392-393, 482, 558, 568; R. III, 1629, 1735; R. II, 1142-1143, 1230, 1235, 1264.

The Company admitted that its records were kep in such way as to permit of easy segregation betwee Texas and Oklahoma properties and operations R. I, 390-393, 456-460, 481-482, 508, 557-558 570; R. II, 1143.

The Company also insisted that no segregation wa necessary or permissible in the District Court, becaus the Commission had made none. This contention i refuted by this Court's decisions in *Smith vs. Illinoi Bell Telephone Company*, 282 U. S. 133, 75 L. Ed 255, where the Illinois Commission had made no seg regation whatever between intrastate and interstate op erations in fixing local telephone rates for Chicago and where this Court remanded the cause, not to th Commission for further findings and segregation, bu to the *District Court* to make a proper segregation and where, after the segregation had been made by the District Court, and findings made by it holding the rate confiscatory upon the basis of such segregation this Court reversed the second District Court judg ment and finally upheld the rate as non-confiscatory *Lindheimer vs. Illinois Bell Telephone Company* 292 U. S. 151, 78 L. Ed. 1182.

The Company did not purport to make any segre gation whatever in the District Court as betwee Texas and Oklahoma properties and operations. Th segregation which it did make purported to be one be tween what Hulcy thought were "interstate and in trastate" operations; (R. III, 1604) and was worke out and sponsored by Schmidt, Connor, and Hulcy The first step was Company's Exhibit 45 (R. V 3207) which was a purported segregation only of th

gas supposed to have been produced in the Wheeler County, Texas, field and the Oklahoma fields on the one hand, and the West Texas gas on the other hand; and this segregation is based upon the specific gravity tests hereinafter discussed. The remainder of the segregation was made by Hulcy in Company's Exhibit 46 (R. V, 3279) which exhibit relates to properties, revenues and expenses.

Schmidt, in Company's Exhibit 45, provided the sinking-sand foundation upon which was constructed the Company's segregation of properties, revenues and expenses as between what the Company asserts as interstate and intrastate operations. It is in no sense a segregation as between Texas and Oklahoma property, revenues and expenses. The segregation is based upon the determination of "specific gravity" of gas in the Company's lines at some 11 or 12 points where it kept apparatus for such determinations. The Company made such a segregation based upon specific gravity determinations for the year 1933 only, which year admittedly was an abnormally warm year, R. III, 1594-1595. Even if the segregation were otherwise acceptable, being for 1933 only, it is too short a spread of experience on which to base a rate. Schmidt testified that Oklahoma-produced gas had a specific gravity of about .63. He also testified the specific gravity of the gas from the Panhandle area of Texas was about the same, R. II, 1499. The specific gravity of the gas from Central West Texas averages .785 to .83, R. II, 1499-1500. He left out of account the gas from Petrolia field, whose BTU content and specific gravity were different from all of the other gas. See also R. II, 1568-1569, showing that the West Texas gas had a

higher BTU content (1200) until it was diluted with inert gases at Joshua. Also R. II, 1591, giving BTU content of Texas and Oklahoma gases. He further testified that, based upon his specific gravity determinations, a segregation of Oklahoma gas could not be made from that gas produced in the Texas Panhandle, at any particular point on the system, R. II, 1579. This being true it was impossible to segregate the Texas Panhandle gas on the one hand from the Oklahoma-produced gas on the other hand at any given point on the system; therefore, he would be unable to determine by this test the combined volume of West Texas gas and Texas Panhandle gas as distinguished from the volume of Oklahoma-produced gas at any particular point in the system.

Schmidt testified that in the preparation of Exhibit 45, it was necessary to take into consideration the specific gravity of the gas, the pressure base, the temperature of the gas, and the barometric pressure at the point of measurement, (R. II, 1499); that the specific gravity will make a difference in the volume in the relation of the "inverse portion" of the square root of the gravity; that the specific gravity of the gas produced and transported from the Central West Texas area ranges in specific gravity from about .785 to about .83. (R. II, 1699); that the BTU content of the gas is changed after passing through gasoline plants (R. III, 1591); that the Oklahoma gas from line H and second H goes through a gasoline plant. (R. II, 1501); that the gas through line G goes through a gasoline plant, (R. II, 1501); that the introduction of inert gas at Joshua changes the specific gravity, (R. II, 1501); that the specific gravity of

the gas produced in the Panhandle field and in the several Oklahoma fields was approximately .63 (R. II, 1506); that a curve was made for each month principally because the specific gravity of the West Texas gas varies by a few points each month during the year and it was therefore necessary to determine the average specific gravity of the West Texas gas by months and plot a curve for each month instead of making a curve that might apply for a year, (R. II. 1507); that Fort Worth and Dallas, Texas, are furnished commingled gas at certain measuring stations and at other measuring stations wholly gas produced in Central West Texas, (R. V, 3228, 3229), that corrections had to be made for unaccounted for gas (R. V, 3221); that gas being compressible it does not follow Boyle's law exactly, (R. II, 1511). The above will suffice to show the intricacies through which the calculations must be carried to make a segregation by the specific gravity method. But this is not all. Schmidt further testified as follows: On line C-2 during the months of January, February, March, April, October, November, and December the specific gravity varied to such an extent that it was necessary to take daily averages of the specific gravity, (R. V, 3218), thus showing how unreliable the readings were for showing the true proportions of West Texas gas on the one hand and the indistinguishable Oklahoma-Texas Panhandle gas on the other hand. Similarly, for line E, (R. V, 3219). Similarly for Line F, (R. II, 3220). But further steps are outlined. The sales must be allocated by classes as between domestic and industrial gas. The witness testifies, due to the existence of these variable factors it was necessary to make

a determination by months of the relative volume of gas produced in the central West Texas area which had been sold at the domestic rate and the gas from the same area which had been sold at the industrial rate, (R. V, 3227). He testifies the metropolitan area of the city of Dallas received its supply of gas from 5 points of delivery, (R. V, 3229). Similarly for Fort Worth, (R. V, 3229). It will be noted from the charts shown at R. V, 3267 to 3278 that for a resulting specific gravity in the main of .80 the percentage of West Texas gas varies from approximately 79 per cent, (R. V, 3271) to 100 per cent (R. V, 3267). In other words, a specific gravity of .80 in the resulting mixture could mean a variation of 25 per cent in the amount of the West Texas gas.

Hulcy sponsored in evidence Company Exhibit 46 which purports to be a segregation of the property, revenues and expenses bottomed upon Company Exhibit 45. If the method of segregation adopted in Company Exhibit 45 falls down then the segregation of revenues, expenses, and property bottomed upon Company Exhibit 45 must fall also.

Even if the method of segregation were proper (which we do not concede) the year 1933 being an abnormally warm year (R. III, 1594-1595) as well as a "depression year," does not furnish a sufficient "spread of years" for adequate study. See cases cited under our Point XXXVI, infra.

A single illustration will suffice to show the degree of variation from day to day, by manipulation or otherwise, to which such a segregation is subject. At

Record V, 3241, Central Station, Dallas, on Line C, it is shown that on January 24, 1933, 13,604 MCF were measured at this station, all (100%) of which was West Texas gas. At Record V, 3242, March 2, 1933, the total gas measured at this station was 13,492 MCF, of which only 48% was West Texas gas. In other words, for the same total volume of gas the Company can at its own will and direction change the proportions of West Texas gas from 100% to as low as 48%.

We have heretofore pointed out Dunn's testimony that he is solely responsible for the sources, withdrawals, and direction of the gas in the system. R. I, 531. It is also significant to note Hulcy's testimony (R. I, 376) that direction of flow of the gas is continually reversing and shifting all over the system.

We point out also that it is conclusively shown that throughout the Commission hearings the Company was "lying low" before the Commission about the interstate commerce defense, while busily engaged in taking these gravitometer tests (of which it did not advise the Commission), and all the time the Company was preparing the data to spring for the first time in court. The order for the Commission's investigation served upon the Company was dated October 14, 1932, the hearing began November 1, 1932, and the Commission's order was dated September 13, 1933, R. I, 15, 116. It will be observed that the beginning of these gravitometer tests was January 1, 1933, and continued through that calendar year, R. V, 3241. The tests were made daily and continuously during the year. Although the hearings be-

fore the Commission continued until June 29, 1933, (R. I, 16), the Company made no disclosure before the Commission of its plan of making the gravitometer tests, nor of the results thereof. This shows plainly that this whole scheme was concocted after the Company learned of the pending rate investigation, and was carefully concealed from the Commission until its order was entered, and until the Company launched its attack upon the order on the ground of interstate commerce in the District Court for the first time in 1934.

Furthermore, the Company's exhibits and testimony show that while there were only 11 or 12 gravitometer test stations used, they were placed only at Gainesville and Petrolia, and the remainder grouped immediately around Dallas and Fort Worth. R. V, 3209-3222, map R. V, 3208A. No such tests were made at each of the city gates within the area in which the Company claims to have served mixed gas. And the Company throws no light upon why it chose and grouped the particular points for these tests as it did.

Hulcy was apparently not satisfied with the results of his labors; for, while he testified that it would be impossible to fix a separate gate rate for each town, (R. I, 376), he does in effect attempt by his segregation to do so upon a much more complicated and unreliable basis in "Area C" in which mixed gas is served.

This matter of "Area C" requires explanation. In the Company's testimony in explanation of its exhibit 46 (R. II, 1530-1567) Hulcy outlined areas A, B and C. "Area" and "Zone" are used synonymously

in the record and the map attached hereto as an appendix. Area A was the area covering the greater part of the Company's system in Texas within which it admitted that its operations were purely intrastate and subject to state regulation. Area B embraced the whole of Oklahoma and that portion of Texas served by Line A, west and north of Petrolia, within which area the Company claimed its operations were beyond state control. Area C embraced the relatively small zone in north central Texas within which it claimed to serve a mixture of Oklahoma, Texas Panhandle, and West Texas gas. Based upon these three areas, Hulcy worked out what he denominated D and E operations. D operations represented those which according to the Company's segregation embraced all property and operations in Area A plus an allocated portion of same in Area C; and E operations embraced all property and business in Area B plus the remaining parts of those in Area C. R. V, 3280.

In the Appellant's brief in the Court of Civil Appeals and in its application for writ of error to the Supreme Court of Texas, it attached as appendices a map in color with the lines of these respective areas plainly delineated. The colored map did not appear in the record. For some reason, the Company has not attached to its brief in this Court the map colored and with the areas delineated as it did in the state appellate courts. The map attached to its brief in this Court is the same map, but with the colored area lines and delineations obliterated. If the Court will hold the Company's map up to the light, it will see faint traces, similar to water marks, where these area lines

have been deleted, as has also been the legend which appeared in the upper right hand corner. For the Court's enlightenment, we have had the map, as it appeared in the Company's briefs in the state appellate courts, reproduced and attached as an appendix to this brief.

It conclusively appears that, aside from all other objections to this totally unreliable method of segregation, the results are not determinative at all of the proportions of West Texas gas on the one hand and the Texas Panhandle and Oklahoma gas on the other hand, served at each of the city gates, in Area C, and a very clear illustration of this fact is shown by the following circumstances:

Gas from West Texas is fed into Line F from the south. Gas from Oklahoma is fed into this line from the north during a part of the time. See map, R. V, 3208-A. The specific gravity measurements on this line were made on the McKinney tap, a tap line off the main line, about midway of Line F. There are some 15 cities and towns fed with gas from this line, and the proportions of West Texas, Texas Panhandle and Oklahoma gas respectively could vary considerably from the proportions measured at McKinney.

Aside from all other fatal objections to this method there is also the fundamental one that because of the Company's inability to determine by the gravity tests what proportions were Oklahoma gas as distinguished from Texas Panhandle gas, the segregation is wholly worthless if our contention be sound, as we think it is,

that the gas through Line A from the Texas Panhandle field is not transported in interstate commerce. R. II, 1497-1529; I, 230-231.

Contrast with the complicated, unreliable and inexact segregation made by the Company, the segregation made by Appellees in the District Court. The properties were divided according to the geographical location; that is, properties in Texas were allocated to Texas, and properties in Oklahoma were allocated to Oklahoma, except for Line A which was allocated wholly to Texas inasmuch as it brings gas from the Texas Panhandle across a corner of Oklahoma back into Texas. The revenues and expenses were divided on the same geographical basis. The net amount of Oklahoma gas brought into Texas was allowed for at the connecting point near the state line, at the average sale price for this gas in Texas. This net amount of Oklahoma gas brought into Texas was determined by deducting the amount of gas crossing the line into Oklahoma from the amount of gas crossing the state line from Oklahoma into Texas, R. III, 1736, 1737, 1748, 2124-A, 2142, 2157. This Court has approved such a geographical-and-use segregation in *Wabash Valley Elec. Co. vs. Young*, 287 U. S. 488, 495-497, 77 L. Ed. 447, 453.

Commission witness Phillips, in Ex. 4, (R. [redacted] 1632-1638, 1679-1683) directly allocated the operating revenues and expenses to Texas and Oklahoma respectively, and found that they substantially coincided with the proportions shown by the witness Freese in segregating the physical properties.

DIVISION B

CLAIMED DENIAL OF "ADEQUATE JUDICIAL REVIEW"

At page 126 of its brief, Appellant admits that it was not denied an "independent judgment as to the facts" by the District Court, or by the Court of Civil Appeals. Therefore, the doctrine of such cases as *Ohio Valley Water Co. vs. Ben Avon Borough*, 253 U. S. 287; *Bluefield Water Works & Imp. Co. vs. Public Service Commission*, 262 U. S. 679, 692, 693, and *St. Joseph Stockyards Co. vs. United States*, 298 U. S. 38, 51; and the *dictum in B. & O. R. Co. vs. United States*, 298 U. S. 349, 368, goes out of the case entirely.

The essence of Appellant's complaint as to denial of procedural due process under the Fourteenth Amendment, as stated at page 127 of its brief, is that by the judgment of the Court of Civil Appeals (and, incidentally that of the Supreme Court of Texas) it was denied "an adequate judicial review of the rate order." In subsequent argument in the brief, specifications are made that this claimed denial of adequate judicial review consisted in the judgment that the evidence as a whole was legally insufficient to overturn the presumed validity of the Commission's order, or to raise any issues of fact as to confiscation under the Federal Fourteenth Amendment to be resolved by the triers of fact.

Most of Appellant's complaint is directed at the *language and reasoning* of the Court of Civil Appeals in its opinion; more especially that to the effect that where the evidence is merely conflicting, and the reduced rate has not been given a reasonable test in

actual operation, the Court is not justified in overturning the Commission's order.

But here again, as was so aptly said by this Court in *United Gas Public Service Co. vs. Texas*, ____ U. S. ____, 82 L. Ed.____ (No. 13, Oct. Term, 1937):

> "We must distinguish 'between what was said and what was done,' between 'dictum and decision,' between reasoning and conclusion. *Dayton Power & Light Co. vs. Public Utilities Commission*, 292 U. S. 290, 298, 302."

Regardless of the reasoning of the Court of Civil Appeals in its opinion, what it in essence did was to analyze all of the evidence and to determine and adjudge, based upon such analysis, that the same did not as a matter of law possess sufficient legal probative force to overturn the *prima facie* validity of the Commission's order, or to raise any issues of fact as to unreasonableness and unjustness, or confiscation under the Federal Fourteenth Amendment; and that, for that reason, there were no fact issues raised to go to the jury as triers of fact. R. III, 3335, 3353, 3354, 3357, 3559-3370, especially 3369. For that reason, the Court very properly disregarded the verdict of the jury and reversed the judgment of the District Court, dissolved the injunction and upheld the rate order as having successfully withstood attack.

This *judgment* of the Court of Civil Appeals, affirmed by the Supreme Court of Texas, was a correct one, arrived at by well-established legal methods often sanctioned and applied previously in the decisions both of our highest state courts and of this Honorable Court.

In *Railroad Commission of Texas vs. Shupee*, 57 S. W. (2d) 295, 301 (affirmed by the Supreme Court of Texas, 123 Tex. 521, 528, 73 S. W. (2d) 505, 508) the same able Court of Civil Appeals from whence this appeal comes, in construing a statute in all substantial respects identical with Article 6059 (see appendix at end of this brief) relating to appeals to the courts for judicial review of the Railroad Commission's orders, said:

> "The manifest difference in these statutes is only as to the quantum of proof necessary on the respective appeals, and does not affect the principle on which the court acts in determining whether the order is unreasonable and unjust as to complainant, which rule is the same in each appeal. That is, each of these appeal statutes is construed with reference to the particular statutes to which each relates, and merely requires that the court must *first* judicially determine whether the complainant has introduced evidence of such probative force or value, or such character or quantum, as will satisfy the statutory burden placed by each statute upon the complainant; and when the court has judicially determined such matter favorably to complainant, *then to proceed with the trial of any fact issue as in ordinary trials on a preponderance of the evidence.*"

This is a succinct statement of the principle *applied* by the Court of Civil Appeals and the Supreme Court of Texas in this case, regardless of what else in addition was said in the opinion, and shows plainly that had Appellant's evidence been sufficiently "clear and satisfactory" or "clear and convincing" to hurdle the well established preliminary legal test, the court

would have been justified in submitting the fact issues, which would in that event have been raised, to the jury.

The principle has become staunchly established in the jurisprudence of our state in such decisions as *Railroad Commission of Texas vs. Galveston Chamber of Commerce,* 105 Tex. 101, 115, 145 S. W. 573; *Railroad Commission of Texas vs. Weld & Neville,* 96 Tex. 394, 409; 73 S. W. 529; *G. C. & S. F. Ry. Co. vs. Railroad Commission of Texas,* 102 Tex. 338, 352, 113 S. W. 741, 747; *Brown vs. Humble Oil & Refining Co.,* 126 Tex. 296, 87 S. W. (2) 1069, and many others.

Furthermore, the principle has received sanction and has been applied by this Honorable Court in a line of rate cases too numerous for us to cite. One of the latest and clearest enunciations of the principle by this Court is in *St. Joseph Stockyards Co. vs. United States,* 298 U. S. 38, 53, 80 L. Ed. 1033, 1042, as follows:

> "But this judicial duty to exercise an independent judgment does not require or justify disregard of the weight which may properly attach to findings upon hearing and evidence. On the contrary the judicial duty is performed in the light of the proceedings already had and may be greatly facilitated by the assembly and analysis of the facts in the course of the legislative determination. Judicial judgment may be none the less appropriately independent because informed and aided by the sifting procedure of an expert legislative agency."

The principle was also well stated and appropriately applied by this Court in the Laredo case (*United Gas Public Service Co. vs. Texas*) supra, as follows:

> "This Court will review the findings of fact by a State court . . . (2) where a conclusion of law as to a Federal right and findings of fact are so intermingled as to make it necessary, in order to pass upon the Federal question, to analyze the facts . . . we make that analysis, not to determine issues of fact raised on conflicting testimony or inferences, and thus to usurp the function of the State court as a trier of the facts, but to perform our own proper function in deciding the question of law arising upon the findings which the evidence permits."

The cases cited under our Point XXXIX, infra, show that expert testimony, of which this record is almost wholly made up, has in law no probative force, and is "in no real sense evidence," unless it is "clear and satisfactory" or "clear and convincing" in the sense that it is reasonable and based upon satisfactory basic factual data. The Company's evidence here is clearly insufficient as a whole to meet that test, and was therefore properly rejected.

This principle has been applied by this Court also in such decisions as *San Diego L. & T. Co. vs. National City*, 174 U. S. 739, 754, 43 L. Ed. 1154; *Darnell vs. Edwards*, 244 U. S. 564, 569, 61 L. Ed. 1317; *Willcox vs. Consolidated Gas Co.*, 212 U. S. 19, 41, 53 L. Ed. 382; *Louisville vs. Cumberland Tel. & Tel. Co.*, 225 U. S. 430, 433, 436, 56 L. Ed. 1151; *Norfolk & W. R. Co. vs. North Carolina*, 297 U. S. 682, 689-690, 80 L. Ed. 977; *Brush Electric Co.*

vs. Galveston, 262 U. S. 443, 444-446, 67 L. Ed. 1076; *Lincoln G. & E. Co. vs. Lincoln*, 250 U. S. 256, 261-262, 268, 63 L. Ed. 968; *Cedar Rapids Gas Co. vs. Cedar Rapids*, 223 U. S. 655, 667-670, 56 L. Ed. 594; *Galveston Electric Company vs. Galveston*, 258 U. S. 388, 401, 403, 66 L. Ed. 678; and many others.

In short, what the highest courts of our State have done in this and other cases, and what this Court has done in the above cited cases and many others, is to analyze the evidence and determine as a preliminary law question whether the elaborate theories, calculations, speculations, tabulations, estimates and prophecies of the expert witnesses testifying for the complaining utilities, were based upon sufficiently sound underlying basic factual data to possess enough probative force to overturn the *prima facie* validity of the rate order, and to raise issues of fact to be resolved; in other words, whether such evidence is sufficiently "clear and satisfactory" to raise fact issues of unreasonableness and unjustness under the state law and decisions, or sufficiently "clear and convincing" to demonstrate confiscation under the Federal Fourteenth Amendment. If this preliminary law question be determined in the negative, then there are no fact issues to pass upon.

The Court of Civil Appeals and the Supreme Court of Texas were not examining the evidence with a view, primarily, of resolving any fact issues and making original fact findings of their own, but were doing precisely what this Court has said in the above quoted excerpt from the Laredo case it may properly do, namely,

sifting the evidence with a view of determining what fact findings if any, the evidence *would be sufficient to support;* and, having determined this, to decide the law question as to whether the evidence was "clear and satisfactory" or "clear and convincing." The issues have both been properly resolved against Appellant by the state appellate courts in this case.

In making the contention that the highest state courts have by this legal *modus operandi* denied it due process under the Federal Fourteenth Amendment, the Appellant is necessarily arguing impliedly that this Honorable Court has by that identical legal method denied many litigants due process under the Fifth Federal Amendment in the numerous decisions of this Court above cited, and many others.

This contention of Appellant necessarily resolves itself into a question simply of the correctness, as a law question, of the highest State courts' action in adjudging that the evidence was legally insufficient, and lacked the necessary quality of being "clear and satisfactory", and "clear and convincing" to raise fact issues of confiscation, etc.

If this determination by the state courts was error at all, it was necessarily either an error of state law or of Federal law. If it was merely an error of state law, this Court does not concern itself with the question. If it was an error of Federal law, then this Court has the entire record before it, and will, as it has so often done, exercise its undoubted privilege of analyzing the evidence and determining what fact findings, if any, the evidence would have been sufficient to support, and then, based upon this determination, decide

further the legal question of whether confiscation under the Fourteenth Amendment has been shown by that "clear and convincing evidence" which this Court has so often held to be indispensable to demonstrate denial of Federal rights. This Court not only has the power to do so, but we gladly invite it to do so.

Appellant contends in effect that it has been deprived of a jury trial. But this raises no question of federal right; for, in the first place, no assignment is made that the Seventh Federal Amendment has been violated; and, in the second place the amendment has no application in cases arising in the state courts. *Minn. & S. L. R. Co. vs. Bombolis*, 241 U. S. 211, 60 L. Ed. 961. Neither does the Fourteenth Federal Amendment guarantee a trial by jury: *Walker vs. Sauvinet*, 92 U. S. 90, 23 L. Ed. 678; *Maxwell vs. Dow*, 176 U. S. 581; *Frank vs. Mangum*, 237 U. S. 309.

There is nothing in the Federal Constitution which requires a state to maintain the distinction between the functions of the jury and that of the court; it may do away with the jury altogether: *C. R. I. & P. R. Co. vs. Cole*, 251 U. S. 54, 64 L. Ed. 133. *Palko vs. Connecticut*, ____ U. S. ____, 82 L. Ed. ____, No. 135, Oct. Term, 1937, L. Ed. Adv. Op. No. 5, p. 220, 223.

The principle applied by the Court of Civil Appeals and the Supreme Court of Texas in disposing of this case, is actually nothing more than a mere adjective or procedural rule of evidence or burden of proof applied in obedience both to a state statute (Art. 6059) and the decisions of this Court. The Federal Fourteenth Amend-

ment does not guarantee one the benefit of a mere rule of evidence. A right to have one's controversies determined by the existing rules of evidence is not a vested right, for such rules pertain to the remedies which the state provides for its citizens, and generally they neither enter into and constitute a part of any contract, nor can they be regarded as being of the essence of any right which a party may seek to enforce: *Luria vs. United States*, 231 U. S. 9, 58 L. Ed. 101.

Appellant insists that the jury has in its verdict found that the 32c rate is *confiscatory*, within the prohibition of the Federal Fourteenth Amendment. This argument is predicated upon this Court's holding in the Laredo case that the issue of confiscation had been submitted and found against the United Gas Company in that case, but that here the issue has been submitted and resolved against the Commission. The argument is plausible but specious; and the conclusion does not necessarily follow the premises. Since the line of *reasonableness* (a question of state law) is higher than the line of confiscation (a matter of Federal law), a finding (as in the Laredo case) that the reduced rate is *reasonable* necessarily means that it is non-confiscatory; but the converse is not true. A finding (as here) that the rate is *unreasonable* does not necessarily imply at all that it is *confiscatory*.

Thus the question of claimed denial of "adequate judicial review" disappears and merges itself into the question of whether the record shows confiscation by the requisite degree of clearness. And to this latter question the remainder of this brief will be addressed.

DIVISION C

CLAIMED CONFISCATION

GENERAL THESIS: APPELLANT'S EVIDENCE AS A WHOLE WAS INSUFFICIENT AS A MATTER OF LAW TO DEMONSTRATE CONFISCATION OR OTHER DEPRIVATION OF FEDERAL CONSTITUTIONAL RIGHT, AND TO OVERTURN THE PRESUMED VALIDITY OF THE ORDER. THIS BECOMES MORE CLEARLY EVIDENT WHEN APPELLANT'S EVIDENCE IS CONSIDERED IN CONNECTION WITH, AND CHECKED BY, APPELLEES' COUNTERVAILING EVIDENCE AS TO THE COMPENSATORY CHARACTER OF THE RATE. HOWEVER, THE VOLUNTARY AND UNNECESSARY SUBMISSION OF SUCH EVIDENCE BY APPELLEES DID NOT HAVE THE LEGAL EFFECT OF LIFTING THE BURDEN FROM APPELLANT OF PROVING BY ITS OWN EVIDENCE A CLEAR AND CONVINCING CASE OF CONFISCATION OR OTHER FEDERAL CONSTITUTIONAL INVALIDITY.

XXV. The order is presumed *prima facie* to be non-confiscatory and valid:

R. R. Com. of Cal. vs. Pacific G. & E. Co., ... U. S. ....., 82 L. Ed. ....., No. 804, Oct. Term, 1937, Adv. Op. No. 7, p. 327;

St. Joseph Stockyards Co. vs. United States, 298 U. S. 38, 52, 53, 54, 60, 64, 67; 80 L. Ed. 1033, 1041, 1042-1043, 1046, 1048, 1049;

Lindheimer vs. Ill. Bell Tel. Co., 292 U. S. 151, 164, 169, 175; 78 L. Ed. 1182, 1191, 1193, 1194, 1197;

Los Angeles G. & E. Corp. vs. R. R. Com. of Cal., 289 U. S. 287, 304, 305, 307; 77 L. Ed. 1180, 1192;
Dayton P. & L. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 290, 298; 78 L. Ed. 1267, 1274;
Darnell vs. Edwards, 244 U. S. 564, 569; 61 L. Ed. 1317, 1321;
Willcox vs. Consolidated Gas Co., 212 U. S. 19, 41; 53 L. Ed. 382, 395;
United Fuel Gas Co. vs. R. R. Com. of Kentucky, 278 U. S. 300, 313; 73 L. Ed. 390, 398.

XXVI. Orders of the Commission have the same force and effect as ordinary statutes of the State; and are, therefore, entitled to the exceedingly strong presumption of validity that is accorded to statutes in determining the constitutionality thereof:

Pacific States Box & Basket Co. vs. White, 296 U. S. 176, 185-186; 80 L. Ed. 138, 146;
West Texas Compress Co. vs. P. & S. F. Ry. Co., 15 S. W. (2) 558, 560;
R. R. Com. of Texas vs. Uvalde Construction Co., 49 S. W. (2) 1113, 1114.

XXVII. The burden is upon the complaining party to prove confiscation or deprivation of other constitutional rights by evidence so clear and satisfactory as to leave no reasonable doubt in the judicial minds of the reviewing courts:

Cases cited under Point XXV above; and
Art. 6059 R. C. S. Tex. (1925);[7]

---

[7]"In all trials under this article the burden of proof shall rest upon the plaintiff, who must show by CLEAR AND SATISFACTORY evidence that the rates . . . complained of are unreasonable and unjust to it or them."

R. R. Com. of Cal. vs. Pacific G. & E. Co. No. 804, Oct. Term, 1937, ... U. S. ....., 82 L. Ed. ....., L. Ed. Adv. Op. No. 7, p. 327, 334.
United F. G. Co. vs. R. R. Com. of Ky., 278 U. S. 300, 313, 73 L. Ed. 390. 398;
San Diego Land & Town Co. vs. National City, 174 U. S. 739, 754; 43 L. Ed. 1154, 1160;
Knoxville vs. Knoxville Water Co., 212 U. S. 1, 16; 53 L. Ed. 371, 381;
C. M. & S. P. R. Co. vs. Thompkins, 176 U. S. 167, 173; 44 L. Ed. 417, 420;
G. C. & S. F. Ry. Co. vs. R. R. Com. of Texas, 102 Tex. 338, 352; 113 S. W. 741, 747, 795;
R. R. Com. of Tex. vs. Weld & Neville, 96 Tex. 394, 409; 73 S. W. 529;
R. R. Com. of Tex. vs. Galveston Chamber of Commerce, 105 Tex. 101, 115; 145 S. W. 573.

XXVIII. The foregoing rule (XXVII above) does not place upon the Company, as it contends, an impossible burden in the sense that the order will be upheld if there is any evidence countervailing against the Company, R. V, 3351. It does mean that the Court of Civil Appeals, and the Supreme Court of Texas, properly did what this Court has many times done, namely, analyzed all of Appellant's evidence and determined as a preliminary law question that the same lacks the quality of being sufficiently "clear and satisfactory" or "clear and convincing" to outweigh the presumed validity of the order. The law itself, which places upon one complaining of the Commission's order the extraordinarily heavy burden of proving it confiscatory by clear and convincing evidence, stands always at the threshhold of a rate case as a continuing challenge of the legal sufficiency of the complaining

party's evidence to raise issues of fact. If the evidence does not measure up to that required standard, in the opinion of the reviewing courts sitting in chancery (this being an equity case), then the complaining party has, as a matter of law, failed to discharge the burden of overturning the order. The complaining party proceeds at his own peril as to meeting this burden. Any other rule would make the courts, and not the Commission, the ultimate legislative rate-makers. *St. Joseph Stockyards Co. vs. United States,* 298 U.S. 53, 80 L. Ed. 1033, 1041.

XXIX. The complaining party does not meet the burden of proving the invalidity of the order by attacking the evidence adduced by the opposing party, but must himself submit evidence sufficiently clear and satisfactory to overturn the order:

Allen vs. S. L. I. M. & S. Ry. Co., 230 U. S. 553, 560; 57 L. Ed. 1625, 1629;
Atlantic Coast Line R. Co. vs. Florida, 295 U. S. 301, 317-318; 79 L. Ed. 1451, 1461-1462;
Norfolk & W. Ry. Co. vs. North Carolina, 297 U. S. 682, 689-690; 80 L. Ed. 977, 982-983.

XXX. This Court has been especially reluctant to find rates confiscatory where, as here, they have not been put into effect and given a reasonable trial in actual operation, to eliminate speculation and to determine definitely the volume of business and net revenue that would be produced under the reduced rates:

Knoxville vs. Knoxville Water Co., 212 U. S. 1, 16-17; 53 L. Ed. 371, 381-382;
Darnell vs. Edwards, 244 U. S. 564, 569; 61 L. Ed. 1317, 1321;

Willcox vs. Consolidated Gas Co., 212 U. S. 19, 41; 53 L. Ed. 382, 395;
Georgia Power Co. vs. R. R. Com. of Georgia, 262 U. S. 625, 633; 67 L. Ed. 1144, 1148;
St. Joseph Stockyards Co. vs. United States, 298 U. S. 38, 49, 72; 80 L. Ed. 1033, 1040, 1052;
Louisville vs. Cumberland Tel. & Tel. Co., 225 U. S. 430, 433, 436; 56 L. Ed. 1151, 1152;
Brush Electric Co. vs. City of Galveston, 262 U. S. 443, 444-446; 67 L. Ed. 1076, 1077-1078;
Lincoln G. & E. Co. vs. Lincoln, 250 U. S. 256, 262; 63 L. Ed. 968, 974;
Cedar Rapids Gas Co. vs. Cedar Rapids, 223 U. S. 655, 667-670; 56 L. Ed. 594, 603-604;
S. & N. Ala. Ry. Co. vs. R. R. Com. of Ala., 210 Fed. 465, 480.

XXXI. If Appellant had put the 32c rate into effect promptly upon promulgation of the order and had given it a reasonable test or trial period, and thus enabled its *alter egos*, the affiliated distributors, to carry the saving into the burner tip rates to the consumers, as it should have done instead of defying the order and choosing rather to assert its unconstitutionality in all the courts of the land, it is probable, if not certain, under the record here, that an increased attachment of new customers and an increased consumption per customer on the Lone Star group's entire integrated system would have resulted, which long before now would have more than offset in increased net revenue to the group the amount of the reduction:

Louisiana R. Com. vs. Cumberland Tel. & Tel. Co., 212 U. S. 414, 426; 53 L. Ed. 577, 583;
Willcox vs. Consolidated Gas Co., 212 U. S. 19, 49-50; 53 L. Ed. 382, 398;

Knoxville vs. Knoxville Water Co., 212 U. S. 1, 16; 53 L. Ed. 371, 381;
Brush Electric Co. vs. Galveston, 262 U. S. 443, 446; 67 L. Ed. 1076, 1078.

XXXII. This Court is not concerned with mere irregularities or erroneous methods or reasoning pursued by the Commission, or by the State courts, but is interested only in determining whether the prescribed rate in its over-all result ("totality of its consequences") falls below the line of confiscation:

R. R. Com. of Cal. vs. Pacific G. & E. Co. No. 804, Oct. Term, 1937, ____ U. S. ____, 82 L. Ed. ____ (L. Ed. Ad. Op. No. 7, p. 327, decided Jan. 3, 1938);
Los Angeles G. & E. Corp. vs. R. R. Com. of Cal., 289 U. S. 287, 304-305, 314, 315-316, 317; 77 L. Ed. 1180, 1192, 1197, 1198, 1199;
Lincoln G. & E. Co. vs. Lincoln, 250 U. S. 256, 267-268, 63 L. Ed. 968;
Dayton P. & L. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 290, 297-298, 309; 78 L. Ed. 1267, 1274-1280;
Lindheimer vs. Ill. Bell Tel. Co., 292 U. S. 151, 175; 78 L. Ed. 1182, 1197;
St. Joseph Stockyards Co. vs. United States, 298 U. S. 38, 49, 69; 80 L. Ed. 1033, 1040, 1050;
W. Ohio Gas Co. vs. Pub. Ut. Com. of Ohio (Lima Case), 294 U. S. 63, 70; 79 L. Ed. 761, 768;
R. R. Com. of Texas vs. Galveston Chamber of Commerce, 105 Tex. 101, 115-116, 145 S. W. 573, 580.

XXXIII. A corollary is, that even should it be proved that the Commission has made a finding er-

roneously prejudicial to the Company as to some particular element or elements of the rate structure (which was not done here), the Company must go farther and prove that other compensating liberalities have not been indulged in its favor by the Commission in the findings and allowances as to other elements of the rate structure:

R. R. Com. of Cal. vs. Pacific G. & E. Co. No. 804, Oct. Term, 1937, ... U.S. ....., 82 L. Ed. ..... (L. Ed. Adv. Op. No. 7, p. 327, decided Jan. 3, 1938);

Los Angeles G. & E. Corp. vs. R. R. Com. of Cal., 289 U. S. 287, 316-317; 77 L. Ed. 1180, 1198-1199;

Lindheimer vs Ill. Bell Tel. Co., 292 U. S. 151, 175; 78 L. Ed. 1182, 1197;

Dayton P. & L. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 290, 305, 306, 309-310; 78 L. Ed. 1267, 1278, 1279, 1280-1281;

Lincoln G. & E. Co. vs. Lincoln, 250 U. S. 256, 267-268; 63 L. Ed. 968, 976.

XXXIV. All of the Company's claims of confiscation are bottomed upon the fallacious assumption that the average 6% net annual return fixed by the Commission, and all of its other findings as to rate base and other elements and subsidiary facts relating to the rate structure, insofar as such findings are favorable to the Company, are sacred and inviolable minima below which the Commission and the reviewing courts are estopped and precluded from going in determining the issue of confiscation; and that, insofar as such findings are unfavorable to the Company, they are subject to its attack. No estoppel or *res judicata* is involved in connection with the find-

ings, either of the Commission or of the inferior reviewing courts. If the Company is free to attack the findings, as being too low, then the Commission must be equally free to show that they are too liberal:

St. Joseph Stockyards Co. vs. United States, 298 U. S. 38, 46-47, 56, 63-64, 72; 80 L. Ed. 1033;

Lindheimer vs. Ill. Bell Tel. Co., 292 U. S. 151; 78 L. Ed. 1182;

Columbus Gas & Fuel Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 398, 414; 78 L. Ed. 1327, 1336;

Prentis vs. Atlantic Coast Line R. Co., 211 U. S. 210, 227; 53 L. Ed. 150, 159;

XXXV. The Company's claims of confiscation are likewise founded upon the erroneous assumption that unreasonableness (which is here a question of State law) is the same thing as confiscation, which is a Federal question. The issue before this Court is not whether the 32c rate will yield 6%, or any other reasonable rate of return, but whether it is confiscatory. This distinction should be borne in mind in reading the precedents. Some cases previously before this Court, coming up from inferior Federal Courts, have involved both confiscation and unreasonableness.

XXXVI. All of the Company's claims of confiscation are built also upon the untenable assumption that if it be shown that the net revenues under the reduced rate for any particular twelve-months' operating period would, under the basic findings of the Commission, apparently have fallen below the average 6% level fixed by the Commission, upon a theoretical application of the 32c rate to the volume

of business actually enjoyed in the past under the 40c rate, that this, *ipso facto*, shows confiscation. In attempting to make such a showing, the Company insisted before the Commission that the latter, in fixing the rate, should only use the operating results for the years 1931-1932, during which years the revenues were indisputably deeply affected by the economic depression; and, before the courts, that the validity of the rate should be tested only by the operating results of depression years, including 1933, which year was admittedly and indisputably doubly abnormal because of the depression and the unsually high temperatures. This method was erroneous, first, for insisting upon confining the investigation before the Commission to too short a test period, which is condemned by all of the authorities, regardless of abnormalities; and, second, for attempting to have the rate fixed and tested by the results of operating periods which were abnormal for two different reasons, each year resting upon its own bottom without considering the average results of any spread of years. The authorities amply establish that the Commission, in fixing the rate, and the Courts, in testing it, both for unreasonableness and confiscation, should not limit their vision to a single twelve-months' operating period, or even two consecutive abnormal operating periods, but should consider the *average results* of a reasonable spread of fat and lean years, in order to equalize the fluctuations inevitably brought about by abnormalities of every kind:

United Gas Pub. Serv. Co. vs. State of Texas, ____ U. S. ____, 82 L. Ed. ____, L. Ed. Adv. Op. No. 10, 490, 500, 502, Feb. 14, 1938.

Louisville vs. Cumberland Tel. & Tel. Co., 225 U. S. 430, 433, 436, 56 L. Ed. 1151;

Los Angeles G. & E. Corp. vs. R. R. Com. of Cal., 289 U. S. 287, 298-299, 303-304, 311-312, 319-320; 77 L. Ed. 1180;
St. Joseph Stockyards Co. vs. United States, 298 U. S. 38, 46-47, 55, 71, 72; 80 L. Ed. 1033, 1038-1039, 1051-1052;
Lindheimer vs. Ill. Bell Tel. Co., 292 U. S. 151; 78 L. Ed. 1182;
Galveston Elec. Co. vs. Galveston, 258 U. S. 388, 400, 401, 403; 66 L. Ed. 678, 685, 686;
Lincoln G. & E. Co. vs. Lincoln, 250 U. S. 256, 268; 63 L. Ed. 968, 976;
Darnell vs. Edwards, 244 U. S. 564, 569; 61 L. Ed. 1317, 1321;
Brush Electric Co. vs. Galveston, 262 U. S. 443, 446; 67 L. Ed. 1076, 1078;
Knoxville vs. Knoxville Water Co., 212 U. S. 1, 14-15, 17-18; 53 L. Ed. 371, 380, 381, 382;
Acker vs. United States, 298 U. S. 426, 431; 80 L. Ed. 1257, 1261-1262;
West Ohio Gas Co. vs. Pub. Ut. Com. of Ohio (Kenton Case), 294 U. S. 79, 81; 79 L. Ed. 773, 776;
Municipal Gas Co. vs. Com. 225 N. Y. 89, 98; 121 N. E. 772, 774;
Denver Union Stockyards Co. vs. United States; 57 Fed. (2) 735, 752-753;
Kings County Lighting Co. vs. Lewis, 110 Miscl. Rep. 204; 180 N. Y. Suppl. 570, 593;
S. & N. Ala. Ry. Co. vs. R. R. Com. of Ala., 210 Fed. 465, 480;
Reno P. L. & W. Co. vs. Com., 298 Fed. 790, 801.

XXXVII. Obviously the Commission could not, and did not attempt to, prescribe any rate to be effective in Oklahoma, but only "within the jurisdiction of Texas." In order to prove the prescribed rate confisca-

tory when limited to and applied within Texas only, the burden devolved upon Appellant, and was not discharged, of submitting to the reviewing courts evidence sufficiently clear and satisfactory as a matter of law, to enable the courts to make a proper, reasonable, just, and practical segregation between Texas and Oklahoma properties and operations; otherwise, the probability was presented, and in fact this record made it a certainty, that the more expensive Oklahoma intrastate business would unduly raise and burden unjustly to Texas rate-payers, the cost of Appellant's intrastate business in Texas.

XXXVIII. The net annual rate of return, after due allowance for operating expenses and depreciation and depletion, which according to this record would probably have been earned by Appellant under the Commission's order, if it had been put into actual effect promptly when promulgated, and the rate of net return which under the record would probably be earned in the future according to this record, is not confiscatory when viewed in the light of economic conditions then and now prevailing:

Dayton P. & L. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 290, 311, 78 L. Ed. 1267, 1281.

XXXIX. The weight to be accorded to the testimony of Appellant's experts cannot be determined without understanding their approach to the questions and the criteria which governed their estimates. The testimony of Appellant's witnesses shows quite clearly that in every essential element of the rate structure, both ultimate and subsidiary, and in many particulars, they proceeded, in part at least, upon erroneous,

conjectural, unfair, extravagant, speculative, and untenable bases in arriving at their estimates, opinions, conclusions, valuations, and prophesies. (See argument, infra, for details.) Their testimony and estimates are, therefore, to be rejected as having no probative force in law and as being "in no real sense evidence," in so many instances as to make the totality of Appellant's evidence fall far short of raising any fact issues as to confiscation:

St. Joseph Stockyards Co. vs. United States, 298 U. S. 38, 53, 54, 60, 64, 67, 59-60, 62, 63; 80 L. Ed. 1033, 1045, 1047;

Los Angeles G. & E. Corp. vs. R. R. Com. of Cal., 289 U. S. 287, 304, 305, 307, 317-319; 77 L. Ed. 1180, 1199-1200;

Dayton P. & L. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 290, 298-301, 302, 305, 311-312; 78 L. Ed. 1267, 1274-1276, 1277, 1278, 1281, 1282;

Columbus G. & F. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 398, 412-413; 78 L. Ed. 1327, 1335-1336;

Lindheimer vs. Ill. Bell Tel. Co., 292 U. S. 151, 162-164, 170-175; 78 L. Ed. 1182, 1189-1191, 1194-1197;

Knoxville vs. Knoxville Water Co., 212 U. S. 1, 18; 53 L. Ed. 371, 382;

United Fuel Gas Co. vs. R. R. Com. of Ky., 278 U. S. 300, 316-317, 73 L. Ed. 390, 399.

XL. The Appellant's attitude from the inception of this proceeding before the Commission has been one of studied concealment and distortion of the facts, and non-cooperation, rather than one of candid revelation. An examination of the entire record herein will show this to be true. The Company would much

better have served its own interests by aiding the regulatory authorities and the reviewing courts in arriving at the truth, rather than engendering lasting distrust by continuing attempts to distort the facts unreasonably in its own favor:

Knoxville vs. Knoxville Water Co., 212 U. S. 1, 18; 53 L. Ed. 371, 381-382.

XLI. The Appellant, in its evidence and computations presented before both the Commission and reviewing courts, has relied upon "elaborate tabulations of estimates," "at war with realities", which have "proved too much" and "overshot the mark." (See details set out in argument following.) "Men do not transact business without protest at confiscatory rates, at all events in the absence of extraordinary circumstances making submission to the loss expedient. If such circumstances exist, the Appellant has not proved them. . . That being so, what the public utility has done belies what it has said." If Appellant's own computations were given full faith and credit at their face value, and more especially if Appellant's own tests for determination of confiscation be adopted (as we think they should not be), they would reveal that for many years prior to the initiation of these proceedings, the Appellant had been doing business at its own 40c gate rate, voluntarily fixed and adhered to without any constraint upon the part of public regulatory authorities, and without asking for permission to raise the rate, at net rates of return which, according to the Company's own computations would apparently have been confiscatory. And, further, the indisputable facts in the record show that the 40c rate has been far

above the line of confiscation. This inherent vice in Appellant's contentions deprives them of all probative force for the purpose of establishing confiscation:

Dayton P. & L. Co. vs. Pub. Ut. Com. of Ohio, 292 U. S. 290, 311-312; 78 L. Ed. 1267;
Lindheimer vs. Ill. Bell Tel. Co., 292 U. S. 151, 161, 162, 163, 164, 175, 176; 78 L. Ed. 1182.

STATEMENT AND ARGUMENT UNDER POINTS NOS. XXV TO XLI

All we have said in Division A of this brief with reference to segregation as between Texas and Oklahoma properties and operations, and what Appellant contends are "interstate and intrastate" properties and operations on the other hand, is here adopted. We hope we have made our view sufficiently plain that we do not consider there are any interstate commerce operations involved here at all; and, therefore, no necessity or proper occasion for making any segregation as between interstate and intrastate commerce. That necessity would arise only if, and to the extent that, Appellant were correct in its contention that any part of its operations in Texas constitutes interstate commerce such as to be beyond the regulatory reach of the State of Texas. In our view, however, there was both necessity for and propriety in making a just, practical and reasonable segregation as between Oklahoma and Texas properties and operations in order that in testing the adequacy of the 32c gate rate in its operation as applied within Texas, the Texas consumers might not be required unjustly to bear the burden of the more expensive and less profitable operations in

Oklahoma, even though the Commission, in its desire to be more than just and generous both to the Company and to the consumers in Oklahoma, did see fit unnecessarily to fix the rate upon an over-all and unsegregated basis for application within Texas only. Such was the segregation voluntarily offered by the Appellees in the District Court.

By way of prelude we express our confidence that whether the adequacy of the rate as applied in Texas be determined upon an over-all Texas-Oklahoma basis (as fixed by the Commission and as contended for by the Company) or upon the basis of Appellees' segregation between Texas and Oklahoma properties and operations, or even upon the basis of the entirely unacceptable purported segregation between so-called "interstate and intrastate" operations submitted by the Company in the District Court, the rate will not be found confiscatory upon any basis.

To demonstrate this, we have inserted at the end of this brief our Tables I to V inclusive, the bases of which are stated in detail, infra pp. 189-192. It is pertinent in this connection to observe that in these Tables we have not deducted any of the improper operating expenses to which we object below, except management fees, and, in some cases, some of the donations. It is important also to observe that only a little more than six months elapsed between the effective date of the order (September 13, 1933) and latest operating statement appearing in the record (April 30, 1934). This is certainly too short a period by which to test the legality of a rate never put into operation. The Tables show that on any basis the average rate of return after application of the 32c rate is above 8%.

As pointed out in *Lindheimer vs. Ill. Bell Telephone* Co., 292 U. S. 151, 164, 78 L. Ed. 1182, 1191, the propriety of the items in Appellant's operating expense accounts may be quite as important a factor as the valuation of properties in the rate base. In fact, that is an understatement. As a matter of fact where the rate of return has been fixed at 6%, as here, a dollar in the operating expense account (and the same thing is true as to a dollar in the depreciation reserve accruals) possesses a ratio of importance 16.67 times as great as a dollar in the rate base; because each dollar of gross revenue charged to the depreciation reserve or the operating expense account takes away the equivalent of a 6% return for one year on $16.67.

For these reasons and because of the great sums claimed by Appellant as necessary for its annual depreciation reserve ($3,465,123.36 per annum for entire properties of Lone Star Gas Co. as of January 1, 1933, R. II, 1262, V, 3056) and for items of operating expenses of which we have questioned the propriety, we choose first to discuss the item of depreciation reserve; next, the questioned items of operating expense; then the elements in the rate base; then rate of return; and, last, the operating computations submitted by the Company and compared with those in our Tables I to V inclusive.

The Commission's Exhibit 5, (R. III, 2140-A) shows accurately the undepreciated historical book costs of the Company's entire properties as per its records for the years 1927, through the year ending March 31, 1934, at the maximum of $50,514,576.98 as of December 31, 1932. As against

this, the Company submitted its reproduction cost new estimate of $73,983,405.57, as of January 1, 1933, R. IV, 2363. These figures compare with the Commission's overall undepreciated rate base of $46,520,137.06, determined as of December 31, 1932, (R. I, 110); and with the undepreciated reproduction cost new estimates submitted by the Commission's witness, in the District Court, of $40,256,862.39, as of June 15, 1934, for the Texas segregated properties exclusive of production system, R. III, 2143.

Thus it will be seen that Appellant's witnesses have taken a $46,000,000.00 property and by some processes of legerdemain added to it an estimated additional inflation, undepreciated, of approximately $28,000,000.00. It is our purpose in the course of this discussion to expose some of the methods by which this astounding result was produced. These results were reached chiefly through the cooperative team work of the Company's talented galaxy of expert witnesses, Steinberger, Biddison, Connor, Hulcy, and Dunn. The division of labor between them was substantially as follows:. Steinberger supervised the taking of inventories, conducted certain "costs studies", the qualities of which we will touch upon in later passages, and served as cup-bearer to the witnesses Biddison, Hulcy, and Dunn. Steinberger and Biddison were largely responsible for the reproduction cost new estimates of the physical properties, or direct structural costs, totaling $50,813,515.57, R. IV, 2366. Geologist Kendrick, engineer Dunn, and accountant Hulcy made their contributions in estimates and evaluations of gas reserves. Engineer Connor added to the $50,000,000.00 of estimated

direct reproduction cost of physical properties and gas reserves a mere trifle of approximately $25,000,000.00 in claimed intangible values, consisting of preliminary and organization expense, engineering and supervision, interest during construction, taxes during construction, legal and administrative cost, working capital and going concern value. Connor also made a modest little estimate of $3,465,123.36, annual accruals to the depreciation reserve, although the actual charges to reserves as shown on the Company's books for seven years average only $344,871.84 per year, Table II, infra. Hulcy sponsored the accounting exhibits.

It would be utterly impossible for us to point out in a brief of reasonable length more than a few typical illustrations of the hundreds of erroneous and unjust methods used by the Appellant's witnesses in arriving at their estimates. But, when the Court reads the record, it will discover that on almost every page there appear one or more of these glaringly obvious inadmissible methods of treatment by the Company's experts. We believe the Court will be constrained at least to agree with the restrained understatement of the Court of Civil Appeals, when it said in its opinion, (R. V, 3369) that:

> "The calculations, estimates, and opinion of its experts show a studied effort on the part of Appellee to charge large items as operating expenses and depreciation, at war with the actual experiences of the Company, and we find no proof which would authorize the trial court to submit to the jury any issue, but find that Appellee wholly failed to meet the burden of proof

placed upon it, and to show by clear and satisfactory evidence that the rate was confiscatory, unjust, and unreasonable as to it."

The testimony shows that the estimates and methods of the Company's experts had absolutely no relation to reality or to the Company's actual experience; and that said witnesses were brazenly frank in stating that they had made no attempt to ascertain from the Company's records its actual experiences and history, or to relate their testimony and estimates in any way thereto; R. I, 662, 750.

ANNUAL ACCRUALS TO DEPRECIATION, DEPLETION AND AMORITIZATION RESERVES

Connor was the sole witness purporting to carry the burden for the Company upon this phase of the case, both before the Commission and the District Court. In the court trial, he sponsored Company Exhibit 42, consisting of a typewritten volume of 312 pages purporting to set forth the bases and methods of approach used in arriving at his conclusions and estimates. The contents of this tome, as well as Connor's oral testimony, are in part fantastic, in part unintelligible, in part audacious, in part merely erroneous, and in all parts highly inflated; bearing no relation to realities, and in no way fairly substantiated by the actual experience of the Company. We have not chosen to encumber the record before this Court by printing the whole of Connor's Exhibit 42, but have only given the Court a representative cross-section thereof in R. V, 3057-3196. His oral testimony with respect to these subjects will be found in R. II, 1256-1323,

1331-1434, 1452-1459; R. III, 1992-2002, 2029-2043. We ask the Court to refer to R. II, 1366-1368 for a representative sample of the meaningless abracadabra of which Connor's testimony, in large part, was made up. On cross-examination he could seldom, if ever, be forced into answering a question, but instead would evade it and launch out upon a long, rambling, unintelligible, pseudo-scientific treatise, remarkable chiefly for its inanity.

Mr. Connor began his employment with the Lone Star Group in 1921, and has been with it ever since. R. II, 861. Previously he had been employed to some extent to represent public authorities. But after his employment by Lone Star, he admits he changed his views materially about many matters pertaining to rate regulation, R. II, 1014-1015.

Mr. Connor's total estimated annual accruals were $3,465,123.36, (R. II, 1262; V, 3056) which would be equivalent to a 6% annual return on $57,752,-056.00. The Commission's allowance for depreciation and depletion (1931) on the 6% sinking fund basis was $983,698.43; R. I, 98, 107. This equals 2.13% of the Commission's rate base. The difference between the Commission's allowance and Connor's estimate is $2,481,424.93, which is equivalent to a 6% return on $41,357,082.00. Biddison and Steinberger found the overall percent condition of the property to be 94.26% (R. II, 1145) and the "observed depreciation"—which they erroneously used as being synonomous with "accrued depreciation" —to be 5.74%, as being the total accrued depreciation since the establishment of the Company in 1909. Biddison's testimony was that the replacements and

maintenance (the latter charged to operating expenses) were such as to keep the property stabilized in this high percent condition indefinitely, and that the property had not suffered any decline in percent condition over a period of the past 2½ years, R. II, 1142-1143, 1171, 1183; V, 3037. The unexpended balance in the depreciation reserve fund was shown to be $15,695,413.88 as of December 31, 1933, R. III, 2140B, 1657. If a proper relative balance had been maintained in the past between the actual accrued depreciation in the property and the unexpended balance in the reserve fund, theoretically this unexpended reserve of $15,000,000 plus should equal the accrued depreciation as found by the Company of 5.74%. (Upon this basis, according to the Company's computations, the property would have an undepreciated reproduction cost new of $273,439,-266.00!) Thus, the Company's estimated total accrued depreciation since 1909, of 5.74%, approximately equals the amount of annual depreciation as estimated by Connor.

It is also enlightening to compare Connor's estimates with the actual charges to the depreciation reserve in the past. (*St. Joseph Stockyards Co. vs. United States*, 298 U. S. 38, 65-67, 80 L. Ed. 1033, 1048-1049). The record shows that the average charges for the seven years 1927-1933 amounted to $344,871.84 per annum; and for the three years 1931-1933 amounted to $331,008.55 per annum, R. III, 2140B; V, 3363. These averages show that the charges are fairly uniform and are not increasing. This indicates with fair certainty that the property has now reached a stabilized condition where the ac-

tual current depreciation is fairly uniform from year to year and can be accurately measured by the actual charges to the depreciation reserves. This also accords with the testimony of Biddison to the effect that the properties are now maintaining a uniform percent condition, R. II, 1142-1143; 1171, 1183; V, 3037.

Despite the fact that the property is static insofar as decline in percent condition is concerned, and that the actual charges to the depreciation reserves are apparently uniform when averaged over a period of years, Mr. Connor found an annual depreciation allowance $3,120,251.52 in excess of the actual average annual charges to the depreciation reserves. (*Smith vs. Ill. Bell Tel. Co.*, 282 U. S. 133, 158-159, 75 L. Ed. 255, 268.) This is equal to a 6% return on $52,004,192.00.

Mr. Connor very candidly admitted that in making his estimates, he had given no consideration to the question of whether any, and how much, money had been or should have been collected from the rate payers in the past and set aside by the Company to offset depreciation as it accrued in the past, R. II, 1380-1392, 1433-1434; III, 2042-2043; V, 3061, 3083, 3094-3097, 3106-3114, 3116-3131. He insisted strenuously, however, that the effect of this method of approach was not to require the rate payers of the present and future to bear the cost of depreciation accruing in the past. (*Knoxville vs. Knoxville Water Company*, 212 U. S. 1, 13-14, 53 L. Ed. 371-380). The Commission laid clear emphasis upon this fatal error in Mr. Connor's calculations, in its findings, R. I, 78, 79, 85, 91.

The Company at pages 48, 153-154 of its brief complains that the Commission witness in his estimates of the amount of future accruals would have required the Company to use $5,000,000 out of its unexpended reserve balance of more than $15,000,000, for future removals, replacements and abandonments of property which had depreciated in the past. The record references show that Mr. Connor did not contemplate the use of a single penny of this reserve fund collected by the Company in the past for the express purpose of taking care of past accrued depreciation, simply because the removals, replacements and abandoments due in large part to such past accrued depreciation would not actually take place until the future, R. III, 2042-2043. Thus, Mr. Connor's estimates are not uniform over the entire life of the property, but depend upon the date of the rate inquiry; and he charges up in any rate investigation to the users of the present and future the entire cost of depreciation over the whole life of the property. The later the investigation, the greater would be his estimates. The estimates of the Commission's witness assumed the use of only such portions of the unexpended reserve as was determined to be necessary to offset this past accrued depreciation, and did not attempt to use any portion thereof which the Company may have collected from the past users in excess of its actual accrued depreciation. As an illustration of this point, the two large transmission lines B and C were installed in 1910. Substantial depreciation has accrued on these lines, and reserves have been or should have been, set aside in the past to offset this accrued depreciation. Under Mr. Connor's theory, no con-

sideration would be given to the reserves which should have been set aside in the past as this depreciation accrued, and the present and future rate payers would have to pay for the complete replacement, removal or retirement of these lines although the depreciation largely accrued in the service of past users.

In the state courts the Company made much capital of the claim that Mr. Connor's mortality curve equalled the actual mortalities of the past. This does not mean a thing. While on all other subjects Biddison and Connor protested emphatically that the past history of the Company was immaterial, paradoxically Mr. Connor at least purported to have made an exhaustive study of historical mortalities. But he did not correctly apply them in reaching his dollar results. It depends upon the shape of the assumed curve. The witness can shape the curve to serve his own purposes, and thus make the calculated past mortalities equal any given amount. The flatter the curve in the earlier years of the property (prior to a rate investigation), the steeper it must be in future years after a rate investigation. This is the principle upon which Mr. Connor would make the later users bear practically all the depreciation expense, although the Company undoubtedly has collected (as it should have done) at least the past depreciation from the past users.

The Company complains of the use of the sinking fund method of depreciation computations by the Commission and its witness. This Court has said, in *Clark's Ferry Bridge Co. vs. Public Service Commission of Pa.*, 291 U. S. 227, 240-241, 78 L. Ed. 767, 774, that, "In reviewing the findings of the state

court we are not required to enter a debatable field of fact and to choose and prescribe an invariable method of computation. To justify the overruling of the determination of the state court we must be able to see that what has been done will produce the result which the Constitution forbids. . . . We find it impossible to say, from a constitutional standpoint, that another method should have been employed or a greater amount allowed." In that case and in *Los Angeles G. & E. Corp., vs. R. R. Com. of California*, 289 U. S. 287, 295, 297, 298, 320-321, 77 L. Ed. 1180, where from the opinion it appears that the sinking fund method was used, such method has met the approval of this Court.

Furthermore, Mr. Connor himself, although using the straight line method on a few of his items, used the sinking fund method on most items, R. II, 1276, 1277, 1296, 1297, 1306-1316, 1321, 1322; V, 3056A, 3059, 3117, 3153-3157, 3161, 3178, 3179, 3185-3192. Mr. Connor used a 7% interest rate for sinking fund accruals in the hearing before the Railroad Commission, R. I, 80, 81; R, II, 1358, 1429. He used a 5% interest rate for sinking fund accruals in the District Court, R. II, 1262, 1276, 1277, 1296, 1297, 1306, 1310, 1315, 1316, 1321, 1322; V, 3117, 3161, 3178, 3179, 3182-3192. The use of a 5% interest accrual rate as used before the District Court increases the annual requirements over the amounts found under the 7% interest rate as used before the Railroad Commission. The Commission used a 6% sinking fund accrual basis, and the Commission's witness in the District Court used a 6% interest rate. The Commission also found that the sinking fund accrual rate

should be the same as the rate of return, R. I, 79-81; II, 1360, 1361; III, 1831 et seq., 1862, 1863. Both the straight line method and sinking fund method are generally recognized and would give the same results if properly applied, R. I, 77, 78; II, 1259, 1260; III, 1831, 1874-1875.

Typical of Mr. Connor's methods of inflating his estimates for both depreciation and depletion accruals, is his treatment of the withdrawals from gas reserves in estimating depletion. The history of the Company showed that up to the time of the District Court trial the Company's actual withdrawals from its own developed reserves were at the rate of approximately 5,000,000 to 6,000,000 MCF per year; R. I, 107 for 1927 to 1932 inclusive; R. III, 2124A, 2165, for 1933. Actual withdrawals by years were as follows:

1929	5,162,647 MCF
1930	6,473,463 "
1931	4,924,844 "
1932	4,829,077 "
1933	6,046,035 "

Instead of adopting the actual withdrawal rate, of from 5,000,000 to 6,000,000 MCF per annum being experienced by the Company, Mr. Connor assumed current and future withdrawals of 20,000,000 MCF, this being the same rate assumed by Dunn and Hulcy in capitalizing the value of gas reserves. He also based his unit depletion charge on the capitalized value of gas reserves found by Hulcy, which capitalization assumed a wellhead price of ($ .047) more than double the actual wellhead price ($ .020) for a

major portion of the Company's gas reserves, and of the unsoundness of which capitalization we will say more later. This method of computation resulted in an annual amount of $146,000 (20,000,000 MCF at $ .0073) and of $412,000 (20,000,000 MCF at $ .0206) as a part of the depletion and depreciation allowance on developed leaseholds and gas well equipment. If Mr. Connor had used the actual withdrawals being experienced by the Company, these particular inflated estimates would have been reduced by from two-thirds to three-fourths, R. I, 559, 560; II, 1266-1271, 1335-1337, 1348, 1349, 1352, 1353, 1364, 1365, 1456-1459; V, 3032, 3055, 3134, 3135, 3139, 3141, 3195, 3196.

If Mr. Connor was going to assume withdrawals of gas from Company reserves at the rate of 20,000,000 MCF per year as compared with the actual of 5,000,000 to 6,000,000 MCF in the past and at the time of the trial, he should either have assumed that gas purchases would have been accordingly reduced to the extent of the difference of approximately 14,000,000 to 15,000,000 MCF per year, which would have reduced the operating expenses approximately $900,000 per annum (see R. III, 2126D for average price of gas purchased), or, if he was going to assume that gas purchases would increase and keep pace with his assumed increased withdrawals from Company reserves, this necessarily would have quadrupled the Company's overall sales in the future, which would have resulted in quadrupling also its revenues. But Mr. Connor has not carried his assumptions to either of these logical conclusions.

Under no conditions should the Company have estimated its valuation of developed reserves, and its depreciation and depletion accruals, upon the assumed withdrawal of 20,000,000 MCF per year in the future, and at the same time based its operating revenues and expenses upon an entirely different basis.

As found by the Commission, a part or all of the depreciation on some items of property is currently charged to operating expenses as "maintenance," and all replacements and repairs to some items of property are currently charged to operating expenses, R. I, 75, 83, 84, 86, 87, 96, 97. With the exception of general tools, automotive and construction equipment and telephone equipment in part, Mr. Connor makes no deduction from depreciation for replacements being charged directly to operating expenses, R. II, 1353, 1354, 1374, 1375, 1429; V, 3055-3196.

As a further example of Mr. Connor's duplications, consider transmission line equipment. After fully allowing for all "future" annual accruals sufficient to provide for replacements due to physical condition of pipe; replacements, removals and abandonments due to operating conditions or public requirements; and major rehabilitations (R. II, 1281, 1282, 1298-1300; V, 3093, 3094, 3107), Mr. Connor makes a duplicate and additional allowance on transmission line equipment as well as all other items of property of 1% per annum for decline in per cent condition (R. II, 1271, 1276, 1277, 1305, 1306, 1315-1321, 1351, 1352; V, 3057-3196); and this despite Biddison's testimony (R. II, 1142-1143, 1171, 1183; V, 3037) that the property would not decline, and had not de-

clined, in per cent condition; and as a triplication he allows for the amortization of $17,970,000 of transmission line equipment to run concurrently with the 1% allowance for decline in per cent condition, R. II, 1262; 1321, 1322, 1431, 1434; V, 3056, 3056A, 3185-3192.

We have heretofore pointed out the fact that Mr. Connor's basic rates before adding these duplications and triplications were based upon making all future replacements, retirements, etc., without calling upon the reserves which should have been set aside in the past to take care of the depreciation which has accrued in the past.

Connor's total annual rate of 5.40% applicable to transmission line equipment included 3.54% for future replacements as taken from his base mortality curve, R. V, 3095, 3096. This primary curve was based upon a study of the mortalities from all causes in the Fort Worth distribution system; Mr. Connor having "assumed that the characteristics of the mortalities of steel pipe in service in the system of Lone Star Gas Company would rather definitely follow the general trend of the mortality curve previously developed for steel pipe in service in the system of Fort Worth Division—Lone Star Gas Company." A substantial portion of the items from which the Fort Worth mortality curve was developed grew out of inadequacy, public requirements, changed operating conditions and other factors distinct from the physical failure of the pipe itself, R. V, 3064, 3065. Although the 3.54% per annum allowance from the base curve included renewals due to inadequacy, public requirements and

changed operating conditions as reflected in the base curve from the Fort Worth distribution system experience, Mr. Connor allowed an additional .94% per annum for removals and abandonments due to changed operating conditions and public requirements, R. V. 3096-3098. (Also, see Railroad Commission findings, R. I, 88, 89). This duplication is additional to all of the duplications above pointed out with respect to the largest item of property, viz., transmission line equipment.

Moreover, in addition to meeting all of these duplicate future replacements, the total annual rate on transmission line equipment would build up a credit balance in the reserves as shown in Columns E, Tables V-A and IX-A, R. V, 3117, 3131; R. II, 1296-1297.

Even without any of the duplications and additions, Mr. Connor's base mortality rate as applied to steel pipe is excessive. A good test of the mortality rate can be had in the history of Lines B and C laid in 1910, the oldest lines in the transmission system, and lines with severe soil conditions. These two lines contain 646 miles of 3 inch equivalent pipe. The actual mortalities from all causes have amounted to a total of 9% of the pipe in 21 years. Mr. Connor's 25 year life base mortality curve would indicate a total of 25% of mortalities as compared with the actual of 9%. The 33½ year life base curve adopted by the Commission indicates calculated mortalities of 20% over the 21 year life of these lines, R. I, 89, 90; R. II, 1396-1401; R. III, 1837, 1838, 1854-1856. The obvious cause of Mr. Connor's high mortality rate can be traced to his use of the history of only 700 miles of 3 inch

equivalent pipe laid in Fort Worth during the period 1909 to 1931, over an area 10 to 12 miles square, where only 60% of the mortalities were caused by deterioration of the pipe, R. I, 88, 89; R. V, 3064-3065.

In the hearing before the Commission, Mr. Connor predicted 420,000 feet of 3 inch equivalent, of pipe mortalities, for 1932. The actual mortalities amounted to 27,374 feet of 3 inch equivalent diameter pipe, R. II, 1363, 1364. For a graphic comparison of the actual pipe mortalities compared with the pipe mortalities estimated by the Company witness, Connor, and as estimated by the Commission and its witness, see chart, R. III, 2182A. It is to be noted from the curve that the replacements for 1931 marked J and C are of the non-recurring type, R. III, 1842, 1863, 1864.

It is by means of such methods of computations and duplications pointed out above that Mr. Connor was able to reach the astounding total of $3,465,-123.36 per annum as his estimated depreciation and depletion allowance, this annual amount being approximately the same as the total accrued depreciation which has taken place in the properties since 1909 as estimated by other Company witnesses. Such methods and devious calculations have also permitted Mr. Connor to arrive at this annual estimate more than 10 times the actual charges to the depreciation reserves as being experienced by the Company.

An examination of the findings of the Commission and of Appellees' exhibits and testimony before the District Court will show that the depreciation allow-

ances made by the Commission are ample in every case to take care of all replacements, removals and retirements from every cause not being currently charged to operating expenses and will allow for the complete amortization of the entire property over its estimated life. The calculations are simple and straightforward and are in such detail as to show the adequacy of the specific allowances, R. I, 75-99, 107, 111; III, 1828-1843, 1851-1876, 2099-2102; 2158-2162D.

QUESTIONED OPERATING EXPENSES

We indicate in the following paragraphs the items, and the extent, to which we object to the operating expenses set up and claimed in the Company's various exhibits and computations. Even in our own Tables I to V inclusive, at the back of this brief, setting forth computations of the percentages of net return which would have been available under the 32c gate rate, we have not deducted any of these questioned items of operating expense except the Management Fees, and, in some of the Tables, certain of the "Donations" which were allowed, but held improper, by the Commission. This fact should be borne in mind by the Court in studying our Tables aforesaid.

The following figures are taken from exhibits based upon overall operations in Texas and Oklahoma, and are not segregated as between the two states:

Management Fees: Appellees' Exhibit 5, R. III, 2126A, shows that beginning with 1929, and extending to the close of the record before the District Court, the Company claimed as an operating expense man-

agement fees paid to Lone Star Gas Corporation averaging $91,040.32 per year for the five-year period 1929-1933. This amount would provide a 6% return on $1,517,339.00 in the rate base. Company witnesses attempted to justify this item only by outlining in very general terms certain "advice" and "services", "financial assistance", "purchasing services", etc., rendered to it by various persons connected with the holding company; and it made no attempt whatever to prove the actual or reasonable cost of these items to the holding company. Besides paying the holding company these management fees, the Company paid the full value thereof again, directly to the persons who rendered them, in the case of Haskins & Sells, Auditors, (R. I, 434); the salary of P. McDonald Biddison, engineer for the group (R. I, 416-417); the general counsel for the group, (R. I, 415); and paid the holding corporation 6% on all borrowings, made up principally of a $17,600,000.00 loan, R. I, 239-244. Obviously this is but a scheme by which the holding company milks the Company of its profits and at the same time attempts to camouflage as mere "advice" and "services" what in reality is absolute dictation. The Commission properly eliminated this item, R. I, 25-27. *Dayton P. & L. Co. vs. Railroad Commission of Ohio*, 292 U. S. 290, 78 L. Ed. 1267; *Smith vs. Ill. Bell Telephone Co.*, 282 U. S. 133, 152-157, 75 L. Ed. 255, 265-268; *Chicago & G. T. R. Co. vs. Wellman*, 143 U. S. 339, 346, 36 L. Ed. 176, 180; *Acker vs. United States*, 12 Fed. Suppl. 776, 779, affd. 298 U. S. 246, 80 L. Ed. 1257; *Western Distributing Co. vs. Public Service Com.*, 285 U. S. 119, 126-127, 76 L. Ed. 655, 659;

United Fuel Gas Company vs. Railroad Commission of Ky., 278 U. S. 300, 320, 73 L. Ed. 390, 401.

Donations: The Commission (R. I, 23) included as allowable, under the title "Miscellaneous General Administrative Expense, $49,012.06" for 1931, the "charitable donations" which (R. III, 2228) averaged $10,284.05 per year for the three years 1931-1933. This item alone would have provided a 6% net annual return on $171,400.00 in the rate base. The Commission found, however, that "donations are not proper future operating charges. For the time being we are computing the actual 1931 expenses including charitable donations ($9,848.67) and the subscriptions and donations ($20,215.94) included in miscellaneous general administrative expense. This fact should be given its due weight in the consideration of 1931 rate of return," R. I, 23. The $20,215.94 "subscriptions and donations" would have provided a 6% return of $336,932.00 additional in the rate base.

There is no break-down accessible in the record by which we can determine how much of this amount was "donations" which we question, and how much was "subscriptions," which we do not question. As to all donations, charitable and non-charitable, however, we contend that they are not permissible operating expenses. *Idaho Power Co. vs. Thompson*, 19 Fed. (2d) 547, 548; *McCrory vs. Chambers*, 48 Ill. App. 445; *Holt vs. Winfield Bank*, 25 Fed. 812; *Davis vs. Old Colony R. Company*, 131 Mass. 258, 41 *American Reports* 221. A public utility must confine its expenditures to such as are legitimate for carry-

ing on its business. It may not, as between itself and the public, take the same liberties that a corporation may assume as between itself and its stockholders. Even in the latter case, donations, though calculated to advance the interests of a corporation, are not permissible over objections of the stockholders, and certainly are not permissible as against the public in a rate case.

Uncollectible Bills: Commission accountant Phillips, Exhibits 5, III, 2126A, shows "bad debts and adjustments" averaging $3,632.29 for seven years 1927-1933. This would provide a 6% return on $60,538.00 in the rate base.

Article 1440, R. C. S. Texas, 1925, provides "Deposits for installing service. Every . . . corporation . . . engaged in the furnishing of . . . gas . . . which requires the payment on the part of the user of such service of a deposit of money as a condition precedent to furnishing the same, shall pay 6% interest per annum on such deposit to the one making the same . . .".

This is a statutory recognition of the right of public utilities, such as Appellant, to require the deposit of a sufficient amount in advance from the customer, before the services are rendered, to indemify against the incursion of bad debts. *Central P. & L. Co. vs. Purvis*, 67 S. W. (2d) 1086, 1089.

This being true, we do not think bad debts are a proper charge against operating expense in public service operations. At R. I, 331, Hulcy explains these by saying "well, that is just some bills that we

did not collect.' We failed to get our money from the sales of gas." And at R. I, 437, he states that these bills are not owed by the affiliated companies but by private consumers along the rights of way. The Commission (R. I, 29-30) allowed the inclusion of this item at $7,727.33 for the year 1931, which was far above the average for the seven year period above shown, and would have provided a net return of 6% on $128,789.00 in the rate base. We think this item of expense should be eliminated from all computations of rates of actual return hereinafter.

Regulatory Commission Expenses: The Commission (R. I, 22-23) allowed $17,695.86 for the basic year 1931. The Commission found that necessary expenditures of this character in reasonable amounts "are properly chargeable to this account. Any expenditures for valuations, expert witnesses, or other items in defense of rates sought to be maintained by the Company, which expenditure is in excess of a reasonable amount should be borne by the owners of the Company. The 1931 regulatory expense was not relatively large. Whenever such expense is relatively large (such as 1932) it should be amortized over a reasonable length of time, say ten years. The instant case is the first time since the incorporation of the Lone Star Gas Company in 1909 that the Company has had occasion to incur any regulatory expense by reason of a hearing before a Texas Regulatory Commission." R. III, 2131, 2228 shows this item in the amount of $163,739.01 for 1932, and $66,792.39 for 1933. According to the Commission's findings these large amounts for 1932 and 1933 should be amortized respectively over periods of 10 years, which

neither the Company's accountants nor the Commission's accountants have done in the preparation of their operating statements except in the case of Company Exhibit 13. This should be done in the computations of rates of actual return on the question of confiscation.

Dry Hole Expense: The Commission (R. I, 28-30) allowed this item in the annual sum of $79,453.12, upon the basis of an average for the five year period 1927-1931. From R. III, 2126A, it appears that this item, as charged on the books, amounts to an annual average of $61,465.52 for the seven year period 1927-1933. The Commission pointed out (R. I, 28) that this item was computed upon the basis of an actual five year average and that this item was "in the nature of money advanced for the development of gas which will be produced in future years . . . . . the Company should be precluded from capitalizing dry hole expense in any future rate investigation."

The average allowed by the Commission was substantially in excess of the actual average for the seven year period, and if the production system properties be included in the rate base, and production expenses in the operating account, certainly the allowance is more than sufficiently liberal.

Of course, the doubtful question of whether these production system expenses (both dry hole expense and cancelled and surrendered leases, next discussed) should be included in the operating expense account at all, is tied in directly with the very doubtful ques-

tion of whether all of Appellant's production system properties should be included in the rate base (which we shall discuss later), or whether it would not be more just to pursue the method adopted by Commission witness Freese in his testimony and exhibits before the District Court, of excluding both production properties from the rate base, and production expenses from the operating account, and substituting in lieu thereof the allowance of the actual average prevailing field price being paid for gas purchased in Texas, R. III, 1795-1796, 2098-2099, 2164. The Commission several times in its opinion referred with approval to the appropriateness of applying the well head price in evaluating Company-produced gas, though in the end it did not adopt that method, R. I, 19, 20, 67-74, 104, 105, 113, 114.

Cancelled and Surrendered Leases: Much that we have said under "dry hole expense", above, is applicable here. The Commission (R. I, 28-30) discussed this item (cancelled and surrendered leases) fully and allowed $99,140.73 per annum. Reference R. III, 2126A, will reveal that the average charges to this account were relatively small up to the end of 1930. During 1931 increased funds were appropriated by the Texas Legislature for the use of the Commission in investigating natural gas pipe line rates, and the experts who testified for the Commission in this case, both in Commission and court hearings, were employed in that year, R. III, 1796. This is the only reasonable explanation of the fact that the cancelled and surrendered lease charges (R. III, 2126A) jumped to $239,230.96 for 1931, $255,829.03 for 1932, and $188,629.92 for 1933. Obviously these exorbitant and greatly in-

creased charges, incurred in unsuccessful exploration of Company-owned undeveloped leaseholds, were charged into the expense account with a view of an approaching rate investigation.

This is even more obvious when the leasehold account (gas leases, rights and lands in fee) is examined. It is to be noted that this capital account increased steadily in the approximate annual amount of $300,000, from January 1st, 1927, to December 31st, 1930, and then decreased steadily during 1931, 1932 and 1933, R. III, 2140A, 2211, 2214, 2217. Cancelled and surrendered lease expense is not an "out of pocket" expense during the accounting period in which the leases are charged off, but is simply a book transfer from capital account to operating expenses of the cost of leases acquired and capitalized in previous accounting periods. These book transfers are made at the will of the management. There is nothing in the record to substantiate the reasonableness of these charges during 1931-1933, inclusive. Although the Commission has allowed in the rate base, on which the 32c rate was fixed, the cost of undeveloped leaseholds, including delay rentals, as of December 31, 1931, and has allowed as operating expenses cancelled and surrendered leaseholds, it is obviously to the advantage of the Company to obtain the benefit of taking from gross revenues these huge operating expense charges, each dollar of which absorbs the equivalent of a 6% net annual return on $16.67 in the rate base. In other words, the charges for 1931 would absorb the return on $3,987,183.00; for 1932 the return on $4,263,817.00; and for 1933 the return on $3,143,832.00.

Inasmuch as all of the Company's production system properties as of December 31, 1931, including costs of undeveloped leaseholds and delay rentals, were included by the Commission in the rate base upon which the 32c gate rate was fixed, the following is a true picture of what has been happening ever since the end of 1931: with the gate rate remaining static and unchanged since the end of 1931 and with the production system property account actually declining (R. III, 2140A, 2211, 2214, 2217), at the same time the Company has been attacking the 32c rate upon the basis of rapidly mounting operating charges in the form of cancelled and surrendered leases, each dollar in such operating expense account being the equivalent of $16.67 in the capital account, or rate base as pointed out above. Thus, the consumer is caught in an enfilade of devastating fire from both directions.

New Business Expenses: For 1931, the basic year used by the Commission for fixing the rate, these items totalled $126,125.98,—broken down as follows:

New business advertising salaries $9,548.77;
New business soliciting and commissions $27,969.98;
Advertising supplies and expenses $81,234.85;
New business supplies and expenses $7,372.38.
(R. I, 30)

The Commission allowed, without question, all of the above items, except the $81,234.85 for advertising supplies and expenses, R. I, 22. It pointed out that this latter item was subject to numerous objections, but reluctantly allowed it in full because it was not clearly shown that all of it was subject to the objec-

tions pointed out, and there was no evidence submitted which would enable the Commission to segregate the proper from the improper portions, R. I, 23-25, 30. This item ($126,125.98) is clearly excessive and unreasonable upon its face. It absorbs a 6% net return for 1931 on $2,102,100.00. This is the basis on which operating expenses for the future were allowed. Smaller, but still grossly excessive, amounts were charged for subsequent years (R. III, 2227) as follows:

1932 $87,528.94 which equals 6 per cent return on $1,458,816.00.
1933 $99,793.94 which equals 6 per cent return on $1,663,232.00.

It is to be recalled that the bulk of the Company's business consists of gate sales only, to its affiliated distributing companies, the acquisition of whose business occasions no expense whatever; and of very small sales to independent distributing companies at Gainesville and Waxahachie, who are shown already to be under long term contracts which, so far as the record shows, cost the Company nothing to acquire (R. IV, 2323, 2342); and to approximately 90 industrial customers, along its rights of way, listed in the portion of the record which has been printed, (R. IV, 2386-2590) and to such farm taps as are served along the rights of way, R. I, 407.

Hulcy testified that this expense includes cost of soliciting business, and advertisements in newspapers and trade magazines; and that its purpose is to attach customers to the *distribution companies served*, and not to attach new customers to its pipe line business

except insofar as industrial business is obtained through solicitation and commissions; that its purpose is to increase gas sales by acquainting the customers with the advantages of gas as a fuel, R. I, 406-408. He could not state how much of the expense, if any, was incurred for advertising directly aimed toward increasing the use of gas and pointing out to gas customers the more extensive uses of gas and new gas appliances, R. I, 410.

The Company did not produce any evidence as to the value or cost of the newspaper advertising, nor give any evidence of the nature and contents of same, aside from what has been stated in substance above, either before the Commission or the court. As shown by the Commission's criticism, however, (R. I, 23-25), at least some of this advertising was pure political propaganda, to the effect that "60c of every gas bill goes for taxes."

Furthermore, everyone acquainted with the contents of modern newspapers, and with the habits of people living in modern urban centers, knows that no gas customer has ever been attached, or retained, through the medium of newspaper advertising, but that the prospective customers are all well acquainted with the merits of gas, and use it of their own accord, if they can afford it, in preference to all other fuels without any newspaper advertising.

If the Company had produced evidence before the Commission or court which would disclose how much of this large item of expense was legitimate advertis-

ing, we would have had no objection to the allowance of a reasonable amount therefor. But we do object strenuously to the inclusion of an unreasonable sum, of approximately $100,000.00 per year, which is shown affirmatively to be in part tainted by impropriety. And we think because of the Company's failue to adduce the required proof, the whole item should be stricken in determining confiscation.

All this is aside from the view expressed by Mr. Justice Stone that new business expense is not a proper charge against the present users: *West Ohio Gas Co. vs. Pub. Ut. Com.* (Lima case) 294 U. S. 62, 77-78, 79 L. Ed. 761.

Federal Income Taxes: An examination of the Company's exhibits analyzing its actual operating expense, will disclose that no federal income tax is included; which means, as is admitted by Hulcy, that the Company has never paid any, R. I, 405; R. III, 2224-2228. The Company, up through 1933, made consolidated income tax returns with its affiliates for the whole group, and the amount of tax paid thereon in such years (if any tax has actually been paid at all) was paid by the holding company, Lone Star Gas Corporation. The Company adduced no evidence as to how much income tax, if any, had been paid by the holding company, R. I, 399. The amount of taxes as between the holding company and the government was in controversy, and had never been settled. Nevertheless, it is shown by the record that the Company each year made out a "dummy," or memorandum income tax return, on the basis that would have been used had it made a separate return of its own to the

government, and this dummy memorandum return was passed on to Lone Star Gas Corporation, and not to the government, R. I, 396, 397. (Hulcy when asked on cross examination concerning this return evaded the question and testified "You are asking about something filed with the Federal Government, and which is entirely beyond our control", R. I. 602). The Corporation then would bill back to Appellant certain purportedly allocated amounts, the basis and correctness of which claimed allocations are not shown in the record. The Company would then credit the Corporation with the amount so billed, but even these amounts (aside from the question of their correctness) are not shown, with the exception of $296,954.64 for 1931 and $234,312.46 for 1932, R. I, 395.

We submit that this evidence is totally insufficient on which to establish any real and reliable allowance for Federal Income Taxes actually incurred or paid. The Commission found (R. I, 104) that "throughout this opinion we have computed return before Federal Income Tax." This means that its intention was to fix an average annual net return of 6 per cent before, and without deduction of, Federal Income Tax as an operating expense. It further found (R. I, 104-105) that after taking credit for depreciation at the rate allowed by the Internal Revenue Department and for interest on borrowings as permitted by the Department, there would be no liability for a federal income tax upon the basis of a 6% return in the future. Nevertheless, Hulcy, in making his computations of amounts available for net return, deducts computed amounts for this item in the grossly excessive

sums of $302,302.41 for 1931 (R. III, 2210), and $343,835.27 for 1932 (R. III, 2213).

The method by which he arrived at these computed, as distinguished from actual, income taxes is that in some instances he failed to take credit for interest on borrowings as permitted by the Internal Revenue Department, the principal item of which was made up of 6% paid the holding company on indebtedness ranging from $19,000,000.00 at the peak to $17,600,000.00 at the time of the District Court trial, R. I, 464; and, in some of his exhibits, instead of taking credit for the 5% depreciation actually allowed by the Internal Revenue Department in the past, he deducted only the amount, (2% plus), of depreciation as allowed by the Commission in its opinion, R. I, 405, 406; R. III, 2287.

Cross examination by counsel for the State developed from Hulcy that in Company Exhibit 13, (being the analysis of the comparative statement of revenues and expenses based on 32c domestic gate rate using rate base as found by Commission at December 31, 1931, plus net additions at cost) that if the depreciation be deducted in the amount of 5% which was the amount allowed by the Internal Revenue Department before calculating federal income tax, that the resulting federal income tax would have been approximately $52,000, plus, instead of the amount of $211,689.58, which is shown in the exhibit, R. I, 405-406; R. III, 2287, 2296.

In view of the fact that the Commission found that the 6% return fixed would be reasonable, without deduction for federal income tax; and that if proper

credit were taken for interest on borrowings no federal income tax would be due on a 6% basis (R. I, 104, 105); and in view of the Company's failure to produce any evidence of how much its actual income tax had been or would be, we do not think it would be justifiable to deduct in computations of net return for confiscation purposes any sum for federal income taxes.

RATE BASE

Quoted Prices: By far the largest item of physical properties was transmission line equipment, which was estimated by the Company, (R. V, 3038) in the amount of $31,894,439.40 of which amount pipe delivered at the sidings amounted to $20,954,471.01, R. V, 3052. As the basis of obtaining prices on pipe, as well as practically all other items of physical equipment, the Company purported to have obtained from "leading manufacturers" quotations of the prevailing prices, with all applicable discounts applied.

It was obvious that the Company's inquiries asking for quotations on the quantities of materials contained in the entire system were not made with a view of actual purchases of any such quantities, and the manufacturers were therefore bound to have known that the quotations were requested for rate evaluation purposes. The competition motive for quoting the lowest prices and the greatest obtainable discounts, to obtain an actual order in such vast quantities, was therefore totally lacking; and the manufacturer would, of course, not wish to offend actual customers of the past or prospective customers of the

future by quoting in those circumstances the lowest prices for such quantities available in case of a real purchase. Biddison testified (R. I, 648) that he believed in case of an actual purchase the pipe might be bought at prices "slightly under" the quoted prices, but that he was of the opinion, also, that the placing of orders in such large quantities would so stimulate the prices that they would not hold very long if that amount of business became available to the manufacturers. He stated, further, that in the placing of orders, for *actual* purchase of pipe, there are opportunities to "chisel a little", on the prices to be paid, but that he had not taken that fact into consideration in the preparation of his appraisal, R. II, 810. He attempted to deny that discounts of certain percentages were available on large lot pipe purchases, in the face of two telegrams from the manufacturer that they were so available, R. I, 657, 660, 685-686.

The Company avails itself of the services of J. M. Simpson, who maintains his office in Pittsburgh, Pa., and acts as common purchasing agent for all pipe and heavy materials for the entire Lone Star group as well as for other large groups of utility purchasers; and it was upon the theory that Simpson was able to obtain for the Lone Star group the lowest prices available to any purchaser on large or small lots that the Company attempted to justify in part its payment of management fees to the holding company, R. II, 905; R. III, 1980-1983. When it came to obtaining prices for evaluation purposes, however, it appears that the services of Mr. Simpson as purchasing agent were utterly worthless. The Company did not call Mr. Simpson as a witness to substantiate its prices as applied.

A striking example of the inflation injected into these prices is found at R. II, 902-904, where it is shown that during 1933, immediately after the date of Biddison's appraisal, the Company had actually made substantial purchases (11 carloads in one instance) of the highest quality large size pipe at prices very substantially lower than Biddison used in estimating the prices of lower quality smaller size pipe.

The Commission's witness, Freese, testified that his investigation showed that large lot purchases could be obtained at prices 10% to 15% or more below quoted prices, R. III, 1746-1747, 2096-2097. The Commission's opinion (R. I, 37-40) discloses that quoted prices from the leading manufacturers were identical and far above the prices actually obtained by the Company in actual purchases.

The Company sponsored an exhibit purporting to show a total increase in price of steel pipe in its system of $1,105,652.54 between January 1, 1933, and the last appraisal in 1934, R. V, 3052.

It conclusively appears that this temporary rise was due to the artificial inflation of the "steel code" (August 29, 1933, R. II, 900) under the National Industrial Recovery Act, which became effective prior to the latest Company appraisals, R. I, 420; R. II, 771, 901, 1229-1230; R. III, 1763, 1982. The same artificial stimulus was responsible for the Company's increase of common labor rates from 35c to 40c per hour, R. III, 1618, 1722. The NRA has long since been declared unconstitutional and the artificial stimulation has subsided.

Company witness Schmidt attempted to explain the Company's actual purchase of 24 inch pipe in 1933 at approximately $2.00 per foot, when the quoted price of $3.00, as used in the appraisal, by saying it was a "distress purchase," R. III, 2045-2046, 2051.

We have given in some detail the inflation resulting from the use by Appellant's witnesses of quoted prices rather than the use of prices at which the Company was actually purchasing the material. Throughout the appraisal Biddison, practically without exception, has used quoted prices; and, in fact, he seems proud of the fact that he had made no search of the Company's records to ascertain at what prices materials were currently, or within a recent period of time, being purchased by the Company: Gas Wells, R. I, 618, 624, 626; Other Production System Structures, R. I, 632, 633; Welding, R. I, 743; Lumber and Gravel, R. I, 751, 757. There are many other instances throughout the record.

Biddison, even though using quoted prices and discounts as furnished by manufacturers, without relation to actual purchases by the Company, failed to apply all of the discounts applicable even to such quotations, as for instance, in the purchase of casing where the record clearly reflects that the current quotation was 10, 10 and 2 from list, whereas the witness Biddison used a discount of 10, 5 and 2 from list, R. I, 657-659, 685-686.

Divided Responsibility: A single illustration of the substantial and inevitable error which results from the divided responsibility of having one witness responsible for prices, another for inventory, another for

application of unit prices, another for cost studies, another for the interpretation of the analysis of cost studies, another for the estimates of volumes of gas reserves, another for evaluation of gas reserves, another for evaluation of intangible elements, etc. *ad infinitum*, as per the division of labor between the expert witnesses used by the Company, is the following: That Biddison, in evaluating gas well equipment, included a large lot of miscellaneous special manufactured valves, and applied his idea of "substituted" quoted prices to same; resulting in the application of prices in some instances of more than $700.00 on valves which should properly have been priced at around $200.00; and Biddison was finally compelled to admit that because of the error in this particular instance his appraisal should be reduced to the extent of $4,603.78, R. II, 1171.

Another typical example is that Biddison, after being smoked out in cross-examination made a re-check and eliminated $25,473.00 for well lines which should have been excluded from the appraisal. Biddison had no part in the preparation of the inventory. He had no part in the determination of the prices for materials used in the appraisal, and was surprised to learn that included in the inventory were well lines and wells which were no longer used and useful in the public service, R. I, 746, 747; R. II, 1141.

Furthermore, this method lends itself admirably to the game of "passing the buck." Whenever a witness was pursued too closely on cross examination he could always find a refuge of safety by saying that he had no responsibility, that this matter was handled by some other witness, and thus the whole method

provided a wonderful opportunity to the Company of covering up numerous and substantial errors and duplications in the work of the witnesses; and which the Commission was, of course, utterly unable to discover and expose, in cross examination, except in isolated instances where the witnesses could not elude confession of error, R. I, 657-659, 685-686.

Excavation Costs: The total yardage of excavation estimated by the Company was 3,375,162.9 cubic yards, R. II, 1255. Of this total yardage, 2,786,080.03 cu. yds. or 82.54% were estimated as to volume, and classified as machine, rock and hand earth excavation, by what is known as the "barring method". That is, instead of making an opening over the pipe, a steel bar is driven into the ground until it contacts what is supposed to be the pipe, and in this way the depth of trench cover is measured; the outside diameter of the pipe, plus a few inches additional for "bedding" where it is concluded that rock excavation was done, was added to the trench cover, and the total trench depth thus determined. Trench widths could in no instance be ascertained except where actual construction records were available, which was the situation on only a very small part of Appellant's system. Thus over most of the system, trench widths had to be estimated, and the total yardage of estimated excavation thus determined. The Company operatives would then again drive the bar into the ground a few feet to the side of the pipe to determine whether there was rock. If the bar struck rock at any depth it was assumed that the soil from that depth downward was all rock, although it might have been only a thin ledge, R. I, 489-490, 497-498, 500-502; III, 1618.

A striking concrete example of the utter unreliability of this method is afforded by a comparison of actual construction records on Line Second B and the results obtained by barring methods on Line B, with the two lines running parallel 60 or 70 feet apart for a distance of 62.12 miles (R. II, 1256). Line B was constructed about 1910, and no actual records were available; consequently the barring method was used on it. Line Second B was constructed in 1929, and actual construction records were available. Cross-examination of Steinberger discloses that the barring method used on Line B produced an estimate of 11.97% hand earth excavation, 11.11% of hand rock excavation, and 76.92% machine. At the same time the actual records revealed that on Line Second B the percentages were: hand earth excavation, .83%, hand rock excavation 9.07%, and machine excavation 90.10%. In other words, the hand earth excavation estimated on Line B was 14.42 times as great as the hand earth excavation actually encountered on Line Second B, and the hand rock estimated on Line B was materially greater than that actually encountered on Line Second B; R. I, 501-504; R. II, 1249-1256.

Steinberger had assembled the detailed underlying data for purported cost analyses or studies of actual excavation cost on approximately 452 miles of trenching done on the system after 1929, no actual records prior to that year being available, R. I, 497-498. Steinberger, from this immense mass of detailed data, compiled his own "summaries" or "conclusions", as to what he interpreted the detailed data to show in the way of unit costs for the various classes of excava-

tion. He then passed these "summaries", or "interpretations", or "conclusions" of the data to Biddison, who, though admittedly knowing nothing of the detailed data or conditions under which the work had actually been performed, made "modifications" of Steinberger's "summaries, conclusions or interpretations", to suit his (Biddison's) own ideas of how the data ought to be rectified to apply in the present reproduction cost estimate because of supposed differences between conditions under which the work studied was actually performed (and of which conditions Biddison admittedly had no knowledge) and the hypothetically different conditions under which the property would be reproduced. This again presents an ideal opportunity for "padding" the hypothetical, as distinguished from actual, cost, and for making the most of the Company's preconcerted plan of dividing responsibilities so that no one could effectively be called to account for the unrealities and errors.

The Company witnesses used four classifications of excavation, which in direct order of cost were: (1) machine, $.4260 per cubic yard, (Line K) R. II, 779. The unit cost per cubic yard for machine excavation used by Biddison varied with the width and depth of the trenches—the unit costs ranging from about 40 cents to 45 cents per cubic yard, R. II, 785; (2) hand earth, in stretches more than 200 feet in length, $1.31, per cubic yard, R. II, 779; (3) hand earth excavation on "skips" or "lifts" of less 200 feet in length, encountered in connection with machine excavation, $2.138, (R. II, 1219, 1223); and (4) rock excavation, in Texas $3.897 per cubic yard, and in Oklahoma, $3.826 per cubic yard, R. II, 784; III, 1924.

These unit costs the Company purported to have derived from its aforesaid studies of actual construction costs, with the exception of unit costs for hand earth excavation on stretches in excess of 200 feet in length, which price of $1.31 per cubic yard was developed by witness Biddison through the device of a hypothetical gang set-up, Biddison admitting that no Company cost records were available on hand earth excavation on stretches in excess of 200 feet, R. I, 640; R. II, 784.

The absence of these actual cost records is sufficient proof that the Company had not actually encountered hand earth excavations on stretches in excess of 200 feet in its actual construction study. An examination of Appellee's Exhibit 6 (R. III, 2151) reveals substantial estimated amounts of hand excavation on certain stretches, as for example, 15,621.3 cubic yards of hand excavation in the "C" system, which together with machine excavation of 45,910 cubic yards and rock excavation of 1,405.5 cubic yards, constitutes the yardage in the "C" system. Other similar illustrations are shown at R. III, 2151-2152. It is to be noted classifications and quantities of excavation were furnished Appellees by the Appellant, R. I, 874. This yardage of hand earth excavation was classified by the Company, based primarily on the barring (estimated) method, but also includes those lines on which actual records of the construction were kept, R. I, 497, 498, 502, 505; R. III, 1923-1924.

The Company's methods resulted in gross and obvious overestimation of the yardage of hand earth excavation of both classes, and of rock excavation, with an underestimation of machine excavation yardage, and the application of the higher price of $2.138

per cubic yard to a large portion of the estimated hand excavation, R. II, 779.

Although the records show there were many field and tap lines in the system, ranging up to as much as 7 miles in length, (R. I, 722, 724), Biddison assumed hand earth excavation on these field and tap lines almost without exception; giving as his only reason therefor that it would be more expensive to move a machine in on the job than to do it by hand—yet, on his assumption of 100% reproduction new, the machines would be available on the main line trenches for use on the field and tap lines as they were reached, R. I, 501. These tap lines are the main line taps or laterals extending to city gates and industrial connections.

Next to the $21,000,000.00, cost of pipe, the cost of excavation was the largest other item in making up the total of approximately $31,000,000.00 for transmission line equipment, as estimated by the Company, R. II, 763-764; R. IV, 2365; R. V, 3052.

Furthermore, Biddison and Steinberger included in their unit cost of machine excavation their cost of "crumming", or cleaning up in the ditch following the machine. In several instances, cross-examination succeeded in establishing that they had included in the supposed work of these "crumming" or clean-up crews, the cost of quantities of rock excavation, which of course, was much more expensive and should not have been thrown into the machine costs.

Steinberger testified from his daily progress reports, which reports furnished the basis for his studies of excavation, as follows:

"Q. Go ahead.

A. I have a day here, Oct. 29th. We have 671 labor hours working from stake 386-00 to 476-00, a distance of 9000 feet charged to "crumming," crumming ditch and removing rock.

Q. Well, that is part of your hand excavation cost?

A. No, it is not.

Q. What have you figured that in,—as a part of the machine excavation?

A. Yes, crumming is part of machine excavation, just like clearing off a ditch is part of it" R. III, 1946.

A similar illustration of the opportunity afforded for "padding" the unit costs derived from a study based upon the daily progress reports can be cited as follows: witness Steinberger in testifying from daily progress reports of August 28th:

"Q. Wasn't there any crumming behind the machine?

A. Apparently not. Whatever crumming there was, was included with rock excavation. . . .

Q. So that to the extent you have left crumming out in the rock excavation you have understated the performance actually done by the rock excavation gang?

A. That is correct. One day it may be understated on performance and other days, overstated," R. III, 1944, 1945.

Freese compared the relative percentages of the various classes of excavation as determined by the barring method on Line B with the actually experienced relative percentages of excavation on Line Second

B, Line Second B being some 60 or 75 feet from and parallel to Line B, R. I, 503; II, 1251. Freese testified that if the Company had determined the classifications of the yardage by actual measurements and had applied the unit costs used by Biddison to the yardage so determined instead of the classifications as used by Biddison, that the cost of the excavation as shown in the Company's exhibits would have been reduced in the approximate amount of $600,000.00, R. III, 1779-1780.

Freese applied the following unit prices to the various classes of excavation: machine, $.375 per cubic yard; hand earth, $1.31; rock, $3.50, R. III, 1744. The Appellee also used as witnesses, Robinson and Dobson. Robinson was a contractor residing in San Antonio, Texas, who had done much excavation work in the area traversed by the Company's transmission lines, R. III, 1610. Dobson was undoubtedly the best qualified witness on machine excavation that appeared in this trial. His qualifications are shown at R. III, 1710. He testified that he now owns and operates 30 trenching machines. He also testified that, using only his own equipment, he could trench the Company's system in two seasons of 8 months each, R. III, 1720-1721. Robinson and Dobson were carried over the system and were given specifications describing the manner in which the trenching or excavation had been classified and the classification in cubic yards of rock, hand earth, and machine excavation, R. III, 1712-1721.

It will be noted that Freese, as well as Robinson and Dobson, had 3 classifications—machine, hand earth,

1411

and hand rock. All three testified that it was customary for such hand excavation as is incident to the machine excavation to be included in the unit prices for machine excavation, R. III, 1616, 1719. Dobson testified as follows: estimated machine excavation, $.285 per cubic yard; hand excavation $1.41 per cubic yard; rock excavation $4.00 per cubic yard, R. III, 1721-1722. Robinson testified: machine excavation 40c per cubic yard; hand excavation, $1.20; rock excavation, $2.90, R. III, 1617. Robinson and Dobson would have been glad to do the work at the prices testified to by them, R. III, 1723, 1624. Freese relied not only upon his own independent judgment as to the proper prices to be used for the various classifications (R. III, 1773-1774), but also upon the testimony of Dobson and Robinson.

A similar controversy as to excavation costs arose before the Commission. There will be found in the findings of the Commission detailed discussion of the testimony relative to this item before the Commission, the State having introduced in evidence before the Commission the testimony of Lee, Minter and Sherman in addition to Robinson and Dobson. The testimony of Lee, Minter and Sherman before the Commission confirmed the testimony of Robinson and Dobson. The Commission used substantially the highest figure on each classification testified to by any of Appellees' witnesses, R. I, 42-43.

Freese adopted the estimates of the Company witnesses as to backfill. There is no dispute as to this item, R. III, 1772.

Freese testified that he had examined the studies made by the Company on excavation, both on trans-

1
4
2

mission lines and on well or field lines. He testified that it would be improper to use unit costs developed by studies on actual measured excavation when applied to quantities determined by the barring method, R. III, 1779-1780. He further cited as an illustration the comparison between Line Second B, the measurements of actual construction of which were available, and the quantities on Line B, which were determined by the barring method, R. III, 1779-1780; the results of which comparison are stated above. Freese also cited studies of excavations on field lines in the Texas Panhandle and Oklahoma gas fields. These studies were made by Steinberger. Freese testified as follows: "Certain information was made available to us. However, it was not in such shape as we could analyze it and make heads or tails of it. I think that is apparent in this particular case. When you analyze in the Panhandle field, according to the Company's records you show a cost of rock and earth excavation of less than a dollar; in Oklahoma of around 60c or 70c on field lines; then when you analyze what is set forth in connection with machine excavation it runs up to over $2.00," R. III, 1771. In State Exhibit 6, R. III, 2151, 2152, is shown in tabular form the excavation yardage, unit prices, and amounts in dollars as used by Freese. The total allowance for excavation as estimated by him is $2,221,059.90, R. III, 2151, 2152. Steinberger testified that, on this item of excavation, Biddison had included in Company Exhibit 28, $558,008.58 more than the amount estimated by Freese in Exhibit 6, R. III, 1955.

Gas Reserves: Before the Commission and the District Court, the Company included in its appraisals

all developed and undeveloped gas reserves and leaseholds owned by it. The Company's statement to the contrary on p. 36 of its brief is absolutely unfounded. Freese's exhibits before the Commission, likewise included these reserves. The Commission included in the rate base all of the production system properties both in Texas and Oklahoma, except Petrolia (Texas) field, where the cost of operation alone was so grossly in excess of the worth of the gas that the Commission determined it would not be proper to allow these worthless production properties in the rate base as used and useful public service property, R. I, 47.

The record showed that in the past the Company had been producing only approximately 28% of its over-all deliveries and had been purchasing approximately 72%, R. I, 72. Freese testified, before the court, that 80% was purchased, and 20% produced, R. III, 1894.

According to the Company's evidence the average field price being paid by it for purchased gas over-all in Texas and Oklahoma, even giving effect to the much higher prices prevailing in Oklahoma, was only slightly in excess of 6c per MCF, R. I, 606-607. The average prevailing field price in the fields where the Company produced gas was slightly less than 5c (4.82c for 4, 924,844 MCF, or $237,233.40 for year 1931, R. I, 107, 113). In Texas it would be slightly less than 4c. (3.90c to 3.96c, R. III, 2165).

But if effect were given to the Company's methods and estimates, all the gas produced by it would cost 23.3c per MCF *at the well head*. The Company esti-

mated depletion of developed leaseholds at $146,000 per annum (R. V, 3055); depletion-depreciation of gas well equipment at $421,316 per annum (R. V, 3055); production system expenses amounted to $105,554.86 for 1933 (R. III, 2224); cancelled and surrendered lease expenses amounted to $188,-629.92 (R. III, 2215); production system property was included in the Company's proposed rate base at $9,108,352.94; not including non-physical values, (R. V, 3037), which at 6% return amounts to $546,501.18 per annum. This makes a total of $1,408,001.96 for the 6,046,035 M C F of Company-produced gas for 1933 (R. III, 2124A, 2165) or 23.3c per MCF at the well head.

It is not amiss to remind the Court that the Company and the Commission included in the rate base all production system properties, when plainly a very large part thereof (all of the so-called undeveloped reserves, and a part of its so-called developed reserves) was not actually used and useful in the present public service, and would not become useful at any reasonably near time in the future so that in reason and justice it could be considered in the nature of presently necessary working capital. *Columbus Gas & Fuel Co. vs. Pub. Ut. Com.*, 292 U. S. 398, 406-407, 78 L. Ed. 1327.

The Company's method of including all production system properties in the rate base and of placing grossly exaggerated valuations thereon was objectionable for every reason which impelled this Court to condemn such method in *United Fuel Gas Co. vs.*

Railroad Com. of Ky., 278 U. S. 300, 310-322, 73 L. Ed. 390, and for additional reasons which we shall now endeavor briefly to set out.

Company witnesses have evaluated what they called developed or marketable reserves in proven and semi-proven areas, by estimating the volume of gas in place beneath the surface. This valuation was arrived at by assuming that the entire volume would be exhausted over a period of 20 years in the future, and that the rate of withdrawals from Company reserves and the prevailing field prices of gas would increase progressively throughout the 20 year period. The assumed rate of withdrawals in the future was shown to be as much as four to five times the rate of withdrawals in the past, up to the time of the District Court trial, R. I, 107, 531, 577; III, 2124A, 2165.

Based upon Dunn's estimate of the future rate of withdrawal, Company witness Hulcy evaluated the developed reserves in the proven and semi-proven areas, R. I, 531, 576-577. Hulcy took the estimated volume of gas and determined what it probably would be worth, if presently marketed, in all fields except the Texas Panhandle and Petrolia fields.

In the Petrolia field there was no gas being sold so as to establish a prevailing field price, and Hulcy in lieu thereof assumed a price of 10c per MCF; which, he testified, had been established by the Federal Government for income tax depletion allowance in the war time period of 1917, R. I, 589. In the Wheeler County, Texas, field, where the overwhelmingly major portion of the Company's developed reserves is located

he assumed future rates of withdrawals over an estimated future 20 year period of production at a rate of withdrawal 4 or 5 times as great as the rate of withdrawals had been up to the time of the trial, and also assumed progressively increasing field prices over that period R. I, 107, 531, 577, 559-560; III, 2124A, 2165. From this total estimated valuation of Wheeler County reserves he deducted the estimated cost of present gas well construction and equipment, and assumed that 135 additional wells would have to be drilled in the future to produce the gas over the 20 year period and deducted from the estimated total the estimated cost of present and assumed future cost of gas well construction and equipment, less totally inadequate assumed salvage values; and to the remaining estimated value he applied an assumed present worth factor of .46319, (8 per cent compound interest basis), R. I, 561-566.

It will be perceived that all of these basic assumptions were in the highest degree speculative, conjectural, uncertain, and inaccurate and not supported by any substantial basic factual data. It will be seen also that the greater the rate of assumed future withdrawals and the greater the assumed future field prices, the shorter would be his assumed period of production, and the greater would be his assumed present worth of the reserves, R. I, 578-581.

The whole method involves in essence the capitalization of assumed speculative future earnings (R. III, 1659-1660) and is the identical scheme of evaluation which was condemned by this Court in *United Fuel Gas Company vs. Railroad Com. of Ky., supra.* The

Commission's witness Phillips, an accountant of broad experience, testified in respect to the question of the Hulcy method being capitalization of future earnings:

"Q. I will ask you, Mr. Phillips, if the method used in finding the present fair value of net gas reserves as calculated by Mr. Hulcy is not what accountants ordinarily understand and mean as being a capitalization of future earnings?

A. Well that is my accounting understanding of it and I believe it is the general understanding of accountants generally," R. III, 1659-1660.

It is pertinent to say that the valuation arrived at by Company witnesses of the production system properties was grossly excessive over the actual historical book cost of these properties.

As to the so-called undeveloped reserves, situated in unproven territory, the Company witnesses made no estimate of the volumes of gas in place, as they had no way of knowing that any gas was actually located under the leases at all, (R. II, 835) but these properties were evaluated by Company witness Steinberger, as per Steinberger's exhibit showing such leases, upon the basis of original acquisition costs as per books, plus all other costs incurred in connection therewith as per the books, such as delay rentals, etc., R. I, 570-572.

It is obvious that none of this property, estimated by Steinberger at $893,291.28 (R. V, 3034A), and given blanket endorsement by Biddison, (R. I, 654-655) is presently used or useful; it is certain that it will not become used or useful at any time in the reasonably near future, in view of the undisputed fact that the so-called developed reserves are sufficient at

past rates of withdrawal to last from 40 to 60 years; and it is doubtful whether they ever will become used or useful, especially in view of the admitted fact that it is not known whether they contain gas or not, R. II, 835.

The Company charges all costs of these leases into operating expense as cancelled and surrendered leases if the leases prove worthless; but on the other hand if gas is discovered and developed thereon the Company gets the benefit of the discovery by including the estimated value in the rate base at highly excessive figures. The Company gets all the profits of enhancement, and the consumers bear all the losses. This enhanced value of the proven leases is much more than sufficient to include the cost of the leases ultimately condemned. Yet the Company takes all the benefit of the enhancement due to actual development, by including the proven leases in the rate base at their enhanced value, but loads upon the rate payer, in addition thereto, the total cost of all the condemned leases by charging the cost thereof into operating expenses, R. III, 2126A. And in the meantime, until the undeveloped reserves ultimately are either made valuable and included in the rate base as developed reserves, or condemned and charged off into operating expense, they are included in the rate base at book cost.

In this connection we beg to refer also to our discussion of cancelled and surrendered leases as an operating expense, supra, pp. 122-124.

The Company includes *undeveloped* leaseholds in all of its appraisals at book cost, including $200,-

199.39 delay rentals. It was not shown that any of these leaseholds would be developed in the reasonably near future. R. V, 3034A, I, 568-575. The Commission also included in its rate base the undeveloped leaseholds, including delay rentals, at cost. R. I, 70-72, 570. It is held in *Columbus G. & F. Co. vs. Pub. Ut. Com.*, 292 U. S. 398, 406, 78 L. Ed. 1327, that it is not proper to capitalize delay rentals on such leases. The Company and the Commission included in operating expenses the cost of charged-off cancelled and surrendered leaseholds and dry hole expense. R. I, 28-29, III, 2208-2294.

Developed leaseholds were included in the rate base by the Commission at the actual cost of the leaseholds under one set of computations and, under another set of computations, the developed leaseholds were excluded from the rate base and the Company-produced gas was allowed for at the prevailing field well head price. Under either method of computation, the return averaged in excess of 8% for the years 1927-1932, inclusive, considered by the Commission. R. I, 20. In evaluating developed leaseholds and production property the Company purported to proceed upon the following assumption: "We are assuming that our own gas reserves are worth exactly the same, or that the gas produced by the Company in any field is really worth exactly the same as that purchased from any other producer. It is worth that much and no more, and we have gone about it on that assumption." R. I, 72, 594. The Company then proceeded, however, to capitalize the value of its production properties based upon future estimated withdrawals and assumed future increased field prices. R. III, 1659,

1660, V, 3031-3032. However, in respect of its principal reserves (Panhandle District of Texas), instead of using the prevailing field well head price of 2c per MCF, which is now being paid and which has always been paid in the field (R. I, 581-582), the Company more than doubled this price and assumed that the gas was worth 4.7c per MCF. R. V, 3032. If, instead of assuming a value of 4.7c per MCF, the Company had proceeded on the basis of 2c per MCF, the prevailing field price and the price being paid other owners by the Company in the Panhandle Field, the gross value of the Panhandle production properties as shown on R. V, 3032, would have been reduced from $9,933,-969.00 to $4,227,621.00, (R. I, 585) and the estimated net recovery value of the gas reserves as shown on R. V, 3031, would have been reduced from $16,055,292.00 to $10,348,944.00. The Company further assumed that it would withdraw this gas at the rate of 20,000,000 MCF per annum as compared with its actual withdrawal rate of from 5,000,000 to 6,000,000 MCF per annum. R. I. 107, 564, 576-577. If, instead of using a 20,000,000 MCF withdrawal rate in the future, the Company had used a withdrawal rate of approximately 12,000,000 MCF per annum, or more than double the actual withdrawal rate, the present worth discount factor would have been .31524 instead of the assumed present worth discount factor of .46319. R. I, 579. By applying the .31524 present worth factor to the net recovery value of $10,348,-944.00 based on the actual prevailing field price, we arrive at $3,262,401.00 as the present fair value of gas reserves including gas well equipment and construction. This compares with the present fair value

of $7,436,650.00 found by the Company (R. V. 3031) and which figure was used in all of its appraisals before the District Court. The Company used a present worth discount factor of .368 for the Texas Panhandle (Wheeler County) Field in its testimony before the Commission. R. I, 581. It is by means of these involved speculative and erroneously unjust calculations that the Company takes gas worth less than 5c per MCF (4.82c per MCF) and finally charges it into its rate base, depreciation and depletion charges and into operating expenses in such a way that it would cost 23.3c per MCF at the well head. See pp. 144-145, supra.

Proceeding on the basis that the Company-produced gas was worth what the gas could be purchased from other owners for, (the Company purchases approximately 72% of its gas, R. I, 74; Freese testified before the District Court approximately 80% is purchased and 20% produced, R. III, 1894), it would have been a great deal simpler and more just to charge directly into operating expenses the prevailing field well head price for the Company-produced gas. This was what the Commission did under one of its sets of computations (but did not adopt as a basis of fixing the rate), and also what the Commission witness did before the District Court. If the Company's capitalization of the value of its production properties and its estimated withdrawal rate had been in accordance with the actual facts it would have arrived back, at the end of its complicated and intricate calculations, at the prevailing field well head price of approximately 5c rather than 23.3c per MCF. The Company could

purchase all the gas it requires in the Panhandle field at 2c per MCF.

The Company should either (1) accept an actual cost basis for the appraisal of both undeveloped and developed leaseholds and charge the actual cost of bringing the gas to the well head and of cancelled and surrendered leases and dry holes, to operating expenses; or, (2), they should charge for the gas at the well head at the current prevailing field well head price. The Commission made computations on both of these bases. If the Company had correctly made its computations, its results would have been the same as using the prevailing well head price, with the exception of the fact that they would still charge cancelled and surrendered leases and dry hole expenses into operating costs. This latter exception is improper, inasmuch as the prevailing field well head price paid the other owners includes all cancelled and surrendered leasehold expenses, all dry hole expenses, depletion and depreciation, R. I, 599, 600, 28, 29, 67, 68.

We are perfectly willing to accept the Company's original basis of treating developed production properties, where it finds that its produced gas is worth the same as what it could buy gas for in the same field from other owners. However, this basis should be strictly adhered to in all of the resulting computations and its approval should not be inflated beyond this basis by in excess of $4,000,000, as has been done in this case, nor should operating expenses be made to bear the cost of developing these gas reserves, the value of which the Company now wishes to capitalize. Further the present users should pay only for

the Company-produced gas they use (5,000,000 to 6,000,000 MCF per annum) and not for a greatly increased amount (20,000,000 MCF per annum) as estimated by the Company witnesses, R. I, 74.

The Company claims on page 13 of its brief that the Commission eliminated from its rate base capital additions to the property made in the year 1932 in the amount $2,257,682.07. By referring to the pleadings in the state trial court (R. I, 142), the Company also claims that the Petrolia field account in the amount of $687,781.13 was "arbitrarily and capriciously eliminated". The $2,257,682.07 figure was made up of the cost of the Southern Oil and Production properties of $966,600.11 (including $200,000.00 "value of contract", R. III, 1603) and of the undepreciated original book cost of the Meridian Gas Company at $1,338,406.21, R. I, 343, 460. The Commission did include the prorata cost of the Southern Oil and Production properties in their rate base for the year 1932, the property having been purchased on October 1, 1932, and in the Tables, infra, which we are submitting, these properties are included for the year 1933 at their full cost.

As to the inclusion of the Meridian Gas Company properties, the Commission states, *"Neither the Company witnesses nor the witness Freese submitted an appraisal of these production properties.* We have allowed not only the actual production expenses but also fifteen cents per M. cu. ft. for the gas produced during 1932 as a return on this property. In other words, if instead of purchasing the property the Lone Star Gas Company had continued

to pay the very ample price of 15 cents per M. cu. ft. to the affiliated Meridian Gas Company, the 1932 operating expenses could be eliminated from the 1932 computations." R. I, 110. The Commission allowed for the gas produced from the Meridian properties, in addition to allowing all operating expenses, the sum of $70,227.30 for the year 1932. R. I, 108. The Meridian holdings comprise the production properties and gathering system in the Chickasha field and a short section of transmission line. Appellant acquired this property for $1,300,000.00 plus, from the Lone Star Gas Corporation on January 1st, 1932. R. I, 110, 343, 460, 461.

As to the estimated value of these properties, as per the Company witness, refer to R. V, 3032. It is there to be noted that the gross value of the Chickasha, Oklahoma reserves is $173,079.00, including all gas reserves, production gas well equipment, production property of every kind and including all recovery operating costs. Referring to R. V, 3031-3032, and without deducting the recovery operating costs, it is seen that by applying the present worth factor of .46319 (as used by Hulcy) to the gross value of $173,079.00 we have a present fair value of gas reserves, including gas well equipment and construction, of $80,168.00. This is the Company's own appraisal of the production properties and clearly shows that the Lone Star Gas Corporation sold the properties to its subsidiary, the Lone Star Gas Company, for $1,300,000.00 plus for the simple purpose of putting these properties in the Appellant's rate base, and it is largely with reference to these properties that the Com-

pany complains, on page 13 of its brief, that they were eliminated from the Commission's rate base. This is true in spite of the fact that the Commission allowed all operating expense plus $70,227.30 for the gas delivered by Meridian Gas Co., which latter sum is a return of 5% plus on the fictitious value claimed for these properties which the Lone Star Gas Company places in its various rate bases.

With reference to the Petrolia field account in the amount of $687,781.13 claimed by the Company as a part of its rate bases, the Commission found, and the Company in no way refuted the finding in the District Court, that the cost of getting the gas to the wellhead in the Petrolia field was in excess of the full value of the gas at the wellhead and that instead of this field having any value as used and useful public service property that it was a liability, R. I, 46-47; III, 1739. Based upon the Company's method of evaluating gas reserves and allowing for the gas at 10c per MCF, the Company found a negative value for this field. R. I, 590. We cannot escape the conclusion that the Petrolia field is being operated at a loss simply for the purpose of including its reproduction cost in the rate base.

It is to be noted in Tables II and III, infra, which we are submitting, that in the use of undepreciated book costs as rate bases, no deduction of the Petrolia field account and of the cost of the Meridian Gas Properties has been made. Furthermore, it is to be noted in Table II, infra, where the rate base as found by the Commission is used, that the Meridian Gas properties are included at book cost.

"Omissions and Contingencies" and "Duplications": These constitute another inexhaustible source of padding tapped by the Company's witnesses. On practically every item entering into direct structural cost, Biddison added substantial percentages for omissions and contingencies, even super-adding them into his developed unit costs purportedly based upon actual costs as incurred and studied. His theory was that there would be omissions from the inventory of property, which he testified was as complete and exact as it could practicably be made, (R. I, 614); and that contingencies would occur in a reproduction new which had not been encountered in the original construction, and which would increase the cost. When cross-examined as to whether the inventory might not as reasonably be expected to include duplications rather than omissions, and as to whether the unit costs as developed from studies of actual construction would not necessarily embrace all omissions and contingencies, Biddison replied, "So far as I know, nothing was omitted from the original study. It was not designed to have anything omitted from the original study. But, in the analysis of cost data you determine only the cost of the things from which the data was derived. When you go to apply that cost data to the construction of something else, at different locations, under different conditions, it is good judgment to allow for differences in those conditions that may cause differences in costs and any estimator who does not do that is courting disaster, either for himself as an estimator, or for the people who use his estimates as the basis for bids in trying to finance a proposition," R. I, 689. He admitted that he had made no effort to relate the

unit costs in his appraisal to the actual cost as historically incurred and as shown on the Company's books, R. I, 669.

At R. I, 662, Biddison testified:

"Q. Then you didn't look at the actual records of the Company to make that statement?
A. Certainly not.

Q. You were not even interested in it, were you?
A. No."

Further, at R. I, 750, Biddison on cross-examination testified:

"Q. Well, have you or anybody else, Mr. Biddison, for the purposes of this appraisal, tried to relate the prices or the costs you have actually used in your appraisal, to the costs of the Company on the books?
A. No."

Upon this basis, he added 2½% to all detailed costs of transmission line equipment on all lines throughout the system, R. I, 647; II, 766, 806. This item amounts in Company Exhibit 28 to $681,-416.72 on transmission system properties only. R. III, 1957. His unit costs on this item purported to have been developed from actual time studies on the system of the Lone Star Gas Company. On gas well construction, he added a contingency item of 24.75c per foot over costs actually incurred in this class of property, R. I, 617, 621, 689. This item was added to the Company's actual experience of $1.3017 per foot, making $1.5492 per foot used in his appraisal. These

additions included contingencies ranging from 15% to 25% of actual costs on individual items going into well equipment and construction. R. I, 687-690. To the Company's actually incurred historical cost of acquiring rights of way for transmission and gathering lines, he added 20% for contingencies. R. I, 637.

Company witness Dyer, sole witness as to reproduction cost of general office building, included a profit of 8%; included 5% for contingencies in the amount of approximately $13,000.00 in case the owner should change his mind as to plans, notwithstanding construction contracts uniformly provide that the owner shall pay additionally for such changes; R. I, 677, 678-680. He testified that he did not include any such contingencies in bidding on an actual post office job at Chattanooga, Tenn. R. I, 684. Dyer also included 3% for contractor's overheads, R. I, 678.

On installation of field measuring stations, Biddison used hypothetical gangs and 2½ % for omissions and contingencies. R. I, 710-711. For installation of drips, 5% contingencies, R. I, 744. On installation of field line equipment, 5% contingencies, R. II, 1173.

Biddison was asked several times to ascertain or estimate the total amount of his omissions and contingencies but testified he was unable to do so and that he had made no effort to do so but thought it was less than $1,000,000.00, R. I, 734-736; II, 806-807.

On cross-examination Biddison testified (R. II, 806-807):

"Q. You have been asked the question heretofore, Mr. Biddison, as to what the approximate amount of the total omissions and contingencies in your whole appraisal is. Have you figured that out yet?

A. No, I have not given it any consideration since the question at all."

On unloading, hauling and stringing of pipe, Biddison added contingencies of 10c per ton for handling through stock piles, not shown to have been historically incurred, and 5.7 cents per ton for gangs moving from job to job although these costs had been already included in actual cost estimates; also 10% for contingencies, and an additional 5% on the overall figure for contingencies and omissions, R. I, 734-736; III, 1767.

Commission witness Freese testified that the Company has included omissions and contingencies in an approximate amount of $1,000,000; that practically all of the Company's studies were based upon actual construction costs which included omissions and contingencies actually encountered; that he has checked some two million feet of pipe purchased against length shown in appraisal and that they were almost identical, so there could be no omissions and contingencies on transmission line pipe, on which Biddison allowed 2½ %, or $797,360.98; R. III, 1746-1747, 1780.

Commission witness Freese eliminated the 20% contingencies added on transmission line rights of way, by Biddison, because they had not actually been incurred by the Company, R. III, 1741-1742, 2146-2147.

In addition, the record reveals instances too numerous to specify here, where the Company's witnesses obviously included duplications between various capital items, between capital items and operating expense items, and between operating expense items and depreciation accrual items.

"Preliminary Development and Organization Costs": We have previously pointed out that the Company witness Connor added approximately $24,000,000.00 to the Company's estimated direct structural costs, to cover preliminary, organization and development expense, undistributed general overheads, working capital and going concern value.

A reference to Appellee's printing praecipe, R. V, 3529, will show that the Company did not request the printing of that portion (volumes 7 and 8) of Company's Exhibit 28, setting forth the basis on which Connor founded his estimates of these items. We do not blame the Company for attempting to keep the contents of that astounding treatise from coming to the attention of this Court. The utter prolixity, unintelligibility, and lack of perspicuity of the witness' attempt to explain his methods of approach can only be appreciated by an actual reading of the record, R. IV, 2602-2921.

The appraisal prepared by Biddison, Steinberger and Connor pre-supposes an outlay of $4,474,272.00 covering costs for "Preliminary Development and Organization Costs" to be hypothetically incurred in a reconstruction of the Company's properties; however, this does not include any item of such esti-

mated costs in connection with leaseholds or producing wells, transferred by the originating group to the corporation that is to be formed under Connor's proposed plan of organization, R. IV, 2606.

The present financial structure, and something of the past history of same, is briefly summarized by Commission's accountant Phillips, R. III, 1876-1879. The Company was originally incorporated in 1909 with $2,500.000, $100 par-value shares, R. III, 2176. This was partially paid in leases in Petrolia Field, R. I, 422-426. The present capital set-up consists only of 540,000 non-par value common voting shares, with no outstanding preferred stocks, bonds or other senior securities. The capital has been provided, and the property built up, only by issuance of capital stock for cash or property, by the borrowing of money, by the use of accumulated and undistributed earnings and by the use of the depreciation reserve. Only $12,500,000.00 has been paid in by stockholders, in cash or property. Something in excess of $28,000,000.00 is set up on the books as representing the non-par value shares. That includes an allocation of surplus earnings and an allocation of re-valuation surplus. Surplus on the books is now $8,000,000.00 or $9,000,000.00, R. III, 1876-1878. See the summary of the Company's financial history as found by the Commission from Hulcy's testimony, R. I, 64-66.

As against this very simple capital structure, Connor in his assumed reproduction cost sets up a complicated and ridiculously excessive capital structure consisting of an assumed issue of first mortgage bonds

of $38,000,000.00, preferred stock of $19,000,000.00 and common stock of $17,000,000.00, R. IV, 2637. Of the $4,474,272.00 estimated by Connor (R. IV, 2606), $4,050,000.00 is made up of cost of marketing securities and "remuneration for the originating group" which latter item alone is $2,000,000.00, which he assumes the promoters would take out in common stock. These costs have been condemned by this Court in *Los Angeles G. & E. Corp. vs. R. R. Comm. of Calif.*, 289 U. S. 287, 310, 77 L. Ed. 1180, 1195, as being "too conjectural to be allowed."

Connor, in preparing his estimate of this item of cost definitely and wholly disregarded the Company's history, as to whether or not any such costs have been historically incurred, or as to the manner and means under which the Company came into possession of its properties, even going so far as stating, "They might have charged the Company's office building to operating expenses, for all that I know", R. II, 1036.

Of the several items entering into this estimate, preliminary engineering and geological investigation total approximately $200,000.00. Connor says that the investigation of these two items would be absolutely necessary in connection with the reconstruction of the Company's properties at this time, as the organizers would proceed on the theory that none of the engineering or geological problems that would confront the Company had been solved; that the geological body that would be organized under this preliminary organization would have no knowledge or information of any character whatsoever as to the presently existing unlimited reserves of natural gas

available throughout the Texas Panhandle area. According to Connor it would be extremely doubtful whether they would even know that a gas field actually exists in Texas; R. II, 1029-1030.

Although Connor states that he is aware of the fact that discount on the proposed issue of securities cannot be (and he claims that it has not been) included by him as an element of cost entering into the reproduction cost new of the Company's properties, he nevertheless takes into consideration the fact that in the sale of the proposed issues of securities such securities would necessarily have to be sold at a discount in order to secure their ready sale, and he actually included a discount of 10% in his "interest during construction", R. II, 979-980.

Biddison and Connor both, in estimating their costs, gave no consideration whatsoever to the substantial savings to the Company on all items of cost which would be brought about by its affiliation with Lone Star Gas Corporation; the record showing that the Corporation has lent money to the Company on open, unsecured notes, as and when needed, at 6% simple interest; these advances amounted to about $19,000,000.00 at their peak, a few years before this rate case. They had been reduced to $17,600,000.00, at the time of the trial, R. I. 412.

In connection with the estimated cost of "Fiscal Agents Title Certification" in the sum of $25,000.00, Connor admitted that the Lone Star Gas Corporation had always acted as the fiscal agent for the Company

and that the Company itself had never incurred or actually paid out any such expenses, R. II, 1036-1037.

On cross-examination, Connor testified:

"Q. Why didn't you assume, Mr. Connor, that the Company would be organized just as it is organized, as a subsidiary of Lone Star Gas Corporation?

A, Because I think it is proper to make the estimate upon the basis of the reproduction of this particular property without reference to its connection or affiliation with any other property or properties. I don't know that that relation would affect the cost of its reproduction in any particular." R. II, 1037.

Administrative and Legal Expense: The total amount of estimated costs for this item is $2,347,595.00, and covers the amounts estimated to be incurred after the organizers of the proposed company had assembled their preliminary data and started actual construction of the Company's property. This cost estimate is apportioned between executive, legal, accounting, treasury, land, geological, and purchasing divisions, each of which is set out in detail at R. IV, 2659-2779. It presupposes an elaborate set-up of administrative officials and legal and accounting personnel, that does not bear even a remote resemblance to the Company's history or operations and is in fact one of the most speculative and excessive of all of Connor's undistributed general cost estimates.

These elaborate estimates were made by Connor even though the books of the Company show that this

item is being capitalized upon the basis of 2% of the actual cost, R. II, 1750.

General Engineering Costs and Reproduction Costs of Final Engineering Records: Connor estimates General Engineering Costs at $1,127,661.00. R. IV, 2780. He contemplates a four-year period of engineering work. It does not include the engineering costs that were incurred prior to incorporation of the Company, which costs are specifically set up under "Preliminary Development and Organization Cost," nor special fees paid for the designs of special structures, nor engineering costs directly charged by Biddison to specific property accounts in the estimate of the direct structural cost of the physical property, R. II, 955; IV, 2781. Nor, does it include the item of reproduction cost of final engineering records, which latter item is included in and made a part of direct structural cost of physical property, R. II, 954.

The estimated cost of final engineering records is set up at the sum of $765,690.35, R. IV, 2780. The combined general engineering work and the cost of final engineering records would contemplate a hypothetical four-year period for their completion. There would be 3 years of preliminary work and 3 years of final engineering work. For 2 years the preliminary engineering and the final engineering would be carried on concurrently, R. IV, 2781. Charging draftsmen's time at something in excess of $1.00 per hour, it was shown that according to Connor's estimates the final engineering drawings would in many instances exceed in cost, by several times, the cost of constructing

the object of which it was a drawing. For instance, chicken houses, cattle guards, water faucets, etc., R. II, 1085-1088.

The item also includes the assumed expense of "house counts" (made in the *cities* being served natural gas), although no such expense was ever incurred by the Company in any city in Texas, (R. II, 1092-1093) and although this expense, if incurred, should be included in distribution operations and borne by the distributing companies, and although he (Connor) would duplicate this expense in evaluating the distribution properties, R. II, 1116-1117.

General Supervision of Construction Costs: Connor estimates the cost of this item at $414,493.00, R. IV, 2654. It embraces the cost of salaries and expense of the general superintendent and his office organization; the expenses of the superintendent of plant and equipment and his organization and the expenses of the supervisor of safety and medical examination, R. II, 960. These charges have been segregated from the other supervisory charges for which separate estimates have been made in the appraisal. Connor considered them to be general in their nature and, therefore, in his opinion they did not lend themselves to allocation to specific properties, R. II, 960.

General Supervision Allocated to Specific Property Accounts: In addition to the said cost of general supervision, Connor sets up *another* estimate of supervision cost which he says is not allocated to specific property accounts. This item totals $425,634.00, R. IV, 2880. These two items of so-called supervision

charges are set up by Connor in addition to the estimated cost of supervision of job foremen which is included in the unit cost developed by Biddison and reflected in the direct structural costs of physical properties (R. II, 961), thus making a total of 3 different supervision estimates that enter into Connor's pyramided supervision cost structure. This $425,634.00 overhead item is included by the Company as a "direct cost" and made to appear as an inherent part of the physical property, R. IV, 2366 2368.

Taxes During Construction: The Commission findings in the amount of $9,681.29, appear at R. I, 48. The taxes are estimated by Connor at a total of $173,881, R. IV, 2367. He testifies they are intended to cover all expenditures in connection with the state, county, city and other taxes that would be levied and paid on the property of the Company during construction and before the facilities would be used for operation, R. IV, 2941-2942. Although Connor further stated that he did not know the amount of the taxes paid by the Company, historically, in connection with the construction of its property, and was unable to say whether any taxes were paid during the construction of the Dallas Gas Company Building, or the Lone Star Gas Company Building, (R. II, 1099), he, nevertheless, takes the position that the total amount of this item of cost would necessarily be incurred by the Company. He definitely admits that he gave no consideration or attention to the fact, as to whether the Company actually or historically paid any taxes whatsoever during the original construction of the property, R. II, 1100.

Freese, on the other hand, testified that the history of the Company disclosed that very little, if any, taxes were *actually* paid by the Company during the period of the construction of its properties, (R. III, 1753), he stated further, that the Company's own records disclose that during the years 1927 to 1929, at which time $17,000,000 of its construction work was carried on, only $1,616.73 was actually paid by the Company for taxes accruing during the said construction period, R. III, 1754.

The Company's actual experience, in recent years, clearly shows that the amount of taxes paid by it, proportionately, on the amount and value of the property then under construction, does not justify the inclusion of any hypothetical item of cost in the sum as here set up by Connor in his aforenamed Exhibit.

Interest During Construction: This item of cost is estimated by Connor at $4,975,933.00, R. IV, 2654, It represents the estimated cost of interest charges incurred from the date of the incorporation of the Company, until the property will pass from construction into operation, R. II, 975. In connection with this item Connor again assumes that 50% of the money required in the reconstruction of the Company's properties would be raised by the issuance of first mortgage bonds, 25% by the issuance of preferred stock, and the remainder by the issuance of common stock; and this, again, in the face of the known history of the Company that no such securities were ever issued by it, either in connection with the original construction of the first unit of its property, or at the time of the construction of any later units. Connor further assumes that the Company would be required to pay

interest at the rate of 8% per annum, although it is paying only 6% per annum for all sums of money borrowed by it, (R. II, 1107), the difference being made up of discount on senior securities.

Working Capital: Connor estimated this item at $1,701,600.00, R. V, 3005. This includes materials and supplies on hand in the amount of $555,000.00 at inventory prices and book cost, about which there is no complaint; allowance is also made of $255,000 to cover 45 days operating requirements, (R. V, 3006) which is not questioned. Included, however, is an item of $300,000.00 for cash balances in bank, R. V, 3006. We question the propriety of this last named item, as it is not shown that the banks require the maintenance of any cash balances in order to obtain banking services without charge. The current practice is that banks require no more than 10% of current borrowings to be maintained on deposit; and as the record shows that the Company's current, outstanding, short term loan with its Dallas banks, amounts to only $25,000 (R. III, 1964), and that the largest sum ever borrowed from banks, by the Company at any one time, was around $500,000 for a very short period of time, (R. III, 1969), a bank balance of approximately $50,000 would be the maximum amount that would ever be required to be set up for this element of cost. This Court can take judicial notice of the fact that the Interstate Commerce Commission allows only 45 days operating expense, without the addition of bank balances or other items.

Going Concern Value: Connor estimated this item at $7,792,888.00, R. IV, 2957. He based it primarily upon development costs in the initial stages

of the business—that is, fixed charges (depreciation, interest and taxes) upon idle plant, plus 10% net return (R. II, 1005) upon such idle plant as was estimated not to be carrying its full capacity load of business during the period of initial business development, pending attainment of normal customer attachment and customer consumption by the distributing companies served by Appellant, (R. II, 1004-1006). It was not shown that any such business development costs were incurred in the initial stages by the Company; but on the contrary, the financial history of the Company, as found in the opinion of the Commission, (R. I, 65), shows that the Company has been phenomenally successful in obtaining profitable business from the very beginning, R. III, 1755, 1803-1804, 2108. The Commission said: "To summarize our conclusions . . . we find the allowance of going value determined by . . . Connor, to be without any sanction in . . . . . reason . . .", R. I, 66.

The Commission further said: "We find * * * that the adoption of the reproduction cost new value as determined by us * * * containing, as it does, a complete allowance for all overhead expense, together with our allowance for operating expenses, fully and justly compensate the Company for all development costs which have been incurred or which would be incurred on a reasonable reproduction of the Company's properties and that such an allowance thus determined is ample to cover any and all items entering into and forming a part of going value." (R. I, 66, 52-66).

Connor also included an estimated cost of attaching customers, of obtaining new business and of training

the personnel in operating routine, etc., all of which were shown to have been charged to operating expenses and recouped by the Company, from the beginning of its history, R. III, 1645, 1803.

He attempts to differentiate his method of determining the existence and amount of going concern value, from the "past deficit method" (R. II, 1004-1005) and says that he has not estimated, or included, "any losses" of past operations by reason of inadequacy of rates, or otherwise. This is an obvious attempt to distinguish his theory from the methods condemned by this Court in *Galveston vs. Galveston Electric Co.*, 258 U. S. 388, 395, 66 L. Ed. 678, 683, where it is said that "past losses, obviously, do not tend to prove present values", and many other cases by this Court, following and applying that doctrine, down to the present time.

A careful reading of Connor's entire theory of Going Concern Value will reveal that it is identical with those methods rejected in the *Galveston* case; and, lately, in *St. Joseph Stockyards Co. vs. United States*, 298 U. S. 39, 62-64, 80 L. Ed. 1033, 1047-1048.

In his elaborate theorization, he utterly disregards the history of the Company, saying expressly that he does not know what the history is, has made no effort to find it out, and would have paid no attention to it if he had known it. He also says it would have made no difference to him, if the Company had been charging to operating expense and had fully recouped in the past all of the expenses which he used as a basis for measuring the claimed Going Concern Value, R.

II, 1134-1135. In so doing he goes squarely in the face of this Court's holding in *Houston vs. Southwestern Bell Tel. Co.*, 259 U. S. 318, 325, 66 L. Ed. 961, 965, where it is said, "Whether Going Concern Value should be considered and allowed at all in determining the base for rate-making, and, if allowed, what the amount of it should be, depends upon the financial history of the Company."

Furthermore, in determining and estimating this claimed element of value, Connor forgot the Company's position, asserted in connection with its interstate commerce contentions, namely, that it was a totally different entity from, and not in any way related to, its affiliated distributing companies.

Both Connor and Biddison, in assuming the destruction of the Company and all its properties, for purposes of reproduction, destroyed not only the Company and its property but also the personnel; also the distributing companies, and all of their property; and even the 230,000 domestic consumers who are customers, not of Appellant, but of the distributing companies, which customers he treats as being customers of the pipe line company. The only exception is the city of Fort Worth, where the Appellant carries on distribution operations directly serving approximately 33,000 retail customers, R. III, 1896.

Not content with going that far, he goes even to the extent of assuming that these 230,000 customers and all of their gas appliances and equipment have been destroyed and would have to be replaced, also. But

his audacity is not even yet exhausted. He admits that, having taken into consideration the supposed value of having these 230,000 retail customers attached to the distributing companies, who are not customers of the pipe line company at all, that he would, in any burner tip case involving any one of the distribution companies, duplicate this going concern element by including customer attachment and customer use value in the burner tip cases, also, R. II, 1115-1120. Under his theory, the more customers that were attached to the distributing companies, and the more gas per customer they used, the more valuable would be the properties, not only of the distributing companies, but also of the pipe line company; and, therefore, the higher the rates that would have to be paid by the customers, as the number of customers and the degree of customer use saturation was increased, R. III, 1118. This Court has never sanctioned the use of any such vicious circle as a basis of an element of value to be included in a rate base.

Typical of the Company's methods before the Commission and all courts, is the claim on page 145 of its brief, that "Appellees include nothing in their appraisal for going concern value". Counsel quote a single question and answer, from the testimony of the Commission's witness Freese (R. III, 1793-1794, 2108), which, standing alone, would support the statement. By referring to the record pages cited, however, this Court will see that the Company has affirmatively and deliberately misrepresented to the Court what the testimony was. At R. III, 1793-1794, appears the following testimony:

"Q. You made no separate allowance in connection with your Exhibit 6 for Going Value, Going Concern Value, or Cost of Reproducing the Business did you?

A. No.

Q. Was it your testimony that you had, nevertheless, allowed something for Going Value?

A. No; as I recall my specific statement, it was that we had priced everything as usable, as something that was in use, or could be used, and not something that had no business or no use, or was junk value, or something to that effect."

Then follow the question and answer, quoted by the Company on page 145 of its brief; and at R. III, 1755 appears the following testimony:

"Q. Now then, I notice in your non-physical properties, and in fact, nowhere in your summary is there a separate allowance for going concern value, or going value. Does that mean, Mr. Freese, that you have not evaluated this portion of the Company's property as a going concern?

A. No; that does not mean that we have not taken this at its reproduction cost new as a going concern, rather than its junk value as a going concern.

Q. Why have you felt justified in not making some sort of additional and separate allowance for going value?

A. In the first place, the history of the Company indicates that no losses on idle plant were actually incurred; or if any such losses were incurred during the earlier years of the Company, that they have been easily made up in the meantime. In the second place, during the operating periods considered in the auditors exhibits, most of the items which are ordinarily considered as

contributing to the building up of going value have been charged to operating expenses."

And at R. III, 2107-2108, occurs the following:

Q. Well, if the title is to be taken as it reads where have you included any allowance for going value, going concern value or cost of reproducing the business?

A. Mr. Griffith, I have not *separately* labeled a certain amount of dollars as going value. Every item included in there is property, as part of a going concern. Furthermore, in addition to that, in the operating expenses which we have allowed, we have allowed for the attachment of new business, the securing of new business, advertising expenses, and every expense that would be incurred in the nature of attracting new business and which is one of the things which ordinarily, and which does go to make up what is known as going value.

Q. Now, we may get to the profit and loss statement, later, Mr. Freese, but please confine yourself to this reproduction cost evaluation at this time. Can you point out to me a single dollar in here, or a series of dollars which represents going value, going concern value or the cost of reproduction of the business as distinguished from the cost of reproduction of the property?

A. Not *separately* labeled as such, no.

Q. If the property of the Company were to be reproduced as of June 15, 1934, and there was no business attached whatsoever, wouldn't your reproduction cost be the same as set forth in plaintiff's Exhibit No. 6?

A. Yes, and that would be true whether it was 100 per cent saturation or whether there was no saturation at all, *in view of the history* of the

> Company, the way it was actually produced and the way it could be produced from the beginning again. *There was no loss of return on idle plant during the history of the Lone Star Gas Company.*" *Italics ours.*

Freese's method of valuing all of the component parts of the property, as parts of an active, going concern with all business fully attached, personnel trained, and all undistributed general overheads and other intangible values fully allowed for, instead of making a *separate* lump sum estimate of going concern value, as such, has been repeatedly approved by this Court, more notably in *Los Angeles G. & E. Corporation vs. R. R. Com. of Cal.* 289 U. S. 287, 302-303, 313-319, 77 L. Ed. 1180, 1191, 1196-1200, and cases there cited and reviewed; and also in *St. Joseph Stockyards Company vs. United States*, 298 U. S. 38, 62-64, 80 L. Ed. 1033, 1047-1048. And see especially *Columbus G. & F. Co. vs. Pub. Ut. Com.*, 292 U. S. 398, 410-413, 78 L. Ed. 1327, 1334. These cases condemn the Company's methods as to this item.

Per Cent Condition: The Commission used the sinking fund method of depreciation accrual accounting and, therefore, used an undepreciated rate base. The same method was used by Freese in his testimony both before the Commission and the District Court. On the other hand, the Company's witnesses purported to use, in their testimony both before the Commission and District Court, the straight line method of computing depreciation, and a depreciated rate base. They expressly admit (R. II, 1145), that "fair value" as used by them is their reproduction cost new estimate, less "observed depreciation", as determined by their

estimated "per cent condition", which quoted terms they erroneously treat as being synonymous with "accrued depreciation." They further testify that in arriving at their estimate of per cent condition they did not take into consideration any depreciation except that which was palpable to the eye by a casual inspection of the outside surfaces of the property, and that it was impossible to examine the interior of the property for any signs even of physical depreciation such as corrosion inside of pipe, R. II, 1197-1199, 1202, 1206. Much of the property was not even inspected by the Company's witnesses. Furthermore, their per cent condition totally ignored the intangible factors which bring about depreciation and ultimate retirement of property, and which intangible factors account for fully as much of the depreciation in the broader sense as does physical deterioriation. It was by this method that the Company arrived at its estimated over-all per cent condition of 94.26 per cent, R. II, 1145.

The Company used its "observed depreciation" of 5.74 per cent as being synonymous with "accrued depreciation"—whereas it is obvious that it does not represent, even approximately, the amount of actual accrued depreciation in the property, due to all causes, including physical deterioration, obsolescence, inadequacy, changed operating conditions, public requirements, etc.

Contrasted with this assumption is the inconsistent attitude of the Company in estimating its necessary annual accruals to the depreciation reserve. On that side of the ledger, getting away from the question of the rate base on which the Company should be al-

lowed to earn a return, and over on the side of where it was computing the money to be taken out of gross revenues for meeting current depreciation, Connor expressly took into consideration all causes, both observable and non-observable, which contributed to bring about depreciation in value and ultimate retirement.

The Company has not seen fit to provide for depreciation on its books at a rate more than approximately half of the annual rate estimated as necessary by Mr. Connor, R. III, 2140B, V, 3056. Yet the balance in the depreciation reserves stood at $15,695,413.00 on December 31, 1933, as compared with a book cost as of the same date of $50,283,644.00, (R. III, 2140A, 2140B), indicating an overall per cent condition of the property of 68.8%, or even less if any measure of credence is to be given Mr. Connor's estimate of the annual amount necessary to be set aside in the depreciation reserves. There is a complete disparity between Mr. Biddison's superficially observed per cent condition of 94.26% and Mr. Connor's estimate of the annual depreciation requirements.

We have in this brief adverted to only a relatively few of the countless glaring errors and inconsistencies on the part of the Company with which the whole record is shot through. It would be impossible in a brief any shorter than the record itself to point out all of these errors. We cite them, not always for the amount of money which they involve, nor for their glaring erroneousness, but simply as typical illustrations of methods used by the Company throughout this proceeding, from its inception.

NET RATE OF RETURN NECESSARY TO INSURE FINANCIAL SOUNDNESS OF THE COMPANY

The Commission aimed at fixing the rate at such a level as would bring the Company a net return of 6% for the basic year 1931, and would in average operation in the future (prospectively from September 13, 1933, the date of the order) yield a net average rate of return in excess of 6% per annum, over a reasonable spread of years, R. I, 111. The Commission computed return before federal income tax, R. I, 104. This rate of return was supported in the District Court by the testimony of a Commission witness (R. III, 1815-1816) as being sufficient to insure the credit and financial integrity of the Company, to induce a free flow of capital, and as being commensurate with the rates of net return being realized by utilities in the same general section of the country whose business was attended with like risk as that of the Company. Commission's witness Montgomery testified that over a period of ten years 5% net annual return would be a sufficient return, R. III, 1816, 1822.

The testimony in behalf of the Company was as follows: Connor testified that for the above purposes a net return of 10% per annum after federal income tax was necessary, R. II, 1330. Biddison testified that a minimum of 10% to a maximum of 15% after federal income tax was necessary, R. III, 2014-2015. An 8% minimum after depreciation and depletion (whether before or after federal income tax was not shown) was testified as necessary by banker Thornton, official of Mercantile National Bank of Dallas,

which bank had in the past made large loans to Appellant and had bought bonds issued by some of the Lone Star underlying companies, and which was one of the banks with which Appellant was doing business at the time of the trial; such loans to Appellant being made at 4% to 4½ % interest, R. III, 1963, 1964. The same testimony was given by Florence, an official of Republic National Bank of Dallas, which bank likewise had made loans to Appellant and which bank through Florence had participated in the successful sale of 5% debentures of Lone Star Gas Corporation, and which bank had also made loans upon the security of stock in the Lone Star Gas Corporation. This witness likewise testified that loans to Appellant were made at 4% to 4½ % interest per annum, R. III, 1965, 1967, 1974.

This is all to be contrasted with the Company's claim (p. 40 of its brief) that the actual rate of return being enjoyed by it *under the* 40c *rate* voluntarily fixed and adhered to by it for many years without even asking permission to raise the rate, was, for the years 1931 to 1934, only .61% to 1.71%. If as the Company's testimony would show, net returns of from 8% to 15% after federal income tax are necessary to enable the Company to survive and operate successfully, we can not understand how it could have survived as long as it has on such small rates of return as it claims to have been making under its 40c rate. It is enlightening to compare both the Company witnesses' testimony as to what rate of return is necessary for it to earn, and the Company's claims as to what net percentages it has actually been earning, with the percentages as found by the Commission as actually

earned in the past (1909-1931), the weighted average of which percentages (before annual depreciation) was 12.03% upon undepreciated book cost, R. I, 65. The Commission found slightly in excess of 2% for annual depreciation as applied to the undepreciated cost.

The record shows that in the past the Company has had a "free flow of capital" sufficient to meet all of its requirements, as and when needed, from the holding company at 6% interest, (R. I, 239), and short term loans from the above mentioned banks at 4% to 4½%, R. III, 1963-1974.

This Court has held in *Dayton P. & L. Co. vs. Pub. Utilities Co., supra,* that it would take judicial notice of economic conditions and consider them in deciding whether a particular rate of return was confiscatory. A 6½% return was upheld as being adequate in that case; and a 6% return was upheld in *Willcox vs. Consolidated Gas Co.,* 212 U. S. 91, 53 L. Ed. 382; *Cedar Rapids G. & L. Co. vs. Cedar Rapids,* 223 U. S. 655, 56 L. Ed. 594; *Des Moines Gas Co. vs. Des Moines,* 238 U. S. 153, 59 L. Ed. 1244. In *Knoxville vs. Knoxville Water Co.,* 212 U. S. 1, 17, 53 L. Ed. 371, 382, in periods of economic depression comparable to those which prevailed here, this Court refused to set aside as confiscatory a rate of 6% *before deduction of 2% for depreciation.*

Future Revenues: The year 1933 was the warmest year in the Company's history (R. III, 1595, 1895) and therefore the temperature adjustments made by the Commission's witness in the District Court, R. I, 389, 390; R. III, 1881, 1887, 1888,

1892, 1895, 1900, 2164-2173, were proper, as held by this Court in *Los Angeles G. & E. Co. vs. Railroad Commission of Cal.*, 58 Fed. (2d) 256, 286, aff. 289 U. S. 287, 298-300, 302, 303-304, 77 L. Ed. 1180, 1189-1190, 1191-1192, 1200.

It is shown at R. III, 1896, that the Company introduced, before the Commission, Weather Bureau records for years prior to the date of the Commission's hearing. It complains now, however, that similar data were introduced by the Commission in the District Court trial.

This Court has often taken judicial notice of economic conditions prevailing from time to time and, therefore, judicially knows the conditions which prevailed from 1931-1933. Specific data as to these trends, as applied to the Company's experience are shown in the record. The trend of both gross and net revenues was downward from 1931 to 1933 inclusive, R. I, 386. This was particularly true of industrial revenues, and the domestic revenues dropped off over $1,000,000.00 from 1932 to 1933, R. I, 385-387. Hulcy admits that the economic depression and the low temperatures of 1933 were contributing factors to these slumps, R. I,386-389; R. III. 1642. Connor claimed that the Company had shared with others this general business distress, R. II, 1448-1449. The securities market was pretty low when the Commission held its hearing (R. II, 1450) and was still lower at the time of the District Court trial, R. II, 1450-1451. The Company's operating statements show, however, that the trend of both gross and net revenues was upward during the first quarter of 1934. See Tables II and III, *infra;* and R. III, 1641.

COMPUTATIONS BY THE RESPECTIVE PARTIES OF NET RATES OF RETURN EARNED BY THE COMPANY IN PAST YEARS UNDER THE 40c RATE AND PROJECTION OF THE RATES OF RETURN PROBABLY TO BE EARNED IN THE FUTURE UNDER THE 32c GATE RATE

It is to be recalled that the Commission had before it operating statements for the six calendar years 1927-1932, and for the year ending April 30, 1933, R. I, 19-20, III, 1607. These were not submitted by the Company, however. The Company presented such statements for only the calendar years 1931 and 1932, and the overlapping year ending April 30, 1933, before the Commission. Before the Commission, however, the Appellees' accountant, Phillips, presented "accurate and detailed statements of revenues, expenses and book costs for the years 1927-1932, inclusive, as taken from the records of the Lone Star Gas Company", R. I, 18. The Commission used the year 1931 "as a basis for finding the city gate rate which would earn a fair return", R. I, 16. "This rate was then applied to the years 1927-1932 as a test of its reasonableness", R. I, 16.

Before the District Court the operating statements presented by the Company covered only the three calendar years 1931-1933, and the overlapping year ending March 31, 1934. Thus the Company was making an unwarranted attempt (*United Gas Pub. Serv. Co. vs. Texas*, ____ U. S. ____, 82 L. Ed.____, Adv. Op. No. 10, pp. 490, 500, 502, decided Feb. 14, 1938) to limit vision to a short period, affected deeply by the depression, including the year 1933,

which was the warmest year in the history of the Company, R. III, 1595, 1881-1895. Before the District Court, Appellees' accountant Phillips presented operating statements for the seven calendar years 1927-1933, and the overlapping year ending Mar. 31, 1934, (R. III, 2126A) giving the District Court a vision of average operations over a reasonable period of years.

The Company now complains bitterly of the temperature adjustments made for 1933 and the year ending Mar. 31, 1934, by Commission witness Freese, in the computations before the District Court, although the Company itself had introduced evidence and data on temperatures before the Commission, R. III, 1887, 1896. See Company's brief, p. 47; Appellees' Ex. 8, R. III, 2164-2165, 1896; specification of Error 15 (g), Company's brief, p. 58. This assignment ignores this Court's approval of the temperature adjustments similarly made in *Los Angeles G. & E. Corp. vs. R. R. Com. of Cal.*, 58 Fed. (2d) 256, 285, aff. 289 U. S. 287, 298-300, 303-304, 320, 77 L. Ed. 1180.

The Company in its brief has presented various computations of the net rates of return which it claims it has been earning under the 40c rate and which it claims it would earn under the 32c rate. None of these computations shows the rates of return which would be earned under the 32c rate by reason of the fact that each of such computations involves one or more of the following basic errors which should be borne in mind of the Court in its consideration of the claimed rates of return:

(a) Failure to use a sufficient spread of years to show average operating results leveling out the inevitable fluctuations due to all factors.

(b) Using the 40c rate instead of the 32c rate.

(c) Failing to make temperature corrections for the abnormal temperature periods.

(d) Failing to take into account the increased consumption which would result from putting the reduced rate into effect.

(e) Failing to take into account the increased consumption which will be certain to result in the future, from economic recovery.

(f) Using Connor's excessive deductions for depreciation and depletion requirements.

(g) Using the inflated rate bases as estimated by the Company witnesses.

(h) In not deducting the improper and questioned operating expenses referred to by us above.

(j) In cases where a depreciated rate base is used, in using too high a per cent condition of the property, which per cent condition does not take into account the various intangible factors of depreciation, such as obsolescence, inadequacy, changed operating conditions, depletion; and failure to depreciate all properly depreciable items such as rights-of-way, etc.

(k) Making computations of federal income tax which has never been incurred by the Company or paid to the government.

(l) Applying the Company's unacceptable basis of segregation between what it calls "interstate and intrastate operations".

The above *elements of error* are applied specifically to the various computations presented by the Company, by letter designation only, as follows:

In the computations at the bottom of page 39 and top of page 40 of Company's brief: a, b, c, d, e, f, g, h, j, k.

In the computations at page 41 of Company's brief: a, c, d, e, f, g, h, j.

In the second computations, page 41 of Company's brief, which apply to the Commission's findings: a, c, d, e, (h, in part), k.

In the computations at the top of page 42 of the Company's brief: a, c, d, e, h, k.

In the computations on pages 43-44 of Company's brief: a, c, d, e, g, h, j, k, l.

In the computations at top of page 60 of Company's brief: Same errors as are in computations on pp. 43-44.

In the computations at the top of page 156 of Company's brief: a, c, d, e, f, (h, in part) j.

In the computations at the bottom of page 156 of Company's brief: a, c, d, e, (h, in part) j.

In the computations at the bottom of page 157 of Company's brief: a, c, d, e, f, g, (h, in part) j.

In the computations at the top of page 158 of Company's brief: a, c, d, e, g, (h, in part) j.

In the computations at the middle of page 158 of Company's brief: a, c, d, e, (h, in part), k.

In the computations at the middle of page 159 of Company's brief: a, c, d, e, g, h, j, k, l.

In the computations at the middle of page 165 of Company's brief: a, c, d, e, (g, in part) h, k.

In the computations in the middle of page 167 of Company's brief: a, c, d, e, f, h, j.

In the computations at the bottom of page 167 of Company's brief: a, c, d, e, h, j.

In the computations at the middle of page 168 of Company's brief: a, c, d, e, f, g, h, j.

In the computations at the bottom of page 168 of Company's brief: a, c, d, e, g, h, j.

In the computations at the top of page 169 of Company's brief: a, c, d, e, f, g, h, j.

In the computations at the middle of page 169 of Company's brief: a, c, d, e, g, h, j.

In many instances Appellant purports in its computations to have applied the Commission's findings throughout; but an examination will reveal that it has not done so, at least in full. In each such case the Commission's findings are plain, and the Court by referring to such findings will discover wherein the Company has failed to apply or has mis-applied the Commission's findings.

We now come to the submission, for the Court's consideration, of our own computations of the rates of return which would be available to the Company under the 32c rate upon certain bases. We understand that we are under no legal duty to submit evidence or computations of our own in support of the compensatory character of the rate, and that if our own computations and evidence should not for any reason meet with the approval of the Court this still would not lift from Appellant the burden of proving the rate

confiscatory by clear and convincing proof of its own. But we desire to be of as much assistance to the Court as possible; hence we submit at the end of this brief our Tables I to V inclusive.

It is to be remembered that none of our said computations takes into account the increased consumption which would result from economic improvement or from actually putting the reduced rate into effect; nor do any of them take into account the deductions which should be made of the improper operating expenses which we have objected to above, with the exception of management fees, and in Tables II, III and V, of donations as shown.

Table I applies all of the Commission's findings throughout, except that we have made temperature corrections for 1933 as shown by the evidence adduced before the District Court. The Commission had evidence before it to show that the earlier years averaged out as normal so far as temperatures were concerned and, therefore, required no correction. This Table shows average net percentages of 8.00% and 9.16%, respectively, upon the bases there shown, for the seven years, 1927-1933, after application of the 32c gate rate. The percentages for 1927 to 1932, inclusive, are taken from the Commission's findings. It is to be noted that, in applying the Commission's findings to the year 1933, the rate base includes the net additions made during 1932 and 1933 at cost. These net additions comprise to a large extent the Southern Oil Production Properties and the properties of the Meridian Gas Company, which latter properties were purchased from the Lone Star Gas Corporation.

Table II is an application of the 32c gate rate to over-all Texas and Oklahoma operations, using undepreciated book cost and an undepreciated rate base as found by the Commission, respectively, and actual charges to the depreciation reserves, and shows an average of 8.72% and 8.82% upon the rate bases, respectively, for the seven years 1927-1933. In this connection it is well to recall the Company's complaint that the use of the actual charges to the depreciation reserves does not make any provision for the amortization of the Company's property at such time in the future as the natural gas supply may be exhausted. It will be remembered, however, that the record shows that .344% per annum (R. I. 97) will amortize the property over a period of fifty years on a 6% sinking fund basis. By deducting this percentage for amortization from the net percentages shown in Table II, there would be left 8.38% and 8.48%, as average returns for the seven year period on the undepreciated book cost and on the undepreciated rate base as found by the Commission, respectively. For the use of the actual charges to the depreciation reserves, see supra pp. 105, 106. Expenses as shown in the table (Table II) include the charging off on the books of the Company of large amounts for cancelled and surrendered leases, see supra pp. 122-124. It is to be noted that the book costs used in this table exceed the book costs claimed by the Company in amounts of approximately $450,000 to $675,000 for the years shown in the Company's exhibits, R. III, 2211, 2214, 2217. These book costs include the Petrolia Field account and the Meridian Gas Company properties, see supra pp. 154-156. The rate bases "as found by the Commission"

include the Southern Oil Production and the Meridian Gas Company properties at book cost. In comparing the book cost with the rate base found by the Commission, it should be remembered that a large part of the properties was built during peak-price periods, R. I. 109.

Table III applies the 32c gate rate to the undepreciated book cost on Texas properties and operations only, as segregated by the Commission's witness in the District Court trial, using average charges to the depreciation reserves, which shows an average net return of 8.18% over the five year period 1929-1933 inclusive. If the amortization allowance of .344% (R.I. 97) be deducted from this average it still leaves 7.84% return over the five year period as applied to the undepreciated book cost of the Texas properties. The same observations made with reference to Table II as to expenses and as to book costs are pertinent to Table III.

Table IV applies the 32c gate rate to the Texas properties and operations only, as per segregation submitted by the Commission's witness in the District Court trial, upon the undepreciated reproduction cost new as found by the Commission's witness, his allowance for depreciation being substantially the same as the allowance found by the Commission; using actual operating expenses as per the Company's books, except for management fees, as segregated by the Commission's witness in the District Court trial; and making temperature corrections for the calendar year 1933, and the year ending March 31, 1934. This table shows a rate of return of 6.72% for 1933 and 6.70%

for the year ending March 31, 1934. For the use of the prevailing wellhead price for Company produced gas in lieu of the inclusion of production expenses and production property, see supra pp. 143-156, especially 150-154.

Table V shows the application of the 32c gate rate to the "D" operations, which the Company admitted to be intrastate Texas operations, as per its totally unacceptable basis of segregation submitted in the District Court, and even this shows a return of **6.63%** applicable to "D" operations. As a basis for these computations, corrections for management fees, charitable donations and temperature adjustments have been made. Depreciation has been taken as estimated by Commission's witness. The rate base as determined by the Commission, plus net additions at cost as of December 31, 1933, has been used.

These tables show conclusively that the rate of return, based upon the 32c wholesale rate for domestic gas, would be substantially above the point of confiscation when tested in the light of a reasonable spread of years, either on the basis of the properties and operations as a whole or any segregation of the Texas properties and operations.

CONCLUSION

The financial history of the Company (R. I, 64-66) repels the suggestion that the Company has been operating under a confiscatory rate at 40c per MCF, as claimed by the Company at page 40 of its brief. On the contrary, the following table, taken from the Commission's findings, aforesaid, shows that the Company has been phenomenally successful and prosperous:

Period	Book Cost Public Service Property	Amount Available for Depreciation and Return	Per Cent of Undepreciated Book Cost	
June 4, 1909—May 31, 1910	$ 4,741,620.41	$ 57,607.99	1.21	
June 1, 1910—Feb. 28, 1911	4,790,284.17	160,761.86	3.35	(4.47 per annum)
Mar. 1, 1911—Feb. 28, 1912	4,994,064.08	610,992.63	12.23	
Mar. 1, 1912—Feb. 28, 1913	5,800,664.91	814,811.21	14.04	
Mar. 1, 1913—Feb. 28, 1914	6,164,123.74	1,114,369.22	18.08	
Mar. 1, 1914—Feb. 28, 1915	6,980,985.13	1,164,663.69	16.68	
Mar. 1, 1915—Dec. 31, 1915	7,715,247.24	736,351.36	9.54	(11.45 per annum)
1916	8,090,251.99	1,101,618.66	13.61	
1917	8,627,698.92	901,798.88	10.45	
1918	9,399,508.86	694,208.51	7.38	
1919	12,749,862.20	1,032,035.11	8.09	
1920	16,225,774.18	1,227,479.44	7.38	
1921	16,336,266.61	1,331,944.53	8.15	
1922	17,572,198.80	1,677,754.21	9.54	
1923	18,870,227.60	2,232,771.43	11.83	
1924	20,281,257.29	2,843,831.77	14.02	
1925	24,294,693.33	3,950,790.60	16.26	
1926	25,113,114.07	4,334,870.94	17.26	
1927	33,307,350.60	4,513,876.52	13.55	
1928	36,879,954.99	5,028,295.46	13.63	
1929	44,449,143.87	5,869,183.24	13.20	
1930	47,703,209.28	5,297,491.90	11.10	
1931	47,776,749.63	4,605,721.83	9.64	

The foregoing tabulation reflects a weighted average annual rate of return on the undepreciated book cost, of 12.03%, before depreciation, R. I, 65.

While it may be true that on certain minor, subsidiary issues the evidence was conflicting, still after considering the many liberalities of the Commission, and setting them off against any possible elements as to which a conflict of evidence may have created a doubt as to sufficiency, (See Point XXXIII, pp. 90-91, *infra*, and cases cited), and considering the insufficiency of Appellant's evidence as a whole (the totality of its consequences), it is clear that no issue or issues as to confiscation were raised which required submission to the jury. Although the burden has not been upon the Commission at any stage of the proceedings to

submit any evidence in support of the rate fixed, yet, we submit that under the evidence voluntarily produced by the Commission the rate has affirmatively been shown to be compensatory. The correctness of the findings of the Commission has not been refuted by the Company's evidence, but on the contrary has been supported by the evidence. A reading of the Commission's opinion, (R. I, 12-116) and the opinion of the Court of Civil Appeals, (R. V, 3333-3370) will show that the Commission was in many respects very much more liberal with the Company than it was required by law to be, and if the Commission's findings are applied it is demonstrated beyond all cavil that the rate is compensatory.

We submit that under the authorities cited under our Point XLI, pp. 97-98 *supra*, the Company's evidence has "proved too much" and "over-shot the mark," and "must fail of the intended effect".

We, therefore, pray, that the judgment of the Court of Civil Appeals and of the Supreme Court of Texas be affirmed.

Respectfully submitted,

WILLIAM MCCRAW,
Attorney General of Texas

ALFRED M. SCOTT,
Assistant Attorney General
of Texas

EDWARD H. LANGE,
Laredo, Texas
Counsel for Appellees

TABLES I TO V INCLUSIVE:

TABLE I
Texas and Oklahoma Operations
RETURN BASED ON COMMISSION FINDINGS
32c GATE RATE

Year	Excluding Earnings From Government and Northern Natural Including Production Properties Undepreciated Rate Base		Including Earnings From Government and Northern Natural Gas at Wellhead at Prevailing Field Price Undepreciated Rate Base	
1927	11.42%	(1)	12.62%	(3)
1928	9.70%	(1)	10.90%	(3)
1929	9.83%	(1)	11.03%	(3)
1930	7.46%	(1)	8.66%	(3)
1931	6.02%	(1)	7.22%	(3)
1932	6.34%	(1)	7.54%	(3)
1933	5.20%	(2)	6.16%	(4)
Average	8.00%		9.16%	

Reference:

(1) R. I, 20, 111.

(2) Available for Federal Income Tax and Return ..... $2,070,006.97 - R. III, 2284
Temperature Correction ..... 441,240.12 - R. III, 2164

$2,511,247.09

Rate Base—As found by Commission at Dec. 31, 1931, plus net additions at cost ..... $48,306,893.96 R. III, 2285

Available for Return—
Per Cent of Rate Base 5.20%

For temperature data before Commission see R. III, 1881.
For Commission Findings as to Federal Income Tax see R. I, 104, 105.

(3) R. I, 20, 114.

(4) 5.20% from first column plus .96% making a total of 6.16%.
For .96% see R. I, 114.

BLANK

PAGE

TABLE II
Texas and Oklahoma Operations
BASED ON 32c GATE RATE
(Actual Charges to Depreciation Reserves—Average for 7 Yrs.)

	References to Calculations	For the year ended: 12-31-1927	12-31-1928	12-31-1929	12-31-1930	12-31-1931	12-31-1932	12-31-1933	3-31-1934 (9 mo. overlap with last period)
Revenues: R. III, 2126A		$ 9,020,274.96	$ 9,541,976.32	$11,886,128.49	$10,752,143.01	$ 9,301,862.65	$ 8,859,188.20	$ 7,728,309.05	$ 7,965,978.89
Amount of 8c per MCF Reduction: R. III, 2126B	(1)	973,702.96	1,199,373.20	1,414,553.76	1,437,941.36	1,361,894.96	1,332,135.04	1,115,586.64	1,151,152.40
Revenues at 32c Domestic Gate Rate		8,046,572.00	8,342,603.12	9,671,574.73	9,314,201.65	7,939,967.69	7,527,053.16	6,612,722.41	6,814,826.49
Expenses (Less Management Fees and Donations): R. III, 2126A, 2131, 2132	(2)	3,979,878.47	3,972,592.29	4,640,581.22	4,923,066.76	4,291,467.47	3,751,172.07	3,517,900.39	3,491,368.82
Available for Return, Depreciation, and Federal Income Tax		4,066,693.53	4,370,010.83	5,031,201.51	4,391,134.89	3,648,500.22	3,775,881.09	3,094,822.02	3,323,457.67
Average Depreciation Reserve Charges: R. III, 2140B	(3)	344,871.84	344,871.84	344,871.84	344,871.84	344,871.84	344,871.84	344,871.84	344,871.84
Available for Return and Federal Income Tax		3,721,821.69	4,025,138.99	4,686,329.67	4,046,263.05	3,303,628.38	3,431,009.25	2,749,950.18	2,978,585.83
Federal Income Tax	(4)	188,810.12	188,343.99	233,856.45	124,376.47	25,280.18	18,319.40		
Available for Return		3,533,011.57	3,836,795.10	4,454,473.22	3,921,886.58	3,278,348.20	3,412,689.85	2,749,950.18	2,978,585.83
Book Cost: R. III, 2140A	(5)	29,517,879.08	33,461,928.96	41,340,023.12	46,745,646.84	48,409,802.24	49,484,864.66	50,399,110.82	50,399,110.82
Return on Undepreciated Book Cost		11.97%	10.76%	10.78%	8.39%	6.77%	6.90%	5.46% (a)	5.91% (a)
					(Average 1927-1933 inc.: 8.72%)				
Rate Base as found by R. R. Comm.: R. I, 110, III, 2285	(6)	29,517,879.08	33,461,928.96	41,340,023.12	46,745,646.84	46,246,617.53	48,304,299.60	48,306,893.96	48,342,628.99
Return on Rate Base found by R. R. Comm.: (Undepreciated)		11.97%	10.76%	10.78%	8.39%	7.09%	7.04%	5.69% (b)	6.16% (b)
					(Average 1927-1933 inc.: 8.82%)				

Note (a): No temperature correction made for these abnormal periods. Correction to normal temperature basis would raise return for 1933 to 6.34% and for year ended 3-31-1934, to 6.44%. R. III, 2164-2173 inc.
Note (b): With temperature correction return for 1933 would have been 6.60% and for year ended 3-31-1934, 6.72%. R. III, 2164-2173 inc.

References to Calculations

(1) See State Exhibit No. 5—R. III, 2126B for Total Domestic Gas Sales

Twelve months ended		
12-31-1927	12,171,287 MCF @ 8c	$ 973,702.96
12-31-1928	14,992,165 MCF @ 8c	1,199,373.20
12-31-1929	17,681,922 MCF @ 8c	1,414,553.76
12-31-1930	17,974,267 MCF @ 8c	1,437,941.36
12-31-1931	17,023,687 MCF @ 8c	1,361,894.96
12-31-1932	16,651,688 MCF @ 8c	1,332,135.04
12-31-1933	13,944,833 MCF @ 8c	1,115,586.64
3-31-1934	14,389,405 MCF @ 8c	1,151,152.40

(2) Expenses (Less Management Fees and Donations): State Exhibit No. 5, R. III, 2126A, 2131, 2132

Twelve months ended	Expenses other than Gas Production and Management Fees R. III, 2126A	Gas Production Expenses and Management Fees R. III, 2126A	Total Expenses Including Management Fees and Donations Calculated	Management Fees R. III, 2126A	Donations R. III, 2131 R. III, 2132	Total Management Fees and Donations Calculated	Expenses Less Management Fees and Donations Calculated
12-31-1927	$3,874,820.10	$118,699.12	$3,993,519.22	----------	$ 13,640.75	$ 13,640.75	$3,979,878.47
12-31-1928	3,912,327.85	79,093.89	3,991,421.74	----------	18,829.45	18,829.45	3,972,592.29
12-31-1929	4,586,817.82	181,709.73	4,768,527.55	95,062.03	32,884.30	127,946.33	4,640,581.22
12-31-1930	4,590,035.27	467,233.64	5,057,268.91	105,625.72	28,576.43	134,202.15	4,923,066.76
12-31-1931	3,926,629.11	466,062.41	4,392,691.52	91,375.38	9,848.67	101,224.05	4,291,467.47
12-31-1932	3,445,049.84	403,661.87	3,848,711.71	87,197.87	10,341.77	97,539.64	3,751,172.07
12-31-1933	3,270,595.62	333,917.07	3,604,512.69	75,940.60	10,671.70	86,612.30	3,517,900.39
12-31-1934	3,260,886.27	318,798.38	3,579,684.65	78,294.78	10,021.05	88,315.83	3,491,368.82

(3) For Charges to Depreciation Reserves see State Exhibit No. 5 R. III, 2140B

Twelve months ended	Charges to Reserves
12-31-1927	$245,097.73
12-31-1928	260,768.59
12-31-1929	450,335.00
12-31-1930	464,875.93
12-31-1931	720,014.28
12-31-1932	-62,725.18
12-31-1932	335,736.55
Average	$344,871.84

(4) Per Federal Income Tax Rates see R. III, 2296
Per 5% of Book Cost for Depreciation Allowance for Federal Income Tax see R. III, 1889, I, 399-400.
Per Interest Payments see R. III, 2296, I, 412. 1927 to 1930 inclusive taken at amount paid in 1931

Twelve months ended	Amount available for Return, Depreciation and Federal Income Tax	Estimated Depreciation Allowance for Federal Income Tax	Interest Payments	Net Amount After Depreciation Allowance and Interest	Federal Income Tax Rate	Computed Federal Income Tax

(5) Average Book Cost for each year as taken from State Exhibit No. 5 R. III. 2140A

Twelve months ended	Book Cost At Beginning of Period	Book Cost At End of Period	Average for Period
12-31-1927	$25,263,504.93	$33,772,253.23	$29,517,879.08
12-31-1928	33,772,253.23	37,551,604.69	35,661,928.96
12-31-1929	37,551,604.69	45,128,441.56	41,340,023.12
12-31-1930	45,128,441.56	48,362,852.13	46,745,646.84
12-31-1931	48,362,852.13	48,455,152.34	48,409,002.24
12-31-1932	48,455,152.34	50,514,576.98	49,484,864.66
12-31-1933	50,514,576.98	50,283,644.65	50,399,110.82
3-31-1934	.....	50,325,548.93	50,399,110.82 (1933)

(6) Years 1927-1930 inclusive taken from R. I. 110
Years 1931-1933 inclusive and year ended 3-31-1934, taken from R. III. 2285
(The Railroad Commission found a reproduction cost new less than the book cost for 1931, but adopted the book cost for 1927-1930, inclusive.)

TABLE III
Texas Operations
BASED ON 32c GATE RATE
(Average Charges to Depreciation Reserves)

	Reference to Calculations	For the year ended: 12-31-1929	12-31-1930	12-31-1931	12-31-1932	12-31-1933	3-31-1934 (9 mo. overlap with last period)
Revenues: R. III, 2116A		$10,715,994.70	$10,379,829.27	$ 8,938,441.77	$ 8,503,942.21	$ 7,423,680.87	$ 7,663,061.50
Amount of 8c per MCF Reduction: R. III, 2116B	(1)	1,360,932.16	1,382,222.48	1,307,523.20	1,277,684.48	1,070,458.16	1,106,537.68
Revenues at 32c Domestic Gate Rate		9,355,062.54	8,997,606.79	7,630,918.57	7,226,257.73	6,353,222.71	6,556,523.82
Expenses (Less Management Fees and Donations): R. III, 2116A, 2123, 2124	(2)	5,013,566.92	5,018,235.74	4,081,951.56	3,527,505.03	3,154,644.52	3,161,055.66
Available for Return, Depreciation and Federal Income Tax		4,341,495.62	3,979,371.05	3,548,967.01	3,698,752.70	3,198,578.19	3,395,468.16
Average Depreciation Reserve Charges: R. III, 2140B	(3)	296,589.78	296,589.78	296,589.78	296,589.78	296,589.78	296,589.78
Available for Return and Federal Income Tax		4,044,905.84	3,682,781.27	3,252,377.23	3,402,162.92	2,901,988.41	3,098,878.38
Federal Income Tax	(4)	198,149.52	126,226.77	65,565.61	67,545.92	7,917.69	37,209.47
Available for Return		3,846,756.32	3,556,554.50	3,186,811.62	3,334,617.00	2,894,070.72	3,061,668.91
Book Cost: R. III, 2125	(5)	36,306,022.53	41,050,656.27	42,552,769.02	44,053,612.30	44,053,612.30	44,053,612.30
Return on Undepreciated Book Cost		10.60%	8.66%	7.49%	7.57%	6.57% (a)	6.95% (a)

(Average 1929-1933 inc.: 8.18%)

Note (a) No temperature correction made for these abnormal periods. Correction to normal temperature basis would raise return for 1933 to 7.43% and for year ended 3-31-1934 to 7.48%. R. III, 2164-2173 inc.

References to Calculations

(1) See State Exhibit No. 4, R. III, 2116B for Total Domestic Sales:

Twelve months ended		
12-31-1929	17,011,652 MCF @ 8c	$1,360,932.16
12-31-1930	17,277,781 MCF @ 8c	1,382,222.48
12-31-1931	16,344,040 MCF @ 8c	1,307,523.20
12-31-1932	15,971,056 MCF @ 8c	1,277,684.48
12-31-1933	13,380,727 MCF @ 8c	1,070,458.16
3-31-1934	13,831,721 MCF @ 8c	1,106,537.68

(2) Expenses (Less Management Fees and Donations) State Exhibit No. 4, R. III, 2116A, 2123, 2124

Twelve months ended	Expenses other than Gas Production and Management Fees R. III, 2116A	Gas Production Expenses and Management Fees R. III, 2116A	Total Expenses Including Management Fees and Donations Calculated	Management Fees R. III, 2116A	Donations R. III, 2123 R. III, 2124	Total Management Fees and Donations Calculated	Expenses Less Management Fees and Donations Calculated
12-31-1929	$4,965,432.99	$170,881.77	$5,136,314.76	$ 92,020.05	$ 30,727.79	$122,747.84	$5,013,566.92
12-31-1930	4,727,647.49	419,455.97	5,147,103.46	102,074.67	26,793.05	128,867.72	5,018,235.74
12-31-1931	3,727,634.84	452,092.47	4,179,727.31	87,926.88	9,848.87	97,775.75	4,081,951.56
12-31-1932	3,253,594.95	368,049.70	3,621,644.65	83,797.85	10,341.77	94,139.62	3,527,505.03
12-31-1933	2,932,557.52	305,795.87	3,238,353.39	73,037.17	10,671.70	83,708.87	3,154,644.52
3-31-1934	2,948,324.05	298,165.71	3,246,489.76	75,413.05	10,021.05	85,434.10	3,161,055.66

(3) Charges to Depreciation Reserves R. III, 2140B. Average for Texas and Oklahoma properties for 1927-1933, inclusive: $344,871.84. Factor of .86 used to arrive at average charges for Texas properties only. For .86 factor see R. III, 1748.
$344,871.84 @ .86=$296,589.78

(4) For Federal Income Tax Rates see R. III, 2296
For Est. of Book Cost for Depreciation Allowance for Federal Income Tax see R. III, 1889, I, 399, 400, III, 1879
For Interest Payments see R. III, 2296, I, 412; 1929 and 1930 taken at amount of interest paid in 1931.

[illegible]	[illegible]	Estimated Depreciation Allowance for Federal Income Tax	Interest Payments @ .86 as applicable to Texas	Net Amount After Depreciation Allowance and Interest	Federal Income Tax Rate	Computed Federal Income Tax
[illegible]	$4,341,495.62	$1,815,301.13	$ 874,948.47	$1,651,246.02	12.00%	$198,149.52
[illegible]	3,979,371.05	2,052,532.81	874,948.47	1,051,889.77	12.00%	126,226.77
[illegible]	3,548,967.01	2,127,638.45	874,948.47	546,380.09	12.00%	65,565.61
[illegible]	3,698,752.70	2,202,680.61	1,004,829.03	491,243.06	13.75%	67,545.92
12-31-1933	3,198,578.19	2,202,680.61	938,314.35	57,583.23	13.75%	7,917.69
3-31-1934	3,395,468.16	2,202,680.61	922,173.21	270,614.34	13.75%	37,209.47

[illegible] 12-31-1931 Book Cost $42,552,769.02 3-31-34

Twelve months ended	Amount Available for Return, Depreciation and Federal Income Tax	Estimated Depreciation Allowance for Federal Income Tax	Interest Payments @ .86 as applicable to Texas	Net Amount After Depreciation Allowance and Interest	Federal Income Tax Rate	Computed Federal Income Tax
12-31-1929	$4,341,495.62	$1,815,301.13	$ 874,948.47	$1,651,246.02	12.00%	$198,149.52
12-31-1930	3,979,371.05	2,052,532.81	874,948.47	1,051,889.77	12.00%	126,226.77
12-31-1931	3,548,967.01	2,127,638.45	874,948.47	546,380.09	12.00%	65,565.61
12-31-1932	3,698,752.70	2,202,680.61	1,004,829.03	491,243.06	13.75%	67,545.92
12-31-1933	3,198,578.19	2,202,680.61	938,314.35	57,583.23	13.75%	7,917.69
3-31-1934	3,395,468.16	2,202,680.61	922,173.21	270,614.34	13.75%	37,209.47

(5) From State Exhibit No. 4 R. III. 2125. Book Cost Texas Properties 3-31-34: $44,053,612.30. 12-31-1931 Book Cost: $42,552,769.02. 3-31-34 Cost used for 1932, 1933 and year ended 3-31-34. 12-31-1931 Cost used for 1931. 1930 Cost taken at 96.47% of 12-31-1931 Cost. 1929 Cost taken at 85.32% of 12-31-1931 Cost. For 1929 and 1930 ratios to 12-31-1931 Cost see Book Cost for overall properties in Table I.

BLANK

PAGE

TABLE IV

Texas Properties

TAKEN FROM STATE'S EXHIBIT 8 (R. III, 2164)

Amount Available for Return at 32c Domestic Gate Rate after Correction to Normal Temperatures Years ending Dec. 31, 1933 and March 31, 1934.

Revenues	Year Ending 3-31-34	12-31-33
Revenues @ 40c Domestic Gate Rate	$7,663,034.50	$7,423,680.87
Amount of 8c Domestic Gate Rate Reduction	1,106,537.68	1,070,458.16
Revenues @ 32c Domestic Gate Rate	$6,556,496.82	$6,353,222.71
Expenses		
Gas Purchased	$1,073,493.16	$1,071,170.87
Gathering Expenses	96,589.70	95,911.08
Compressing Station Expenses	310,679.12	303,454.78
Transmission System Expenses	368,419.03	374,275.77
General Expenses	733,121.58	754,282.79
Taxes other than Gross Production and Federal Income Taxes	295,218.11	295,218.11
Auto and Truck Expenses—Underdistributed	3,221.27	3,223.15
Bad Debts and Adjustments	5,155.29	5,210.33
Miscellaneous Non-Operating Expenses	192.72	192.72
Texas-Oklahoma Gas Sales Adjustment	62,234.07	29,617.92
	$2,948,324.05	$2,932,557.52
	$3,608,172.77	3,420,665.19
Depreciation	831,946.08	831,946.08
	$2,776,226.69	$2,558,719.11
Value of Company Produced Gas	232,644.75	212,031.46
	$2,543,581.94	$2,376,687.65
Temperature Correction	268,829.64	441,240.12
	$2,812,411.58	$2,817,927.77
Federal Income Tax	97,534.45	96,073.64
	$2,714,877.13	$2,721,854.13
Return on $40,256,862.39 (R. III, 2143)	6.74%	6.76%
After correction allowance of $16,500 additional for depreciation: Return on $40,256,862.39	6.70%	6.72%

(R. III, 1900)

1991

TABLE V
RETURN BASED ON COMPANY'S SEGREGATION AFTER GIVING EFFECT TO 32c GATE RATE YEAR 1933 ONLY

	Total	Applicable to "D" Operations (West Texas Gas)
Amount Available for Depreciation and Return (1)	$ 3,000,493.28	
Management Fees (2)	75,940.60	
Charitable Donations (2)	10,671.70	
Corrected Amount Available for Depreciation and Return	$ 3,087,105.58	
Temperature Correction (3)	441,240.12	
	$ 3,528,345.70	
Depreciation (4)	848,446.08	
Available for Return	$ 2,679,899.62	
Rate Base by Commission Plus Net Additions at Cost (5)	$48,306,893.96	
Return	5.55%	6.63% [6]

(1) From Company Exhibit 46, R. V, 3288.
(2) Not properly included in Operating Expenses, R. III, 2228.
(3) R. III, 2164. (This correction covers Texas operations only).
(4) Table IV, infra. ($831,946.08 plus $16,500)
(5) R. III, 2285.
(6) In Same Proportions as in Company Exhibit 46, R. III, 3288.

APPENDIX A

(Revised Civil Statutes, Texas, 1925)

Art. 6050. Classification.

The term "gas utility" and "public utility" or "utility," as used in this subdivision, means and includes persons, companies and private corporations, their lessees, trustees, and receivers, owning, managing, operating, leasing or controlling within this State any wells, pipe lines, plant, property, equipment, facility, franchise, license, or permit for either one or more of the following kinds of business:

1. Producing or obtaining, transporting, conveying, distributing or delivering natural gas: (a) for public use or service for compensation; (b) for sale to municipalities or persons or companies, in those cases referred to in paragraph 3 hereof, engaged in distributing or selling natural gas to the public; (c) for sale or delivery of natural gas to any person or firm or corporation operating under franchise or a contract with any municipality or other legal subdivision of this State; or, (d) for sale or delivery of natural gas to the public for domestic or other use.

2. Owning or operating or managing a pipe line for the transportation or carriage of natural gas, whether for public hire or not, if any part of the right of way for said line has been acquired, or may hereafter be acquired by the exercise of the right of eminent domain; or if said line or any part thereof is laid upon, over or under any public road or highway of this State, or street or alley of any municipality, or the right of way of any railroad or other public utility; including

also any natural gas utility authorized by law to exercise the right of eminent domain.

3. Producing or purchasing natural gas and transporting or causing the same to be transported by pipe lines to or near the limits of any municipality in which said gas is received and distributed or sold to the public by another public utility or by said municipality, in all cases where such business is in fact the only or practically exclusive agency of supply of natural gas to such utility or municipality, is hereby declared to be virtual monopoly and a business and calling affected with a public interest, and the said business and property employed therein within this State shall be subject to the provisions of this law and to the jurisdiction and regulation of the Commission as a gas utility.

Every such gas utility is hereby declared to be affected with a public interest and subject to the jurisdiction, control and regulation of the Commission as provided herein.

Art. 6051. *May enjoin gas pipe line.*

The operation of gas pipe lines for buying, selling, transporting, producing or otherwise dealing in natural gas is a business which in its nature and according to the established method of conducting the business is a monopoly and shall not be conducted unless such gas pipe line so used in connection with such business be subject to the jurisdiction herein conferred upon the Commission. The Attorney General shall enforce this provision by injunction or other remedy.

Art. 6053. *Regulation of utilities.*

The Commission after due notice shall fix and establish and enforce the adequate and reasonable

price of gas and fair and reasonable rates of charges and regulations for transporting, producing, distributing, buying, selling and delivering gas by such pipe lines in this State; and shall establish fair and equitable rules and regulations for the full control and supervision of said gas pipe lines and all their holdings pertaining to the gas business in all their regulations to the public, as the Commission may from time to time deem proper; and establish a fair and equitable division of the proceeds of the sale of gas between the companies transporting or producing the gas and the companies distributing or selling it; and prescribe and enforce rules and regulations for the government and control of such pipe lines in respect to their gas pipe lines and producing, receiving, transporting and distributing facilities; and regulate and apportion the supply of gas between towns, cities, and corporations, and when the supply of gas controlled by any gas pipe line shall be inadequate, the Commission shall prescribe fair and reasonable rules and regulations requiring such gas pipe lines to augment their supply of gas, when in the judgment of the Commission it is practicable to do so; and it shall exercise its power, whether upon its own motion or upon petition by any person, corporation, municipal corporation, county, or commissioner's precinct showing a substantial interest in the subject, or upon petition of the Attorney General, or of any county or district attorney in any county wherein such business or any part thereof may be carried on.

Art. 6054. *Orders, etc. reviewed.*

All orders and agreements of any company or corporation or any person or persons controlling such pipe lines establishing and prescribing prices, rates, rules and regulations and conditions of

service, shall be subject to review, revision and regulation by the Commission on hearing after notice as provided for herein to the person, firm, corporation, partnership or joint stock association owning or controlling or operating the gas pipe line affected.

Art. 6055. To refund excess charges.

If any rate or charge for gas or for service or for meter rental or any other purpose pertaining to the operation of said business shall be made or promulgated by any person, firm or corporation owning or operating any gas pipe line, or in the event of an inadequate supply of gas or inadequate service in any respect, and complaint against same shall be filed by any person authorized by the preceding article to file such petition and such complaint is sustained in whole or in part, all persons and customers of said gas pipe line shall have the right to reparation or reimbursement of all excess in charges so paid over and above the proper rate or charge as finally determined by the Commission from and after the date of the filing of such complaint.

Art. 6058. Appeal from City Control.

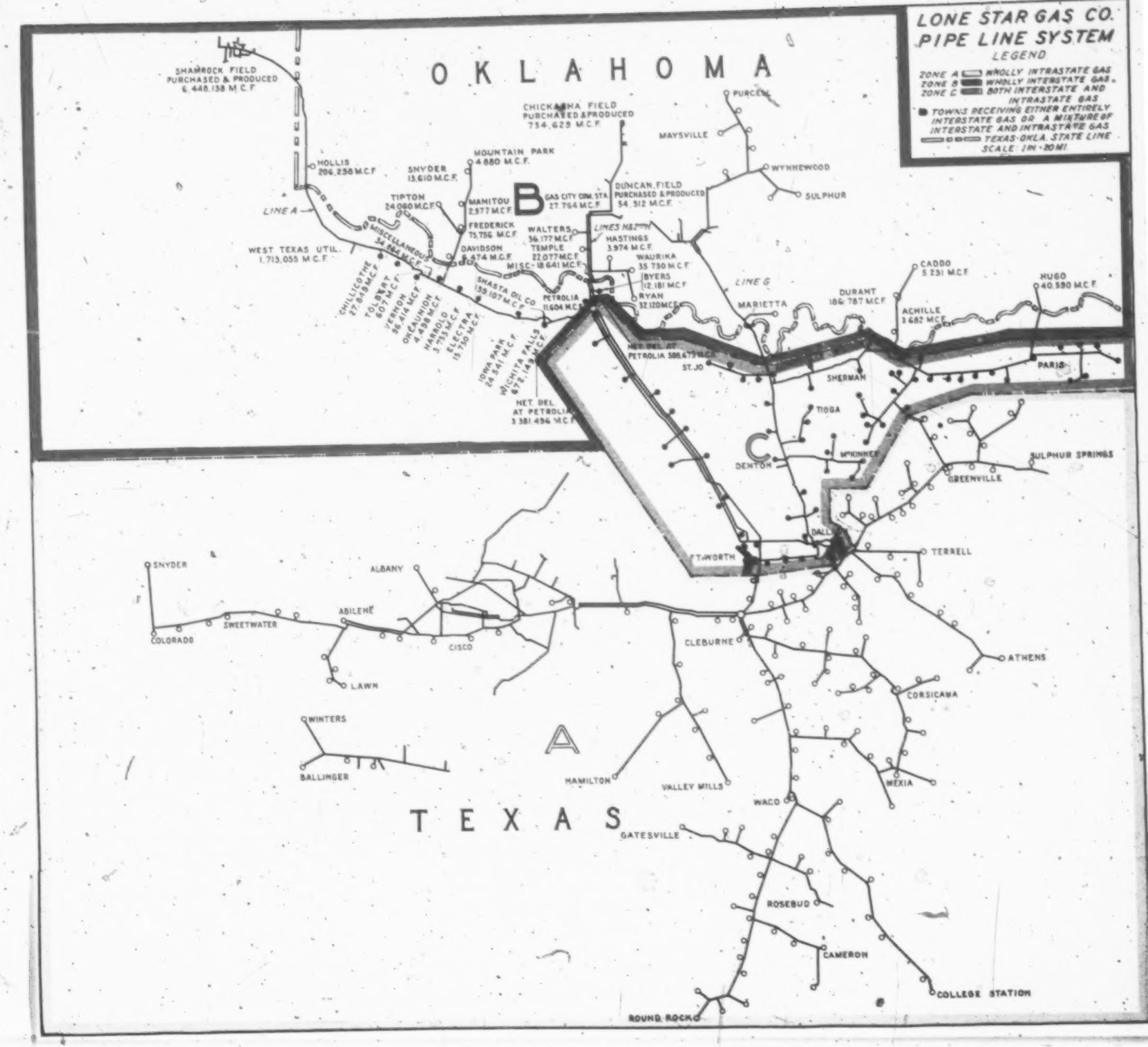
When a city government has ordered any existing rate reduced, the gas utility affected by such order may appeal to the Commission by filing with it on such terms and conditions as the Commission may direct, a petition and bond to review the decision, regulation, ordinance, or order of the city, town or municipality. Upon such appeal being taken the Commission shall set a hearing and may make such order or decision in regard to the matter involved therein as it may deem just and reasonable. The Commission shall

hear such appeal de novo. Whenever any local distributing company or concern, whose rates have been fixed by any municipal government, desires a change of any of its rates, rentals or charges, it shall make its application to the municipal government where such utility is located and such municipal government shall determine said application within sixty days after presentation unless the determination thereof may be longer deferred by agreement. If the municipal government should reject such application or fail or refuse to act on it within said sixty days, then the utility may appeal to the Commission as herein provided. But said Commission shall determine the matters involved in any such appeal within sixty days after the filing by such utility of such appeal with said Commission or such further time as such utility shall in writing agree to, but the rates fixed by such municipal government shall remain in full force and effect until ordered changed by the Commission.

Art. 6059. *Appeal from orders.*

If any gas utility or other party at interest be dissatisfied with the decision of any rate, classification, rule, charge, order, act or regulation adopted by the Commission, such dissatisfied utility or party may file a petition setting forth the particular cause of objection thereto in a court of competent jurisdiction in Travis County against the Commission as defendant. Said action shall have precedence over all other causes on the docket of a different nature and shall be tried and determined as other civil causes in said court. Either party to said action may have the right of appeal; and said appeal shall be at once returnable to the appellate court, and said action so appealed shall have precedence in said appellate court of all causes

of a different character therein pending. If the court be in session at the time such right of action accrues, the suit may be filed during such term and stand ready for trial after ten days notice. In all trials under this article the burden of proof shall rest upon the plaintiff, who must show by clear and satisfactory evidence that the rates, regulations, orders, classifications, acts or charges complained of are unreasonable and unjust to it or them.



BLANK

PAGE

BLANK

PAGE

INDEX.

	Page
Caption	1
Interstate Commerce	2-13
Denial of "due process" or adequate judicial review.	13-21
Confiscation	21-24
Signature of Counsel	25

AUTHORITIES.

Art. 6059 R. C. S. Tex. 1925	14, 16
Hanley v. K. C. S. Ry. Co., 187 U. S. 617, 47 L. Ed. 333.	5
Ohio Valley Water Co. v. Ben Avon Borough, 253 U. S. 287, 64 L. Ed. 908	19
R. R. Com. of Texas v. Shupee, 57 S. W. (2d) 295, aff. 123 Tex. 521, 73 S. W. (2d) 505	16
State of Texas v. Public Service Corpn. of Texas, 88 S. W. (2d) 627, Writ ref.	11
St. Joseph Stockyards Co. v. United States, 298 U. S. 33, 80 L. Ed. 1033	20
United Gas Pub. Serv. Co. v. State of Texas, —— U. S. ——, —— L. Ed. ——, No. 13, Oct. Term, 1937	18, 19, 20
Western Dist. Co. v. Pub. Serv. Com. of Kans., 58 Fed. (2d) 241, aff. 285 U. S. 119, 76 L. Ed. 655	2
Western Live Stock v. Bureau of Revenue, No. 322, Oct. Term, 1937, —— U. S. ——, 82 Fed.	6

BLANK

PAGE

IN THE

Supreme Court of the United States

OCTOBER TERM, 1937

No. 313

LONE STAR GAS COMPANY, *Appellant*,

v.

STATE OF TEXAS, ET AL., *Appellees*.

Appeal from the Court of Civil Appeals for the Third Supreme Judicial District of Texas, at Austin.

SUPPLEMENTAL BRIEF FOR APPELLEES.

May it please The Court:

Throughout this proceeding, from its inception, the appellant has alternated so often between wholly inconsistent theories of the case that we have had great difficulty in ascertaining what the appellant's attitude really is; and we have had difficulty in attacking its positions because it would not remain stationary long enough to be attacked. This difficulty has been intensified by appellant's reply brief, filed March 28, 1938.

I. INTERSTATE COMMERCE.

At pp. 3-5 of appellant's reply brief, it complains that we have relied upon "matters outside the record" in referring to the record made before the Commission, and omitted in printing. We have made no statements as to what that record does contain. We have merely expressed our willingness that the Court should examine any part of that record, if it so desires. We have stated that the Commission record contains no suggestion by appellant of the interstate commerce defense, and appellant has not accepted our challenge to point out any place in that record wherein such defense was raised or suggested. Our statement that it was not raised or suggested before the Commission is conclusively supported by what appears in the printed record. (R. I, 305; II, 1496-1497; I, 124, 130, 136-137.)

Appellant urges that it was under no duty to disclose before the Commission its contemplated defense of interstate commerce, because the judicial review before the District Court was *de novo*. But a *de novo* judicial review of a rate order does not import that the parties are entitled to try the cause before the courts upon a totally new and fundamentally changed theory from that upon which it was presented to the legislative body. It only imports that each party is entitled to produce before the reviewing court evidence which has *newly developed*, or has been *newly discovered* without fault or negligence in failure to discover, after the close of the record before the administrative body. This distinction is made plain in *Western Distributing Company* v. *Public Service Commission of Kansas*, 58 Fed. (2nd) 241, 243, (aff. 285 U. S. 119, 76 L. Ed. 655). (See also the cases cited at p. 5 of our original brief.)

At p. 8 of the reply brief, appellant says that appellees have waived the estoppel by failure to plead and urge it specifically in the state courts. This contention is not sound. Appellees prevailed in the state courts, and are now entitled to urge such facts as are reflected by the rec-

ord, in support of the state court judgments. If appellees had lost in the highest state courts, and had now been urging estoppel without having specifically raised it in the state courts, then appellees' position might be different from what it is now.

At pp. 8-9 of the reply brief, appellant says it had no reason to anticipate that the Commission would make an order affecting all of its deliveries of domestic gas at the city gates in Texas regardless of the sources from which the gas was obtained. This claim comes with very bad grace from the Company. The Commission's opinion opens (R. I, 14-15):

> "On October 14, 1932, the Railroad Commission of Texas entered an order on its own motion, calling for a general investigation of rates and charges made by the Lone Star Gas Company for natural gas delivered at the city gate of towns and cities served by that Company. . . . . A copy of the order of October 14, 1932, and notice of a hearing to be held beginning November 1, 1932, in the City of Fort Worth, was sent to the Lone Star Gas Company. . . . . Accordingly, on November 1, 1932, the Company appeared."

Thus, it is plainly shown that the Company was explicitly put upon notice that the purpose of the Commission was to investigate, and make an order fixing, a reasonable gate rate for all domestic gas delivered by the Company at the city gates in all towns in Texas served by it; and no distinction was made as to the sources whence the gas might be obtained. Furthermore, throughout the seven months of hearings before the Commission, the Company itself as well as the witnesses sponsored by the Commission submitted only overall valuations of the Company's entire properties in both Texas and Oklahoma and as to its operating results in both states without attempting a segregation as between the two states upon any basis or as between purported intrastate and interstate operations. Thus, again, the evidence made no distinction as to the sources

whence the gas was obtained, and the Commission was permitted to conduct the entire proceeding upon the theory that it had the power to dispose of the matter in the very manner in which it later did; and this without the slightest suggestion of objection by the Company. It was only later in the District Court, that the Company for the first time raised the defense and stated that the Commission would not have entered the order that it did *"had it been advised or had it known* that it did not have the right to determine and enforce a rate applicable to all gas sold by the defendant." (R. I, 305.)

At p. 9 of the reply brief, appellant says that the Commission knew the Company was engaged in interstate commerce, because it is so recited in the opinion. But the expressions quoted from the Commission's opinion show clearly that what the Commission really intended by the term "interstate commerce" was the Company's intrastate operations in Oklahoma, over which the Commission recognized that it had no jurisdiction.

At pp. 5-7 of the reply brief, the Company asserts that the evidence taken by the District Court pertaining to the Company's pleas to the jurisdiction and in abatement is not proper and competent evidence for the consideration of this Court. The reasons stated are, that the evidence under these special pleas was taken without a jury and before a judge other than the one who presided at the jury trial which followed a short time later. Under these special pleas the Company attempted, unsuccessfully, to convince the District Court that it was without jurisdiction to hear the matter upon its merits at all, because of the claimed defense of interstate commerce. The proceedings had, and the evidence taken, under those pleas are plainly as much and as competent a part of the trial of this cause as were the proceedings had, and the evidence taken, during the later jury trial. The trial court did not exclude any part of this evidence, but expressly admitted and considered it, and overruled the Company's pleas upon the basis of it. Had the

Company's said special pleas been sustained at that stage by the District Court, it would have ended the proceeding then and there; and thus, by the Company's failure to raise this interstate commerce question before the Commission, the latter's entire labors and the vast expense thereof would have been totally lost. It ill becomes the Company to say that this evidence cannot now be considered. The Company's real reason for objecting to the consideration of its own evidence adduced under those pleas is that in the course of its testimony and evidence there submitted, it inadvertently made some very damaging admissions, which it sedulously avoided and tried to change and smooth over in the course of the subsequent jury trial.

At pp. 13-14 of the reply brief, the Company says that the order reduced its gross revenues by 20 percent. This is an exaggeration; for the order applies only to the domestic, and not to the commercial or industrial, sales at the city gates; nor to its rights of way sales; nor to its non-public-service operations. It says also that the order fixes its "compensation for transportation" both within and without Texas. This is a fallacy; for the order in reality only fixes the price to be charged by it for its *own commodity* upon simulated gate sales within the State of Texas, and does not fix "compensation for transporting" interstate, either for others as a common carrier for hire, or for itself. The cases, such as *Hanley* v. *Kansas City Southern Ry. Co.*, 187 U. S. 617, 47 L. Ed. 333, are plainly distinguishable from this. There, continuous interstate hauls were being made for hire by a common carrier whose business had been expressly embraced, as an agency or instrumentality of interstate commerce, by the terms of the Interstate Commerce Act itself, thus by competent legislation broadening the scope of national regulation beyond what perhaps would have been considered interstate commerce as an independent concept in the absence of federal statute. The case here is as if a farmer should raise apples in Oklahoma, and haul them in his own wagon into Texas, for the purpose of there selling

them in retail distribution directly to the consumers as a peddler about town. Fixing the price of the product, either piecemeal (step by step, as the Commission is doing here) or fixing the final and ultimate price to the consumer, is not a fixing of "compensation for transporting" in interstate commerce, but is only the permissible fixing of a reasonable price for the *commodity* to be sold in local Texas commerce. And such transporting across state lines of one's own commodities is not "commerce" with anyone—much less "interstate commerce"; but is only an incident to local commerce.

It is urged at pp. 13-14 of the reply brief that the order is a prohibited direct burden upon interstate commerce, the same as would be a 20 percent gross receipts tax levied by Texas upon the Company's revenues derived from its entire business both in Texas and Oklahoma. This contention is specious, because it overlooks the important consideration, pointed out by this Court in the recent case of *Western Livestock* v. *Bureau of Revenue of the State of New Mexico*,—— U. S. ——, 82 L. Ed. ——, No. 322, October Term, 1937. There, it is pointed out that the reason for striking down under the federal commerce clause gross receipts taxes levied by the states in many instances is that although the tax might be reasonable if levied only by one state, yet, if the one state has the right to levy the tax, all other states touched by the interstate commerce would, as of right, be entitled to levy a like, or even greater, gross receipts tax upon the same revenues; and thus, by multiple taxation the interstate commerce would be driven out of existence, and the local commerce of the respective states would thus be given an advantage over interstate commerce, totally fatal to the latter. Such is not the situation here; for no state except Texas can possibly tax or regulate the price of domestic natural gas delivered at the city gates in Texas. The case of *Western Livestock* v. *Bureau of Revenue, supra,* should be added to the citations under our Points XIV, XV, and XVIII, pp. 17-18, 18-20, and 23-26 of our original brief.

At pp. 12 and 19-20 of the reply brief, appellant suggests certain imaginary conflicts of interest, and of regulatory authority, which might conceivably arise between Texas and Oklahoma with respect to the case here under consideration; more especially the question of reasonable prices which might be charged for the gas in the respective states, and the question of apportionment of the supply of gas between the two states if it should become inadequate to meet the demands of both states. Neither of such situations, nor any similar situation, has arisen or is presented by this record.

With respect to the question of segregation between (1) the Texas and Oklahoma properties and operations, and (2) what the Company denominates "interstate and intrastate operations," the Company at p. 39 of the reply brief again urges its oft-repeated argument that the order is indivisible in character, and that it must stand or fall as a whole; and further, that the Company was not under the duty of rewriting the Commission's order, any more than were the reviewing courts. The argument that the order is indivisible and must stand or fall as a whole is totally unworthy of serious assertion, in view of this Court's many decisions that a legislative act, such as this, may be valid on its face, and as applied to particular situations and at particular times, but invalid in part as applied to other different situations and at other times. And even if it be true that neither the Company nor the courts are under any obligation to rewrite Commission's order, this certainly would not lift from appellant the duty of supplying to the regulatory body evidence upon which a proper and valid order could be written. In this connection, we point out that although the Company in all proceedings before the Commission had permitted the latter to proceed upon an overall and unsegregated basis in both states, yet, in the District Court its evidence in support of its defense of interstate commerce, asserted for the first time, in that court, attempted a purported method of segregation between what

it called "interstate and intrastate operations," which is very graphically made plain by the Company's own map, then introduced for the first time, which we have appended at the end of our main brief, delineating plainly, definitely and certainly, in colors, the zones and areas in which its operations were claimed to be wholly intrastate, interstate, and mixed, respectively. If any segregation within the Company's Zone C (see Company map at end of our main brief) was required, it certainly should have given the Commission the benefit of its theories so that the Commission would, at least, have had an opportunity to work out *some* practical basis for segregation within that zone; but this the Company wholly failed to do, although the record shows that it was working hammer and tongs upon that theory during the larger part of the time the Commission's hearings were going on (see our main brief, pp. 62-75, and especially 71-72).

The Company attempts to explain at great length its reasons for submitting to this Court, as an appendix at the end of its original brief, a totally different, deleted, and altered map, instead of the same map in zones and colors which it appended to its briefs in the Court of Civil Appeals and the Supreme Court of Texas. It has not yet, however, explained its reasons for wishing to present the case in a totally different light to this Court from that in which it was presented to the state appellate courts. The real reason is that the Company's theory of segregation became obviously untenable, and showed up too great a portion of its operations as being admittedly intrastate commerce and subject to state regulation; those in Zone A being admitted to be wholly so, and those in Zone C partly so. It showed also the utter impossibility of making any sort of workable segregation upon the Company's theories which would permit the regulatory authority and the courts to ascertain what portion of the domestic deliveries at each of the city gates within Zone C was Okla-

homa gas, Texas Panhandle gas, and West Texas gas, respectively, so that any effective regulation could be brought about within Zone C at all. Thus, it appears that the Company has been driven into abandoning totally its entire theory of segregation presented to the state courts; which has resulted perilously near in driving it also away from its entire claimed defense of interstate commerce. The Company is now attempting to sanctify, under the claim of interstate commerce exemption, its *entire* operations within Texas, and not simply a portion of those within the limited Zone C shown by its map in the state courts. Thus, it has attempted also to conceal and camouflage its entire failure to segregate that portion of the gas which it really claims is exempt as interstate commerce within Zone C from that which is admittedly intrastate commerce in Zones A and C.

In our statement and argument under our Points XX to XXIV, inclusive, pp. 27-31, 62-75, of our original brief, we neglected to point out that the Company's attempted segregation in the District Court failed also to take into consideration, and to exclude from its claimed "interstate operations," the large volumes of Oklahoma gas and the smaller volumes of Texas Panhandle gas coming through Line A, which is shown by the record to have been stored and brought to rest for a large part of each year in what is known as the "Miller Lease" near Petrolia, Texas. At p. 53 of our original brief, we show that for 1933, the total volume produced from Company reserves in Oklahoma and transported into Texas was only 613,780 MCF (R. III, 2165, 2124 A); and at p. 61 of our original brief, we show that for the same year the storage in the Miller Lease absorbed 500,000 MCF of the gas from Oklahoma and the Texas Panhandle claimed to be interstate gas. Notwithstanding the fact that this volume of stored Oklahoma and Texas Panhandle gas had clearly lost its original claimed interstate immunity (if such it ever really had) by being brought to rest for six months in storage in the Miller Farm, the Company includes this volume of gas, when withdrawn from

storage and run into Zone C, in what it claims to be its interstate operations.

This record reflects (see pp. 33-37 of our original brief) that the real and sole party at interest in this entire proceeding is the Lone Star Gas Corporation, a Delaware holding company with its nominal place of business in Wilmington, Delaware, but with its sole business domicile in Pittsburgh, Pennsylvania, which Corporation does not have a permit or right to do business in Texas, and has nominally no office or place of business or agents in Texas through whom it could be reached by legal process by the regulatory authorities or courts of the State except appellant and its affiliated distributing companies; but that in reality the Lone Star Gas Corporation, through its "dummy" affiliate corporations, which it both owns and controls as agencies or automatons, in reality carries on in Texas the admittedly intrastate business of purchasing, producing, transporting, and distributing locally to the consumers at the burner tips natural gas for domestic consumption in 275 cities and towns. The record reflects further that the Lone Star Gas Corporation, although it keeps in Dallas, Texas, a "dummy" or memorandum set of its own books in the possession, and for the guidance, of its affiliated underlying companies, the Lone Star Gas Company and the affiliated distributors, yet, it refuses to the State authorities access to these books for any purpose (R. III, 1640). It is said that these books were not material upon any question except management fees. But what about the question of the appellant's excessive claims for amounts of Federal income tax never paid to the Government, but set up in operating expense, nevertheless, in the amounts of hundreds of thousands per year? (See pp. 127-130 of our original brief).

It was asked from the Bench in argument whether the Commission had not treated the pipe line company and the affiliated distributors as being separate, distinct and unrelated corporate entities for purposes of fixing the gate rate and the burner tip rates separately, while at the same time

inconsistently considering the entire affiliated group as one unified and integrated set-up for the purposes of the interstate commerce question. The answer is that there has been no such inconsistency of treatment at any time.

In fixing the gate rate separately for the Lone Star Gas Company and later in separate proceedings and orders fixing the burner tip rates for the affiliated distributing companies in the 275 Texas cities and towns, the Company has been accorded exactly the same treatment that the Commission has accorded to another single corporation in the case of *State of Texas* v. *Public Service Corporation of Texas,* 88 S. W. (2d) 627 (writ refused). There the Public Service Corporation of Texas owned and conducted as a single operating unit the production, transportation and local distribution phases of the natural gas business, serving eight Texas towns, in seven of which the local distribution plants were owned and operated by the said Public Service Corporation of Texas. There the Commission proceeded exactly as it has done here; and proceeded to fix the rate at the city gates for the production and transportation phases without at the same time and in the same proceeding going further and fixing the burner tip rates in each of the seven towns where local distribution operations were carried on by the same company. The company attacked the Commission's right to do this, but such right was upheld by the highest state courts. Thus, it appears that there is nothing arbitrary or unjust in the Commission's proceeding likewise with this affiliated group of companies, which are to be considered as one, as it has done in the case of a single corporation.

The Lone Star Gas Corporation has seen fit to divide its entire integrated operations of purchase, production, transportation, and local distribution of domestic natural gas in Texas, into distinct departments or divisions; the purchase, production and transportation department, properties and operations of the integrated business being entrusted solely to its corporate agent, the Lone Star Gas

Company; and the distribution properties and operations being entrusted solely to its claimed separate and distinct corporate entities or agencies, the affiliated distributing companies in Texas. It so happens that this voluntary division of its properties, operations and business, by the Lone Star Gas Corporation, and its subsidiaries, coincides exactly with the division which the Commission has found it necessary and convenient to adopt for purposes of expediency and economy in fixing the uniform gate rate in Texas separately from the individual burner tip prices in each of the 275 Texas towns served by the Company's pipe line.

For the purposes of fixing the uniform gate rate, the only legal agent of the Lone Star Gas Corporation upon whom the Commission could lay hands in legal process was the Lone Star Gas Company, which confessedly had entire charge of the properties and operations up to the city gates; and it would be claimed by the entire affiliated group that the affiliated distributing companies had nothing to do with the operations up to the city gates. And likewise in burner tip cases it would be insisted by the entire affiliated group that only the affiliated distributing companies had anything to do with the distribution properties and operations. Thus, there is nothing inconsistent in the Commission's attitude in dealing with the Company only, in the operations up to the city gates, and in dealing separately and subsequently only with the affiliated distributing companies in fixing the burner tip rates in each of the 275 towns. The necessary segregation is thereby made between the properties and operations of the respective *departments* of the entire business along the very lines as set up by the Lone Star Gas Corporation itself and its affiliated companies; and in so doing, the Commission has never lost sight of the fact that the business is one integrated set-up owned, managed and controlled by the Lone Star Gas Corporation; nor has it failed, to the prejudice of any of the affiliated companies, to give proper effect to that fact, where it was properly mate-

rial. And certainly, there is no inconsistency or injustice to any of the affiliated companies in applying the principle of disregarding the corporate entities where it becomes material and appropriate, namely, in the question of interstate commerce.

II. DENIAL OF "DUE PROCESS" OR "ADEQUATE JUDICIAL REVIEW."

In the Company's original brief at pp. 126-127, it very plainly specifies what it does and what it does not urge as a denial of due process or adequate judicial review. At p. 126, the Company says:

> "The point here made is not based upon the failure of the Court of Civil Appeals to exercise an independent judgment as to the facts or its failure to make findings settling the conflicts in the evidence referred to . . . Nor do we challenge here the proceedings in the State trial court as amounting to a denial of due process."

And at p. 127, it says:

> "What we do complain of is the judgment of the Court of Civil Appeals, which, in effect, deprived appellant of the judicial review accorded it in the trial court and placed it in the same position as if that review had been denied by the trial court. Appellant's complaint is not that the Court of Civil Appeals has erroneously declared the State law applicable to the judicial review of rate orders. Appellant's complaint is that the procedure, provided by the State, as expounded and applied against it in the instant case, denies it an adequate judicial review of the rate order. What the Court of Civil Appeals said on the subject of judicial review of rate orders is the law of the State, at least for the purposes of this case. And appellant's complaint is that the law of the State, as thus declared and enforced against it, amounts to a denial of due process."

At pp. 41-42 of its reply brief, however, the Company attempts to retreat from the above-quoted plain admissions and position, and to interpret and assert now its position as being quite different from that taken in its original brief.

Even allowing this shift of positions, however, and considering the Company's positions as asserted both in its original and reply brief, its whole contention boils down to the argument that the claimed denial of due process or adequate judicial review consists only in the holding of the Court of Civil Appeals that the evidence as a whole was legally insufficient to outweigh and overturn the presumed validity of the Commission's order, or to measure up to the *quantum* and *character* (or *quality*) of evidence necessary to raise issues of fact as to confiscation under the Federal Fourteenth Amendment, or unreasonableness and unjustness under Article 6059 of the state statutes, and was thus insufficient to support the jury's verdict. In short, the contention is that the denial of due process consists in the overturning or setting aside of the jury's verdict, and the failure to give it a jury trial on the facts, and the claimed failure to exercise an "independent judgment as to the facts."

The necessary effect of sustaining this contention on the Company's part would be: (1) To convert into a federal question, of denial of due process under the Fourteenth Amendment, what is (if it is an error at all) plainly only an error of state law; and the result of this would be that every error of state law committed by a state court would automatically and *ipso facto* become a denial of due process under the Federal Fourteenth Amendment, and this Court would thereby by compelled to sit in review over and to correct all claimed errors of state law committed by all state courts. (See our original brief, pp. 76-84). (2) To deprive the Commission's action and order of their well-established, and heretofore uniformly applied, presumptions of correctness; and to attach all of such presumptions, on the contrary, to the trial court's judgment. The effect of

this would be to abolish entirely the requirement of Article 6059 that a person complaining of the Commission's orders shall be required to show by "clear and satisfactory" evidence that the same are unjust and unreasonable; and to abolish also the rule heretofore well-established in the Texas decisions (See cases cited at pp. 78-79 of our original brief) that the question of the "clear and satisfactory" *character* and *quantum* of the complaining party's evidence is a preliminary *law* question for the courts to pass upon before the submission of any issues whatever to the triers of fact; and to abolish also the well-established, and heretofore uniformly applied, rule of law laid down by the decisions of this Court (See cases cited at pp. 85-86, 86-87, 88, 90, 90-91, and 95-96 of our original brief) to the effect that the evidence of confiscation under the Fourteenth Amendment must also be "clear and convincing," and such as would leave no reasonable doubt in the judicial minds. A further necessary result of the Company's contention would be that the results of the expert labors and judgment of the members of the Commission could in every rate case easily be overturned and the judgment of trial courts substituted therefor under evidence not measuring up to the law's required standard of *quantum* and *quality* (i.e., being "clear and satisfactory" or "clear and convincing." And we cannot emphasize too strongly that this preliminary legal analysis of the evidence is, under the cited decisions of this Court and the state courts, a preliminary *law* question for the courts to pass upon before any fact issues are raised or submitted in judicial reviews of Railroad Commission orders (whether involving confiscation or not). If this preliminary legal test be successfully passed by the evidence, then as shown by the quotation from the *Shupee* case (p. 78 of our original brief) the issues of fact will be submitted to the triers of fact and determined upon a preponderance of the evidence, in the usual way. This is but giving due weight and presumption of correctness to the findings and action of the expert legislative agency, arrived

at after due notice and full hearing. And, as shown by the quotation from the *St. Joseph* case (p. 79 of our original brief) this is not a denial of an "independent judicial judgment as to the facts" nor of any other Federal Constitutional right. The Company's contentions would result in making the trial courts the ultimate legislative rate makers, instead of the Commission of experts; and in that case, it would be better to abolish the expert Commission entirely, and to vest the legislative power of rate making directly in the trial courts themselves.

It is plain from the decisions of the highest state courts cited at pp. 78-79 of our original brief (more especially, *Railroad Commission of Texas* v. *Shupee*, 57 S. W. (2d) 295, 301, affirmed by the Supreme Court of Texas, 123 Texas 521, 528, 73 S. W. (2d) 505, 508), and from the holdings of the Court of Civil Appeals in the *Laredo* gas rate case, and in this case, that the intention of the Texas Legislature in enacting Article 6059, the article here involved, was to establish a different and more onerous rule in judicial reviews of orders of the Commission (whether involving confiscation or not) from the rule of ordinary preponderance of the evidence applied in other ordinary civil cases; and to establish the rule and requirement in all judicial reviews of actions and orders of the Railroad Commission, that the orders cannot be overturned upon a mere preponderance of the evidence as in other ordinary civil actions, but that they may be overturned, only after the trial and appellate courts are satisfied as a matter of preliminary *law*, upon analysis of the complaining party's evidence, that the same is sufficiently "clear and satisfactory" or "clear and convincing" *to the judges as a matter of law and not merely to the triers of fact*, that the expert evidence rests upon firm and satisfactory foundations of underlying factual data or experience.

This rule is essential to the preservation of the action of the Commission as a body of experts, as against attack and attempts to substitute for such orders the action and judgment of trial courts.

And that this rule, as prescribed by the Texas Legislature, and as interpreted and applied by the highest courts of Texas, is not inconsistent with any federal constitutional rights of the complaining parties, is plainly shown by the many decisions of this Court, laying down independently of statutory provisions the requirement that the evidence in cases of claimed confiscation or other deprivation of federal right must be "clear and convincing" and such as to meet to the satisfaction of this Court the requirement as to the acceptability of expert or other testimony in such cases.

This record reveals that the jury's verdict in this case, prior to the time it was rendered and made known to the Company, did not in the Company's estimation possess the sanctity and inviolability which the Company now claims for it under the Federal Fourteenth Amendment. At R. I., p. ii (index) and R. I., 191, it appears that the Company requested the trial court to submit to the jury 118 separate "special issues" (none of which is printed in this record, and of the failure to submit which the Company now makes no complaint); and at R. I., 184-192, this Court is given a limited sample of the numerous and voluminous objections and exceptions which the Company leveled at the trial court's charge and submission of issues to the jury. Thus, it appears that the Company was preparing to make attacks upon the court's charge and the jury's verdict from every conceivable angle, if the case should eventuate adversely to the Company; and it is only since the favorable nature of the jury's verdict and the District Court's judgment became known to the Company that they have in the Company's eyes acquired such great sanctity under the Federal Constitution. If the jury's verdict had been adverse to the Company, it would be up here now complaining with great bitterness that the jury's verdict was not binding upon anyone, and would be attacking it from every conceivable standpoint. The Company would be urging this Court, as we are now, to review the entire evidence and determine for itself whether there was confiscation.

It is further to be observed that the jury's verdict in this case cannot be binding upon anyone, for several reasons: (1) As we have urged in many forms heretofore, the evidence as a whole was totally insufficient as a matter of law to support the verdict; (2) The jury were not given any instructions in any form to the effect that they might, in arriving at their answer to the single special issue submitted, take into consideration the *average* operating results for the reasonable spread of years in evidence, from January 1, 1927, to April 30, 1934, inclusive; and under this Court's holding in the *Laredo* case, appellees would clearly have been entitled to an instruction to that effect. Thus, the jury's vision was limited strictly by the form of submission to the question whether the rate was unreasonable prospectively from the date of trial in 1934, forward, and the jury was not permitted to answer as to whether it was reasonable when considered in the light of the average operating results reflected by the exhibits and testimony in evidence over the reasonable spread of years from 1927 to 1934, inclusive.

The facts in this record, and the Company's contentions in the light of those facts, make peculiarily plain the unwisdom of establishing any other rule in the judicial review of orders of the Commission than that laid down by Article 6059, and the decisions of the hightest State courts interpreting and applying that rule; and they make plain also the absolute necessity of establishing, maintaining and applying such a rule (requiring something substantially higher than the ordinary quantum and quality of proof before overthrowing the actions and orders of the Commission) in order to preserve and uphold the expert judgment of the Legislative Commission as against attacks by ordinary superficial, specious, and unsatisfactory expert evidence such as submitted by the Company here, and of substituting for the expert judgment of the Commission the judgment of a trial court. Such a rule has been uniformly sanctioned and applied in the decisions of this Court in rate cases where confiscation has been claimed.

The Company's contentions further disregard the force of this Court's holdings that "clear and convincing evidence" is required to demonstrate confiscation, and more especially the holdings of this Court in the *Laredo* case, as follows:

> "With respect to the proceedings in the state courts, appellant urges that the case was not tried and determined as required by the state law, and we are referred to the state statutes and decisions of the Texas courts as to the proper procedure in the trial court and on appeal. It is not our function in reviewing a judgment of the state court, to decide local questions. We are concerned solely with asserted Federal rights." . . . "The final judgment of the state court in the instant case must be taken as determining that the procedure actually adopted satisfied all state requirements." . . . "As to the requirement of due process under the Federal Constitution, appellant contends that it was denied the independent judicial judgment upon the facts and law to which it was entitled." . . . "The proceeding in the state court undoubtedly purported to afford an independent judicial review. As the Court of Civil Appeals of Texas said in the instant case, the trial of the issue whether the rate was unreasonable or confiscatory was '*de novo.*' "

It is plainly shown by the discussion of the Court of Civil Appeals (R. V, 3354-3359) that the Court of Civil Appeals recognized that under the Federal decisions (*Ohio Valley Water Company* v. *Ben Avon Borough*, and others) the judicial review must be upon an "independent judgment as to the facts and law," and that such a review was accorded the Company in this case. And from the opinion of the Court of Civil Appeals (R. III, 3335, 3353, 3354, 3357, 3359-3370, especially 3369) it appears plainly that what the Court of Civil Appeals did actually hold in this case was that as a matter of law the evidence as a whole did not meet the required preliminary legal test as to *quantum* and *quality* necessary to overturn the presumed validity of the Commission's order, and this was adjudged as a matter of

law and *not* a matter of fact. That this procedure was permissible from the angle of state requirements is plainly shown by the judgments of the highest state courts in the cases cited at pp. 78-79 of our original brief, and in the *Laredo* case, and in the present case. That it does not contravene the requirements of the Federal Constitution is shown by the numerous decisions of this Court, more especially the passage from the *St. Joseph Stockyards Company* case, quoted at p. 79 of our original brief, and the quotation from this Court's decision in the *Laredo* case set forth at p. 80 of our original brief. These decisions show plainly that this Court has adhered to and applied that very identical principle in all rate cases of claimed confiscation and deprivation of other federal rights.

The Company claims that this Court has not the power to review the facts in cases arising from the state courts, because of the inhibition of the Seventh Federal Amendment. This overlooks the action of this Court in reviewing and analyzing the facts in the *Laredo* case, which this Court said (see p. 80 of our original brief) was done "not to determine the issues of fact raised on conflicting testimony or inferences, and thus to usurp the function of the state court as a trier of the facts, but to perform our own proper function in deciding the question of law arising upon the findings which the evidence permits."

Since this Court plainly exercises that function consistently with the requirements of due process under the Fifth Federal Amendment, this Court should certainly accord to the state courts the privilege of applying the same principle, as they have done, without impinging upon the Fourteenth Amendment.

As we view it, then, all questions go out of this case entirely so far as this Court is concerned, except the two issues, (1) as to whether the order was void in whole or in part, (and if so, in what particulars and to what extent) under the Federal Commerce Clause; and, (2) whether the evidence is such as to meet the requirement of being "clear

and convincing," under the well-established rule uniformly laid down and applied in the decisions of this Court, as to confiscation.

These questions this Court has the undoubted power to determine from a thorough review and analysis of the entire record; and this we not only invite but urge the Court to do, feeling confident that when the review is completed, this Court will agree with the judgments rendered by the highest state courts, that the evidence was insufficient as a matter of law, both as to quantum and quality, to demonstrate confiscation.

III. CONFISCATION.

Upon the whole case, considering the wholly unacceptable and excessive claims and testimony of the Company as to annual depreciation requirements, improper and questioned items of operating expense (in both of which one dollar takes away the equivalent of a 6% annual return on $16.67 in the rate case) and considering the unacceptable character of the Company's evidence as a whole on all questions of valuation in the rate base, the evidence falls far short of being either "clear and satisfactory" under the state rule as to unreasonableness and unjustness, or "clear and convincing" under the well-established rule of this Court as to confiscation.

The Company urges that it was justified in saying in its original brief that the Commission's witness, Freese, allowed nothing for going concern value in his appraisal before the District Court. In the first place, this Court is not primarily concerned with the sufficiency of Freese's estimates for going concern value in the District Court, but only with the sufficiency of what the Commission actually allowed, in the light of the evidence as a whole in the District Court. And it conclusively appears from the Commission's opinion, and from the District Court record otherwise, that the Commission allowed fully and more than liberally in the rate structure not only for going concern value and every

other element of value but for all operating expenses, depreciation, depletion and amortization, and as to every ultimate and subsidiary element in the rate structure. What Freese's testimony in the District Court does show is this: *not* that he allowed nothing for *going concern value,* but only that he included nothing in his estimate and allowance of going concern value for *claimed losses of return and fixed charges on idle plant during the preliminary development period* in the early history of the Company's operations; his investigation having shown plainly that the Company had incurred no such losses. Freese's testimony is (see pp. 175-177 of our original brief) that he did allow fully for going concern value, though not in a separate lump sum estimate; whereas the Company (p. 145 of its original brief, and p. 77 of its reply brief) said that Freese *did not allow anything* for going concern value. The statements are totally erroneous and misleading.

In a brief of any reasonable length it would obviously be impossible for us to outline in detail all of the objectionable features and speculative, uncertain, and unacceptable bases and theories of approach in the Company's entire evidence on confiscation. We have attempted in our original, and in this, brief to outline enough of the higher points of objection to the Company's evidence to give this Court some insight into why the state appellate courts were justified in rejecting the entire evidence as failing to measure up to the requirement as to *quantum* and *character.*

In the Company's reply brief at p. 64, it sets forth a computation purporting to show upon various assumed hypotheses or bases certain low percentages of net return which would have resulted to the Company under a theoretical application of the 32c rate only over the period 1931 to March 31, 1934, inclusive. It will be observed in the first place that here again the Company has submitted the results only of depression years, including 1933, the warmest year in the history of the Company's operations. It is to be observed also by reference to the Company's Exhibit

37 (R. V, 3037-3039), on which one of the computations is founded, that the Company's engineer, Biddison, compiled this exhibit on August 30, 1933. Thus, it appears that the exhibit on which the Company's computation is founded was compiled subsequent to the close of the Commission's hearing on June 29, 1933, and before the Commission had even promulgated its rate order on September 13, 1933; and it appears that the Company, even before it knew what the Commission's order was going to be, was laying its plans and compiling exhibits to attack the Commission's order, whatever it might be, in the courts, upon the very grounds which it has urged in all of the courts since then.

The Company in constructing the table utilizes for rate bases the book costs at the end of each of the years shown instead of taking an average book cost for each year (Rate Base No. A). If an average rate base of book value had been taken each year instead of at the end of each year, and if cancelled and surrendered lease expense as found reasonable by the Commission, and corrections to normal temperature for the calendar year 1933 and for the year ending March 31, 1934, had been applied, rates of return after depreciation, of 5.81% for 1931; 6.06% for 1932; 5.27% for 1933; and 5.23% for the year ending March 31, 1934, would be shown.

It is also significant to note from the items reflected in the Company's table that although the Company states that "operating expenses" are utilized as found by the Commission, it includes the item of "Federal income tax" in the sum of $216,627.86 for 1931, $256,841.59 for 1932, $145,744.27 for 1933, and $175,769.90 for the year ending March 31, 1934, although the Commission very definitely excluded this item from allowable operating expense upon a finding that none would be due, and the Company's own expert, Hulcy, testified that only an amount of approximately $52,000 would be due by the Company for the year 1931 (R. I, 405-406) and although the Company has never paid any income tax to the Government (R. I, 405; R. III, 2224-2228).

An examination of our Tables I to V, inclusive, at the end of our original brief, will show that when the Company's excessive estimates as to annual depreciation accruals, and as to rate base valuations, and as to improper and questioned operating expenses are rejected (as they should be), and when reasonable amounts for such items, as found by the Commission or as estimated by the Commission's witnesses in the District Court trial, are substituted therefor, the record as a whole is absolutely insufficient as a matter of law to raise any issue of confiscation. Here again, we remind the Court that in our Tables I to V, inclusive, we have not deducted any of the improper and questioned items of operating expense referred to at pp. 116-130 of our original brief, except the item of management fees and certain parts of the donations. When these improper operating expenses are eliminated, they restore rightfully to the amounts available for return large sums at the ratio of $16.67 in the rate base to one dollar in the operating expense account.

We respectfully submit and pray, as in our original brief, that the case be affirmed with costs.

Respectfully submitted,

WILLIAM MCCRAW,
Attorney General of Texas,

ALFRED M. SCOTT,
Assistant Attorney General
of Texas,

EDWARD H. LANGE,
Laredo, Texas,
Attorneys for Appellees.

BLANK

PAGE

BLANK

PAGE

NO. 211

LONE STAR GAS COMPANY,

Appellant

Versus

THE STATE OF TEXAS, ET AL.

Appellees

APPEAL FROM THE COURT OF CIVIL APPEALS
FOR THE THIRD SUPREME JUDICIAL DISTRICT
OF TEXAS AT AUSTIN

SECOND SUPPLEMENTAL BRIEF FOR
APPELLEES

WILL WILSON,
Attorney General of Texas

MARY K. SCOTT,
Assistant Attorney General

P. O. Box 12548
Capitol Station
Austin, Texas 78711

BLANK

PAGE

INDEX TO PARTS

	Page
CAPTION	1
I. ESTOPPEL TO URGE INTERSTATE COMMERCE	2
II. LINE A OPERATIONS AND OKLAHOMA IMPORTATIONS INTO TEXAS DO NOT CONSTITUTE INTERSTATE COMMERCE	3-4
III. CONFISCATION ISSUE—SEGREGATION	5-12
CONCLUSION AND SIGNATURE	12-13

INDEX TO AUTHORITIES

Lone Star Gas Company vs. Corporation Commission of Oklahoma, 170 Okla. 292, 39 Pac. (2d) 547, 7 P. U. R. N. S. 490	4
Norfolk & Western Ry. Co. vs. North Carolina, 297 U. S. 682, 80 L. Ed. 977	5

BLANK

PAGE

IN THE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, A.D. 1937

NO. 313

LONE STAR GAS COMPANY,
Appellant

Versus

THE STATE OF TEXAS, ET AL,
Appellees

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF TEXAS, AT AUSTIN

SECOND SUPPLEMENTAL BRIEF FOR APPELLEES

MAY IT PLEASE THE COURT:

Appellant delivered to us, on April 6, 1938, copies of "Appellant's Reply To Appellees' Supplemental Brief." Insofar as we have been advised, the Court has not authorized the filing of such additional brief by appellant, but we have no objection thereto if it will be of any aid to the Court; but if filed, as we presume it has been, it necessitates this additional brief from us in

order to correct some additional misleading and erroneous statements and contentions made by the Company.

I. ESTOPPEL TO URGE INTERSTATE COMMERCE

The Court of Civil Appeals held that under the facts of this case no interstate commerce was involved in the Company's Texas operations; hence the Court did not take notice of the plain estoppel of the Company to raise that issue, reflected by the entire record. Had the Court of Civil Appeals determined that interstate commerce did exist, and had dismissed the interstate commerce defense upon the ground of estoppel, that would not have precluded the Company from urging in this Court both the defense of interstate commerce and the claim of error in the application of the doctrine of estoppel. By similar reasoning the Company is not now precluded from urging the interstate commerce defense in this Court, (unless under our plea of estoppel) nor are appellees precluded from urging the estoppel on that issue. By its silence and acquiescence before the Commission upon the interstate commerce issue the Company led the Commission to believe that the Company was willing to stand or fall only upon the ultimate issues of confiscation, unjustness, and unreasonableness. In presenting before the reviewing courts what amounts in its essence to a gross fraud upon the Commission, and by thus changing the fundamental grounds and theories of its contentions from what they were before the Commission, the Company's attitude upon this entire subject has become plainly untenable.

II. LINE A OPERATIONS AND OKLAHOMA IMPORTATIONS INTO TEXAS DO NOT CONSTITUTE INTERSTATE COMMERCE

The Company fails to distinguish between "transportation," which is a mere incident of commerce, either intrastate or interstate, and "commerce" or "interstate commerce." The gas is not actually sold, or offered for sale, to anyone until it reaches the ultimate consumers at the burner tips—when it is remembered, as it should be, that the Company in the operation of the pipe line business in Texas, and the affiliated distribution companies in the local distribution operations in Texas, are only the agents, automatons, or *alter egos* of the Lone Star Gas Corporation, which is actually carrying on local commerce in Texas, though it has no permit to do so. All operations, from the bottoms of the wells to the burner tips, are carried on by the same integrated set-up, which in reality is the Lone Star Gas Corporation. The railroad and telegraph common carrier cases cited by appellant involved carriage of goods and passengers, or transmission of intelligence, interstate, for other persons for hire; and are, therefore, not in point.

The Company's business, as actually transacted, is wholly intrastate commerce in Texas and Oklahoma respectively. Texas therefore has jurisdiction to regulate such operations in Texas and Oklahoma likewise has co-ordinate jurisdiction to regulate the Company's local business in Oklahoma; because the actual business transacted by the Company in each state respectively is purely local in nature.

The Company, in its latest brief, has attempted to move the Panhandle gas field from Texas into Oklahoma to support its points as to interstate commerce. We prefer to leave the field in Texas, where it actually is.

Line A has been in operation since 1926—approximately twelve years. The two remaining Oklahoma lines (Lines G and 2nd H) through which small quantities of Oklahoma gas are still imported into Texas, have been in operation since 1918 and 1919, respectively, approximately nineteen or twenty years. Rate litigation, involving the Company's operations, has arisen in both states. *Lone Star Gas Company et al v. Corporation Commission of Oklahoma,* 170 Okla. 292, 39 Pac. (2d) 547, 7 P. U. R. N. S. 490. And yet during that period and in the course of such litigation in both states no such conflicts of interest, authority, or jurisdiction have arisen as between the two states as appellant presents to the imagination of this Court. On the contrary, in the present instance, the Texas Commission has entered an order which was materially and unnecessarily generous, both to the Company and to the Oklahoma consumers on the Company's system, in fixing the Texas rate upon an overall basis and thus allowing the Texas rate to be raised substantially above what it should and would otherwise have been, by the allowance for the much more expensive and less profitable Oklahoma operations in setting the Texas rate. The Commission is here proceeding by steps, working toward the fixation of ultimate local burner tip rates in Texas only.

III. CONFISCATION ISSUE—SEGREGATION

The Court of Civil Appeals did not, as the Company represents, hold that any segregation was necessary as between interstate and intrastate commerce; and there is no inconsistency in that Court's opinion in holding on the one hand that no interstate commerce in Texas was involved, and on the other hand that the Company was under the burden of making a segregation between Texas and Oklahoma properties and operations. It is true the Court in several instances referred to the necessity of a segregation between Oklahoma and Texas properties and operations "or interstate and intrastate commerce"—thus perhaps incorrectly using the two terms interchangeably; but a careful analysis of the opinion makes it plain that the Court actually held that such a segregation was necessary only between Oklahoma and Texas properties and operations, and not between interstate and intrastate commerce; as there was no interstate commerce involved, and the Court expressly so held.

The submission of a voluntary segregation by appellees in the District Court, which segregation the Court of Civil Appeals approved, did not, even if such segregation had been held unsound, lift from appellant the burden of making a proper segregation between Oklahoma and Texas properties and operations. *Norfolk & Western Ry. Co. vs. North Carolina*, 297 U. S. 682, 688-689, 80 L. Ed. 977. However, the segregation made by appellees does show that the rate upon the basis of a proper segregation between Texas and Oklahoma is non-confiscatory. Appellant's evi-

dence relating to "overall integrated properties and expenses", if material at all, would have been so only if its *quantum* and *quality* had been of a sufficiently clear, convincing and satisfactory nature—which it was not.

The 85% allocation factor determined by the Court of Civil Appeals was a correct one as between Texas and Oklahoma if a segregation were required to be made. Appellant, however, applies a correct allocation factor to incorrect and unsound bases, to-wit, its own unreasonable valuations and estimates of depreciation, depletion, amortization, operating expenses, revenues, etc. This naturally results in an incorrect segregation. Likewise, the 85% allocation factor was the one worked out by the Commission's witness Freese only upon the overall *properties* in both states *as a whole*. It was not intended to be, and is not, workable when applied only to particular component elements of the property, such as transmission line equipment, or to operating expenses, or depreciation, or revenues, as the Company has attempted to apply it, or imagine the jury as having applied it.

The Company chooses, and insists erroneously that this Court should choose, just any sort of a blended combination of elements of the rate structure as contained in the evidence of both parties, that may be necessary to uphold the jury's verdict; choosing, of course, its own estimates insofar as possible where it thinks its own evidence is by a long stretch of the imagination tenable at all, and choosing on the other hand the elements taken from the appellees' evidence or the Commission's findings where these are more advantageous to the Company, or in lieu of the ele-

ments on which the Company plainly admits by implication that its own evidence was totally inadequate and untenable. This is a novel theory of reviewing the sufficiency of a rate before the courts, and one which so far as we know has never been adopted before, even by contentious litigants, and much less by courts of justice. Thus the Company speculates upon what *may have been* in the minds of twelve lay jurymen, though nothing of the sort is apparent from the jury's actual findings; and even if such things had been in the minds of the jury, they were clearly unsound and incorrect.

The Company argues in effect that whatever the jury's verdict may be in a rate case, regardless of the soundness or unsoundness of the bases and methods of submission to the jury, and regardless of whether the issue of confiscation was requested or actually submitted to and passed upon by the jury or not, the jury's verdict immediately attains final conclusiveness on all parties upon the issue of confiscation, and is not subject to review by the courts through the usual legal analysis of the existence or sufficiency of the evidence to support same. If this contention were sustained, the jury's verdict would end all rate controversies and the courts would have no function to perform or power to exercise in a review and analysis of the evidence. Confiscation would then become only a fact issue for the trial courts, and not at all a law question or a mixed question of law and fact for all the courts. This would result in doing the very thing which the Court of Civil Appeals and this Court and all other courts have held cannot and should not be done, namely, the substitution of the judgment of a trial court not only

for the judgment of the expert legislative body which fixed the rate, but even for the judgment of the reviewing courts—who would, under appellant's theory, be precluded from determining the existence or sufficiency of the evidence to support the verdict or judgment of the trial court. This would, in the final analysis, make the courts, and not the legislative body, the ultimate legislative rate-makers. The Company certainly would not be making any such contentions had the jury's verdict been adverse to it.

The only remaining questions presented to this Court are:

> "1. Did the Company fail to make out its case by not presenting clear and satisfactory evidence?
>
> "2. Does the rate, when properly tested, result in actual confiscation?"

There existed no necessity for a segregation before the Commission, because the Company made before the Commission no claim of interstate commerce, and no objection to the Commission's over-generosity in inquiring into and fixing the rate upon the basis of overall evidence as to Texas-Oklahoma operations, and the Company has thereby misled the Commission upon that point, and in reality perpetrated a fraud both upon the Commission and the courts by its methods adopted herein.

But actually, when proper segregation is made, there is no confiscation shown. Table IV, Appellees' Original Brief, page 199.

At page 20 of its latest brief the Company claims that if Line A operations are left out of account, the return on the remaining Texas intrastate business is shown to be confiscatory. This is not true. Table V, page 200 of Appellees' Original Brief, shows that even the return on West Texas gas (unquestioned intrastate operations) for 1933, which is based on the Company's erroneous segregation between what it chooses to designate as "interstate operations and intrastate operations," was 6.63%. This becomes 6.28% when depreciation correction is made for overall properties as urged at p. 61 of Appellant's First Reply Brief.

The Company frequently but unsuccessfully attempts to fall back upon appellees' evidence to support its contentions. For instance, it falls back upon appellees' evidence to supply the fatal deficiency of its own entire failure to present any evidence for years prior to the depression period 1931-1934; and also in its highly imaginative and speculative combinations or "blendings" of the evidence in such way that it contends the jury "could have found" the evidence clear and satisfactory as to "unreasonableness and unjustness"—and even as to "confiscation," which was not submitted or found at all.

For cancelled and surrendered leases the Commission allowed an average or amortized figure of $99,140.73 in operating expenses, arrived at by the average for the five-year period ending December 31, 1931. In connection with its table of computations at page 64 of its First Reply Brief, the Company states that it has allowed cancelled and surrendered lease expenses, in such

table, as the Commission amortized them; and this statement is repeated on pages 23-24 of Appellant's Second Reply Brief. The statements read fine if taken at face value, but they are not true. Reference to Record III, 2285, shows that the figures there shown as "Available for Depreciation, Depletion, Federal Income Tax and Return" are identical with the figures as they appear under the same heading on page 64 of Appellant's First Reply Brief. The Company has included in that tabulation the correct amount of $99,-140.73 for the year 1931, *but for all subsequent periods it has used amounts substantially in excess of that amount*. How these increased amounts are arrived at, we are unable to discover; but they certainly do not conform to the Commission's findings as the Company proposes. It is deplorable that the Company cannot, or will not, stay with the facts, and that thereby it puts us to the necessity of pointing out its errors a second and third time in order to prevent this Court from being seriously misled.

With respect to claims for Federal Income Tax, the Company again departs materially from the Commission's findings and from any basis fairly supported by the evidence. If the Company had applied the Commission's findings, as it purports to do, it would have deducted no federal income tax, for the Commission expressly finds none would be due under the 32c rate after all allowable deductions are taken. The Company, further, would have the Court believe that the testimony of its own witness, Hulcy, to the effect that approximately $52,000.00 would have been the correct amount of computed federal income tax for the

year 1931, was not true, and is not to be accepted or given any effect by the Court, because such testimony was given by Hulcy on cross examination rather than direct examination. Our previous statements are sufficient to show that the Company has never actually paid to the Government, nor has the Lone Star Gas Corporation ever paid to the Government for Lone Star Gas Company, any such amounts of Federal Income Tax as the Company computes and uses in its tabulations. What this record does reflect, is that the Company has made no payments of income tax direct to the Government at all; but only that the Lone Star Gas Corporation has rendered to the Government consolidated tax returns for the years here under review, for all of its underlying affiliated companies; that no payments have actually been made to the Government upon such returns for any year here under review, with the exception of one or two; that the total amounts actually paid, or actually and justly due, by the *Corporation* for the years in question upon such consolidated returns are not shown by this record at all; that the amount of such actual tax is still in dispute as between the Government and the Corporation for most of the years in question; and that nothing is shown in this record with respect to the methods or soundness of the allocations upon which the Corporation purported to charge to the Company allocated parts of the tax as computed or paid; the Company only making "dummy" or memorandum returns, not to the Government but to the Corporation, upon the erroneously assumed basis that the Company was making a separate return of its own to the Government; and the erroneous, excessive and fictitious

amounts thus computed and allocated to the Company by the Corporation are what the Company has charged into its tabulations here submitted as well as its previous tabulations.

We ask the Court again to remember that,

1. The 32c rate has never been put into actual operation so that we may know what it would have yielded during any period;

2. The theoretical application by the evidence here, of the 32c rate to the Company's actual operations, covers only a period of six or seven months subsequent to the effective date of the order—namely, from September 13, 1933, to April 30, 1934;

3. All of such theoretical applications of the 32c rate subsequent to December 31, 1930, cover only subnormal depression years, and include 1933, the worst financial year of the Company's history, doubly subnormal because of economic depression and abnormally high temperatures.

When all the things are kept in mind, which we have urged in our three briefs here, there can be no doubt whatever that the Company has, as the Court of Civil Appeals held, failed as a matter of law to submit the requisite quantum or quality of clear and convincing evidence to prove confiscation; and, further,

that the rate when properly tested does not result in confiscation.

Respectfully submitted,

WILLIAM MCCRAW,
Attorney General of Texas

ALFRED M. SCOTT,
Assistant Attorney General
of Texas

EDWARD H. LANGE,
Laredo, Texas
Counsel for Appellees

BLANK

PAGE

FILE COPY

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, A. D. 1932

NO. 313

LONE STAR GAS COMPANY,

Appellant

Versus

THE STATE OF TEXAS, ET AL.,

Appellees

APPEAL FROM THE DISTRICT COURT OF CIVIL

BLANK

PAGE

INDEX

	Page
Caption	1
Assignments of Error	2-8
I. In reversing the judgment of the Court of Civil Appeals	2
II. In holding that the Court of Civil Appeals based its judgment solely upon the Company's failure to make a proper segregation	2
III. In remanding to the Court of Civil Appeals for further proceedings	2
IV. In not making clear whether this Court requires the Court of Civil Appeals to render judgment affirming judgment of the District Court or leaves the Court of Civil Appeals free to make independent disposition according to state law on overall evidence	3-5
V. In holding that under state law the Court of Civil Appeals had no power to make fact findings	5
VI. In using certain other language in the opinion which tends to unsettle state law	5-7
VII. In giving any effect to jury verdict, and in holding that verdict could not be set aside upon an "untenable standard"	7-8
VIII. Using word "interstate" where "intrastate" intended	8
Brief and Argument	9-24

AUTHORITIES CITED

	Page
1. Article 6059, Revised Civil Statutes of Texas, 1925	6, 19
2. City of Austin vs. Austin Cemetery Ass'n., 87 Texas 330, 338, 28 S. W. 528, 531	20
3. C. R. I. & P. R. Co. vs. Cole, 251 U. S. 54, 64 L. Ed. 133	23
4. Erie R. Co. vs. Thompkins, 82 L. Ed. Adv. Sheets p. 787	15
5. Frank vs. Mangum, 237 U. S. 309, 59 L. Ed. 969	22
6. Humble O. & R. Co. vs. R. R Com. of Texas, 94 S. W. (2) 1197, 1199, writ refused	20
7. Luria vs. United States, 231 U. S. 9, 58 L. Ed. 101	22
8. Maxwell vs. Dow, 176 U. S. 581, 587, 44 L. Ed. 597, 599	22
9. Midland Realty Co. vs. Kansas City P. & L. Co. 300 U. S. 109, 112-113, 81 L. Ed. 540, 543-544	15
10. N. Y. & Queens Gas Co. vs. McCall, 245 U. S. 345, 347-348, 62 L. Ed. 337, 340-341	19
11. Palko vs. Connecticut, No. 135, decided by the Supreme Court of the United States, December 6, 1937	23
12. Post vs. State, 105 Texas 500, 501	5, 21
13. R. R. Com. of Texas vs. Galveston Chamber of Commerce, 105 Texas 101, 115, 145 S. W. 573, 580	20
14. R. R. Com. of Texas vs. Shupee, 57 S. W. (2) 295, 301, Aff. 123 Texas 521, 528, 73 S. W. (2) 505, 508	20
15. Rogers vs. Hill, 289 U. S. 582, 587, 77 L. Ed. 1385, 1389	16

AUTHORITIES CITED—(Continued)

	Page
16. Smith County Oil & Gas Co. vs. Humble O. & R. Co., 112 S. W. (2) 220	20
17. State of Texas vs. Lone Star Gas Co., 86 S. W. (2) 484, writ refused	20
18. State vs. Southwestern Bell Tel. Co., 233 S. W. 425	19
19. United Gas Public Service Co. vs. Texas, 89 S. W. (2) 1094, writ refused, affirmed by this Court Feb. 14, 1938	5, 7, 8, 20, 21, 22, 23
20. Walker vs. Sauvinet, 92 U. S. 90, 23 L. Ed. 678	22

BLANK

PAGE

IN THE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, A. D. 1937

NO. 313

LONE STAR GAS COMPANY,
Appellant

Versus

THE STATE OF TEXAS, ET AL,
Appellees

APPEAL FROM THE COURT OF CIVIL APPEALS FOR THE THIRD SUPREME JUDICIAL DISTRICT OF TEXAS, AT AUSTIN

APPELLEES' PETITION FOR REHEARING, AND ALTERNATIVE MOTIONS FOR AMENDMENT, SUPPLEMENT, AND CLARIFICATION OF OPINION AND JUDGMENT

TO SAID HONORABLE COURT:

Appellees respectfully petition this Honorable Court to set aside its opinion and judgment entered herein on May 16, 1938; and pray that Appellees be granted a rehearing herein, and that the judgment of the Court of Civil Appeals be affirmed; and, in the alternative, pray that this Honorable Court amend, supplement, and clarify its opinion and judgment in the respects hereinafter indicated.

Counsel for Appellees certify that this petition, and the motions and arguments herein contained, are presented in good faith and not for delay.

For grounds Appellees present the following points:

I. This Honorable Court erred in reversing, and in not affirming, the judgment of the Court of Civil Appeals.

II. This Honorable Court erred in holding that the Court of Civil Appeals based its judgment solely upon the view that Appellant failed to make a necessary and "proper segregation of interstate and intrastate properties and business." In actuality the Court of Civil Appeals did not base its judgment solely upon that view, but actually and expressly based its judgment upon a thorough, mature, and deliberate consideration of all evidence in the record, including that bearing upon the overall and unsegregated properties and operations; and the Court of Civil Appeals only adverted to the absence of such a proper segregation as an alternative and cumulative ground for its judgment, in view of the Company's insistence (overruled by the state appellate courts, and now by this Court) that the order was void *in toto* for impinging in part upon the federal commerce clause. Quotations and summaries from the opinion of the Court of Civil Appeals, supporting this point, will be found in the argument hereinbelow.

III. This Honorable Court erred in remanding the cause to the Court of Civil Appeals "for further proceedings not inconsistent with" the opinion of this Court.

IV. This Honorable Court erred in not specifying with greater particularity what "further proceedings" the Court of Civil Appeals is authorized to take in this cause "not inconsistent with" this Court's opinion, and what restrictions, if any, are put upon the "further proceedings" of the Court of Civil Appeals. Appellees, therefore, respectfully pray that, if the cause is to be reversed and remanded (which they do not think it should be) this Court clarify its opinion so as to indicate which of the two inconsistent constructions, set out below, is correct.

(1) Appellees represent that, while they do not conceive that this Honorable Court's opinion is fairly open to the construction hereinafter next mentioned, yet Appellant and its counsel have, immediately following announcement of this Court's decision, publicly, unqualifiedly, and emphatically contended, in the press and elsewhere, that this Court's opinion and judgment can mean only that the Court of Civil Appeals must, and cannot consistently with this Court's opinion and judgment do otherwise than to, render final judgment affirming the judgment of the District Court.

Appellees further have been reliably informed that at least two of the three Justices of the Court of Civil Appeals have expressed the view that this Court's opinion is probably open to the above construction, or at least that it is ambiguous and subject to grave doubt upon that point.

(2) It is Appellees' construction of this Court's opinion and judgment, that, on the contrary, the

Court of Civil Appeals is not by this Court's opinion and judgment required to affirm the judgment of the District Court.

For our views as to some of the courses we think the Court of Civil Appeals is and should be authorized to pursue, consistently with this Court's opinion and judgment, see our argument hereinafter.

It is Appellees' view, further, that this Court's opinion and judgment do not, and certainly should not, require the Court of Civil Appeals to affirm the judgment of the District Court, for the various reasons set forth in subsequent argument, and for the further reason that these Appellees, as Appellants in the Court of Civil Appeals, assigned numerous errors of state law committed in the course of the District Court trial, which errors under the state law would in any event preclude the proper rendition of final judgment based upon the jury's verdict below, and which assignments the state appellate courts did not pass upon because deemed unnecessary to the disposition of the case which they actually made, and thought proper, but which assignments these Appellees are entitled to have passed upon, and will have passed upon, by the state appellate courts if the opinion and judgment of this Court do not preclude such further review and action below by peremptorily requiring affirmance of the District Court's judgment as contended for by Appellant. If any of these Appellees' assignments of error under the state law be sustained by the state appellate courts, then Appellees would at least be entitled to a reversal and remand to the District Court for retrial upon the merits, rather

than having final judgment rendered against these Appellees upon a record shot through with numerous reversible errors of state law, prejudicial to these Appellees only, which assignments have not been considered or passed upon by the state appellate courts.

V. This Honorable Court erred in stating, at page 5 of its opinion, and in citing *United Gas Public Service Co. vs. Texas* (decided February 14, 1938) and *Post vs. State*, 106 Texas 500, 501, as supporting the statement, that "Under the state practice the issues of fact were determined in the trial court and on the appeal the Court of Civil Appeals had no authority to make findings of fact." The *Post case* lays down the true general rule; but, as will be explained in argument hereinafter, the Court of Civil Appeals has not in this case violated the rule of the *Post case*, nor made any fact findings, but has only passed upon the *law question* of whether the evidence as a whole was "clear and satisfactory" so as to overturn the presumed validity of the Commission's findings and order, and raise any issues of fact. Appellees, therefore, pray that the paragraph on page 5 containing such statement and citations be stricken from the Court's opinion, as being unnecessary to the decision, and as being probably misleading in the future, prejudicially to these Appellees, to the state courts as to this Court's attitude upon this question of exclusively state law.

VI. This Honorable Court erred in stating in its opinion, at page 12, sixth and fifth lines from the bottom, that the case was submitted to the jury "under a proper instruction as to the burden of proof resting upon appellant"; and, on page 14, eighth and

ninth lines from the top, that Appellant's evidence "had been properly submitted to the jury." Appellees respectfully request this Court to strike such language from its opinion for the reason that, as will be demonstrated in subsequent argument, the language is founded upon an apparent misunderstanding of the well-established and settled state practice under the state constitution, statutes, and decisions, as to the judicial method of approach in determining the legal sufficiency of the evidence to overturn the *prima facie* validity of the findings and orders of the Commission. That method of approach is, as we have tried to make plain, and as we will endeavor to make even plainer, to review the evidence first upon the preliminary question of law as to whether the evidence is "clear and satisfactory" or "clear and convincing" so as to raise issues of fact as to whether the rate is "unreasonable and unjust" within the meaning of Article 6059, or "confiscatory" in violation of the federal Fourteenth Amendment and the equivalent provisions of the state constitution.

This preliminary question of law is one addressed to the *judicial mind;* and, until it is resolved by the judges favorably to the complainant, there is no question of fact addressed to the jury as triers of the facts. If on this preliminary legal test it be determined that the evidence is sufficiently "clear and satisfactory" or "clear and convincing" to raise issues of fact as to unjustness and unreasonableness, or confiscation, (which was *not* the situation in this case) the questions of fact thus raised would properly be submitted to the jury upon a mere preponderance of the evidence.

If the trial judge, as here, erroneously concludes, on this preliminary question of law, that the evidence is "clear and satisfactory," then his judgment in that respect is subject to revision on appeal—where, again, the question is resolved as one of law rather than of fact; though the appellate courts may, as this Court has in *United Gas Pub. Serv. Co. vs. State of Texas* said it does, analyze the facts only for the purpose of enabling them to decide the law question.

Appellees, therefore, respectfully request this Court to strike the above-quoted language from its opinion, as well as that referred to in Point V, supra, because such language, if allowed to stand, will in all probability erroneously and needlessly raise doubts in the minds of the Texas Bench and Bar as to whether this Honorable Court intends to hold that the settled state law and practice on these points is objectionable upon federal constitutional grounds, whereas we do not believe this Court intends to pronounce any federal interdiction upon the propriety of those well-established points of state law.

VII. This Honorable Court erred in giving any effect whatever to the jury's verdict, contrary to the state law, and in holding that such verdict "could not properly be set aside by the application of an untenable standard of proof and in disregard of the evidence which had been appropriately addressed to the Commission's findings and had been properly submitted to the jury."

In Appellees' view, the questions of whether the evidence was sufficient and proper to go to the jury

at all, and of the sufficiency thereof to support the jury verdict, and as to what effect, if any, should have been given the jury verdict, and the standards upon which the jury verdict could be set aside, and of the interpretation of the jury's verdict, are all questions of exclusively state law, upon which this Court, under its previous decisions, should follow the decisions of the highest state courts in this case.

As this Court correctly held in *United Gas Pub. Serv. Co. vs. State of Texas*, February 14, 1938, "The final judgment of the state court in the instant case must be taken as determining that the procedure actually adopted satisfied all state requirements." If the procedure followed by the state courts in this case does not meet the requirements of any federal constitutional provision, this Court should, as it has not done, point out wherein such procedure does infringe upon some specific federal constitutional right of Appellant. And, if the Court of Civil Appeals erroneously reviewed the evidence solely from the standpoint of segregation (as we believe it did not), then it seems to Appellees that the proper course would be for this Court, without remanding to the state courts, to rectify such error in its own review of the evidence, upon the proper overall basis, and determine in the usual way whether the evidence does or does not show confiscation with the degree of clarity required in this Court's previous decisions.

VIII. At page 4 of the opinion, line 9, the Court uses the word "interstate" property, whereas we think it intended the word "intrastate."

BRIEF AND ARGUMENT

There cannot be the slightest doubt that this Honorable Court has, in division "First" of its opinion, correctly upheld the contentions of the State and Commission that the Company's rights under the Federal Commerce Clause have not been infringed upon by the Commission's order. To have held otherwise would have thrown insurmountable obstacles in the path of the State's undoubted powers of appropriate local gas rate regulation, and we are gratified that this Court has thus upheld the arm of the state regulatory body in this respect.

We are also gratified that this Court has, in our opinion, correctly held that the Company received a full hearing, and was accorded all requisites of due process, before the Commission.

This Honorable Court, on page 13 of its opinion, adverts, however, to the "insistence" of the State, and, on page 14, to the State's "pressure" in the District Court, upon the point that there should be a proper segregation between that which was within and without the state's regulatory power and between Oklahoma and Texas properties and operations. This language upon this point creates in our minds the belief that this Honorable Court is erroneously under the impression that the State unjustifiably shifted its fundamental position in the courts from that taken before the Commission.

Such an impression is unjustified, and we do not believe that the State and Commission should be either criticized, or visited with the unjust penalty of

a reversal, for taking a position before the courts, which *the Company itself* had driven them to, and made necessary, by its unjustifiable course of raising no contention as to interstate commerce before the Commission, but injecting it for the first time into the judicial proceedings, first in the federal district court (R. III, 2187), and then in the state district court (R. I, 123, et seq).

The question of segregation would not have been in this case at all had it not been for the Company's injecting the interstate commerce issue into the case for the first time before the federal and state trial courts.

From the first time this claimed defense was interposed by the Company in the federal and state trial courts, this issue has, by the State and Commission, and by all reviewing courts, been considered the paramount question in the case.

This fact explains why the Court of Civil Appeals placed so much emphasis upon the matter of segregation. That Court first determined (correctly, as now adjudged by this Court) that there was no interstate commerce involved, and that the Company's rights under the Federal Commerce Clause, therefore, were not infringed upon by the Commission's order; but the Court of Civil Appeals then took the *alternative position*, that if it were in error in that view—a matter upon which this Court had the ultimate jurisdiction to pass—the Company, nevertheless, had failed to prove its case with the requisite quantum and character of proof, because of its indisputable failure to submit any tenable basis of segregation.

This Honorable Court has determined that the Court of Civil Appeals based its judgment *solely* upon the absence of such a segregation, and that the Court of Civil Appeals failed to give *any* consideration to the Company's overall, or unsegregated, evidence in determining the legal insufficiency thereof.

We respectfully insist that this Court was in error in so determining. We know as a fact that the Court of Civil Appeals did give full, deliberate, and careful consideration, and due weight, to all evidence in the record—including the Company's overall and unsegregated evidence as well as the evidence of both parties upon attempted segregations; and this fact is plainly reflected by language appearing in the opinion of the Court of Civil Appeals, which this Court has apparently overlooked, or to which at least this Court has not given sufficient weight.

The reversal also overlooks the well-established general principle of appeal and error, that not only need the lower court not state in its opinion all of the grounds for its judgment, but that such judgment, if correct, will be upheld notwithstanding the reasoning on which it was based may be *totally erroneous*. We conceive that the *judgment* of the Court of Civil Appeals, if not its opinion, was entirely correct—and that this Court, instead of now reversing and remanding, should follow its usual course of reviewing and analyzing the evidence upon the correct basis, and of determining whether as a matter of law it does or does not show confiscation with the requisite degree of clarity.

In the opening statement by the Court of Civil Appeals (R. V, 3333-3336), that Court summarized plainly from an overall basis. At R. V, 3335, the Court speaks plainly from an overall standpoint in saying: "Appellee (Company) did not meet this burden and quantum of proof and the trial court erred in overruling the Commission's motion for an instructed verdict and for judgment declaring the rate to be valid."

And, again, in concluding the opinion (R. V, 3369), the Court plainly speaks from the standpoint of overall proof when it says: "The calculations, estimates, and opinions of its (Company's) experts show a studied effort on the part of appellee (Company) to charge large items as operating expenses and depreciation at war with the actual experience of the Company and *we find no proof* which would authorize the trial court to submit any issue to the jury, but find that appellee wholly failed to meet the burden of proof placed upon it, and to show by clear and satisfactory evidence that the rate was confiscatory, unjust and unreasonable as to it."

Furthermore, the Court in reaching the above-quoted and oft-stated conclusion, unquestionably reviewed, and gave full effect to, the Company's overall evidence, as plainly reflected in each of the following portions of its opinion:

In its analysis and discussion of the "Interstate Commerce Issue" (R. V, 3336-3352).

And in analyzing and discussing the case from the standpoint of "Confiscation of Property" and "Legal

Sufficiency of Evidence to Show the Rate Confiscatory or Unreasonable and Unjust," the Court plainly speaks exclusively from the viewpoint of the overall evidence, unmixed with any question of segregation, in analyzing the overall evidence upon the following matters:

The Company's overall appraisals of transmission construction costs, and the arbitrary addition of 20% to actual costs for contingencies (R. V, 3362-3363); the Court expressly pointing out that, "Where they relate to the same property, (i. e., overall) the appraisals are in every way comparable."

The evidence was likewise obviously reviewed from the overall standpoint exclusively, in analyzing and condemning the Company's "Depreciation Allowances" (R. V, 3363-3364), "Federal Taxes" (R. V, 3364), "Management Fees" (R. V, 3365), "New Business Expenses" (R. V, 3365-3366), "Cancelled and Surrendered Leases" (R. V, 3366), "Regulatory Commission and General Expenses" (R. V, 3366-3367), "Going Value" (R. V, 3367-3368), and "Rate of Return" (R. V, 3368-3369).

If, as we believe, it is plain that, notwithstanding the emphasis placed by the Court of Civil Appeals upon the issue of segregation, by reason of its view that the interstate commerce question, determined by it adversely to the Company, was the paramount issue in the case, which issue of segregation was inseparably connected with the interstate commerce issue, the Court of Civil Appeals has nevertheless actually reviewed all evidence in the record—that bearing upon

an overall basis as well as upon segregation—then we do not believe there is any necessity for a reversal and any further proceedings by the state courts, in view of the determination by the state appellate courts that the evidence as a whole, segregated and unsegregated, was legally insufficient to raise any fact issues as to confiscation.

But if we be in error, as to our view that the state appellate courts made their determinations upon an overall basis as well as the alternative segregation bases, then, since this Court has now finally determined that there was no need of segregation, certainly the state appellate courts should be given an opportunity to review the record again, approaching the question of legal sufficiency of the evidence exclusively upon the basis on which the Commission made its findings and order.

In no event, in the present state of the case, should this Court enter any judgment and opinion *limiting* the state appellate courts to the rendition of a judgment affirming the judgment of the trial court. We do not believe this Court has done so, or intended to do so. That would not only cut off the state appellate courts from making their determinations exclusively upon an overall basis (as now held proper by this Court) as to the legal sufficiency of the Company's evidence to raise fact issues, but would also preclude them from considering and passing upon the numerous assignments, presented before those courts by the State and Commission, as to errors of procedure and of substance under the state law committed in the District Court—which assignments of error the state ap-

pellate courts have not yet considered nor passed upon because found *at that time* not necessary in view of the disposition made of the case in those courts.

Furthermore, for this Court now to enter an opinion and judgment ending the case and requiring the state appellate courts to affirm the judgment of the District Court would upset all of our state statutes, and highest state court decisions, as to procedure, rules of evidence and burden of proof in judicial proceedings wherein attacks are made upon orders and findings of the Commission.

This Court has always held that upon questions covered by state constitutional and statutory provisions this Court will enforce the state law as interpreted by the highest state courts. *Midland Realty Co. vs. Kansas City P. & L. Co.*, 300 U. S. 109, 112-113, 81 L. Ed. 540, 543-544. And in the very recent and important case of *Erie R. Co. vs. Thompkins*, decided April 25, 1938, 82 L. Ed. Adv. Sheets, p. 787, this Court has extended this principle also to questions of general law.

We do not believe it is the intention of this Court, in the present case, to depart from this principle and to make such a far-reaching invasion into the undoubtedly exclusive province of state law, which would necessarily result if the Company's interpretation of this Court's opinion be adopted, as limiting the state appellate courts in this case to the rendition of a judgment affirming the judgment of the District Court and finally striking the rate down as being con-

fiscatory. If this Court had intended that result, we believe it would, as it has not done, have said so plainly. *Rogers vs. Hill,* 289 U. S. 582, 587, 77 L. ed. 1385, 1389.

Some of the principal additional reasons why we do not believe this Court intended to so limit the "further proceedings" which the Court of Civil Appeals is required to take, are as follows:

Under that interpretation, this Court's undoubtedly sound holding upon the interstate commerce question would be purely dictum; for the rate order would by this Court's opinion and judgment thus be finally stricken down, solely upon the ground that it is found confiscatory, and there would be no need to pass upon the interstate commerce questions.

And, furthermore, there is nothing in this Court's opinion even suggesting that this Court has reviewed and determined the legal sufficiency of, the evidence to show confiscation with the required degree of clarity established as requisite by this Court's previous decisions, nor the sufficiency of such evidence to support the jury's verdict and the District Court's judgment in this case—whereas, in confiscation cases this Court has always heretofore expressly reviewed the evidence in detail and determined its legal sufficiency or insufficiency to support a finding of confiscation. Thus the effect of such a holding would be to compel, as a supposed federal constitutional right of the Company, the substitution of the jury's verdict and trial court's judgment for the expert judgment and discretion of the Commission, which this Court has held was arrived

at in a regular manner and upon a proper basis; and, contrary to the state law as declared in the opinion of the highest state courts, to forbid *those* courts to determine the sufficiency of the evidence to support that verdict and judgment; and, contrary to this Court's previous decisions, to finally strike the rate down as being confiscatory, upon a jury's verdict, without this Court itself, or any other appellate court, determining upon proper analysis that the evidence was such as to *require* a finding of confiscation under the onerous rules heretofore laid down and applied, in cases of claimed confiscation, by this and all other courts.

If this Court's judgment and opinion be construed as requiring the Court of Civil Appeals to render final judgment affirming the judgment of the District Court, that would write *finis* to the case, not only without this Court's having reviewed and determined the sufficiency of the evidence on any basis to show confiscation with the requisite degree of clarity, but also without giving any of the state trial or appellate courts a fair opportunity to make that determination exclusively from the overall basis which this Court has now held necessary. Thus all the expensive expert labors of the Commission, which this Court has after five years of litigation now found to have been regular and upon the proper basis, would now be finally stricken down and held for naught upon a mere unsupported jury verdict. That would sound the death knell of all rate regulation in Texas.

And, finally, we find it impossible to believe that this Court has, contrary to its numerous and uniform

prior decisions, invaded the exclusive province of the state courts in determining and applying the state law, without at least pointing out in its opinion wherein such state law and procedure violate any federal constitutional rights of procedural due process of the Company.

For fear this Court may not fully understand the state law and procedure established by our state statutes, and the uniform decisions of our highest state courts, applicable in this case, we now give in brief outline what our state decisions establish on those points:

The Commission is composed of impartial, skilled, and experienced rate experts, having at their command the necessary services of legal experts, accountants, engineers, and other technicians, and are, therefore, equipped in a special way to deal intelligently and justly with the intricate and difficult technical problems of rate-making.

If it were not so, and a trial court or jury were better equipped to fix just and reasonable rates than the Commission, we would do much better to eliminate the Commission entirely, and save the delay and expense of proceedings before it, by allowing the courts to fix the rates in the first instance. But we do not think there is anything in the Federal Constitution which should be so interpreted as to drive us to the necessity of doing that.

In order to prevent the results of the Commission's expert labors from being set aside and supplanted too

easily by the judgment and discretion of courts or juries less adequately equipped for exercising discretion in such matters, it is necessary that some degree of verity be accorded the Commission's work over and above that which would attach to it if their findings and orders could be overturned upon a mere "preponderance of the evidence" and the judgment and discretion of the trial court substituted therefor. *State vs. Southwestern Bell Tel. Co.*, 233 S. W. 425, *N. Y. & Queens Gas Co. vs. McCall*, 245 U. S. 345, 347-348; 62 L. ed. 337, 340-341.

To provide such a safeguard for the expert labors of the Commission, the State Legislature has provided (Article 6059) that the orders of the Commission may be set aside as unjust, unreasonable, or confiscatory only by the complainant's presenting "clear and satisfactory evidence" requiring such action.

The question of whether the evidence submitted is "clear and satisfactory" is one of law addressed to the *judicial minds* of the reviewing judges, and not to their minds as a question of fact.

At the threshhold of a suit to set aside an order of the Commission, therefore, the reviewing trial judges (and, subsequently, the appellate judges) are faced *in limine* with the necessity of deciding the *preliminary law question* as to whether the complainant's evidence as a whole measures up to that quantum and character of proof which may properly be characterized as "clear and satisfactory," within the meaning of the statute. If the evidence meets that preliminary legal standard, then fact questions are raised, and are properly to be

submitted to the jury, *upon a mere preponderance of the evidence.* *R. R. Com. of Tex. vs. Shupee*, 57 S. W. (2) 295, 301, Aff. 123 Tex. 521, 528, 73 S. W. (2) 505, 508; *R. R. Com. of Tex. vs. Galveston Chamber of Commerce*, 105 Tex. 101, 115, 145 S. W. 573, 580; *Humble O. & R. Co. vs. R. R. Com. of Texas*, 94 S. W. (2d) 1197, 1199, writ refused; *City of Austin vs. Austin Cemetery Ass'n.*, 87 Tex. 330, 338, 28 S. W. 528, 531; *Smith County O. & G. Co. vs. Humble O. & R. Co.*, 112 S. W. (2) 220; *State of Texas vs. Lone Star Gas Co.*, 86 S. W. (2) 484, Writ ref.; *United Gas Pub. Serv. Co. vs. State of Texas*, 89 S. W. (2) 1094, Writ ref.

Thus it is by no means made impossible, or unduly difficult, for the complaining party to establish his case by submitting evidence which is based upon satisfactory factual data, and which thus meets the requirements of intelligent judicial appraisal. Having once successfully passed this preliminary judicial scrutiny, the evidence is then properly to be submitted to the jury in the usual way.

We do not contend that jury fact questions cannot be raised in any rate case, nor that they *could* not have been raised in this case—by the submission of evidence clear and satisfactory in character. Our only contention is that the evidence in this case was not of that clear and satisfactory nature which, only, the statute provides shall be submitted to a jury for determination of the fact questions.

There is nothing in this procedural and evidentiary rule as to burden of proof inconsistent with due process under the Fourteenth Amendment.

If the evidence does not appear to the reviewing judges to be "clear and satisfactory," as a matter of law, then there are no fact issues raised to be determined, and the presumptively valid order of the Commission successfully withstands the attack as a matter of law. This is the situation presented by this record.

In this instance, the Court of Civil Appeals has correctly determined, as a matter of law, that the evidence as a whole was legally insufficient to raise any fact issues to go to the jury, and the Court of Civil Appeals, has, therefore, made no fact findings whatever, nor given any effect to the jury's verdict—because of the absence of legally competent evidence to support it. The state courts' determinations upon these questions of state law should be scrupulously respected by this Honorable Court, as they have always been.

It is upon these grounds that we request this court to strike from its opinion, as being inapplicable, the paragraph on page 5 citing and quoting from the case of *Post vs. State,* and *United Gas Pub. Serv. Co. vs. State of Texas.*

Furthermore, since the question of whether the evidence is "clear and satisfactory" is one of law for the judge, and would have been already passed upon by the judge before the evidence could be properly submitted to the jury, it would be improper, even in a case which could properly go to a jury, to instruct the jury, as was done in this case, that the burden is upon the complainant to prove his case by "clear and satis-

factory evidence," and it was, therefore, improper and erroneous for this Court upon this question of state law to say, at page 12 of the opinion, that the case was submitted to the jury "under a proper instruction as to the burden of proof resting upon appellant."

And, because the Court of Civil Appeals properly found that the evidence was as a matter of law insufficient to raise any fact issues, we believe it also improper upon this question of state law for this Court to state, at page 14 of its opinion that the Company's overall evidence "had been properly submitted to the jury."

This Honorable Court has not said, or even intimated, in its opinion that the above procedural rules, which are but mere adjective rules of evidence, or burden of proof, in any way impinge upon Appellant's federal constitutional rights; and it is clear, under this Court's decisions, that they do not so offend. *Luria vs. United States,* 231 U. S. 9, 58 L. Ed. 101. Yet Appellant is insisting and will insist, erroneously, that this is the necessary effect of this Court's decision.

Neither does the Fourteenth Amendment guarantee to Appellant the right of a trial by jury—the State may consistently with the Federal Constitution withhold a jury trial entirely, or grant one upon such terms and conditions as it may see fit. *United Gas Pub. Serv. Co. vs. State of Texas,* decided by this Court February 14, 1938; *Walker vs. Sauvinet,* 92 U. S. 90, 23 L. Ed. 678; *Maxwell vs. Dow,* 176 U. S. 581, 587, 44 L. Ed. 597, 599; *Frank vs. Mangum,* 237 U. S. 309, 59 L. Ed. 969.

Neither is there anything in the Federal Constitution which requires the State to maintain a distinction between the functions of the jury and those of the court. *C. R. I. & P. R. Co. vs. Cole,* 251 U. S. 54, 64 L. Ed. 133; *Palko vs. Connecticut,* No. 135, decided by this Court December 6, 1937.

As correctly said by this Court in *United Gas Pub. Serv. Co. vs. State of Texas,* supra, "The final judgment of the state court in the instant case must be taken as determining that the procedure actually adopted satisfied all state requirements."

If this Court had intended to hold that such state procedure violates any of Appellant's federal constitutional rights, undoubtedly it should and would, as it has not done, have said so plainly in its opinion in this case.

If the cause is to be remanded at all (which we do not think it should be), then what we think this Court intended to be done, and what certainly should be done and made plain, is to leave the Court of Civil Appeals free to review the entire evidence anew, upon an overall basis, in accordance with and in the light of this Court's present judgment and opinion, eliminating the interstate commerce and segregation questions; applying to such evidence the tests and standards provided by our state court procedure and decisions, and to arrive at its own independent determination as to whether the overall evidence was sufficient to raise any fact issues to go to the jury upon the question of confiscation, or was sufficient to support the jury's verdict; and, either to render final judgment, or to remand the

cause to the District Court for retrial upon the merits, as may be determined to be proper under our state laws and decisions.

In conclusion we respectfully request that if at all possible the Court act upon this petition for rehearing before the adjournment of its present term on May 31, 1938. This is especially desirable to the end that the Court of Civil Appeals may make the appropriate disposition of the case before its adjournment for the term about the middle of July of the present year.

Respectfully submitted,

WILLIAM McCRAW,
Attorney General of Texas

ALFRED M. SCOTT,
Assistant Attorney General
of Texas

EDWARD H. LANGE,
Laredo, Texas

Attorneys for Appellees.

p. 4,

SUPREME COURT OF THE UNITED STATES.

No. 313.—October Term, 1937.

Lone Star Gas Company, Appellant, *vs.* State of Texas, The Railroad Commission of Texas, et al.	Appeal from the Court of Civil Appeals for the Third Supreme Judicial District of the State of Texas.

[May 16, 1938.]

Mr. Chief Justice Hughes delivered the opinion of the Court.

The Railroad Commission of Texas brought this action, under Article 6059 of the Revised Civil Statutes of Texas, to enforce the Commission's order of September 13, 1933, prescribing the rate for domestic gas supplied by appellant, Lone Star Gas Company, to distributing companies in Texas. The rate was fixed at not to exceed 32 cents per thousand cubic feet instead of the existing charge of 40 cents. The District Court of Travis County, upon the verdict of a jury finding the prescribed rate to be unreasonable, denied relief and enjoined the Commission and the state officials from enforcing the Commission's order. The Court of Civil Appeals reversed the judgment and held the order to be valid. 86 S. W. (2d) 484. Rehearing was denied. 86 S. W. (2d) 506. The Supreme Court of the State refused writ of error and the case comes here on appeal.

Appellant, a Texas Corporation, operates about 4,000 miles of pipe lines located in Texas and Oklahoma through which it transports natural gas to the "city gates" of about 300 cities and towns in those States and sells and delivers the gas in wholesale quantities to distributing companies. The latter companies, with two exceptions, are affiliated with appellant, being subsidiaries of the same parent corporation. One of appellant's pipe lines extends from a gas field in Wheeler County, Texas, a part of the Texas Panhandle field, crosses the southwestern corner of Oklahoma, is tapped for gas delivered at Hollis, Oklahoma, and returning into Texas runs generally in a southeasterly direction to various Texas points. At Oklaunion, Texas, the line is tapped by a branch line

which extends northward into Oklahoma and supplies certain cities in that State. At Petrolia, Texas, the line is joined by lines coming from Oklahoma.

The Commission dealt solely with the rate for the gas delivered in Texas. This consisted (1) of gas produced or purchased in Texas and transported and delivered entirely within that State, being upwards of 70 per cent. of the total; (2) that produced or purchased in Oklahoma and transported through appellant's lines into Texas which, on appellant's calculation, amounted at the average of the five-year period 1929-1933 to about 11 per cent. of the total; and (3) that produced or purchased in the Panhandle field in Wheeler County, Texas, amounting on the same computation to about 17 per cent. of the total.

The Commission gave a full hearing in which appellant participated. The Commission treated appellant's properties as an integrated system, and in that way "considered the Oklahoma properties and operations and the effect thereof on the revenues and expenditures within Texas", fixing the rate "for application within the jurisdiction of Texas". Appellant made no objection to that course. The Commission determined the rate base as of December 31, 1931, at $46,246,617.53, being $4,674,285.91 for production properties and $41,572,331.62 for transmission properties. The Commission considered appellant's revenues and expenses for a six-year period, 1927 to 1932, and made the rate on the basis of six per cent. as a minimum fair rate of return.

Appellant brought suit in the federal court, attacking the rate on constitutional grounds, but that court stayed its proceedings when the present action was brought by the Commission. In this action appellant first submitted pleas to the jurisdiction of the state court, and pleas in abatement, which were overruled. In its answer appellant attacked the rate order upon the grounds (1) that transportation and sales to local distributing companies through high pressure lines "of gas produced in Wheeler County, Texas, and transported into and through Oklahoma and back into Texas without interruption" constituted interstate commerce, and that the order violated the commerce clause of the Federal Constitution; and that the same was true of the gas produced or purchased by appellant in Oklahoma and transported in high pressure lines to Texas for sale and delivery there; and (2) that the pre-

scribed rate was confiscatory and repugnant to the due process clause of the Fourteenth Amendment.

The trial on the merits, before a jury, was begun on June 11, 1934, and was entirely *de novo*. The State introduced in evidence the Commission's order (to which appellant unsuccessfully objected as being void in its entirety because applicable to its interstate business), the stay order granted by the federal court, and a stipulation that the prescribed rate had not been put into effect. The record of evidence before the Commission was offered but was not received. On this formal proof the State rested. Appellant moved for a directed verdict which was denied and appellant then went forward with its evidence. The report and findings of the Commission upon which the order was based were introduced. In rebuttal of the Commission's findings, appellant submitted an appraisal of its properties as an integrated operating system as of January 1, 1933. That appraisal was voluminous, showing $73,983,405.57 as the cost of reproduction new. Evidence was offered as to the amount to be deducted for accrued depreciation and on that basis the fair value was claimed to be $69,738,021.16. The appraisal was later brought down to May 1, 1934, showing an increase in material and construction costs between January 1, 1933, and May 1, 1934, of $1,579,381.72. The book costs of the properties were also introduced, ranging from $47,776.749.63, on December 31, 1931, to $49,858,751.23 as of April 30, 1934. Appellant claimed that the books understated the actual costs. There was evidence with respect to the annual accruals to provide for depreciation, depletion and amortization. The operating expenses and revenues were shown for the years 1931, 1932 and 1933, and for the twelve months ending April 30, 1934. In this evidence there was no segregation of appellant's properties or operations as between Texas and Oklahoma or between intrastate and interstate business, appellant insisting that it was entitled to attack the Commission's order upon the same inclusive basis which the Commission had used.

The State insisted that if appellant wished to maintain as a defense that the order was invalid because it sought to regulate operations which were exempt from state control, appellant should make a segregation, first as between its admittedly intrastate operations and those claimed to be interstate, and second, as between

Texas and Oklahoma properties and operations. After the voluminous evidence above mentioned had been taken, appellant, still contending that such an issue was not properly raised as the action under the Texas statute was in the nature of an appeal from the Commission's order which was indivisible, presented evidence based upon "a segregation of its 'integrated operating system' as between interstate and intrastate commerce". Appellant states that this segregation was based "upon the actual use of its properties in the two classes of commerce". The fair value of its ~~interstate~~ intrastate property was thus claimed to be $38,350,882.32 and the net amount available at the Commission's rate for return on intrastate deliveries of gas as less than four per cent. In this segregation appellant's line used in transporting gas from Wheeler County, Texas, in the Panhandle field, through Oklahoma and thence into Texas, was allocated to interstate operations.

In rebuttal, the State offered evidence based upon a different method of segregating appellant's properties and operations. This method proceeded upon the basis of geographical location, that is, there were allocated to Oklahoma and Texas respectively the properties physically located in each State and the revenues and expenses were divided on the same geographical basis. In that way the properties allocated to Texas were valued at $40,256,862.39, and the net revenue which would be available at the Commission's rate was estimated to be, for the last two years of the accounting period, nearly seven per cent. Appellant complains of this appraisal upon the ground that it excluded the production properties located in Texas which appellant claimed had an actual cost of $5,191,539.42 as of March 31, 1934, and that the State substituted therefor an arbitrary and inadequate annual allowance on the basis of the field price for the volume of gas produced.

When the evidence was closed, each party moved that a verdict be directed in its favor and both motions were denied. The court gave to the jury a series of instructions embracing definitions of the terms of "fair return", "fair value", "used and useful"—as applying to the property actually used by appellant in the production, transportation, sale and delivery of natural gas to its customers and also to the property acquired in good faith and held by appellant for use in the reasonably near future in order to

enable it to furnish adequate and uninterrupted service—"operating expenses", "annual depreciation", "reproduction cost new", and "going value". The jury were instructed that the burden of proof was upon the defendant (appellant) "to show by clear and satisfactory evidence" that the rate fixed by the Commission's order was "unreasonable and unjust as to it", and the court explained that by that phrase was meant that the rate prescribed in the Commission's order "was so low as to have not provided for a fair return upon the fair value of defendant's property used and useful in supplying the service furnished by said defendant." With these instructions the court submitted to the jury a single special issue as follows:

"Do you find from the evidence in this case that, as applied to points in Texas, the order of the Railroad Commission of Texas, bearing date of September 13, 1933, providing for a rate of not exceeding 32 cents per thousand cubic feet of gas sold to the distributing companies at the gates of points served, is unreasonable and unjust as to the defendant, Lone Star Gas Company? Answer this question 'yes' or 'no' ".

The jury answered the question "yes". Judgment was entered accordingly enjoining the enforcement of the Commission's rate.

In view of the definition of "fair return" and "unreasonable and unjust" in the court's instructions, we are of the opinion that the issue for the jury to determine was in substance whether the rate was confiscatory. We so regarded a like submission in the case of *United Gas Public Service Company* v. *Texas*, decided February 14, 1938. There the jury's verdict sustained the rate but that fact does not alter the nature of the issue submitted.

Under the state practice the issues of fact were determined in the trial court and on the appeal the Court of Civil Appeals had no authority to make findings of fact. "Where the evidence is without conflict, it may render judgment. But where there is any conflict in the evidence on a material issue, it has no authority to substitute its findings of fact for those of the trial court". *Post* v. *State*, 106 Tex. 500, 501; *United Gas Public Service Company* v. *Texas*, *supra*.

The Court of Civil Appeals held that the burden was heavily upon the Company (appellant here) to show by clear and satisfactory evidence that the 32-cent rate would not afford a reason-

able rate of return on the property used in the Texas public service, that the Company did not meet "this burden and quantum of proof", and that the trial court erred in overruling the State's motions for an instructed verdict. The court viewed the appeal as presenting two main divisions, (1) certain constitutional objections to the rate order, and (2) the legal sufficiency of the evidence to show that the order was confiscatory or unreasonable and unjust. Under the first division, the court considered that there were three constitutional objections, (a) interference with interstate commerce, (b) interference with the right to contract, and (c) confiscation of property. The court sustained the jurisdiction of the Commission to deal with the operations of appellant and its corporate affiliates in Texas as "a single and integrated business enterprise". On the first two issues abovementioned the court ruled in favor of the State, and on the confiscation issue the court considered that the question whether the prescribed rate would yield a fair return was one of fact and passed to the consideration of the legal sufficiency of the evidence.

Holding that the rate fixed by the Commission was presumed to be valid, and referring to the authorities as to the scope of judicial review, the court set forth the five primary factors essential to the correct determination of the issue, viz., the present fair value of the property of the Company used in the public service, the reasonable annual allowance for depreciation, the reasonably necessary operating expenses, the reasonable operating revenues, and the reasonable rate of return.

But in dealing with the evidence upon these questions, the court applied a different criterion from that adopted by the Commission. The court held that it was necessary to segregate the property used in Texas, as well as that used conjointly in Texas and Oklahoma. The court spoke definitely upon this point, saying—

"Since appellee [appellant here] was engaged in the integrated business of producing, purchasing, transporting and selling natural gas to the distributing companies at the city gates of some 300 cities and towns in Texas and Oklahoma, it became necessary to allocate or segregate the property used in Texas as well as that used conjointly in both states, in order to determine the fair value of the property used in the Texas public service, the annual depreciation thereof, and the Texas operating expenses and revenue".

The court then set forth the different methods of segregation which the parties had adopted. The court said that the State's

method allocated "to Texas operations, or to intrastate commerce the value of all property located within the physical boundary of Texas". The "short section" of pipe line "from Texas Pan handle field across the corner of Oklahoma and back into Texas was also allocated to Texas operations. "Gas sales adjustment" was made by which "Texas or intrastate operations" were charged with the net amount of Oklahoma produced gas for the six-year period 1929 to 1934. The court observed that "no charge against Oklahoma or interstate operations was made for the use of the transmission lines and for equipment within Texas; the effect of which was to give free transportation in Texas of all Oklahoma produced gas". Texas and Oklahoma expenses and revenues "were allocated in general accord with the segregation of the physical properties". The court stated that under that method the fair value "of the property undepreciated used in Texas public service was $40,256,862.39" according to the calculations of the State's experts; and that after deducting operating expenses and annual depreciation "there remained for the last two years of the accounting period, being the two lowest revenue years", Texas net revenue "which would yield a return of 6.74% and 6.76% respectively".

The court then referred to the method of segregation used by the Company by which all the gas produced or purchased in the Texas Panhandle field and transported into Texas, and all Oklahoma produced gas, were allocated to interstate commerce; that the allocation was made by a determination of the specific gravity of the Oklahoma and Texas Panhandle gas on the one hand and the West Texas gas with which it was commingled in pipe lines on the other; that the Company had allocated operating expenses and revenue between the two States upon substantially the same basis; and that in this manner the fair value of the property used in the Texas public service on the basis of reproduction cost new, less depreciation, was said to be $38,350,882.32. The court held that gas from the Texas Panhandle field did not move in interstate commerce and hence that the testimony of the Company's experts was based upon an erroneous assumption and "proved nothing material to this case"; that the Company had offered no other proof upon a correct segregation or allocation of the property, and that the trial court had erred in refusing the State's motion for an instructed

verdict and for a judgment declaring the rate order "to be valid in every respect".

The court's specific ruling upon this point is shown by the following statement of its conclusion:

"The burden was upon appellee to show by clear and satisfactory evidence a proper segregation of interstate and intrastate properties and business, and to show the value of the property employed in intrastate business or commerce and the compensation it would receive under the rate complained of upon such valuation. Having failed to make a proper segregation of interstate and intrastate properties, appellee did not adduce the quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory, or unreasonable and unjust".

The court adverted to the effect of the difference in theory in the two methods of segregation "with respect to the fair value of the property used in Texas public service, the annual depreciation thereof, and particularly as to the operating expenses and revenues". The court characterized the annual depreciation allowances as speculative and plainly excessive. The court said that with respect to operating expenses, except as to a few controverted items, and with respect to revenues, there was no substantial difference in the testimony "as to totals of both Texas and Oklahoma for the years of the accounting period" but that the same controversy arose "as to a proper segregation of such expenses and revenues to each State"; and since, as already pointed out, the Company had "failed to make proper segregation of the expenses and revenues, it failed to prove its case".

The court then criticised certain items of operating expenses as contrary to the actual experiences of the Company or so large as to be excessive upon their face, referring in particular to the items of "federal taxes", management fees charged by the holding corporation, new business expenses, canceled and surrendered leases, regulatory commission and general expenses, and going value. The court also took the view that no reason existed why a six per cent. rate of return should be declared confiscatory.

That the judgment of reversal was rested upon the proposition that there was a failure of proof on the issue of confiscation by reason of the fact that the Company had failed to make a proper segregation of its interstate and intrastate properties and operations is fully confirmed by the further opinion of the court in

denying the Company's motion for a rehearing, when the court said:

"We held that as a matter of law appellee failed to establish by clear and satisfactory evidence the ultimate fact issue, to wit: Whether the rate fixed by the Commission was so low as not to afford a reasonable return on the fair value of the property used in the Texas public service. Appellee was afforded a seven months hearing before the Commission and a three months trial on appeal to the court. It made no segregation as between its Texas and Oklahoma properties and operations; and did not prove the fair value of the property used in the Texas public service. The question of the value of such property determines the reasonableness of the rate and probably, in the ultimate analysis, adequacy of service and principles of financing".

The Court added that the valuation of such public service property was in the main a matter of estimate or opinion; that a scientific standard of absolute value was unattainable; and that because of this uncertainty, except where the evidence clearly shows gross over or under valuation, or "mistake, inequality or fraud" in the appraisal, the finding of value by an administrative commission is generally given finality and that this especially was the rule in the absence of an actual test under the new rate.

First.—We agree with the state court that the Commission's order did not violate the constitutional rights of appellant under the commerce clause.

The Commission did not attempt to regulate the interstate transportation of gas. Compare *Hanley* v. *Kansas City Southern Rwy. Co.*, 187 U. S. 617; *Western Union Telegraph Co.* v. *Speight*, 254 U. S. 17; *Missouri Pacific R. R. Co.* v. *Stroud*, 267 U. S. 404. Nor, in view of the circumstances in the instant case, can it be said that the Commission was undertaking to regulate sales and deliveries of gas in interstate commerce. Compare *Missouri* v. *Kansas Natural Gas Co.*, 265 U. S. 298; *Peoples Natural Gas Co.* v. *Public Service Commission*, 270 U. S. 550; *East Ohio Gas Co.* v. *Tax Commission*, 283 U. S. 465; *State Tax Commission* v. *Interstate Natural Gas Co.*, 284 U. S. 41; *State Corporation Commission* v. *Wichita Gas Co.*, 290 U. S. 561. The distributing companies in Texas, with the exception of those at Waxahachie and Gainesville (the amount of deliveries there being negligible in comparison with appellant's total gas business), are appellant's affiliates. The Lone Star Gas Corporation, organized in Delaware, holds more than 99 per cent.

of the capital stock of appellant and owns or controls a like proportion of the capital stock of the distributing companies. Thus, the latter companies and appellant are but arms of the same organization doing an intrastate business in Texas and the Commission was entitled to ascertain and determine what was a reasonable charge for the gas supplied through this organization to consumers within the State. *Western Distributing Company* v. *Public Service Commission,* 285 U. S. 119, 124; *Dayton Power & Light Co.* v. *Public Utilities Commission,* 292 U. S. 290, 295; *American Telephone & Telegraph Co. v. United States,* 299 U. S. 232, 239. It appears that there were pending before the Commission proceedings involving the reasonableness of the rates charged by the distributing companies to consumers in many communities in Texas, and in relation to those proceedings the Commission found it necessary to determine what would be a reasonable charge for the gas delivered by appellant to the distributing companies at the "city gates". It was obviously to the convenience of both the Commission and appellant that this essential factor should be ascertained in a single proceeding and the Commission's investigation, which led to the order now in question, was undertaken to that end. We think that appellant's sales and deliveries of gas in Texas to the distributing companies must be regarded as an essential part of the intrastate business in the conduct of which the appellant and the distributing companies were virtual departments of the same enterprise.

Appellant's pipe line from the Texas Panhandle field in Wheeler County led from production properties in Texas to distributing points in the same State. The fact that the line cut across a corner of Oklahoma did not make it any the less a part of the system serving Texas gas to communities in Texas. In ascertaining what would be a reasonable rate of charge for this Texas gas supplied to Texas consumers, it was not only fair but manifestly necessary to take into account the value of the production properties in Texas from which the gas was taken and also the value of the transmission line by which the gas was brought to the city gates of the Texas communities. It is futile to contend that in making its calculations on that basis, the Commission was regulating interstate transportation or imposing any burden upon interstate commerce. The *Hanley, Speight* and *Stroud* cases, *supra,* upon which appellant relies, are not in point. In seeking

to assure a just determination of a reasonable charge for the sales and deliveries in the intrastate business in Texas, the State was protecting its local interests and its action was not in conflict with any federal regulation. *Minnesota Rate Cases,* 230 U. S. 352, 402.

We think that the value of the pipe line from the Texas Panhandle field was properly included by the Commission in the rate base.

With respect to the gas produced or purchased by appellant in Oklahoma and transported by its pipe lines to Texas, the state court observed that the Oklahoma gas was run through extraction plants in Texas, leaving the residue gas changed in its composition and with its heating value lowered; that large amounts of the Oklahoma gas were run through and stored in wells in Texas; that, passing into appellant's pipe line system, that gas was commingled with Texas gas and divided and redivided until it was impossible to trace or identify it by volume at any city gate of delivery; that at various points before delivery its pressure was reduced and the gas allowed to expand; and that the amount of Oklahoma gas as a whole was negligible in comparison with the amount of the Texas gas with which it was mixed. Appellant refers to the testimony of its witness that the composition of the gas, after certain heavy hydro-carbons were removed at the gasoline plants, remained practically the same, that its forward movement was not stopped, and that not all of the gas coming from Oklahoma was stored in Texas. Appellant also contends that the state court erred in saying that only about four per cent. of its total gas came from Oklahoma, insisting that the correct figure was about eleven per cent. The discrepancy is apparently explained by the fact that the state court's figure was taken from the results of the year 1933 while that of the appellant is for the five years of its accounting period. It would seem, however, that the amount of the gas transported from Oklahoma into Texas was at a diminishing rate. Aside from that, we think that the proved manner in which the gas from Oklahoma was treated and handled in Texas made it an integral part of the gas supplied to the Texas communities in appellant's intrastate business and that the Commission was entitled so to consider it in fixing its rate.

It is in this light that the inclusion by the Commission in its calculations of appellant's producing properties in Oklahoma and its transmission lines to Texas must be considered. The purpose

of these calculations was to give proper credit to appellant for its investment and operating expenses in determining a rate for the gas sold and delivered in Texas. The Commission did not attempt to fix a rate for gas supplied to Oklahoma communities and did not impinge upon the jurisdiction of Oklahoma. There is no ground for concluding that the Commission's method of calculation either created any burden upon interstate commerce or operated to appellant's injury in relation to its intrastate business in Texas. Not only is the contrary a fair inference from the fact that appellant raised no objection to this method before the Commission, but the State points to the evidence which appears to show that the Oklahoma operations were more expensive than those in Texas and that the Commission's calculations actually produced a result more favorable to appellant than one which would have followed any segregation. Appellant does not successfully meet this contention.

Second. Concluding that appellant had no tenable objection to the method adopted by the Commission in treating appellant's property as an integrated operating system, and making its findings as to value, expenses, and revenues accordingly, for the purpose of determining the fair rate for the gas sold and delivered in Texas, we come to the issue of confiscation.

The Commission's order was presumptively valid, as the state court held, but it was open to attack in this action under the state statute. Appellant was entitled to present evidence to rebut the Commission's findings of value, operating expenses, revenues and return, upon which the order rested. Appellant presented much testimony and elaborate statistical data for that purpose, treating its property and business as the Commission had treated them. Appellant claimed that this evidence showed a far higher value for its properties than the Commission had allowed and that the rate imposed was confiscatory. The trial court submitted that evidence to the jury, under a proper instruction as to the burden of proof resting upon appellant, and the jury found in appellant's favor.

The Court of Civil Appeals reversed the judgment upon a distinct ground. That was that appellant had not sustained its burden of proof because it had failed to make "a proper segregation of interstate and intrastate properties and business". Thus,

the necessity for that segregation was made the criterion. That is clearly shown both from the court's main opinion and its opinion upon rehearing from which we have quoted. "Having failed to make a proper segregation of interstate and intrastate properties", said the court, "appellee [appellant here] did not adduce the quantum and character of proof necessary to establish the invalidity of the rate as being confiscatory, or unreasonable and unjust".

We think that this ruling as to the necessity of segregation, and that the sufficiency of appellant's evidence should be determined by that criterion, was erroneous. This was not a case where the segregation of properties and business was essential in order to confine the exercise of state power to its own proper province. Compare *Smith* v. *Illinois Bell Telephone Company*, 282 U. S. 133, 148, 149. Here, as we have seen, the Commission in its method of dealing with the property and business of appellant as an integrated operating system did not transcend the limits of the state's jurisdiction or apply an improper criterion in its determinations. But if in the circumstances shown the Commission was entitled to make its findings with respect to appellant's property and business upon the basis it adopted in order to fix a fair rate for the sales and deliveries in Texas, appellant was entitled to assail those findings upon the same basis. If the findings of the Commission as to value and other basic elements were to be taken as presumptively correct and appellant could not succeed save by overcoming those determinations by clear and convincing proof, appellant could not be denied the right to introduce evidence as to its property and business as an integrated system and to have the sufficiency of its evidence ascertained by the criterion which the Commission had properly used in the same manner in reaching its conclusion as to the Texas rate. Neither the fact that appellant, because of the insistence of the State that the property and business should be segregated, finally introduced evidence for that purpose, nor the inadequacy of its method of segregation, could detract from the force of the proof it had already submitted in direct rebuttal of the Commission's findings. The effort at segregation came after voluminous testimony had been taken which fully presented appellant's case with respect to the value of its property and the result of its operations as an integrated system and the bearing of this evidence upon the contested rate. This proof could

not be ignored because of a futile attempt, in response to the State's pressure, to find an alternative ground to support the attack upon the Commission's order. The first and primary ground remained and the determination of the court of first instance as the trier of the facts that the Commission's rate was confiscatory could not properly be set aside by the application of an untenable standard of proof and in disregard of the evidence which had been appropriately addressed to the Commission's findings and had been properly submitted to the jury.

The judgment of the Court of Civil Appeals is reversed and the cause is remanded for further proceedings not inconsistent with this opinion.

It is so ordered.

Mr. Justice BLACK dissents.

Mr. Justice CARDOZO took no part in the consideration and decision of this case.

A true copy.

Test:

Clerk, Supreme Court, U. S.

14